

# Message

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This “Message” volume describes the content of the message which occurs at the time of the subsystem failure.

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## Chapter 1. Before Starting Trouble Analysis

A message reports the contents of the failures detected during the operation.

The failures detected during operation after the main switch of this unit is turned on and the state of the unit are reported.

The composition and description contents of each message are as follows.

① The following messages are indicated.

- CUDG detected message ··· : 018xxxxx (“Chapter 2. CUDG Detected Messages” (MSG 02-0000))
- Failure messages ········· : Hxxxxx · (“Chapter 3. Failure Messages” (MSG 03-0000))
- Progress messages ········· : Ixxxxx · (“Chapter 4. Progress Messages” (MSG 04-0000))
- Flash detected messages··· : Rxxxxx · (“Chapter 5. Flash Detected Messages” (MSG 05-0000))
- Warning messages·········· : Wxxxxx · (“Chapter 6. Warning Messages” (MSG 06-0000))
- WEB messages ··········· : “Chapter 7. Web Error Messages” (MSG 07-0000)
- Hitachi Storage Navigator Modular 2 messages :  
“Chapter 8. Hitachi Storage Navigator Modular 2 Error Messages” (MSG 08-0000)
- Sense Data·············· : “Chapter 9. Failure Analysis by Sense Data” (MSG 09-0000)

② Message text : Message text is indicated.

③ Description : Contents of failure are described concretely.

④ Collection of errors

|  |                   |  |
|--|-------------------|--|
|  | Collect the error |  |
|  | Simple Trace      |  |

Simple trace · : Collect Simple Trace (Troubleshooting “7.3 Collecting Simple Trace” (TRBL 07-0040))

CTL Trace ···· : Collect CTL Alarm Trace (Troubleshooting “7.4 Collecting CTL Alarm Trace” (TRBL 07-0090))

Full Dump····· : Collect Full Dump (Troubleshooting “7.5 Collecting Full Dump” (TRBL 07-0140))

Space········ : Does not need to be collected.

⑤ Recovery methods .. : How to recover from failure is indicated.

①, ②... : Recovery method number.

When “.” is written here, no recovery operation is required.

When another message other than this message is displayed, execute that trouble analysis also.

Because the status where the array subsystem is being started is in the middle of the transition to the status of the subsystem power turned on (Ready status) from the status of the subsystem power turned off, do not perform the recovery work which affects the operation of the array subsystem while the array subsystem is being started.

Also, the setting function or the reference function using the Hitachi Storage Navigator Modular 2 cannot be executed to the array subsystem which is being started.

⑥ Reference page.. : No. of page in which the recovery methods are described.

## Chapter 2. CUDG Detected Messages

| Message code | Message text                                | Description                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                                           |
|--------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 01**xx99     | DCTL hard error [OWN_CTL]                   | A hardware failure of the data transfer control LSI (DCTL) occurred.<br>xx : Error code                                            | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01**xx9A     | DCTL hard error [ALT_CTL]                   | A hardware failure of the data transfer control LSI (DCTL) occurred.<br>xx : Error code                                            | Full Dump         | ① Replace the Control Unit whose ALM LED is on.<br>② If not recovered, replace the other Control Unit. (The replacement cannot be done when the subsystem power is on.)             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01**xx9C     | CACHE#0/2 ECC uncorrectable error [ALT_CTL] | An ECC uncorrectable error occurred in the Cache Memory in DIMM Slot #0 and Slot #2 of the remote Control Unit.<br>xx : Error code | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                    | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
| 01**xx9D     | CACHE#1/3 ECC uncorrectable error [ALT_CTL] | An ECC uncorrectable error occurred in the Cache Memory in DIMM Slot #1 and Slot #3 of the remote Control Unit.<br>xx : Error code | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
| 01**xx9E     | CACHE#0/2 ECC correctable error [ALT_CTL]   | An ECC correctable error occurred in the Cache Memory in DIMM Slot #0 and Slot #2 of the remote Control Unit.<br>xx : Error code   | Full Dump         | ③ If not recovered, replace Control Unit.                                                                                                                                           | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01**xx9F     | CACHE#1/3 ECC correctable error [ALT_CTL]   | An ECC correctable error occurred in the Cache Memory in DIMM Slot #01 and Slot #3 of the remote Control Unit.<br>xx : Error code  | Full Dump         | ④ If not recovered yet, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                                                                  |                                                                          |

| Message code | Message text                              | Description                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                       | Reference page                                           |
|--------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 01**yyAx     | CACHE#x ECC uncorrectable error [OWN_CTL] | An ECC uncorrectable error occurred in the Cache Memoery of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3<br>yy : Error code                           | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                                                                                                                                                                                    | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
|              | CACHE#x ECC correctable error [OWN_CTL]   | An ECC correctable error occurred in the Cache Memoery of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3<br>yy : Error code                             | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit.                                                                                                                       |                                                          |
|              | CACHE#x ECC uncorrectable error [ALT_CTL] | An ECC uncorrectable error occurred in the Cache Memory in DIMM Slot #x of the remote Control Unit.<br>x : 8 : Slot #0, 9 : Slot #1,<br>A : Slot #2, B : Slot #3<br>yy : Error code | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                                                                                                                                                                                    | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
|              | CACHE#x ECC correctable error [ALT_CTL]   | An ECC correctable error occurred in the Cache Memory in DIMM Slot #x of the remote Control Unit.<br>x : C : Slot #0, D : Slot #1,<br>E : Slot #2, F : Slot #3<br>yy : Error code   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit.<br>④ If not recovered yet, replace the other Control Unit (you cannot replace it with the subsystem power turned on). | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |

| Message code | Message text                                                           | Description                                                                                                                                                         | Collect the error | Recovery methods                                | Reference page                                                           |
|--------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------|
| 01100001     | BIOS version compare error [OWN_CTL]                                   | In BIOS MODE check of BIOS Function Check, the expected value of BIOS Version and the Read value were inconsistent.                                                 | Full Dump         | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01100101     | BIOS memory size compare error [OWN_CTL]                               | In MEMORY SIZE check of BIOS Function Check, the expected value of the memory size and the Read value of the memory area size recognized by BIOS were inconsistent. | Full Dump         |                                                 |                                                                          |
| 01100201     | BIOS journal sequence compare error [OWN_CTL]                          | In BIOS Journal check of BIOS Function Check, the expected value of the Post processing of BIOS and the Read history were inconsistent.                             | Full Dump         |                                                 |                                                                          |
| 01100301     | BIOS pci configuration venderid compare error [OWN_CTL]                | In PCI-Configuration check of BIOS Function Check, the expected value of the VenderID in the PCI Configuration area and the Read value were inconsistent.           | Full Dump         |                                                 |                                                                          |
| 01100501     | BIOS register check msr compare error [OWN_CTL]                        | In Main Register Value check of BIOS Function Check, the expected value of the MSR register and the Read value were inconsistent.                                   | Full Dump         |                                                 |                                                                          |
| 01100602     | BIOS register check local apic compare error [OWN_CTL]                 | In Main Register Value check of BIOS Function Check, the expected value of the LocalAPIC register and the Read value were inconsistent.                             | Full Dump         |                                                 |                                                                          |
| 01100703     | BIOS register check control compare error [OWN_CTL]                    | In Main Register Value check of BIOS Function Check, the expected value of the control register and the Read value were inconsistent.                               | Full Dump         |                                                 |                                                                          |
| 01100804     | BIOS register check control edma compare error [OWN_CTL]               | In Main Register Value check of BIOS Function Check, the expected value of the control register EDMA and the Read value were inconsistent.                          | Full Dump         |                                                 |                                                                          |
| 01100905     | BIOS register check base address register compare error [OWN_CTL]      | In Main Register Value check of BIOS Function Check, the expected value of the BASE address register and the Read value were inconsistent.                          | Full Dump         |                                                 |                                                                          |
| 01100A06     | BIOS register check base address register edma compare error [OWN_CTL] | In Main Register Value check of BIOS Function Check, the expected value of the BASE address register EDMA and the Read value were inconsistent.                     | Full Dump         |                                                 |                                                                          |

| Message code | Message text                                   | Description                                                                                                                                                    | Collect the error | Recovery methods                                | Reference page                                                           |
|--------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------|
| 0110xxyy     | BIOS Function Check error [OWN_CTL]            | An illegal status occurred in BIOS Function Check.<br>xx : Diagnosis part<br>yy : Error code                                                                   | Full Dump         | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01110101     | GPIO function check error [OWN_CTL]            | A failure was detected in Read of LayoutRevisionFlag connected to the GPIO area of GPIO Function Check.                                                        | Full Dump         |                                                 |                                                                          |
| 0111xxyy     | GPIO Function Check error [OWN_CTL]            | An illegal status occurred in GPIO Function Check.<br>xx : Diagnosis part<br>yy : Error code                                                                   | Full Dump         |                                                 |                                                                          |
| 01120111     | SMBUS function check chset devert [OWN_CTL]    | In SM-Bus Function Check, DEV ERR was detected in HostStatusRegister at the time of CH SET.                                                                    | Full Dump         |                                                 |                                                                          |
| 01120112     | SMBUS function check chset rty ovr [OWN_CTL]   | In SM-Bus Function Check, the number of times to detect HOST BUSY/INTR in HostStatusRegister exceeded the specified value (65535 × 3) at the time of CH SET.   | Full Dump         |                                                 |                                                                          |
| 01120121     | SMBUS function check chunset devert [OWN_CTL]  | In SM-Bus Function Check, DEV ERR was detected in HostStatusRegister at the time of CH UNSET.                                                                  | Full Dump         |                                                 |                                                                          |
| 01120122     | SMBUS function check chunset rty ovr [OWN_CTL] | In SM-Bus Function Check, the number of times to detect HOST BUSY/INTR in HostStatusRegister exceeded the specified value (65535 × 3) at the time of CH UNSET. | Full Dump         |                                                 |                                                                          |
| 011201xx     | SMBUS Function Check error [OWN_CTL]           | An illegal status occurred in SM-Bus Function Function Check.<br>xx : Error code                                                                               | Full Dump         |                                                 |                                                                          |
| 01120341     | SMBUS CSDS Install err [OWN_CTL]               | The invalid CSDS installation status was detected by SM-Bus Function Check.                                                                                    | Full Dump         |                                                 |                                                                          |
| 011203xx     | SMBUS CSDS access err [OWN_CTL]                | An illegal status occurred in SM-Bus Function Check at the CSDS installation status check.<br>xx : Error code                                                  | Full Dump         |                                                 |                                                                          |



| Message code | Message text                               | Description                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                           |
|--------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 01122031     | SMBUS CACHE0 access read err [OWN_CTL]     | In SM-Bus Function Check, DEV ERR was detected at the time of READ check of CACHE0.                                                                                                 | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
| 01122032     | SMBUS CACHE0 access rty ovr [OWN_CTL]      | In SM-Bus Function Check, the number of times to detect HOST BUSY/INTR in HostStatusRegister exceeded the specified value ( $65535 \times 3$ ) at the time of READ check of CACHE0. | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 011220xx     | SMBUS CACHE0 access err [OWN_CTL]          | An illegal status occurred in SM-Bus Function Check at READ CHECK of CACHE0.<br>xx : Error code                                                                                     | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01122131     | SMBUS CACHE1 access read err [OWN_CTL]     | In SM-Bus Function Check, DEV ERR was detected at the time of READ check of CACHE1.                                                                                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 01122132     | SMBUS CACHE1 access rty ovr [OWN_CTL]      | In SM-Bus Function Check, the number of times to detect HOST BUSY/INTR in HostStatusRegister exceeded the specified value ( $65535 \times 3$ ) at the time of READ check of CACHE1. | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 011221xx     | SMBUS CACHE1 access err [OWN_CTL]          | An illegal status occurred in SM-Bus Function Check at READ CHECK of CACHE1.<br>xx : Error code                                                                                     | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01130101     | PLD function check compare error [OWN_CTL] | In Read check of GPIO area of PLD Function Check, the expected value of Expand GPIO area and the Read value were inconsistent.                                                      | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 0113xxyy     | PLD Function Check error [OWN_CTL]         | An illegal status occurred in PLD Function Check.<br>xx : Diagnosis part<br>yy : Error code                                                                                         | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01140101     | RTC memory check compare error [OWN_CTL]   | In Write/Read Compare check of ExpandRTC (SRAM) area of RTC Memory Check, the expected value and the Read value were inconsistent.                                                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 0114xxyy     | RTC Check error [OWN_CTL]                  | An illegal status occurred in RTC Memory Check.<br>xx : Diagnosis part<br>yy : Error code                                                                                           | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |

| Message code | Message text                                                     | Description                                                                                                                                                  | Collect the error | Recovery methods                                | Reference page                                                           |
|--------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------|
| 01150101     | LAN CONTROL function check venderid read compare error [OWN_CTL] | In VenderID check (Configuration Check) of LAN Control Function Check, the expected value and the Read value were inconsistent.                              | Full Dump         | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01150201     | LAN CONTROL function check eeprom read error [OWN_CTL]           | A failure was detected in EEPROM Read check (Memory Check) of LAN Control Function Check.                                                                    | Full Dump         |                                                 |                                                                          |
| 01150202     | LAN CONTROL function check eeprom read compare error [OWN_CTL]   | In EEPROM Read check (Memory Check) of LAN Control Function Check, the expected value and the Read value were inconsistent.                                  | Full Dump         |                                                 |                                                                          |
| 0115xxyy     | LAN Control Function Check error [OWN_CTL]                       | An illegal status occurred in LAN Control Function Check.<br>xx : Diagnosis part<br>yy : Error code                                                          | Full Dump         |                                                 |                                                                          |
| 01160101     | FLASHMEMORY INS sum check compare error [OWN_CTL]                | In INS Part SUM Value check of FlashMemory, the expected value and the Read value were inconsistent.                                                         | Full Dump         |                                                 |                                                                          |
| 0116xxyy     | FM1 INS error [OWN_CTL]                                          | An illegal status occurred in the INS part SUM value check of FlashMemory.<br>xx : Diagnosis part<br>yy : Error code                                         | Full Dump         |                                                 |                                                                          |
| 01200101     | CSDS 4byte data compare error [OWN_CTL]                          | In 4byte R/W Test of the local memory (CSDS), the Write value and the Read value were inconsistent.                                                          | Full Dump         |                                                 |                                                                          |
| 01200201     | CSDS write mask data compare error [OWN_CTL]                     | In Write Mask check (SLOT #0) of the local memory (CSDS), the Write value and the Read value were inconsistent (write date pattern = 0x5555 5555 5555).      | Full Dump         |                                                 |                                                                          |
| 01200202     | CSDS write mask data compare error [OWN_CTL]                     | In Write Mask check (SLOT #0) of the local memory (CSDS), the Write value and the Read value were inconsistent (write date pattern = 0x5555 5555 AAAA AAAA). | Full Dump         |                                                 |                                                                          |
| 01200203     | CSDS write mask data compare error [OWN_CTL]                     | In Write Mask check (SLOT #0) of the local memory (CSDS), the Write value and the Read value were inconsistent (write date pattern = 0xFFFF FFFF AAAA AAAA). | Full Dump         |                                                 |                                                                          |

| Message code | Message text                                 | Description                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                                                                                                                         |
|--------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01200301     | CSDS write mask data compare error [OWN_CTL] | In Write Mask check (SLOT #1) of the local memory (CSDS), the Write value and the Read value were inconsistent (write date pattern = 0x5555 5555 5555 5555). | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                               |
| 01200302     | CSDS write mask data compare error [OWN_CTL] | In Write Mask check (SLOT #1) of the local memory (CSDS), the Write value and the Read value were inconsistent (write date pattern = 0x5555 5555 AAAA AAAA). | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
| 01200303     | CSDS write mask data compare error [OWN_CTL] | In Write Mask check (SLOT #1) of the local memory (CSDS), the Write value and the Read value were inconsistent (write date pattern = 0xFFFF FFFF AAAA AAAA). | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
| 0120xxyy     | CSDS2 error [OWN_CTL]                        | An illegal status occurred in the local memory (CSDS) check.<br>xx : Diagnosis part<br>yy : Error code                                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
| 013000xx     | MCTL error [OWN_CTL]                         | An illegal status occurred in the MCTL register read/write check of the MCTL diagnosis.<br>xx : Error code                                                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
| 013000Ex     | MCTL error [OWN_CTL]                         | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                              | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                                              | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
|              |                                              |                                                                                                                                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
| 01300101     | MCTL register data compare error [OWN_CTL]   | In MCTL Register Read/Write check of the MCTL diagnosis, the Write value and the Read value were inconsistent.                                               | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                               |

| Message code | Message text                                  | Description                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                         |
|--------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01310100     | CTC CH0 count error<br>[OWN_CTL]              | In CTC Count check of the CTC diagnosis, the count value of CTC CH0 was out of the range of the expected value.                 | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                      | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                               |
| 01310101     | CTC CH1 count error<br>[OWN_CTL]              | In CTC Count check of the CTC diagnosis, the count value of CTC CH1 was out of the range of the expected value.                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 01310102     | CTC CH2 count error<br>[OWN_CTL]              | In CTC Count check of the CTC diagnosis, the count value of CTC CH2 was out of the range of the expected value.                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 01310103     | CTC watchdogtimer #0 count error<br>[OWN_CTL] | In CTC Count check of the CTC diagnosis, the count value of WatchDogTime #0 was out of the range of the expected value.         | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 01310104     | CTC watchdogtimer#1 count error<br>[OWN_CTL]  | In CTC Count check of the CTC diagnosis, the count value of WatchDogTime #1 was out of the range of the expected value.         | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 013101FF     | CTC compare timer count error<br>[OWN_CTL]    | The count of the timer for comparison at the time of the CTC diagnosis was illegal.                                             | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 013100xx     | CTC error<br>[OWN_CTL]                        | An illegal status occurred in the CTC count check of the CTC diagnosis.<br>xx : Error code                                      | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 013100Ex     | CTC error<br>[OWN_CTL]                        | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3 | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                                               | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
|              |                                               |                                                                                                                                 |                   |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |

| Message code | Message text                          | Description                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                 | Reference page                                                           |
|--------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 013201xx     | MCTL Force error [OWN_CTL]            | An illegal status occurred in MCTL Force Test in the data transfer control LSI.<br>xx : Error code                                                     | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 013201Ex     | MCTL Force error [OWN_CTL]            | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                        | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                                                              | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                       | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                          | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. |                                                                          |
| 01320201     | MCTL Force error undetected [OWN_CTL] | In MCTL Force Test, the expected ErrorForce does not occur.                                                                                            | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01320202     | MCTL Force error uncleared [OWN_CTL]  | In MCTL Force Test, the expected ErrorReset is not executed.                                                                                           | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |
| 0133xxyy     | DCTL1 error [OWN_CTL]                 | An illegal status occurred in the register read/write check of the DCTL1 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                          | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |
| 0133yyEx     | DCTL1 error [OWN_CTL]                 | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3<br>yy : Diagnosis part | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                                                              | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                       | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3<br>yy : Diagnosis part   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. |                                                                          |

| Message code | Message text                              | Description                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                                           |
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| 0134xxyy     | DCTL2 error<br>[OWN_CTL]                  | An illegal status occurred in the register read/write check of the DCTL2 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                             | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 0134yyEx     | DCTL2 error<br>[OWN_CTL]                  | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3<br>yy : Diagnosis part | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                           | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3<br>yy : Diagnosis part   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
|              |                                           |                                                                                                                                                           |                   | ③ If not recovered, replace Control Unit.                                                                                                                                           |                                                                          |
| 013501xx     | DCTL Force1 error<br>[OWN_CTL]            | An illegal status occurred in Force Test1 in the data transfer control LSI.<br>xx : Error code                                                            | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 013501Ex     | DCTL Force1 error<br>[OWN_CTL]            | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3                        | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                           | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3                          | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
|              |                                           |                                                                                                                                                           |                   | ③ If not recovered, replace Control Unit.                                                                                                                                           |                                                                          |
| 01350201     | DCTL Force1 error undetected<br>[OWN_CTL] | In MP Force Test1, the expected ErrorForce does not occur.                                                                                                | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01350202     | DCTL Force1 error uncleared<br>[OWN_CTL]  | In MP Force Test1, the expected ErrorReset is not executed.                                                                                               | Full Dump         |                                                                                                                                                                                     |                                                                          |

| Message code | Message text                                         | Description                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                 | Reference page                                                           |
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| 0136xxyy     | MSI error<br>[OWN_CTL]                               | An illegal status occurred in the MSI diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                                | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01404101     | DUAL register data compare error<br>[ALT_CTL]        | The Write value and Read value were mismatched in the remote Dual Register R/W Test of the data transfer control LSI (DCTL).                              | Full Dump         | ① Replace the Control Unit whose ALM LED is on.<br>② If not recovered, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 0140xxyy     | DUAL1 error<br>[OWN_CTL]<br>DUAL1 error<br>[ALT_CTL] | An illegal status occurred in the DUAL1 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                              | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |
| 0140yyEx     | DUAL1 error<br>[OWN_CTL]                             | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3<br>yy : Diagnosis part | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                                                                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                                      | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3<br>yy : Diagnosis part   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01414201     | DUAL register data compare error<br>[ALT_CTL]        | The Write value and Read value were mismatched in the remote Dual Register R/W Test of the data transfer control LSI (DCTL).                              | Full Dump         | ① Replace the Control Unit whose ALM LED is on.<br>② If not recovered, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 0141xxyy     | DUAL2 error<br>[OWN_CTL]<br>DUAL2 error<br>[ALT_CTL] | An illegal status occurred in the DUAL2 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                              | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |

| Message code | Message text                                         | Description                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                                           |
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| 0141yyEx     | DUAL2 error<br>[OWN_CTL]                             | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3<br>yy : Diagnosis part                   | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                                      | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3<br>yy : Diagnosis part                     | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
|              |                                                      |                                                                                                                                                                             |                   | ③ If not recovered, replace Control Unit.                                                                                                                                           |                                                                          |
| 01424301     | CACHE#0 data compare error<br>[ALT_CTL]              | The Write value and Read Value were mismatched in the R/W Test for the Cache Memory in DIMM Slot #0 of the remote Control Unit.                                             | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
| 01424311     | CACHE#1 data compare error<br>[ALT_CTL]              | The Write value and Read Value were mismatched in the R/W Test for the Cache Memory in DIMM Slot #1 of the remote Control Unit.                                             | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
| 01424321     | CACHE#2 data compare error<br>[ALT_CTL]              | The Write value and Read Value were mismatched in the R/W Test for the Cache Memory in DIMM Slot #2 of the remote Control Unit.                                             | Full Dump         | ③ If not recovered, replace Control Unit.                                                                                                                                           |                                                                          |
| 01424331     | CACHE#3 data compare error<br>[ALT_CTL]              | The Write value and Read Value were mismatched in the R/W Test for the Cache Memory in DIMM Slot #3 of the remote Control Unit.                                             | Full Dump         | ④ If not recovered yet, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01424402     | MDMA transfer data compare error<br>[ALT_CTL]        | The data transferred by the MDMA transfer from the Cache Memory of the local Control Unit to CS/DS of the remote Control Unit and the transfer-source data were mismatched. | Full Dump         | ① Replace the Control Unit whose ALM LED is on.<br>② If not recovered, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 0142xxyy     | DUAL3 error<br>[OWN_CTL]<br>DUAL3 error<br>[ALT_CTL] | An illegal status occurred in the DUAL3 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                                                | Full Dump         |                                                                                                                                                                                     |                                                                          |



| Message code | Message text                                             | Description                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                                           |
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| 0142yyEx     | DUAL3 error [OWN_CTL]                                    | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3<br>yy : Diagnosis part | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                    | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                                          | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3<br>yy : Diagnosis part   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
|              |                                                          |                                                                                                                                                        |                   | ③ If not recovered, replace Control Unit.                                                                                                                                           |                                                                          |
| 01434501     | DUAL-M error force check NG [OWN_CTL]                    | An expected error did not occur in the local Dual Force Test of the data transfer control LSI (DCTL).                                                  | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01434502     | DUAL-M error force check NG [OWN_CTL]                    | An illegal status was detected in the local Dual Force Test of the data transfer control LSI (DCTL).                                                   | Full Dump         | ② If not recovered, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                                                                      |                                                                          |
| 01434601     | DUAL-S error force check NG [ALT_CTL]                    | An expected error did not occur in the remote Dual MPU Access Force Test of the data transfer control LSI (DCTL).                                      | Full Dump         |                                                                                                                                                                                     |                                                                          |
| 01434602     | DUAL-S error force check NG [ALT_CTL]                    | An illegal status was detected in the remote Dual MPU Access Force Test of the data transfer control LSI (DCTL).                                       | Full Dump         |                                                                                                                                                                                     |                                                                          |
| 01434701     | DUAL-S error force check NG [ALT_CTL]                    | An expected error did not occur in the remote Dual DMA Force Test of the data transfer control LSI (DCTL).                                             | Full Dump         |                                                                                                                                                                                     |                                                                          |
| 01434702     | DUAL-S error force check NG [ALT_CTL]                    | An illegal status was detected in the remote Dual DMA Force Test of the data transfer control LSI (DCTL).                                              | Full Dump         |                                                                                                                                                                                     |                                                                          |
| 0143xxyy     | DUAL Force error [OWN_CTL]<br>DUAL Force error [ALT_CTL] | In Local Dual Force Test of Data Transfer Control LSI, the expected ErrorForce does not occur.<br>xx : Diagnosis part<br>yy : Error code               | Full Dump         |                                                                                                                                                                                     |                                                                          |

| Message code | Message text                                         | Description                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                        | Reference page                                                           |
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| 01444802     | DRR transfer data compare error<br>[ALT_CTL]         | The data transferred by the DRR transfer from the Cache Memory of the local Control Unit to the Cache Memory of the remote Control Unit and the transfer-source data were mismatched.                 | Full Dump         | ① Replace the Control Unit whose ALM LED is on.<br>② If not recovered, replace the other Control Unit (you cannot replace it with the subsystem power turned on).                                                                                                                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 014449xx     | DCTL cross transfer data compare error<br>[ALT_CTL]  | The data transferred by the cross transfer between the Cache Memory of the local Control Unit and SAS-CTL of the remote Control Unit and the transfer-source data were mismatched.<br>xx : Error code | Full Dump         |                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 0144xxyy     | DUAL4 error<br>[OWN_CTL]<br>DUAL4 error<br>[ALT_CTL] | An illegal status occurred in the DUAL4 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                                                                          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 0144yyEx     | DUAL4 error<br>[OWN_CTL]                             | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3<br>yy : Diagnosis part                                                | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                                      | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3<br>yy : Diagnosis part                                                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                      | Description                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                 | Reference page                                                           |
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| 015011Ex     | Data Transfer1 error<br>[OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3 | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                                                              | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                   | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.                                              |                                                                          |
| 015032Ex     | Data Transfer1 error<br>[OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3 | Full Dump         | ③ If not recovered, replace Control Unit.                                                                                                                                                                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                                   | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3   | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |
| 015041Ex     | Data Transfer1 error<br>[OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3 | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |
|              |                                   | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3   | Full Dump         |                                                                                                                                                                                                                                  |                                                                          |
| 0150xxyy     | Data Transfer1 error<br>[OWN_CTL] | An illegal status was detected in the data transfer 1 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                         | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 015111Ex     | Data Transfer2 error<br>[OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1,<br>2 : Slot #2, 3 : Slot #3 | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                                                              | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                   | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1,<br>6 : Slot #2, 7 : Slot #3   | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. |                                                                          |
|              |                                   |                                                                                                                                    |                   |                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                                | Description                                                                                                                                                                                                                          | Collect the error | Recovery methods                                | Reference page                                                           |
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| 01512101     | DBV regwr1 data compare error [OWN_CTL]     | A compare check error was detected in the read check after performing the register write once in the DBV part register read/write test of the DCTL DBV part diagnosis items.                                                         | Full Dump         | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01512102     | DBV regwr2 data compare error [OWN_CTL]     | A compare check error was detected in the read check ① after performing the register write three consecutive times in the DBV part register read/write test of the DCTL DBV part diagnosis items.                                    | Full Dump         |                                                 |                                                                          |
| 01512103     | DBV regwr3 data compare error [OWN_CTL]     | A compare check error was detected in the read check ② after performing the register write three consecutive times in the DBV part register read/write test of the DCTL DBV part diagnosis items.                                    | Full Dump         |                                                 |                                                                          |
| 01512111     | DBV sumchk error [OWN_CTL]                  | An illegal status was detected in the normal check when performing the DBV error check in the DBV part sum check function diagnosis of the DCTL DBV part diagnosis items.                                                            | Full Dump         |                                                 |                                                                          |
| 01512121     | DBV magicnumchk error undetected [OWN_CTL]  | An illegal status was detected in the magic number check when performing the DBV error check in the DBV part sum check function diagnosis of the DCTL DBV part diagnosis items.                                                      | Full Dump         |                                                 |                                                                          |
| 01512122     | DBV magicnumchk error clear error [OWN_CTL] | An illegal status was detected in the reset processing of the error status detected in the magic number check when performing the DBV error check in the DBV part sum check function diagnosis of the DCTL DBV part diagnosis items. | Full Dump         |                                                 |                                                                          |
| 01512131     | DBV blocknumchk error undetected [OWN_CTL]  | An illegal status was detected in the block number check when performing the DBV error check in the DBV part sum check function diagnosis of the DCTL DBV part diagnosis items.                                                      | Full Dump         |                                                 |                                                                          |

| Message code | Message text                                | Description                                                                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                                           |
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| 01512132     | DBV blocknumchk error clear error [OWN_CTL] | An illegal status was detected in the reset processing of the error status detected in the block number check when performing the DBV error check in the DBV part sum check function diagnosis of the DCTL DBV part diagnosis items. | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01512141     | DBV multi sumchk error [OWN_CTL]            | An illegal status was detected in the DBV part multiple block sum check function diagnosis of the DCTL DBV part diagnosis items.                                                                                                     | Full Dump         |                                                                                                                                                                                     |                                                                          |
| 015121Ex     | Data Transfer2 error [OWN_CTL]              | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                                                                                      | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                    | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                             | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                                                                                                        | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
|              |                                             |                                                                                                                                                                                                                                      |                   | ③ If not recovered, replace Control Unit.                                                                                                                                           |                                                                          |
| 0151xxyy     | Data Transfer2 error [OWN_CTL]              | An illegal status was detected in the data transfer 2 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                                                                                           | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 015221Ex     | DCTL Force2 error [OWN_CTL]                 | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                                                                                      | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                    | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|              |                                             | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                                                                                                        | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                                          |
|              |                                             |                                                                                                                                                                                                                                      |                   | ③ If not recovered, replace Control Unit.                                                                                                                                           | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                                  | Description                                                                                                                   | Collect the error | Recovery methods                                | Reference page                                                           |
|--------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------|
| 0152xyy      | DCTL Force2 error [OWN_CTL]                   | In Data Transfer LSI Force Test 2, the expected ErrorForce does not occur.<br>xx : Diagnosis part<br>yy : Error code          | Full Dump         | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 015330xx     | DCTL DBV Force error [OWN_CTL]                | An unexpected error status was detected in DBV Force Test of Data Transfer Control LSI (DCTL).<br>xx : Error code             | Full Dump         |                                                 |                                                                          |
| 01533101     | DCTL DBV Force error undetected [OWN_CTL]     | In DBV Force Test of Data Transfer Control LSI (DCTL), the expected ErrorForce does not occur.                                | Full Dump         |                                                 |                                                                          |
| 01533102     | DCTL DBV Force error uncleared [OWN_CTL]      | In DBV Force Test of Data Transfer Control LSI (DCTL), the expected ErrorForce does not occur.                                | Full Dump         |                                                 |                                                                          |
| 015340xx     | DCTL CmdBridgeM MP Force error [OWN_CTL]      | An unexpected error status was detected in CmdBridgeM (MP) Force Test of Data Transfer Control LSI (DCTL).<br>xx : Error code | Full Dump         |                                                 |                                                                          |
| 01534101     | DCTL CmdBridgeM MP error undetected [OWN_CTL] | In CmdBridgeM (MP) Force Test of Data Transfer Control LSI (DCTL), the expected ErrorForce does not occur.                    | Full Dump         |                                                 |                                                                          |
| 01534102     | DCTL CmdBridgeM MP error uncleared [OWN_CTL]  | In CmdBridgeM (MP) Force Test of Data Transfer Control LSI (DCTL), the expected ErrorForce does not occur.                    | Full Dump         |                                                 |                                                                          |
| 0153xyy      | DCTL Force3 error [OWN_CTL]                   | In Data Transfer LSI Force Test 3, the expected ErrorForce does not occur.<br>xx : Diagnosis part<br>yy : Error code          | Full Dump         |                                                 |                                                                          |

| Message code | Message text                        | Description                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                         |
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| 01603001     | CACHE3 data line error [OWN_CTL]    | In DIMM Slot #0_SLOT #0 Data-Line Test_R/W Compare check of the CACHE3 diagnosis, the Write value and the Read value were inconsistent.       | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 016030Ex     | CACHE3 data line error [OWN_CTL]    | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
|              |                                     | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 01603101     | CACHE3 address line error [OWN_CTL] | In Address Line Test for DIMM Slot #0 and Slot #1_Cache Memory of the CACHE3 diagnosis, the Write value and the Read value were inconsistent. | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 016031Ex     | CACHE3 address line error [OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
|              |                                     | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 01603201     | CACHE3 data compare error [OWN_CTL] | In R/W Test for DIMM Slot #0 and Slot #1_Cache Memory of the CACHE3 diagnosis, the Write value and the Read value were inconsistent.          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
| 016032Ex     | CACHE3 data compare error [OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |
|              |                                     | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        |

| Message code | Message text                                   | Description                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                           |
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| 01603301     | CACHE3 data write mask compare error [OWN_CTL] | In Data Write Mask R/W Test for DIMM Slot #0 and Slot #1_Cache Memory of the CACHE3 diagnosis, the Write value and the Read value were inconsistent.                                         | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                    | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
| 016033Ex     | CACHE3 data write mask compare error [OWN_CTL] | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                                              | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                          |
|              |                                                | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                                                                | Full Dump         | ③ If not recovered, replace Control Unit.                                                                                                                                           | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 01603401     | CACHE3 data line error [OWN_CTL]               | In DIMM Slot #1_SLOT #1 Data-Line Test_R/W Compare check of the CACHE3 diagnosis, the Write value and the Read value were inconsistent.                                                      | Full Dump         |                                                                                                                                                                                     |                                                          |
| 016034Ex     | CACHE3 data line error [OWN_CTL]               | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                                              | Full Dump         |                                                                                                                                                                                     |                                                          |
|              |                                                | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                                                                | Full Dump         |                                                                                                                                                                                     |                                                          |
| 01604001     | CACHE3 rmw address switch1 error [OWN_CTL]     | In Something Written in ① check with RMW Address Switching R/W Test_All RMW Status for Cache Memory of the CACHE3 diagnosis, the Write value and the Read value were inconsistent.           | Full Dump         |                                                                                                                                                                                     |                                                          |
| 01604002     | CACHE3 rmw address switch2 error [OWN_CTL]     | In Previous Data Seen as Half check with RMW Address Switching R/W Test_DMY Available Status for Cache Memory of the CACHE3 diagnosis, the Write value and the Read value were inconsistent. | Full Dump         |                                                                                                                                                                                     |                                                          |



| Message code | Message text                               | Description                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                           |
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| 01604003     | CACHE3 rmw address switch3 error [OWN_CTL] | In Visibility check in RMW Address Switching R/W Test_RMW Area for Cache Memory of the CACHE3 diagnosis, the Write value and the Read value were inconsistent. | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on. If not, install the Cache Unit in the Cache memory slot #x.                    | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
| 016040Ex     | CACHE3 error [OWN_CTL]                     | The ECC uncorrectable error occurred in Cache Memory of DIMM Slot #x.<br>x : 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                          |
|              |                                            | The ECC correctable error occurred in Cache Memory of DIMM Slot #x.<br>x : 4 : Slot #0, 5 : Slot #1, 6 : Slot #2, 7 : Slot #3                                  | Full Dump         | ③ If not recovered, replace Control Unit.                                                                                                                                           | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 0160xxyy     | CACHE3 error [OWN_CTL]                     | An illegal status occurred in DIMM Slot #0/1 of the CACHE3 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                | Full Dump         |                                                                                                                                                                                     |                                                          |
| 0161xxyy     | CACHE1 error [OWN_CTL]                     | An illegal status occurred in the ECC check of CACHE SLOT #0/1.<br>xx : Diagnosis part<br>yy : Error code                                                      | Full Dump         |                                                                                                                                                                                     |                                                          |
| 0162xxyy     | CACHE3 check error [OWN_CTL]               | An illegal status was detected in the CACHE3 CHECK diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                        | Full Dump         |                                                                                                                                                                                     |                                                          |
| 0163xxyy     | CACHE2 error [OWN_CTL]                     | An illegal status detected in DIMM Slot #2/3 of the CACHE2 diagnosis.<br>xx : Diagnosis part<br>yy : Error code                                                | Full Dump         |                                                                                                                                                                                     |                                                          |
| 0164xxyy     | CACHE4 error [OWN_CTL]                     | An illegal status occurred in the ECC check of CACHE SLOT #2/3.<br>xx : Diagnosis part<br>yy : Error code                                                      | Full Dump         |                                                                                                                                                                                     |                                                          |

| Message code | Message text                          | Description                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                                           |
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| 01653001     | CACHE#0 data line error [OWN_CTL]     | The Write value and Read value were mismatched by Data Line Test for the Cache Memory of DIMM Slot #0.                                             | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
| 016531x2     | CACHE#x address line error [OWN_CTL]  | The Write value and Read value were mismatched by Address Line Test for the Cache Memory of DIMM Slot #x.<br>x = 0 : Slot #0, 1 : Slot #1          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 016532x2     | CACHE#x data compare error [OWN_CTL]  | The Write value and Read value were mismatched by R/W Test for the Cache Memory of DIMM Slot #x.<br>x = 0 : Slot #0, 1 : Slot #1                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 016533x2     | CACHE#x data compare error [OWN_CTL]  | The Write value and Read value were mismatched by Data Write Mask Test for the Cache Memory of DIMM Slot #x.<br>x = 0 : Slot #0, 1 : Slot #1       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 01653401     | CACHE#1 data line error [OWN_CTL]     | The Write value and Read value were mismatched by Data Line Test for the Cache Memory of DIMM Slot #1.                                             | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 016540xx     | CACHE#0 data compare error [OWN_CTL]  | The Write value and Read value were mismatched by RMW Address Switching R/W Test for the Cache Memory of DIMM Slot #0.<br>xx : Error code          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 016541x1     | CACHE#x size error [OWN_CTL]          | The size of the Cache Memory of DIMM Slot #x was the one that the data transfer control LSI (DCTL) cannot control.<br>x = 0 : Slot #0, 1 : Slot #1 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 016620xx     | CACHE#0 ECC data line error [OWN_CTL] | The Write value and Read value were mismatched by ECC Data Line Test for the Cache Memory of DIMM Slot #0.<br>xx : Error code                      | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |
| 016621xx     | CACHE#1 ECC data line error [OWN_CTL] | The Write value and Read value were mismatched by ECC Data Line Test for the Cache Memory of DIMM Slot #1.<br>xx : Error code                      | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                          |

| Message code | Message text                         | Description                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                           |
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| 016630xx     | CACHE#0 ECC circuit error [OWN_CTL]  | The expected values were mismatched by ECC Circuit Test for the Cache Memory of DIMM Slot #0.<br>xx : Error code                             | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.<br>② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot.<br>③ If not recovered, replace Control Unit. | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
| 016631xx     | CACHE#1 ECC circuit error [OWN_CTL]  | The expected values were mismatched by ECC Circuit Test for the Cache Memory of DIMM Slot #1.<br>xx : Error code                             | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 016632xx     | MDMA transfer error [OWN_CTL]        | A transfer time-out was detected by the MDMA transfer.<br>xx : Error code                                                                    | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01672001     | CACHE#0/1 size mismatch [OWN_CTL]    | The sizes of SLOT #0 and SLOT #1 are mismatched by the Cache pair installation check.                                                        | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 01672002     | CACHE#2/3 size mismatch [OWN_CTL]    | The sizes of SLOT #2 and SLOT #3 are mismatched by the Cache pair installation check.                                                        | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01683801     | CACHE#2 data line error [OWN_CTL]    | The Write value and Read value were mismatched by Data Line Test for the Cache Memory of DIMM Slot #2.                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 016839x2     | CACHE#x address line error [OWN_CTL] | The Write value and Read value were mismatched by Address Line Test for the Cache Memory of DIMM Slot #x.<br>x = 2 : Slot #2, 3 : Slot #3    | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01683Ax2     | CACHE#x data compare error [OWN_CTL] | The Write value and Read value were mismatched by R/W Test for the Cache Memory of DIMM Slot #x.<br>x = 2 : Slot #2, 3 : Slot #3             | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01683Bx2     | CACHE#x data compare error [OWN_CTL] | The Write value and Read value were mismatched by Data Write Mask Test for the Cache Memory of DIMM Slot #x.<br>x = 2 : Slot #2, 3 : Slot #3 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| 01683C01     | CACHE#3 data line error [OWN_CTL]    | The Write value and Read value were mismatched by Data Line Test for the Cache Memory of DIMM Slot #3.                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |

| Message code | Message text                          | Description                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                           |
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| 016842x2     | CACHE#x size error [OWN_CTL]          | The size of the Cache Memory of DIMM Slot #x was the one that the data transfer control LSI (DCTL) cannot control.<br>x = 2 : Slot #2, 3 : Slot #3                                 | Full Dump         | ① Check if the Cache Unit is installed in the Cache Slot #x of the Control Unit whose ALM LED is on.<br>If not, install the Cache Unit in the Cache memory slot #x.                 | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)   |
| 016843x1     | CACHE#x unsupported [OWN_CTL]         | The unique code of the Cache Memory of DIMM Slot #x was invalid.<br>x = 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                                         | Full Dump         | ② If the Cache Unit is firmly installed in the Cache memory slot displayed in this message, replace the Cache Unit. If not, install the Cache Unit firmly in the Cache memory slot. |                                                          |
| 016843x2     | CACHE#x size error [OWN_CTL]          | The actual size of the Cache Memory of DIMM Slot #x and the size information written in the Cache Memory are mismatched.<br>x = 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3 | Full Dump         | ③ If not recovered, replace Control Unit.                                                                                                                                           | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 016843x3     | CACHE#x unsupported [OWN_CTL]         | The Cache Memory capacity of DIMM Slot #x is unsupported.<br>x = 0 : Slot #0, 1 : Slot #1, 2 : Slot #2, 3 : Slot #3                                                                | Full Dump         |                                                                                                                                                                                     |                                                          |
| 016922xx     | CACHE#2 ECC data line error [OWN_CTL] | The Write value and Read value were mismatched by ECC Data Line Test for the Cache Memory of DIMM Slot #2.<br>xx : Error code                                                      | Full Dump         |                                                                                                                                                                                     |                                                          |
| 016923xx     | CACHE#3 ECC data line error [OWN_CTL] | The Write value and Read value were mismatched by ECC Data Line Test for the Cache Memory of DIMM Slot #3.<br>xx : Error code                                                      | Full Dump         |                                                                                                                                                                                     |                                                          |

| Message code | Message text                                          | Description                                                                                      | Collect the error | Recovery methods                                | Reference page                                                           |
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| 017000xx     | SAS-CTL error [OWN_CTL]                               | An illegal status occurred in the SAS-CTL diagnosis.<br>xx : Error code                          | Full Dump         | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 017001xx     | SAS-CTL#0core0 boot check error [OWN_CTL]             | An error occurred in the boot check of SAS-CTL #0 core0.<br>xx : Error code                      | Full Dump         |                                                 |                                                                          |
| 017002xx     | SAS-CTL#0core0-Expander Linkup error [OWN_CTL]        | An error occurred in the Linkup check between SAS-CTL # 0 core0 and Expander.<br>xx : Error code | Full Dump         |                                                 |                                                                          |
| 017004xx     | SAS-CTL#0core0 RUN BIU DIAG64 command error [OWN_CTL] | An error occurred in the DMA transfer of SAS-CTL #0 core0.<br>xx : Error code                    | Full Dump         |                                                 |                                                                          |
| 017005xx     | SAS-CTL#0core0 Loopback error [OWN_CTL]               | An error occurred in the internal Loopback of SAS-CTL #0 core0.<br>xx : Error code               | Full Dump         |                                                 |                                                                          |
| 017011xx     | SAS-CTL#0core1 boot check error [OWN_CTL]             | An error occurred in the boot check of SAS-CTL #0 core1.<br>xx : Error code                      | Full Dump         |                                                 |                                                                          |
| 017014xx     | SAS-CTL#0core1 RUN BIU DIAG64 command error [OWN_CTL] | An error occurred in the DMA transfer of SAS-CTL #0 core1.<br>xx : Error code                    | Full Dump         |                                                 |                                                                          |
| 017015xx     | SAS-CTL#0core1 Loopback error [OWN_CTL]               | An error occurred in the internal Loopback of SAS-CTL #0 core1.<br>xx : Error code               | Full Dump         |                                                 |                                                                          |
| 017021xx     | SAS-CTL#1core0 boot check error [OWN_CTL]             | An error occurred in the boot check of SAS-CTL #1 core0.<br>xx : Error code                      | Full Dump         |                                                 |                                                                          |
| 017024xx     | SAS-CTL#1core0 RUN BIU DIAG64 command error [OWN_CTL] | An error occurred in the DMA transfer of SAS-CTL #1 core0.<br>xx : Error code                    | Full Dump         |                                                 |                                                                          |
| 017025xx     | SAS-CTL#1core0 Loopback error [OWN_CTL]               | An error occurred in the internal Loopback of SAS-CTL #1 core0.<br>xx : Error code               | Full Dump         |                                                 |                                                                          |
| 017031xx     | SAS-CTL#1core1 boot check error [OWN_CTL]             | An error occurred in the boot check of SAS-CTL #1 core1.<br>xx : Error code                      | Full Dump         |                                                 |                                                                          |
| 017034xx     | SAS-CTL#1core1 RUN BIU DIAG64 command error [OWN_CTL] | An error occurred in the DMA transfer of SAS-CTL #1 core1.<br>xx : Error code                    | Full Dump         |                                                 |                                                                          |
| 017035xx     | SAS-CTL#1core1 Loopback error [OWN_CTL]               | An error occurred in the internal Loopback of SAS-CTL #1 core1.<br>xx : Error code               | Full Dump         |                                                 |                                                                          |

| Message code | Message text                                            | Description                                                                                      | Collect the error | Recovery methods                                                                                                                      | Reference page                                                                                                                                          |
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| 017107xx     | Expander link reset error [OWN_CTL]                     | An error occurred in the link reset of Expander.<br>xx : Error code                              | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                |
| 017108xx     | SAS-CTL#0core0-Expander Loopback error [OWN_CTL]        | An error occurred in Loopback between SAS-CTL #0 core0 and Expander.<br>xx : Error code          | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 01710Axx     | Expander-SAS-Buffer Loopback error [OWN_CTL]            | An error occurred in Loopback between Expander and SAS-Buffer.<br>xx : Error code                | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 01710Bxx     | Expander Loopback error [OWN_CTL]                       | An error occurred in the internal Loopback of Expander.<br>xx : Error code                       | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 01710Cxx     | Expander-Expander Loopback error [OWN_CTL]              | An error occurred in Loopback between local Expander and remote Expander.<br>xx : Error code     | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 01710Dxx     | Expander-HDD/MINISAS connector Loopback error [OWN_CTL] | An error occurred in Loopback between Expander and HDD/MINISAS connector.<br>xx : Error code     | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 017119xx     | SAS-CTL#0core1-SAS-Buffer Loopback error [OWN_CTL]      | An error occurred in Loopback between SAS-CTL #0 core1 and SAS-Buffer.<br>xx : Error code        | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 017129xx     | SAS-CTL#1core0-SAS-Buffer Loopback error [OWN_CTL]      | An error occurred in Loopback between SAS-CTL #1 core0 and SAS-Buffer.<br>xx : Error code        | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 017139xx     | SAS-CTL#1core1-SAS-Buffer Loopback error [OWN_CTL]      | An error occurred in Loopback between SAS-CTL #1 core1 and SAS-Buffer.<br>xx : Error code        | Full Dump         |                                                                                                                                       |                                                                                                                                                         |
| 0180xxyy     | HFPC error [OWN_CTL]                                    | An illegal status was detected in the HFPC diagnosis.<br>xx : Diagnosis part<br>yy : Error code  | Full Dump         | ① Replace the FC Interface Board #x on the Control Unit displayed in the message.<br>② If not recovered, replace the Control Unit.    | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 0181xxyy     | H-IPC error [OWN_CTL]                                   | An illegal status was detected in the iSCSI diagnosis.<br>xx : Diagnosis part<br>yy : Error code | Full Dump         | ① Replace the iSCSI Interface Board #x on the Control Unit displayed in the message.<br>② If not recovered, replace the Control Unit. | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text               | Description                                                                         | Collect the error | Recovery methods                                                                     | Reference page                                                              |
|--------------|----------------------------|-------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 01810xyy     | H-IPC#0 error<br>[OWN_CTL] | An illegal status was detected in HIPC #0.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ① Replace the iSCSI Interface Board #0 on the Control Unit displayed in the message. | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |
| 01811xyy     | H-IPC#1 error<br>[OWN_CTL] | An illegal status was detected in HIPC #1.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ② If not recovered, replace the Control Unit.                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| 01812xyy     | H-IPC#2 error<br>[OWN_CTL] | An illegal status was detected in HIPC #2.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ① Replace the iSCSI Interface Board #1 on the Control Unit displayed in the message. | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |
| 01813xyy     | H-IPC#3 error<br>[OWN_CTL] | An illegal status was detected in HIPC #3.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ② If not recovered, replace the Control Unit.                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| 0182x0yy     | H-FPC#0 error<br>[OWN_CTL] | An invalid status was detected in HFPC #0.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ① Replace the FC Interface Board #0 on the Control Unit displayed in the message.    | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |
| 0182x1yy     | H-FPC#1 error<br>[OWN_CTL] | An invalid status was detected in HFPC #1.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | In case of the RKEM/RKES/RKEXS, replace the Control Unit whose ALM LED is on.        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| 0182x2yy     | H-FPC#2 error<br>[OWN_CTL] | An invalid status was detected in HFPC #2.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ② If not recovered, replace the Control Unit.                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| 0182x3yy     | H-FPC#3 error<br>[OWN_CTL] | An invalid status was detected in HFPC #3.<br>x : Diagnosis part<br>yy : Error code | Full Dump         |                                                                                      |                                                                             |
| 0182x4yy     | H-FPC#4 error<br>[OWN_CTL] | An invalid status was detected in HFPC #4.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ① Replace the FC Interface Board #1 on the Control Unit displayed in the message.    | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |
| 0182x5yy     | H-FPC#5 error<br>[OWN_CTL] | An invalid status was detected in HFPC #5.<br>x : Diagnosis part<br>yy : Error code | Full Dump         | ② If not recovered, replace the Control Unit.                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| 0182x6yy     | H-FPC#6 error<br>[OWN_CTL] | An invalid status was detected in HFPC #6.<br>x : Diagnosis part<br>yy : Error code | Full Dump         |                                                                                      |                                                                             |
| 0182x7yy     | H-FPC#7 error<br>[OWN_CTL] | An invalid status was detected in HFPC #7.<br>x : Diagnosis part<br>yy : Error code | Full Dump         |                                                                                      |                                                                             |

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## Chapter 3. Failure Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

| Message code | Message text                                                      | Description                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
|--------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| H0010x       | [DCTL]The DRR0 error was detected (CTL-x)                         | D-CTL LSI detected DRR0 error interruption.<br>x : Control Unit # (0-1)                                                                                                     | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement “2.2.5 Replacing Control Unit” (REP 02-0450)</a> |
| H0020x       | [DCTL]The DRR1 error was detected (CTL-x)                         | D-CTL LSI detected DRR1 error interruption.<br>x : Control Unit # (0-1)                                                                                                     | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to “W01z0x CTL alarm”.                                                                                                                                          |                                                                          |
| H0100x       | [DCTL]The ECC write parity error was detected (CTL-x)             | D-CTL LSI detected a parity error in the ECC added part when executing write to the Cache memory.<br>x : Control Unit # (0-1)                                               | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">“Chapter 6. Warning Messages” (MSG 06-0000)</a>              |
| H0110x       | [DCTL]The ECC generation error was detected (CTL-x)               | D-CTL LSI detected an ECC generation error in the ECC added part when executing write to the Cache memory.<br>x : Control Unit # (0-1)                                      | Full Dump         |                                                                                                                                                                                                                                                                               | —                                                                        |
| H012xy       | [DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y) | D-CTL LSI detected an error of two bits or more when executing read to the Cache memory.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)                              | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                            | <a href="#">Replacement “2.2.6 Replacing Cache Unit” (REP 02-0640)</a>   |
| H0130x       | [DCTL]The ECC correction failed (CTL-x)                           | D-CTL LSI detected discrepancy of the ECC correction when executing read to the Cache memory.<br>x : Control Unit # (0-1)                                                   | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement “2.2.5 Replacing Control Unit” (REP 02-0450)</a> |
| H0140x       | [DCTL]The sequencer time-out error was detected (CTL-x)           | D-CTL LSI detected time-out of sequence or a parity error of time-out count.<br>x : Control Unit # (0-1)                                                                    | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to “W01z0x CTL alarm”.                                                                                                                                          | <a href="#">“Chapter 6. Warning Messages” (MSG 06-0000)</a>              |
| H0150x       | [DCTL]The RCTL error was detected (CTL-x)                         | D-CTL LSI detected that the Cache control part did not receive a response of the RCTL (CACHE-I/F) signal which indicates a response of read.<br>x : Control Unit # (0-1)    | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. |                                                                          |
| H0160x       | [DCTL]The RCLK error was detected (CTL-x)                         | D-CTL LSI detected that the Cache control part did not receive a response of the RCLK (CACHE-I/F) signal which is a clock for taking read data.<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                               | —                                                                        |

| Message code | Message text                                                                        | Description                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| H0170x       | [DCTL]The CACHE address was over the address space [MPU] (CTL-x)                    | D-CTL LSI detected a Cache address over error when the Cache of MPU was accessed.<br>x : Control Unit # (0-1)                                        | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H0180x       | [DCTL]The address parity error was detected [MPU] (CTL-x)                           | D-CTL LSI detected an address parity error in the transfer address received in the Cache control part.<br>x : Control Unit # (0-1)                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H0190x       | [DCTL]The length parity error was detected (CTL-x)                                  | D-CTL LSI detected a length parity error in the transfer word length received in the Cache control part.<br>x : Control Unit # (0-1)                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| H01A0x       | [DCTL]The CACHE Address was over the address space [DMA] (CTL-x)                    | D-CTL LSI detected a Cache address over error at the Cache access of H_PORT, D_PORT, DMA #0 or MDMA.<br>x : Control Unit # (0-1)                     | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01B0x       | [DCTL]The dummy area access error was detected (CTL-x)                              | D-CTL LSI detected access to the access prohibited area in the added area of the 4- byte dummy data of the Cache memory.<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01C0x       | [DCTL]The address parity error was detected in the slave command bridge (CTL-x)     | D-CTL LSI detected a parity error in the address from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                       | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01D0x       | [DCTL]The length parity error was detected in the slave command bridge (CTL-x)      | D-CTL LSI detected a parity error in the length from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                        | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01E0x       | [DCTL]The BYTE-ENABLE parity error was detected in the slave command bridge (CTL-x) | D-CTL LSI detected a parity error in the BYTE_EN from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                       | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01F0x       | [DCTL]The write data parity error was detected in the slave command bridge (CTL-x)  | D-CTL LSI detected a parity error in the write data from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                    | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01G0x       | [DCTL]The read data parity error was detected in the slave command bridge (CTL-x)   | D-CTL LSI detected a parity error in the read data from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                     | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |

| Message code | Message text                                                                     | Description                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| H01H0x       | [DCTL]The BYTE-ENABLE error of the slave command bridge was detected (CTL-x)     | D-CTL LSI detected an unfair pattern of BYTE_EN from Cmd_BridgeS.<br>x : Control Unit # (0-1)                         | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H01J0x       | [DCTL]The length error was detected (CTL-x)                                      | D-CTL LSI detected an unfair pattern of length from Cmd_BridgeS.<br>x : Control Unit # (0-1)                          | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          |                                                                          |
| H01K0x       | [DCTL]The address parity error of the register interface was detected (CTL-x)    | D-CTL LSI detected an error response (address parity error) of REG-I/F in the MP part.<br>x : Control Unit # (0-1)    | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| H01L0x       | [DCTL]The write data parity error of the register interface was detected (CTL-x) | D-CTL LSI detected an error response (write data parity error) of REG-I/F in the MP part.<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H01M0x       | [DCTL]The register interface error was detected (CTL-x)                          | D-CTL LSI detected an error response of REG-I/F.<br>x : Control Unit # (0-1)                                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H01N0x       | [DCTL]The read data parity error was detected in the register interface (CTL-x)  | D-CTL LSI detected a parity error in the read data received in the REG-I/F part.<br>x : Control Unit # (0-1)          | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H01P0x       | [DCTL]The CACHE read data parity error was detected (CTL-x)                      | D-CTL LSI detected a parity error in the data read from the Cache memory.<br>x : Control Unit # (0-1)                 | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H01Q0x       | [DCTL]The MP sequencer error was detected (CTL-x)                                | D-CTL LSI detected an error in the control sequence of the MP part.<br>x : Control Unit # (0-1)                       | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| H01R0x       | [DCTL]The master command bridge D1 port error was detected (CTL-x)               | D-CTL LSI detected an error in Cmd_BridgeM_D1.<br>x : Control Unit # (0-1)                                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H01S0x       | [DCTL]The master command bridge D0 port error was detected (CTL-x)               | D-CTL LSI detected an error in Cmd_BridgeM_D0.<br>x : Control Unit # (0-1)                                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H01T0x       | [DCTL]The master command bridge H1 port error was detected (CTL-x)               | D-CTL LSI detected an error in Cmd_BridgeM_H1.<br>x : Control Unit # (0-1)                                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H01U0x       | [DCTL]The master command bridge H0 port error was detected (CTL-x)               | D-CTL LSI detected an error in Cmd_BridgeM_H0.<br>x : Control Unit # (0-1)                                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                   | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| H01V0x       | [DCTL]The refresh error was detected (CTL-x)                   | D-CTL LSI detected an error in the refresh control part for the Cache memory.<br>x : Control Unit # (0-1) | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H01W0x       | [DCTL]The CACHE0 error was detected (CTL-x)                    | D-CTL LSI detected an error in the Cache0 part.<br>x : Control Unit # (0-1)                               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H01X0x       | [DCTL]The CACHE1 error was detected (CTL-x)                    | D-CTL LSI detected an error in the Cache1 part.<br>x : Control Unit # (0-1)                               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H01Y0x       | [DCTL]The MCTL error was detected (CTL-x)                      | D-CTL LSI detected an error interruption of MCTL.<br>x : Control Unit # (0-1)                             | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| H01Z0x       | [DCTL]The slave command bridge error was detected [MP] (CTL-x) | D-CTL LSI detected an error in Cmd_BridgeS_MP.<br>x : Control Unit # (0-1)                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H0200x       | [DCTL]The bridge error was detected [Host0] (CTL-x)            | D-CTL LSI detected a bridge error. (HP #0)<br>x : Control Unit # (0-1)                                    | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H0210x       | [DCTL]The bridge error was detected [Host1] (CTL-x)            | D-CTL LSI detected a bridge error. (HP #1)<br>x : Control Unit # (0-1)                                    | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H0220x       | [DCTL]The bridge error was detected [DRV0] (CTL-x)             | D-CTL LSI detected a bridge error. (D #0)<br>x : Control Unit # (0-1)                                     | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H0230x       | [DCTL]The bridge error was detected [DRV1] (CTL-x)             | D-CTL LSI detected a bridge error. (D #1)<br>x : Control Unit # (0-1)                                     | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |

| Message code | Message text                                                                 | Description                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                         |
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| H0240x       | [DCTL]The bridge error was detected [external access] (CTL-x)                | D-CTL LSI detected a bridge error. (Ext_Accs)<br>x : Control Unit # (0-1)                                   | CTL Alarm Trace   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                                                                           | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                            |
| H0250x       | [DCTL]The bridge error was detected [cross DRV0] (CTL-x)                     | D-CTL LSI detected a bridge error. (Cross_Drv0)<br>x : Control Unit # (0-1)                                 | Simple Trace      | ② Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                               |
| H0260x       | [DCTL]The bridge error was detected [cross DRV1] (CTL-x)                     | D-CTL LSI detected a bridge error. (Cross_Drv1)<br>x : Control Unit # (0-1)                                 | Simple Trace      | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —                                                                                                                                                      |
| H0270x       | [DCTL]The master command bridge error was detected in the DUAL I/F (CTL-x)   | D-CTL LSI detected an error in Cmd_BridgeM_DUAL..<br>x : Control Unit # (0-1)                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| H0280x       | [DCTL]The message signal interrupt control error was detected (CTL-x)        | D-CTL LSI detected an error in MSI (Message Signal Interrupt) CTL.<br>x : Control Unit # (0-1)              | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                               |
| H0300x       | [DCTL]The PCI root complex error was detected [P_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                             | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                            |
| H0310x       | [DCTL]The unsupported request error was detected [P_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                  | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                    | —                                                                                                                                                      |
| H0320x       | [DCTL]The PCI Express ECRC error was detected [P_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                        |
| H0330x       | [DCTL]The malformed transaction layer protocol was detected [P_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                        |
| H0340x       | [DCTL]The receiver overflow was detected [P_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                        |

| Message code | Message text                                                                        | Description                                                                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| H0350x       | [DCTL]The unexpected completion was detected [P_IRQ6] (CTL-x)                       | D-CTL LSI detected "Unexpected completion".<br>[P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                     | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H0360x       | [DCTL]The completer abort was detected [P_IRQ6] (CTL-x)                             | D-CTL LSI detected "Completer abort". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                              | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          |                                                                          |
| H0370x       | [DCTL]The completion time-out was detected [P_IRQ6] (CTL-x)                         | D-CTL LSI detected "Completion time-out".<br>[P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                       | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. |                                                                          |
| H0380x       | [DCTL]The poisoned transaction layer protocol was detected [P_IRQ6] (CTL-x)         | D-CTL LSI detected "poisoned TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                    | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               | —                                                                        |
| H0390x       | [DCTL]The data link protocol error was detected [P_IRQ6] (CTL-x)                    | D-CTL LSI detected "Data Link Protocol error".<br>[P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                  | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H03A0x       | [DCTL]The training error was detected [P_IRQ6] (CTL-x)                              | D-CTL LSI detected "Training error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H03B0x       | [DCTL]The poison error of the completion without data was detected [P_IRQ6] (CTL-x) | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[P_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H03C0x       | [DCTL]The unsupported request was detected [P_IRQ6] (CTL-x)                         | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H03D0x       | [DCTL]The completer abort was detected in the completion status [P_IRQ6] (CTL-x)    | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H03E0x       | [DCTL]The size error was detected in the completion without data [P_IRQ6] (CTL-x)   | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                           |
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| H03F0x       | [DCTL]The internal parity error of the configuration read was detected [P_IRQ6] (CTL-x)  | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                      | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H03G0x       | [DCTL]The completion without data was discarded because of the time-out [P_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [P_PCI_E_IRQ6] x : Control Unit # (0-1) | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><br>—     |
| H03H0x       | [DCTL]The issued completion without data was discarded [P_IRQ6] (CTL-x)                  | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                   | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| H03J0x       | [DCTL]The interrupt message to issue was discarded [P_IRQ6] (CTL-x)                      | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                            | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| H03K0x       | [DCTL]The PCI device error was detected [internal bus error] [P_IRQ6] (CTL-x)            | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                            | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| H03L0x       | [DCTL]The PCI device error was detected [internal memory error] [P_IRQ6] (CTL-x)         | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| H03M0x       | [DCTL]The internal bus error was detected [P_PCI6] (CTL-x)                               | D-CTL LSI detected the internal bus error interrupt of D-CTL. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                                             | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| H03N0x       | [DCTL]The rollover of the replay number was detected [P_IRQ6] (CTL-x)                    | D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                                                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |



| Message code | Message text                                                                  | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                              |
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| H03P0x       | [DCTL]The PCI root complex error was detected [H0_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error".<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)             | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.<br>② Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message.<br>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". | —                                                                           |
| H03Q0x       | [DCTL]The unsupported request error was detected [H0_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error".<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)               | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| H03R0x       | [DCTL]The PCI Express ECRC error was detected [H0_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| H03S0x       | [DCTL]The malformed transaction layer protocol was detected [H0_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |
| H03T0x       | [DCTL]The receiver overflow was detected [H0_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                          | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| H03U0x       | [DCTL]The unexpected completion was detected [H0_IRQ6] (CTL-x)                | D-CTL LSI detected "Unexpected completion".<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                   | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                 |
| H03V0x       | [DCTL]The completer abort was detected [H0_IRQ6] (CTL-x)                      | D-CTL LSI detected "Completer abort". [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                            | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| H03W0x       | [DCTL]The completion time-out was detected [H0_IRQ6] (CTL-x)                  | D-CTL LSI detected "Completion time-out".<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                     | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| H03X0x       | [DCTL]The poisoned transaction layer protocol was detected [H0_IRQ6] (CTL-x)  | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)  | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| H03Y0x       | [DCTL]The data link protocol error was detected [H0_IRQ6] (CTL-x)             | D-CTL LSI detected "Data Link Protocol error".<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| H03Z0x       | [DCTL]The training error was detected [H0_IRQ6] (CTL-x)                       | D-CTL LSI detected "Training error". [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                             | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |



| Message code | Message text                                                                             | Description                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                                                                                                                                       |
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| H0400x       | [DCTL]The poison error of the completion without data was detected [H0_IRQ6] (CTL-x)     | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                           | —                                                                                                                                                                    |
| H0410x       | [DCTL]The unsupported request was detected [H0_IRQ6] (CTL-x)                             | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Simple Trace      | ② Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a>                                                                                          |
| H0420x       | [DCTL]The completer abort was detected in the completion status [H0_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                             |
| H0430x       | [DCTL]The size error was detected in the completion without data [H0_IRQ6] (CTL-x)       | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                | Simple Trace      | ④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                                                                                                                                                                                                                                    | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                                          |
| H0440x       | [DCTL]The internal parity error of the configuration read was detected [H0_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                               | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.<br>② When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>③ Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message. | —<br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                                                                                                                                                                                         |
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| H0450x       | [DCTL]The completion without data was discarded because of the timeout [H0_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                           | —                                                                                                                                                                                                                      |
| H0460x       | [DCTL]The issued completion without data was discarded [H0_IRQ6](CTL-x)                  | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                   | Simple Trace      | ② Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message.<br>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| H0470x       | [DCTL]The interrupt message to issue was discarded [H0_IRQ6] (CTL-x)                     | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                            | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.<br>② When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>③ Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message. | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a>                                                           |

| Message code | Message text                                                                      | Description                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                 |
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| H0480x       | [DCTL]The PCI device error was detected [internal bus error] [H0_IRQ6] (CTL-x)    | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt].<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | <p>① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> <p>② Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message.</p> <p>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> | <p>—</p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> |
| H0490x       | [DCTL]The PCI device error was detected [internal memory error] [H0_IRQ6] (CTL-x) | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt].<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)    | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                      | —                                                                                                                                                                                                                                              |
| H04A0x       | [DCTL]The internal bus error was detected [H0_PCI6] (CTL-x)                       | D-CTL LSI detected the internal bus error interrupt of D-CTL.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                  | Simple Trace      | <p>② When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>③ Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p>                                                                             |

| Message code | Message text                                                              | Description                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                 |
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| H04B0x       | [DCTL]The rollover of the replay number was detected<br>[H0_IRQ6] (CTL-x) | D-CTL LSI detected "roll-over" of REPLAY_NUMBER.<br>[H0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | <p>① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> <p>② Replace the Interface Board (Interface Board #0 in case of the RKH) installed in the Control Unit displayed in the message.</p> <p>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> | <p>—</p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> |

| Message code | Message text                                                                  | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                              |
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| H04C0x       | [DCTL]The unsupported request error was detected [H1_IRQ6] (CTL-x)            | D-CTL LSI received "PCI RC (Root Complex) error". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                           |
| H04D0x       | [DCTL]The unsupported request error was detected [H1_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                  | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |
| H04E0x       | [DCTL]The PCI Express ECRC error was detected [H1_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                                 | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |
| H04F0x       | [DCTL]The malformed transaction layer protocol was detected [H1_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [H1_PCI_E_IRQ6] x : Control Unit # (0-1) | Simple Trace      | ② Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.                                                                                                                                                 | Replacement "2.2.7 Replacing Interface Board" (REP 02-0800) |
| H04G0x       | [DCTL]The receiver overflow was detected [H1_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                          | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         |                                                             |
| H04H0x       | [DCTL]The unexpected completion was detected [H1_IRQ6] (CTL-x)                | D-CTL LSI detected "Unexpected completion". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                      | Simple Trace      | ④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | "Chapter 6. Warning Messages" (MSG 06-0000)                 |
| H04J0x       | [DCTL]The completer abort was detected [H1_IRQ6] (CTL-x)                      | D-CTL LSI detected "Completer abort". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |
| H04K0x       | [DCTL]The completion time-out was detected [H1_IRQ6] (CTL-x)                  | D-CTL LSI detected "Completion time-out". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                        | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |
| H04L0x       | [DCTL]The poisoned transaction layer protocol was detected [H1_IRQ6] (CTL-x)  | D-CTL LSI detected "poisoned TLP (Transaction Layer Protocol)". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)  | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |
| H04M0x       | [DCTL]The data link protocol error was detected [H1_IRQ6] (CTL-x)             | D-CTL LSI detected "Data Link Protocol error". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                   | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |
| H04N0x       | [DCTL]The training error was detected [H1_IRQ6] (CTL-x)                       | D-CTL LSI detected "Training error". [H1_PCI_E_IRQ6] x : Control Unit # (0-1)                             | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                             |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                              |
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| H04P0x       | [DCTL]The poison error of the completion without data was detected [H1_IRQ6] (CTL-x)     | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                           |
| H04Q0x       | [DCTL]The unsupported request was detected [H1_IRQ6] (CTL-x)                             | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Simple Trace      | ② Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.                                                                                                                                                 | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |
| H04R0x       | [DCTL]The completer abort was detected in the completion status [H1_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
| H04S0x       | [DCTL]The size error was detected in the completion without data [H1_IRQ6] (CTL-x)       | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                | Simple Trace      | ④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                 |
| H04T0x       | [DCTL]The internal parity error of the configuration read was detected [H1_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                               | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                           |
|              |                                                                                          |                                                                                                                                                                                                                                |                   | ② When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>    |
|              |                                                                                          |                                                                                                                                                                                                                                |                   | ③ Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.                                                                                                                                                 | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a> |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                                                                                                                                         |
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| H04U0x       | [DCTL]The completion without data was discarded because of the timeout [H1_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                           | —                                                                                                                                                                      |
| H04V0x       | [DCTL]The issued completion without data was discarded [H1_IRQ6] (CTL-x)                 | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                   | Simple Trace      | ② Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.<br>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)<br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)<br>"Chapter 6. Warning Messages" (MSG 06-0000) |
| H04W0x       | [DCTL]The interrupt message to issue was discarded [H1_IRQ6] (CTL-x)                     | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                            | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.<br>② When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>③ Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message. | —<br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)<br>Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)                                           |

| Message code | Message text                                                                      | Description                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                 |
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| H04X0x       | [DCTL]The PCI device error was detected [internal bus error] [H1_IRQ6] (CTL-x)    | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt].<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | <p>① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> <p>② Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.</p> <p>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> | <p>—</p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> |
| H04Y0x       | [DCTL]The PCI device error was detected [internal memory error] [H1_IRQ6] (CTL-x) | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt].<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)    | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                      | —                                                                                                                                                                                                                                              |
| H04Z0x       | [DCTL]The internal bus error was detected [H1_PCI6] (CTL-x)                       | D-CTL LSI detected the internal bus error interrupt of D-CTL.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                  | Simple Trace      | <p>② When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>③ Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p>                                                                             |



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| Message code | Message text                                                                  | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                 |
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| H0500x       | [DCTL]The rollover of the replay number was detected<br>[H1_IRQ6] (CTL-x)     | D-CTL LSI detected "roll-over" of REPLAY_NUMBER.<br>[H1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)              | Simple Trace      | <p>① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> <p>② Replace the Interface Board (Interface Board #1 in case of the RKH) installed in the Control Unit displayed in the message.</p> <p>③ When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>④ When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> | <p>—</p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> |
| H0510x       | [DCTL]The PCI root complex error was detected [D0_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error".<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)             | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                       |
| H0520x       | [DCTL]The unsupported request error was detected [D0_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error".<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)               | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                                                                                                                    |
| H0530x       | [DCTL]The PCI Express ECRC error was detected [D0_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                      | —                                                                                                                                                                                                                                              |
| H0540x       | [DCTL]The malformed transaction layer protocol was detected [D0_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                |
| H0550x       | [DCTL]The receiver overflow was detected [D0_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                          | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                |

| Message code | Message text                                                                         | Description                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| H0560x       | [DCTL]The unexpected completion was detected [D0_IRQ6] (CTL-x)                       | D-CTL LSI detected "Unexpected completion".<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                     | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H0570x       | [DCTL]The completer abort was detected [D0_IRQ6] (CTL-x)                             | D-CTL LSI detected "Completer abort". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                              | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up,                                                                                                                                                                                                   | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H0580x       | [DCTL]The completion time-out was detected [D0_IRQ6] (CTL-x)                         | D-CTL LSI detected "Completion time-out".<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                       | Simple Trace      | perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                                                      |                                                                          |
| H0590x       | [DCTL]The poisoned transaction layer protocol was detected [D0_IRQ6] (CTL-x)         | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                    | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. |                                                                          |
| H05A0x       | [DCTL]The data link protocol error was detected [D0_IRQ6] (CTL-x)                    | D-CTL LSI detected "Data Link Protocol error".<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                  | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H05B0x       | [DCTL]The training error was detected [D0_IRQ6] (CTL-x)                              | D-CTL LSI detected "Training error". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                               | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H05C0x       | [DCTL]The poison error of the completion without data was detected [D0_IRQ6] (CTL-x) | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                               | —                                                                        |
| H05D0x       | [DCTL]The unsupported request was detected [D0_IRQ6] (CTL-x)                         | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                              |
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| H05E0x       | [DCTL]The completer abort was detected in the completion status [D0_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                       | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| H05F0x       | [DCTL]The size error was detected in the completion without data [D0_IRQ6] (CTL-x)       | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                       | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| H05G0x       | [DCTL]The internal parity error of the configuration read was detected [D0_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                      | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H05H0x       | [DCTL]The completion without data was discarded because of the timeout [D0_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H05J0x       | [DCTL]The issued completion without data was discarded [D0_IRQ6] (CTL-x)                 | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                   | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H05K0x       | [DCTL]The interrupt message to issue was discarded [D0_IRQ6] (CTL-x)                     | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H05L0x       | [DCTL]The PCI device error was detected [internal bus error] [D0_IRQ6] (CTL-x)           | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                            | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H05M0x       | [DCTL]The PCI device error was detected [internal memory error] [D0_IRQ6] (CTL-x)        | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                               | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |

| Message code | Message text                                                                  | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| H05N0x       | [DCTL]The internal bus error was detected [D0_PCI6] (CTL-x)                   | D-CTL LSI detected the internal bus error interrupt of D-CTL. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)    | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H05P0x       | [DCTL]The rollover of the replay number was detected [D0_IRQ6] (CTL-x)        | D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                 | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H05Q0x       | [DCTL]The PCI root complex error was detected [D1_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| H05R0x       | [DCTL]The unsupported request error was detected [D1_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                  | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05S0x       | [DCTL]The PCI Express ECRC error was detected [D1_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05T0x       | [DCTL]The malformed transaction layer protocol was detected [D1_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05U0x       | [DCTL]The receiver overflow was detected [D1_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                          | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05V0x       | [DCTL]The unexpected completion was detected [D1_IRQ6] (CTL-x)                | D-CTL LSI detected "Unexpected completion". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                      | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05W0x       | [DCTL]The completer abort was detected [D1_IRQ6] (CTL-x)                      | D-CTL LSI detected "Completer abort". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                            | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05X0x       | [DCTL]The completion time-out was detected [D1_IRQ6] (CTL-x)                  | D-CTL LSI detected "Completion time-out". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                        | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05Y0x       | [DCTL]The poisoned transaction layer protocol was detected [D1_IRQ6] (CTL-x)  | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)  | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| H05Z0x       | [DCTL]The data link protocol error was detected [D1_IRQ6] (CTL-x)             | D-CTL LSI detected "Data Link Protocol error". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                   | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |

| Message code | Message text                                                                                | Description                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| H0600x       | [DCTL]The training error was detected<br>[D1_IRQ6] (CTL-x)                                  | D-CTL LSI detected "Training error". [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                                                                         | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H0610x       | [DCTL]The poison error of the completion without data was detected<br>[D1_IRQ6] (CTL-x)     | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                           | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H0620x       | [DCTL]The unsupported request was detected<br>[D1_IRQ6] (CTL-x)                             | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                          | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| H0630x       | [DCTL]The completer abort was detected in the completion status<br>[D1_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                          | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H0640x       | [DCTL]The size error was detected in the completion without data [D1_IRQ6] (CTL-x)          | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                          | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H0650x       | [DCTL]The internal parity error of the configuration read was detected<br>[D1_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                         | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| H0660x       | [DCTL]The completion without data was discarded because of the timeout [D1_IRQ6] (CTL-x)    | D-CTL LSI tried to issue Cpl (Completion)/CpID (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CpID was discarded.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                      | Description                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                              |
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| H0670x       | [DCTL]The issued completion without data was discarded [D1_IRQ6] (CTL-x)          | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| H0680x       | [DCTL]The interrupt message to issue was discarded [D1_IRQ6] (CTL-x)              | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                          | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| H0690x       | [DCTL]The PCI device error was detected [internal bus error] [D1_IRQ6] (CTL-x)    | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt].<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                          | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H06A0x       | [DCTL]The PCI device error was detected [internal memory error] [D1_IRQ6] (CTL-x) | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt].<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                             | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H06B0x       | [DCTL]The internal bus error was detected [D1_PCI6] (CTL-x)                       | D-CTL LSI detected the internal bus error interrupt of D-CTL.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                           | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| H06C0x       | [DCTL]The rollover of the replay number was detected [D1_IRQ6] (CTL-x)            | D-CTL LSI detected "roll-over" of REPLAY_NUMBER.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                        | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                             |

| Message code | Message text                                                                 | Description                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                 | Reference page                                                           |
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| H06D0x       | [DCTL]The PCI root complex error was detected [E_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)             | CTL Alarm Trace   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                                                                           | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H06E0x       | [DCTL]The unsupported request error was detected [E_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)               | CTL Alarm Trace   | ② Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H06F0x       | [DCTL]The PCI Express ECRC error was detected [E_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | CTL Alarm Trace   | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —                                                                        |
| H06G0x       | [DCTL]The malformed transaction layer protocol was detected [E_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H06H0x       | [DCTL]The receiver overflow was detected [E_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>   |
| H06J0x       | [DCTL]The unexpected completion was detected [E_IRQ6] (CTL-x)                | D-CTL LSI detected "Unexpected completion".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                   | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| H06K0x       | [DCTL]The completer abort was detected [E_IRQ6] (CTL-x)                      | D-CTL LSI detected "Completer abort". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                            | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| H06L0x       | [DCTL]The completion time-out was detected [E_IRQ6] (CTL-x)                  | D-CTL LSI detected "Completion time-out".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                     | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| H06M0x       | [DCTL]The poisoned transaction layer protocol was detected [E_IRQ6] (CTL-x)  | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)  | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| H06N0x       | [DCTL]The data link protocol error was detected [E_IRQ6] (CTL-x)             | D-CTL LSI detected "Data Link Protocol error".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| H06P0x       | [DCTL]The training error was detected [E_IRQ6] (CTL-x)                       | D-CTL LSI detected "Training error". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                             | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                  |                                                                          |



| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                      | Reference page                                                                                                                          |
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| H06Q0x       | [DCTL]The poison error of the completion without data was detected [E_IRQ6] (CTL-x)      | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                           | CTL Alarm Trace   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② Replace the Control Unit displayed in the message.                        | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H06R0x       | [DCTL]The unsupported request was detected [E_IRQ6] (CTL-x)                              | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                          | CTL Alarm Trace   | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE. | —                                                                                                                                       |
| H06S0x       | [DCTL]The completer abort was detected in the completion status [E_IRQ6] (CTL-x)         | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                          | CTL Alarm Trace   | 2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                |
| H06T0x       | [DCTL]The size error was detected in the completion without data [E_IRQ6] (CTL-x)        | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                          | CTL Alarm Trace   | 3. Turn on the power of the subsystem.                                                                                                                                                | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                  |
| H06U0x       | [DCTL]The internal parity error of the configuration read was detected [E_IRQ6] (CTL-x)  | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                         | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                         |
| H06V0x       | [DCTL]The completion without data was discarded because of the time-out [E_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                         |
| H06W0x       | [DCTL]The issued completion without data was discarded [E_IRQ6] (CTL-x)                  | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                   | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                         |

| Message code | Message text                                                                             | Description                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                      | Reference page                                                                                              |
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| H06X0x       | [DCTL]The interrupt message to issue was discarded [E_IRQ6] (CTL-x)                      | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                              | CTL Alarm Trace   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② Replace the Control Unit displayed in the message.                        | "Chapter 6. Warning Messages" (MSG 06-0000)<br><br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| H06Y0x       | [DCTL]The PCI request was discarded by the timeout [internal bus error] [E_IRQ6] (CTL-x) | D-CTL LSI could not execute the request from the internal bus of D-CTL in the set time because the condition such as Credit was not enough.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                 | CTL Alarm Trace   | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE. | —                                                                                                           |
| H06Z0x       | [DCTL]The PCI request was discarded by the internal bus error [E_IRQ6] (CTL-x)           | NSWC (internal but of D-CTL: I/F Slave Wrapper Control) set the error bit of TXDB (Transmit side Data Buffer) due to some errors on the internal bus of D-CTL. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | CTL Alarm Trace   | 2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                    |
| H0700x       | [DCTL]The PCI request was discarded [internal bus error] [E_IRQ6] (CTL-x)                | D-CTL LSI discarded the request from the internal path of D-CTL. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                               | CTL Alarm Trace   | 3. Turn on the power of the subsystem.                                                                                                                                                | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                                                      |
| H0710x       | [DCTL]The PCI device error was detected [internal memory error] [E_IRQ6] (CTL-x)         | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                    | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                             |
| H0720x       | [DCTL]The internal bus error was detected [E_PCI6] (CTL-x)                               | D-CTL LSI detected the internal bus error interrupt of D-CTL. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                  | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                             |
| H0730x       | [DCTL]The rollover of the replay number was detected [E_IRQ6] (CTL-x)                    | D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                               | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                             |
| H0800x       | [DCTL]The slave dual error was detected in the DUAL I/F (CTL-x)                          | D-CTL LSI detected an error in the DUAL-Slave part.<br>x : Control Unit # (0-1)                                                                                                                           | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                             |
| H0810x       | [DCTL]The CACHE error was detected in the DUAL I/F (CTL-x)                               | D-CTL LSI detected an error in the Cache part. [Dual]<br>x : Control Unit # (0-1)                                                                                                                         | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                             |
| H0820x       | [DCTL]The slave command bridge error was detected in the DUAL I/F (CTL-x)                | D-CTL LSI detected an error in Cmd_BridgeS. [Dual]<br>x : Control Unit # (0-1)                                                                                                                            | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                             |

| Message code | Message text                                                                            | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| H0900x       | [CSDS]The double error detection retry was over the threshold [0xyyyyyyyy] (CTL-x)      | The chipset detected retry of Double error.<br>x : Control Unit # (0-1)                                   | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H0910x       | [CSDS]The correctable read memory error was over the threshold [0xyyyyyyyy] (CTL-x)     | The chipset detected correctable read.<br>x : Control Unit # (0-1)                                        | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H0920x       | [CSDS]The uncorrectable error on the write was detected [0xyyyyyyyy] (CTL-x)            | The chipset detected DED (double error detect) in write to DRAM from chipset.<br>x : Control Unit # (0-1) | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| H0930x       | [CSDS]The uncorrectable read memory error was detected [0xyyyyyyyy] (CTL-x)             | The chipset detected DED (double error detect).<br>x : Control Unit # (0-1)                               | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| H0940x       | The processor system bus error was detected [0xyyyyyyyy] (CTL-x)                        | The chipset detected a Processor system bus error.<br>x : Control Unit # (0-1)                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| H0950x       | The internal bus error of the chipset was detected [0xyyyyyyyy] (CTL-x)                 | The chipset detected an NSI (internal bus of chipset) error.<br>x : Control Unit # (0-1)                  | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| H0960x       | The PCI Express device error was detected [chipset] [0xyyyyyyyy] (CTL-x)                | The chipset detected an error of the PCI Express device.<br>x : Control Unit # (0-1)                      | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| H0970x       | The correctable PCIe device error was over the threshold [chipset] [0xyyyyyyyy] (CTL-x) | The chipset detected a correctable error of the PCI Express device.<br>x : Control Unit # (0-1)           | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H0980x       | The specific PCI Express unit error was detected [chipset] [0xyyyyyyyy] (CTL-x)         | The chipset detected an error other than the standard of PCI Express.<br>x : Control Unit # (0-1)         | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| H0990x       | The specific correctable PCIe unit error was over the threshold [0xyyyyyyyy] (CTL-x)    | The chipset detected a correctable error other than the PCI Express standard.<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| H09A0x       | The PCI Express error message was received [chipset] [0xyyyyyyyy] (CTL-x)               | The chipset detected a PCI error of the standard of PCI Express.<br>x : Control Unit # (0-1)              | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                  | Description                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| H09B0x       | The correctable PCI Express error message was received [0xyyyyyyyy] (CTL-x)   | The chipset detected a correctable error of the PCI Express standard.<br>x : Control Unit # (0-1)                                                                                          | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H09C0x       | The error was detected in the buffer unit of the chipset [0xyyyyyyyy] (CTL-x) | The chipset detected an error in the buffer unit of WLchipset.<br>x : Control Unit # (0-1)                                                                                                 | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| H09D0x       | The machine check error was detected (CTL-x)                                  | The chipset detected a machine check error.<br>x : Control Unit # (0-1)                                                                                                                    | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. |                                                                          |
| H09E0x       | The LPC bridge error was detected [0xyyyyyyyy] (CTL-x)                        | The chipset detected an error in the LPC bridge.<br>x : Control Unit # (0-1)                                                                                                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               | —                                                                        |
| H09F00       | New array is down because Auto Migration is not completed                     | Since you separated the New Array from the Original Array and started the New Array independently while executing Auto Migration of the array, the New Array went down.                    | Simple Trace      | —                                                                                                                                                                                                                                                                             | —                                                                        |
| H0A00x       | [DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y/z)           | D-CTL LSI detected an ECC uncorrectable error of two bits or more from each of two Cache memories when reading the Cache memories.<br>x : Control Unit # (0-1)<br>y/z : Cache Unit # (0-3) | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                            | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |

| Message code | Message text                                                                            | Description                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                       | Reference page                                                                                                                                          |
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| H0A10x       | DUAL-Slave error was detected<br>[H_PORT] (CTL-x)                                       | When executing write to the Cache memory of another Control Unit, a hardware failure occurred in the DUAL-Slave part of D-CTL LSI of the Control Unit.<br>x : Control Unit # (0-1)     | CTL Alarm Trace   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② Replace the Control Unit displayed in the message.                                                                                                                         | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                 |
| H0A20x       | DUAL-Cache error was detected<br>[H_PORT] (CTL-x)                                       | When executing write to the Cache memory of another Control Unit, a hardware failure occurred in the Cache part of D-CTL LSI of the Control Unit.<br>x : Control Unit # (0-1)          | CTL Alarm Trace   | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on). | —                                                                                                                                                       |
| H0A30x       | DUAL-CmdBridgeS error was detected<br>[H_PORT] (CTL-x)                                  | When executing write to the Cache memory of another Control Unit, a hardware failure occurred in the CmdBrgS (DUAL) part of D-CTL LSI of the Control Unit.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | 3. Turn on the power of the subsystem.                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                |
| H0A40x       | [DCTL] The error without the factor was detected in the DUAL I/F (CTL-x)                | A DUALS failure without the detailed factor occurred.<br>x : Control Unit # (0-1)                                                                                                      | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                        | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                  |
| H0A500       | PCI Configuration access error was detected [HostX_PCI Express core, 0xyyyzzzz] (CTL-x) | An error occurred in the Configuration access of the HOST PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>yy : Optional code<br>zz : Optional code                       | CTL Alarm Trace   | ① When Host # displayed in the message is "0", replace the Interface Board #0 installed in the Control Unit displayed in the message, and when Host # is "1", replace the Interface Board #1.<br>② If not recovered, replace the Control Unit displayed in the message.                | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                                                                           | Description                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                                                                                            |
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| H0A600       | PCI Configuration access error was detected [DrvX_PCI Express core, 0xyyyzzzz] (CTL-x) | An error occurred in the Configuration access of the Drv PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>yy : Optional code<br>zz : Optional code  | CTL Alarm Trace   | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p>—</p>                                                                                                                                                               |
| H0A700       | PCI Configuration access error was detected [DUAL_PCI Express core, 0xyyyzzzz] (CTL-x) | An error occurred in the Configuration access of the Dual PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>yy : Optional code<br>zz : Optional code | CTL Alarm Trace   | <p>① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.</p> <p>② Replace the Control Unit displayed in the message.</p> <p>③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.</p> <p>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).</p> <p>3. Turn on the power of the subsystem.</p>                                     | <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p>—</p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a></p> |

| Message code | Message text                                                                          | Description                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                                                                                           |
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| H0A800       | The initialization of PCI Express failed because of the hardware error [DUAL] (CTL-x) | The initial setting of DUAL PCI Express of the Control Unit failed.<br>x : Control Unit # (0-1)                 | CTL Alarm Trace   | ① Press the soft reset button of the Control Unit in 20 to 30 seconds after inserting the Control Unit in the Basic Chassis. After that, if this message is displayed, disregard it.<br>② Replace the Control Unit displayed in the message.<br>③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>—<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| H0A900       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0)     | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0) [Dual].<br>x : Control Unit # (0-1)   | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                                                                                                   |
| H0AA00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1)     | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1) [Dual].<br>x : Control Unit # (0-1)   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                          |
| H0AB00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0/2)   | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0/2) [Dual].<br>x : Control Unit # (0-1) | Full Dump         | ① Replace the Cache Unit displayed in the message. (However, when Cache Unit #2 is not installed, replace only Cache Unit #0.)                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                                                                                                   |
| H0AC00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1/3)   | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1/3) [Dual].<br>x : Control Unit # (0-1) | Full Dump         | ① Replace the Cache Unit displayed in the message. (However, when Cache Unit #3 is not installed, replace only Cache Unit #1.)                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                                                                                                   |

| Message code | Message text                                                                            | Description                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                          |
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| H0AD0x       | [DCTL]The bridge time-out was detected by the dual core error [C_BrgM_DUAL] (CTL-x)     | D-CTL LSI (Cmd_BridgeM) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                         | CTL Alarm Trace   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② Replace the Control Unit displayed in the message.                                                                                                                | "Chapter 6. Warning Messages" (MSG 06-0000)<br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                 |
| H0AE0x       | [DCTL]The bridge time-out was detected by the dual core error [external access] (CTL-x) | D-CTL LSI (Ext_Accs) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                            | CTL Alarm Trace   | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.                                                                                         | —                                                                                                                       |
| H0AF0x       | [DCTL]The bridge time-out was detected by the dual core error [cross DRV0] (CTL-x)      | D-CTL LSI (Cross_Drv0) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                          | CTL Alarm Trace   | 2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).                                                                                                                                                                                 | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                                |
| H0AG0x       | [DCTL]The bridge time-out was detected by the dual core error [cross DRV1] (CTL-x)      | D-CTL LSI (Cross_Drv1) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                          | CTL Alarm Trace   | 3. Turn on the power of the subsystem.                                                                                                                                                                                                                                        | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                                                                  |
| H0AHxy       | EDC error was detected (CTL-x, I/F-y)                                                   | The EDC error exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1)                                                                                             | Simple Trace      | ① Replace the Control Unit and Inter face Board displayed in the message.                                                                                                                                                                                                     | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)<br>Replacement "2.2.7 Replacing Interface Board" (REP 02-0800) |
| H0B00x       | Synchronized error was detected [CIT] (CTL-x)                                           | Synchronization of the interruption processing between MPU cores timed out.<br>x : Control Unit # (0-1)                                                                                            | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                                |
| H0C00x       | The synchronization processing error of the CTL cores was detected [ERR] (CTL-x)        | When trying to synchronize the internal processing between the cores of the local Control Units to block the remote Control Unit, the synchronization became time-out.<br>x : Control Unit # (0-1) | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm"                                                                                                                                           | "Chapter 6. Warning Messages" (MSG 06-0000)                                                                             |
| H0D00x       | Synchronization failure of the MPU core was detected [INM] (CTL-x)                      | An error occurred in the initial setting between the MPU cores/the synchronization during the CHK1 reset.<br>x : Control Unit # (0-1)                                                              | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                       |



| Message code | Message text                                             | Description                                                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                                                              |
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| H0E00x       | Online microprogram update time-out was detected (CTL-x) | When the user tried to perform the planned shutdown of the subsystem, it was executing the online firmware replacement. Since the replacement timed out, the planned shutdown of the subsystem was carried out.<br>x : Control Unit # (0-1) |                   | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ After confirming this message in the WEB Information Message or E-mail immediately before the planned shutdown of the subsystem, if the planned shutdown of the subsystem is carried out, replace the Control Unit displayed in the message.</p> <p>④ The maintenance work is not required when the following conditions are all met because the internal retry processing was executed in the Control Unit.</p> <ul style="list-style-type: none"> <li>• When the planned shutdown is carried out, the Control Unit displayed in the message is not replaced.</li> <li>• After restarting the subsystem, the ALARM LED on the front of the subsystem of the basic chassis does not light up.</li> <li>• The ALM LED on the Control Unit displayed in this message does not light up.</li> </ul> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p>—</p> |

| Message code | Message text                                                                     | Description                                                                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference page                                                                                  |
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| H0F00x       | The synchronization processing error of the CTL cores was detected [RCH] (CTL-x) | The synchronization processing between the MPU cores timed out when the Control Unit or firmware is replaced or the data of the Cache memory is recovered from the running Control Unit by automatic reboot to the Control Unit after boot-up.<br>x : Control Unit # (0-1) | Full Dump         | ① Perform the maintenance according to the detail of the recovery procedure in the <a href="#">Troubleshooting "6.1.1 System Down"</a> .<br>Try to restart the subsystem while retaining the hardware configuration at the time of the generation of the subsystem down to avoid the user data lost.<br>The failed part is the Control Unit displayed in this message. Replace the Control Unit displayed in this message after restarting the subsystem as much as possible.                                                                                                                                                                                                                                                                          | <a href="#">Troubleshooting "6.1.1 System Down" (TRBL 06-0020)</a>                              |
| H0F100       | The destage of the management information of DP pool failed                      | When executing the planned shutdown of the subsystem, the subsystem became the alarm status because write of the HDP management information to the chunk for the save area failed.                                                                                         | CTL Alarm Trace   | ① 1. Remove the power cables of the Basic Chassis. At this time, do not remove the Cache Backup Battery.<br>2. Connect the power cables to the Basic Chassis.<br>3. Turn on the main switch, and start the subsystem.<br>4. Perform the maintenance referring to the message other than this message first. Especially, when the HDU failure message such as "HDU alarm" or "HDU error" is displayed, perform the maintenance according to the message.<br>When no failure message is displayed, identify the cause of the write failure, and contact the Technical Support Center for replacing the failed part.<br>5. Execute the planned shutdown of the subsystem again.<br>② When the phenomenon reappears, contact the Technical Support Center. | —<br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br>—<br>— |

| Message code                      | Message text                                                                      | Description                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                                                                                                                          |
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| H0F200                            | The staging of the management information of DP pool failed                       | The subsystem went down because the read of the HDP management information from the save-area chunk failed when starting the subsystem.                     | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.25 Recovery Method when the Subsystem went Down because the Load of the DP Management Information"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">Troubleshooting "6.1.25 Recovery Method when the Subsystem went Down because the Load of the DP Management Information" (TRBL 06-1060)</a>                                                  |
| H0F30x                            | The writing the initial data of DP Volume to CACHE failed [OWN CTL] (CTL-x)       | The initial data transfer of the DP volume to the Cache memory failed due to the Control Unit failure displayed in the message.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                    | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                 |
| H0F40x                            | The writing the initial data of DP Volume to CACHE failed [THE OTHER CTL] (CTL-x) | The initial data transfer of the DP volume to the Cache memory failed due to the Control Unit failure displayed in the message.<br>x : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |
| H0F500                            | Model upgrade was attempted although Dynamic Provisioning function was enabled    | The subsystem upgrade was attempted while the Hitachi Dynamic Provisioning of the priced option, was enabled.                                               | Simple Trace      | ① 1. Request the customer/SE to return the firmware and the hardware configuration of the subsystem to those before the upgrade according to the "Upgrade Procedure".<br>2. When the user data of the DP Pool is necessary, request the customer/SE to backup the user data of the DP Pool.<br>3. Request the customer/SE to delete all the setting of the Dynamic Provisioning function of the priced option referring to the <a href="#">"Dynamic Provisioning User's Guide"</a> .<br>4. Request the customer/SE to lock the license key of the Dynamic Provisioning function of the priced option. | <a href="#">"Upgrade Procedure"</a><br>—<br><a href="#">"Dynamic Provisioning User's Guide"</a><br><a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a> |
| To be continued to the next page. |                                                                                   |                                                                                                                                                             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |

| Message code | Message text                                                                           | Description                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                 | Reference page                                                                                                                                                                |
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|              |                                                                                        |                                                                                                                                                                                                 |                   | 5. Request the customer to perform the upgrade of the subsystem from the beginning again.<br>6. Request the customer/SE to restore the backup data which was backed up in the procedure ①-2 to the upgraded subsystem as needed. | —<br>—                                                                                                                                                                        |
| H0F600       | The firmware has detected the error data in the DP management information of the array | When the firmware attempted to store the DP management information in the Disk Drive, the firmware detected an error of the DP management information in the Cache memory due to some failures. | Full Dump         | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.26 Recovery Method when the Firmware Detected an Error of the DP Management Information and the Control Unit was Blocked"</a> .                          | <a href="#">Troubleshooting "6.1.26 Recovery Method when the Firmware Detected an Error of the DP Management Information and the Control Unit was Blocked"</a> (TRBL 06-1120) |

| Message code | Message text                                          | Description                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                     |
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| H20100       | Parity generation LA error [DRR]                      | Illegal LA was detected when the (DRR Failure)                                                                                                                                             | CTL Alarm Trace   | ① See Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)".                                                                                                                                                                                   | Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)                |
| H203A0       | DCTL time-out [H_PORT]                                | D-CTL finish time-out was detected.                                                                                                                                                        | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                           |
| H204A1       | DCTL time-out [D_PORT]                                | D-CTL finish time-out was detected.                                                                                                                                                        | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                                                                    |
| H205B0       | DMA forced stop failed                                | Forced stopping of DMA failed.                                                                                                                                                             | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                                                                    |
| H2091x       | CACHE address over [OTH_CTL] (CTL-x)                  | A cache address over error occurred in another Control Unit.<br>x : Control Unit # (0-1)                                                                                                   | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                                                                    |
| H21000       | DCTL address over [DMA#0]                             | The cache address over occurred.                                                                                                                                                           | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                    |
| H21100       | DCTL address over [D_PORT]                            | The cache address over occurred.                                                                                                                                                           | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                    |
| H21200       | DCTL address over [H_PORT]                            | The cache address over occurred.                                                                                                                                                           | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                    |
| H301xx       | ECC write parity error (DMA-y)                        | D-CTL LSI detected a parity error when it tried to write the data in the Cache memory.<br>x : 00 (DDR)<br>1y (DDMA)<br>2y (HDMA)<br>FF (unknown)<br>y : D-CTL LSI port # (0-7, F)          | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)<br>"Chapter 6. Warning Messages" (MSG 06-0000)            |
| H302xx       | ECC generate error (DMA-y)                            | D-CTL LSI detected a failure in the ECC generation when it writes the data in the Cache memory.<br>x : 00 (DDR)<br>1y (DDMA)<br>2y (HDMA)<br>FF (unknown)<br>y : D-CTL LSI port # (0-7, F) | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                  |
| H303xy       | ECC uncorrectable error was detected (CTL-x, CACHE-y) | D-CTL LSI of the Control Unit detected a failure that ECC could not correct the bit error when reading from the Cache memory.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)        | CTL Alarm Trace   | ① Replace the Cache Unit displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                  | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)<br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |

| Message code | Message text                                                                           | Description                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                          |
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| H3030*       | ECC uncorrectable error (CACHE-*)                                                      | D-CTL LSI of the Control Unit detected a failure that ECC could not correct the bit error when reading from the Cache memory. (Cache slot cannot be specified)                           | CTL Alarm Trace   | ① Replace the blocked Control Unit.<br>② If not recovered, replace all the Cache Units installed in the Control Unit concerned.                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>      |
| H304xy       | ECC correction failed (CTL-x, DMA-y)                                                   | D-CTL LSI of the Control Unit detected a failure when ECC corrected the bit error while executing read to the Cache memory.<br>x : Control Unit # (0-1)<br>y : D-CTL LSI port # (0-7, F) | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br>—            |
| H305xy       | H-FPC ECC error was detected (CTL-x, I/F-y)                                            | The ECC error count detected when H-FPC LSI accessed the internal RAM exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1)                           | CTL Alarm Trace   | ① Replace the Fibre Channel Interface Board in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                          | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H306xy       | Please replace cache memory to recover from cache uncorrectable error (CTL-x, CACHE-y) | An uncorrectable error of the Cache memory was detected by the automatic diagnosis of the Cache memory online.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)                     | CTL Alarm Trace   | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                  |

| Message code | Message text                                                                     | Description                                                                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                                     |
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| H30B0x       | CACHE uncorrectable ERR [OTH_CTL] (CTL-x)                                        | Cache uncorrectable error<br>x : Control Unit # (0-1)                                                                                                                                                                                                       | Full Dump         | ① Replace the Cache Unit.<br>② If not recovered, replace the above Control Unit.                                                                                                                                                                                              | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H30Bxy       | CACHE uncorrectable ERR [OTH_CTL] (CTL-x, CACHE-y)                               | A Cache uncorrectable error occurred.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)                                                                                                                                                                 | Full Dump         | ① Replace the Cache Unit displayed in the message. When the Cache Memory number displayed is "*", replace all the Cache Memories mounted on the Controller designated.                                                                                                        | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                             |
| H30G00       | ECC uncorrectable error was detected (CTL-x, CACHE-y/z)                          | D-CTL LSI of the Control Unit detected an ECC uncorrectable failure at the time of read from the Cache memory (damage of two Cache memories installed in the cache slots displayed in the message).<br>X : Control Unit # (0-1)<br>y/z : Cache Unit # (0-3) | Simple Trace      | ① Replace the Cache memory displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| H30K0x       | Backend error count of the CTL was over the threshold [CODE-y] (CTL-x)           | D-SPC (Drive-side SAS Protocol Chip) detected a Control Unit failure and the failure count exceeded the threshold value.<br>X : Control Unit # (0-1)<br>y : CODE # (0-FF)                                                                                   | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>            |
| H30L0x       | Backend error count of the CTL was over the threshold [SAS_FW REBOOT NG] (CTL-x) | The initial setting of D-SPC (Drive-side SAS Protocol Chip) terminated abnormally.<br>X : Control Unit # (0-1)                                                                                                                                              | Simple Trace      | Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                    |                                                                                                                                                    |
| H30M0x       | Backend error count of the CTL was over the threshold [SAS_FW FATAL] (CTL-x)     | A fatal error of D-SPC (Drive-side SAS Protocol Chip) was detected.<br>X : Control Unit # (0-1)                                                                                                                                                             | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                                  |

| Message code | Message text                                                   | Description                                                                              | Collect the error | Recovery methods                                                                                                                                                                      | Reference page                                                                                                                                     |
|--------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| H44900       | DUAL I/F write ready error [INT/HP#00]<br>[REG82001454, Bit21] | A ready time-out was detected in the HP #00 when the DCTL of the other system was reset. | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.<br>② When the ALM LED does not light up, check the Information Message on WEB, and replace the Control Unit displayed in the message. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| H44A00       | DUAL I/F write ready error [INT/HP#01]<br>[REG82001454, Bit21] | A ready time-out was detected in the HP #01 when the DCTL of the other system was reset. | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H44B00       | DUAL I/F write ready error [INT/HP#02]<br>[REG82001454, Bit21] | A ready time-out was detected in the HP #02 when the DCTL of the other system was reset. | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H44C00       | DUAL I/F write ready error [INT/HP#03]<br>[REG82001454, Bit21] | A ready time-out was detected in the HP #03 when the DCTL of the other system was reset. | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H44D00       | DUAL I/F write ready error [INT/DP#00]<br>[REG82001454, Bit21] | A ready time-out was detected in the DP #00 when the CTL of the other system was reset.  | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H44E00       | DUAL I/F write ready error [INT/DP#01]<br>[REG82001454, Bit21] | A ready time-out was detected in the DP #01 when the CTL of the other system was reset.  | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H44F00       | DUAL I/F write ready error [INT/DP#02]<br>[REG82001454, Bit21] | A ready time-out was detected in the DP #02 when the CTL of the other system was reset.  | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H45000       | DUAL I/F write ready error [INT/DP#03]<br>[REG82001454, Bit21] | A ready time-out was detected in the DP #03 when the CTL of the other system was reset.  | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H45100       | DUAL I/F write ready error [INT/DMA#0]<br>[REG82001454, Bit21] | A ready time-out was detected in the DMA #0 when the CTL of the other system was reset.  | CTL Alarm Trace   |                                                                                                                                                                                       |                                                                                                                                                    |
| H90210       | CTL failure                                                    | The Control Unit was blocked                                                             | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| H90320       | Watch-dog time-out                                             | A watchdog time-out occurred.                                                            | CTL Alarm Trace   | ① Replace the Control Unit of whose ALM LED is on and the Cache memory on the Control Unit concerned.                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |



| Message code | Message text                                 | Description                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                                                                                                                                                                                |
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| HA010x       | CUDG error (CTL-x)                           | An CUDG error was detected while the subsystem was starting. (RAM CUDG)<br>x : Control Unit # (0-1) | Simple Trace      | ① 1. Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>2. Replace the Control Unit shown in this message code (in case of a dual controller system, the ALM LED also lights up).                                                                                                                                                                                                                                                                                                                                                                                                     | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                       |
| HA020x       | RTC alarm (CTL-x)                            | A RTC failure occurred or the RTC battery was used up.<br>x : Control Unit # (0-1)                  | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                                                      |
| HA030x       | M-DMA transfer time-out was detected (CTL-x) | The M-DMA transfer timed out.<br>x : Control Unit # (0-1)                                           | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in the message and all Cache Units installed in the Control Unit.<br>② When the ALM LED on the Control Unit displayed in the message lights up, replace the Control Unit displayed in the message and all Cache Units installed in the Control Unit.<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br>— |
| HA0310       | IDMA transfer time-out                       | IDMA transfer time-out occurred. (2 msec)                                                           | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                                                      |
| HA0311       | IDMA retry error                             | IDMA failed in retry.                                                                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |
| HA0312       | IDMA multiple run                            | The system was running when IDMA was started.                                                       | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |

| Message code | Message text                                  | Description                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                         |
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| HA042x       | Flash memory write error (CTL-x)              | Writing in flash memory failed.<br>x : Control Unit # (0-1)                            | Simple Trace      | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p>                                                                                             | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p>—</p>            |
| HA050x       | M-DMA multiple run error was detected (CTL-x) | When it tried to start M-DMA, M-DMA was already operating.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in the message and all Cache Units installed in the Control Unit.</p> <p>② When the ALM LED on the Control Unit displayed in the message lights up, replace the Control Unit displayed in the message and all Cache Units installed in the Control Unit.</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a></p> <p>—</p> |

| Message code | Message text                                            | Description                                                                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                     |
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| HA0531       | SOCKET open error                                       | An OPEN error was caused by the socket.                                                                                                                                                                                                                                    | CTL Alarm Trace   | ① 1. Replace the LAN cable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                                                                                                  |
| HA0532       | ACCEPT open error                                       | An OPEN error was caused by the accept.                                                                                                                                                                                                                                    | CTL Alarm Trace   | ② 2. Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| HA060x       | M-DMA retry error was detected (CTL-x)                  | Retry of M-DMA failed.<br>x : Control Unit # (0-1)                                                                                                                                                                                                                         | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in the message and all Cache Units installed in the Control Unit.<br>② When the ALM LED on the Control Unit displayed in the message lights up, replace the Control Unit displayed in the message and all Cache Units installed in the Control Unit.<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
| HA07xy       | Uncorrectable ECC error was detected (CTL-x, CACHE-y)   | A bit failure uncorrectable by ECC was detected when D-CTL LSI of the Control Unit read the data from the Cache memory.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)                                                                                              | CTL Alarm Trace   | ① Replace the Cache Unit displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HA0800       | Uncorrectable ECC error was detected (CTL-x, CACHE-y/z) | A bit failure uncorrectable by ECC was detected when D-CTL LSI of the Control Unit read the data from the Cache memory.<br>(A failure of two Cache memories installed in the Cache slots displayed in the message)<br>x : Control Unit # (0-1)<br>y/z : Cache Unit # (0-3) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                    |
| HB0210       | Target abort INT status error                           | The target abortion INT status is illegal.                                                                                                                                                                                                                                 | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |

| Message code | Message text                                    | Description                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                  | Reference page                                                                                                                                          |
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| HB0421       | H-FPC PCI STS REG error [RMA]                   | The master abort occurred when the Fibre Channel Protocol Controller (H-FPC) LSI on the host side made the master access to the PCI.                                                                                               | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                |
| HB0522       | H-FPC PCI STS REG error [DPE]                   | A parity error of data occurred when the Fibre Channel Protocol Controller (H-FPC) LSI on the host side made the master access to the PCI.                                                                                         | CTL Alarm Trace   |                                                                                                                                                                                   |                                                                                                                                                         |
| HB0623       | H-FPC PCI INT STS REG err [UBE]                 | To the register of the Fibre Channel Protocol Controller (H-FPC) LSI on the host side that must be accessed in units of four bytes, access was made in the other manner.                                                           | CTL Alarm Trace   |                                                                                                                                                                                   |                                                                                                                                                         |
| HB0800       | Command end INI INT status error                | An illegal operation, in which an interruption to terminate the execution of the command issued from the local DF to the remote DF occurred though there was no table concerned, occurred.                                         | CTL Alarm Trace   |                                                                                                                                                                                   |                                                                                                                                                         |
| HB0900       | Target abort INI INT status error               | Inconsistency of termination statuses of a command issued from the local system to the remote system occurred. (The Fibre Channel Protocol Controller (H-FPC) LSI on the host side detected the target abort but the DMA did not.) | CTL Alarm Trace   |                                                                                                                                                                                   |                                                                                                                                                         |
| HB0A0x       | H-FPC hardware error (Port-x)                   | The number of times that the host side Fibre Channel Protocol Controller (H-FPC) LSI performed the unexpected operations exceeded the threshold value.<br>x : Port # (A-H)                                                         | CTL Alarm Trace   | ① Replace the Interface Board which installs the port displayed in the message.<br>② If not recovered, replace the Control Unit which installs the port displayed in the message. | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HB0Bxy       | H-FPC soft reset has ended in failure (Port-xy) | The software reset of the host side Fibre Channel Protocol Controller (H-FPC) LSI failed.<br>x : Port # (A-H)<br>y : Control Unit # (0-1)                                                                                          | Simple Trace      |                                                                                                                                                                                   |                                                                                                                                                         |

| Message code | Message text                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                | Reference page                                                           |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
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| HB0Cxz       | H-FPC is not detected (CTL-x, I/F-y) | <p>The Interface Board is installed, but the host side Fibre Channel Protocol Controller (H-FPC) LSI is not recognized on PCI.</p> <p>x : Control Unit # (0-1)<br/>y : Interface Board # (0-1)<br/>z : Object port #</p> <table><tr><th>z</th><th>I/F #0</th><th>I/F #1</th></tr><tr><td>1</td><td>A</td><td>E</td></tr><tr><td>2</td><td>B</td><td>F</td></tr><tr><td>3</td><td>A, B</td><td>E, F</td></tr><tr><td>4</td><td>C</td><td>G</td></tr><tr><td>5</td><td>A, C</td><td>E, G</td></tr><tr><td>6</td><td>B, C</td><td>F, G</td></tr><tr><td>7</td><td>A, B, C</td><td>E, F, G</td></tr><tr><td>8</td><td>D</td><td>H</td></tr><tr><td>9</td><td>A, D</td><td>E, H</td></tr><tr><td>a</td><td>B, D</td><td>F, H</td></tr><tr><td>b</td><td>A, B, D</td><td>E, F, H</td></tr><tr><td>c</td><td>C, D</td><td>G, H</td></tr><tr><td>d</td><td>A, C, D</td><td>E, G, H</td></tr><tr><td>e</td><td>B, C, D</td><td>F, G, H</td></tr><tr><td>f</td><td>A, B, C, D</td><td>E, F, G, H</td></tr></table> | z                 | I/F #0                                          | I/F #1                                                                   | 1      | A  | E      | 2  | B        | F  | 3      | A, B | E, F     | 4  | C        | G  | 5          | A, C | E, G   | 6  | B, C     | F, G | 7        | A, B, C | E, F, G    | 8  | D        | H  | 9          | A, D | E, H       | a  | B, D         | F, H | b       | A, B, D | E, F, H        | c            | C, D                                                                                                                                                                                          | G, H                                                                                                                                               | d | A, C, D | E, G, H | e | B, C, D | F, G, H | f | A, B, C, D | E, F, G, H | CTL Alarm Trace | <p>① Replace the Interface Board displayed in the message.</p> <p>② If not recovered, replace the Control Unit displayed in the message.</p> | <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> |
| z            | I/F #0                               | I/F #1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 1            | A                                    | E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 2            | B                                    | F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 3            | A, B                                 | E, F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 4            | C                                    | G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 5            | A, C                                 | E, G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 6            | B, C                                 | F, G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 7            | A, B, C                              | E, F, G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 8            | D                                    | H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 9            | A, D                                 | E, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| a            | B, D                                 | F, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| b            | A, B, D                              | E, F, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| c            | C, D                                 | G, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| d            | A, C, D                              | E, G, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| e            | B, C, D                              | F, G, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| f            | A, B, C, D                           | E, F, G, H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| HB0Dyy       | FPC is not detected (CTL-x)          | <p>The detection of the Fibre Channel Protocol Controller (FPC) LSI failed.</p> <p>x : Control Unit # (0-1)<br/>y : Code<br/>z : Chip error code (y:z) =</p> <table><tr><th>y</th><th>z</th></tr><tr><td>01</td><td>Path-0</td></tr><tr><td>02</td><td>Path-1</td></tr><tr><td>03</td><td>Path-0/1</td></tr><tr><td>04</td><td>Path-2</td></tr><tr><td>05</td><td>Path-0/2</td></tr><tr><td>06</td><td>Path-1/2</td></tr><tr><td>07</td><td>Path-0/1/2</td></tr><tr><td>08</td><td>Path-3</td></tr><tr><td>09</td><td>Path-0/3</td></tr><tr><td>0A</td><td>Path-1/3</td></tr><tr><td>0B</td><td>Path-0/1/3</td></tr><tr><td>0C</td><td>Path-2/3</td></tr><tr><td>0D</td><td>Path-0/2/3</td></tr><tr><td>0E</td><td>Path-1/2/3</td></tr><tr><td>0F</td><td>Path-0/1/2/3</td></tr><tr><td>10</td><td>Path-0A</td></tr><tr><td>11</td><td>Path-0/Port-0A</td></tr></table>                                                                                                                                  | y                 | z                                               | 01                                                                       | Path-0 | 02 | Path-1 | 03 | Path-0/1 | 04 | Path-2 | 05   | Path-0/2 | 06 | Path-1/2 | 07 | Path-0/1/2 | 08   | Path-3 | 09 | Path-0/3 | 0A   | Path-1/3 | 0B      | Path-0/1/3 | 0C | Path-2/3 | 0D | Path-0/2/3 | 0E   | Path-1/2/3 | 0F | Path-0/1/2/3 | 10   | Path-0A | 11      | Path-0/Port-0A | Simple Trace | <p>① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.</p> <p>② In the case other than ①, replace the Control Unit displayed in the message.</p> | <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| y            | z                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 01           | Path-0                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 02           | Path-1                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 03           | Path-0/1                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 04           | Path-2                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 05           | Path-0/2                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 06           | Path-1/2                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 07           | Path-0/1/2                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 08           | Path-3                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 09           | Path-0/3                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 0A           | Path-1/3                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 0B           | Path-0/1/3                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 0C           | Path-2/3                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 0D           | Path-0/2/3                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 0E           | Path-1/2/3                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 0F           | Path-0/1/2/3                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 10           | Path-0A                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| 11           | Path-0/Port-0A                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                 |                                                                          |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |
| HD0100       | DFPC error over [DFPCINM]            | The Control Unit was detached because the number of errors of the Fibre Channel Protocol Controller (D-FPC) LSI on the drive side exceeded the threshold value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |        |    |        |    |          |    |        |      |          |    |          |    |            |      |        |    |          |      |          |         |            |    |          |    |            |      |            |    |              |      |         |         |                |              |                                                                                                                                                                                               |                                                                                                                                                    |   |         |         |   |         |         |   |            |            |                 |                                                                                                                                              |                                                                                                                                                                    |

| Message code | Message text                                                  | Description                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                     |
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| HD020x       | D-FPC hardware error (Path-x, Code-y)                         | The software reset of the Fibre Channel Protocol Controller (D-FPC) LSI on the drive side failed.<br>x : Path # (0-7)<br>y : Detailed code                       | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| HD0300       | D-FPC detected PCI error                                      | The Fibre Channel Protocol Controller (D-FPC) LSI on the drive side detected the PCI error.                                                                      | Simple Trace      | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit which shows this message.                                                                                                                                                                                                                                                                                                                                                             | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>            |
| HD1100       | HDU CDB check code error [RETRY]                              | The Control Unit was blocked since the retry NG occurred in the drive check code.                                                                                | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| HD1200       | HDU CDB check code error [OVER]                               | The Control Unit was blocked since the drive check code exceeded the threshold value.                                                                            | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                    |
| HD21xy       | Host transfer DMA error was over the threshold (CTL-x, DMA-y) | A hardware failure occurred in the CmdBrgS (Host_DMA) part of D-CTL LSI of the Control Unit.<br>x : Control Unit # (0-1)<br>y : D-CTL LSI port # (0-7, F)        | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br>—       |
| HD220x       | CACHE error over (CACHE-x) [CRECT]                            | The number of cache correctable error occurrences exceeded its threshold value in the DMA transfer. (during the dual system operation)<br>x : Cache Unit # (0-3) | CTL Alarm Trace   | ① Replace the Cache Unit.<br>② If not recovered, replace the above Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                                        | Description                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                | Reference page                                                                                                                                     |
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| HD220*       | CACHE error over (CACHE-*) [CRECT]                  | The number of cache correctable error occurrences exceeded its threshold value in the DMA transfer. (during the dual system operation)                                                       | CTL Alarm Trace   | ① Replace the blocked Control Unit.<br>② If not recovered, replace all the Cache Units installed in the Control Unit concerned. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
| HD2400       | DRR time-out                                        | A time-out of the waiting for DRR completion occurred.                                                                                                                                       | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| HD27xy       | Drive transfer DMA error over (DMA-y)               | Number of DMA hardware failures concerning data transfer to a drive exceeded the threshold value.<br>x : 00 (DDR)<br>1y (DDMA)<br>2y (HDMA)<br>FF (unknown)<br>y : D-CTL LSI port # (0-7, F) | CTL Alarm Trace   | ① See Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)".                                     | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)</a>                                |
| HD5Exy       | Host transfer DMA error was detected (CTL-x, DMA-y) | A DMA hardware failure occurred in the data transfer between the host interface part of the Control Unit and the Cache memory.<br>x : Control Unit # (0-1)<br>y : D-CTL LSI port # (0-7, F)  | CTL Alarm Trace   |                                                                                                                                 |                                                                                                                                                    |
| HD5F00       | DCTL hard error [OWN CTL]                           | An error occurred in the Control Unit in the own system during the DMA process for the Control Unit restoration.                                                                             | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                        |
| HD5G00       | DCTL hard error [OTH ER CTL]                        | An error occurred in the Control Unit in the other system during the DMA process for the Control Unit restoration.                                                                           | CTL Alarm Trace   | ② In the case other than ①, replace the Control Unit which shows this message.                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |

| Message code | Message text                    | Description                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                                                                                                                                                                                                                                                                                                                       |
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| HE0710       | Backend loop change error [OWN] | The loop switch was changed and the newly selected loop had a failure, too. | CTL Alarm Trace   | <p>① When the ALARM LED on the subsystem lights up, refer to see <a href="#">Troubleshooting "6.1.1 System Down"</a> (TRBL 06-0020).</p> <p>② When one of the following messages is displayed before this message, take recovery actions according to the message.</p> <ul style="list-style-type: none"> <li>• W01z0x "CTL alarm"</li> <li>• W09zab "HDU alarm"</li> <li>• W0Azab "SATA HDU alarm"</li> <li>• W0Bzab "Spare HDU alarm"</li> <li>• W0Czab "SATA Spare HDU alarm"</li> <li>• W0Fze0 "ENC alarm"</li> <li>• W0Gze0 "SENC alarm"</li> <li>• I30100 "HDU error"</li> <li>• I301AT "SATA HDU error"</li> </ul> <p>③ 1. When the subsystem fails to start, turn off the main switch.</p> <p>2. Remove the power cables from the Power Units of all subsystem.</p> <p>3. Turn on the power of the subsystem.</p> <p>④ Refer to <a href="#">Troubleshooting Chapter 8. "Trouble Analysis by LED Indication"</a>.</p> | <p><a href="#">Troubleshooting "6.1.1 System Down"</a> (TRBL 06-0020)</p> <p>—</p> <p><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a></p> <p>—</p> <p><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a></p> <p><a href="#">Troubleshooting "Chapter 8. Trouble Analysis by LED Indication" (TRBL 08-0000)</a></p> |



This page is for editorial purpose only.

| Message code | Message text                    | Description                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                                                                                                                                                       |
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| HE0711       | Backend loop change error [OTH] | The loop switch was changed and the newly selected loop had a failure, too | CTL Alarm Trace   | <p>① When the ALARM LED on the subsystem lights up, refer to see <a href="#">Troubleshooting "6.1.1 System Down"</a>.</p> <p>② When one of the following messages is displayed before this message, take recovery actions according to the message.</p> <ul style="list-style-type: none"> <li>• W01z0x "CTL alarm"</li> <li>• W09zab "HDU alarm"</li> <li>• W0Azab "SATA HDU alarm"</li> <li>• W0Bzab "Spare HDU alarm"</li> <li>• W0Czab "SATA Spare HDU alarm"</li> <li>• W0Fze0 "ENC alarm"</li> <li>• W0Gze0 "SENC alarm"</li> <li>• I30100 "HDU error"</li> <li>• I301AT "SATA HDU error"</li> </ul> <p>③ 1. When the subsystem fails to start, turn off the main switch.</p> <p>2. Remove the power cables from the Power Units of all subsystem.</p> <p>3. Turn on the power of the subsystem.</p> <p>④ Refer to <a href="#">Troubleshooting Chapter 8. "Trouble Analysis by LED Indication"</a>.</p> | <p><a href="#">Troubleshooting "6.1.1 System Down" (TRBL 06-0020)</a></p> <p>—</p> <p><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a></p> <p>—</p> <p><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a></p> <p><a href="#">Troubleshooting "Chapter 8. Trouble Analysis by LED Indication" (TRBL 08-0000)</a></p> |

| Message code | Message text                     | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                     | Reference page                                                                                                                                     |
|--------------|----------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| HE0A31       | BKW job time-out                 | Back end monitoring job finish waiting time-out occurred.                                                    | CTL Alarm Trace   | ① Turn on the power of the subsystem again.<br>② Replace the Control Unit indicated by "W01z0x CTL alarm" displayed after this message.<br>③ When the ALARM LED on the front side of the Basic Chassis lights up, replace the Control Unit which shows this message. | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HE0C00       | Controller thermal alarm [OWN]   | The Control Unit of own system was blocked because a temperature error was detected in the Control Unit.     | Simple Trace      | ① 1. Check if the environment is set in accordance with the specifications.                                                                                                                                                                                          | —                                                                                                                                                  |
| HE0D00       | Controller thermal alarm [OTH]   | The Control Unit of another system was blocked because a temperature error was detected in the Control Unit. | Simple Trace      | 2. Check if the fan is not in the state in which it has been given an alarm.<br>3. Replace the Control Unit whose ALM LED is on.                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| HE0E00       | Controller thermal alarm [PSOFF] | The sequential shutdown was executed because a temperature error was detected in the Control Unit.           | Simple Trace      | ① 1. Check if the environment is set in accordance with the specifications.<br>2. Turn the power on and check if the fan is not in the state in which it has been given an alarm.<br>3. Replace the Control Unit whose ALM LED is on.                                | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                      |

| Message code | Message text                              | Description                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                           | Reference page                                                                                                                             |
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| HE21xy       | I/F board type error (CTL-x, I/F board-y) | An illegal value was detected when the installation status of the Interface Board was acquired with TWSI. Or unsupported Interface Board was installed.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1) | Simple Trace      | ① When "W3Rxyz Interface Board alarm" is displayed immediately before this message, execute the recovery method in the message.                                                                                                            | —                                                                                                                                          |
|              |                                           |                                                                                                                                                                                                                    |                   | ② Check if the Interface Board displayed in the message is the one that supported by the firmware installed in the subsystem.                                                                                                              | —                                                                                                                                          |
|              |                                           |                                                                                                                                                                                                                    |                   | ③ When the Interface Board that is not supported is installed, replace it with the supported Interface Board.                                                                                                                              | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a>                                                                |
|              |                                           |                                                                                                                                                                                                                    |                   | ④ Check if the types of the Interface Boards are unified between the Control Units or the installation statuses are not different. When the types are different or the installation statuses are inconsistent, unify the Interface Boards. | —                                                                                                                                          |
|              |                                           |                                                                                                                                                                                                                    |                   | ⑤ In case of the RKH, check if the installation position of the Interface Board is correct. If it is installed in the incorrect position, reinstall the Interface Board in the correct position.                                           | <a href="#">Installation "2.4.7 (4) Installing the Control Unit, Cache Unit and Interface Board (b) In the case of RKH" (INST 02-0570)</a> |
|              |                                           |                                                                                                                                                                                                                    |                   | ⑥ If not recovered, check if the Interface Board displayed in the message is not loosening. When it is loosening, reinstall the Interface Board.                                                                                           | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a>                                                                |
|              |                                           |                                                                                                                                                                                                                    |                   | ⑦ If the failure is not recovered, replace the Interface Board displayed in the message.                                                                                                                                                   |                                                                                                                                            |
|              |                                           |                                                                                                                                                                                                                    |                   | ⑧ If not recovered yet, replace the Control Unit whose ALM LED is on.                                                                                                                                                                      | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                   |

| Message code | Message text                                                                             | Description                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                          |
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| HE2200       | The power-on/off time-out of the array unit was detected (Unit-x)                        | Power ON or OFF of the Additional Chassis by electric power saving was not completed within the specified time.<br>x : Unit ID # (0-59)                                                               | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br>—            |
| HE23xy       | The initialization of PCI Express failed because of hardware error [Host] (CTL-x, I/F-y) | A failure between links of PCI-Express was detected in PCI-Express bus between D-CTL LSI of the Control Unit and the Host interface board.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1) | CTL Alarm Trace   | ① Replace the Interface Board displayed in the message text "Interface Board alarm" which was displayed at the same time with this message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                                          | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HF0100       | Data transfer check error [SEGPOSERR]                                                    | (Data assurance check)<br>An illegal cache writing segment position was detected.                                                                                                                     | CTL Alarm Trace   | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)</a>                                     |
| HF0101       | Data transfer check error [WRNODTYBK]                                                    | (Data assurance check)<br>A block which was not dirty was written in the Disk Drive.                                                                                                                  | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                |
| HF0102       | Data transfer check error [RDDTYBLK]                                                     | (Data assurance check)<br>Data were read into a dirty block.                                                                                                                                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                         |
| HF0103       | Data transfer check error [RDSEGERR]                                                     | (Input/Output data assurance check)<br>An illegal segment to be read was detected.                                                                                                                    | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.<br>② If not recovered, replace the Cache Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>      |

| Message code | Message text                          | Description                                                                                         | Collect the error | Recovery methods                                | Reference page                                                           |
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| HF0104       | Data transfer check error [WSGQATERR] | (Data assurance check)<br>Contradiction occurred in the queue attribute of the write segment.       | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HF0105       | Data transfer check error [WSEGPDEV]  | (Input/Output data assurance check)<br>An illegal Disk Drive to be written was detected.            | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HF0106       | Data transfer check error [WSEGLLOCK] | (Input/Output data assurance check)<br>An illegal Disk Drive to be written was detected.            | CTL Alarm Trace   | ② If not recovered, replace the all Cache Unit. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
| HF0107       | Data transfer check error [CCPLUNERR] | (Data assurance check)<br>An illegal LUN was detected when data were copied between Cache memories. | CTL Alarm Trace   |                                                 |                                                                          |
| HF0108       | Data transfer check error [CCPLBAERR] | (Data assurance check)<br>An illegal LBA was detected when data were copied between Cache memories. | CTL Alarm Trace   |                                                 |                                                                          |
| HF0109       | Data transfer check error [PARLUNERR] | (Data assurance check)<br>An illegal LUN was detected when parity was generated.                    | CTL Alarm Trace   |                                                 |                                                                          |
| HF010A       | Data transfer check error [PARLBAERR] | (Data assurance check)<br>An illegal LBA was detected when parity was generated.                    | CTL Alarm Trace   |                                                 |                                                                          |
| HF010B       | Data transfer check error [QUEUEERR]  | (Data assurance check)<br>Contradiction occurred in transfer of the queue.                          | CTL Alarm Trace   |                                                 |                                                                          |
| HF010C       | Data transfer check error [COWDRVERR] | (Data assurance check)<br>Data to be written together are dispersed in multiple Disk Drives.        | CTL Alarm Trace   |                                                 |                                                                          |

| Message code | Message text                                               | Description                                                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                       |
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| HF010D       | Data transfer check error [LACHEKMOD]                      | (Data assurance check)<br>Contradiction occurred in specification of LA check.                                                                                                                                                                   | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                             |
| HF010E       | Data transfer check error [DSTP0SERR]                      | (Data assurance check)<br>An illegal writing position was detected during destaging.                                                                                                                                                             | CTL Alarm Trace   | ② If not recovered, replace the all Cache Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                               |
| HF0112       | Data transfer check error [CMPNGSP]                        | (Data assurance check)<br>A duplex compare of SGCB was detected. (Generation of parity)                                                                                                                                                          | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                             |
| HF0113       | Data transfer check error [CMPNGCP]                        | (Data assurance check)<br>A duplex compare of SGCB was detected. (Copying between Cache memories)                                                                                                                                                | CTL Alarm Trace   | ② If not recovered, replace the above Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                      |
| HF0116       | Data transfer check error was detected [SSGQATERR] (CTL-x) | (Data guarantee check) When trying to perform the DMA transfer of the LU data of RAID0+1, the firmware detected that the attribute of the segment queue, which manages the segment of the Cache Memory, was illegal.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><br>— |
| HF0117       | Data transfer check error [BUFSGQATERR]                    | A contradiction in the queue attribute of the buffer segment occurred.                                                                                                                                                                           | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                             |
| HF0118       | Data transfer check error WRBUFTODTY]                      | (Data assurance check)<br>A writing of data in a buffer segment into a dirty block was attempted.                                                                                                                                                | CTL Alarm Trace   | ② If not recovered, replace the all Cache Units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                               |

| Message code                      | Message text                                              | Description                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                          |
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| HF0119                            | Data transfer check error was detected [MAPERR] (CTL-x)   | The firmware detected that D-CTL LSI of the Control Unit transferred the block of the Cache memory.<br>x : Control Unit # (0-1)                                 | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                |
| HF011A                            | Data transfer check error was detected [LOCLUERR] (CTL-x) | The firmware detected that D-CTL LSI of the Control Unit transferred the segment of the expected LU and the different LU.<br>x : Control Unit # (0-1)           | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                             |
| HF011B                            | Data transfer check error was detected [RMTLUERR] (CTL-x) | The firmware detected that the LU of the remote subsystem to execute the remote copy and the LU to perform the DMA transfer differ.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                       |
| HF011C                            | Data transfer check error was detected [PAIRERR] (CTL-x)  | The firmware detected the DMA transfer of the remote copy when a pair of the remote copy is other than "PAIR" and "COPY".<br>x : Control Unit # (0-1)           | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                                                                                         |
| HF020x                            | Directory check error (CTL-x)                             | An uncorrectable contradiction was detected in a cache directory.<br>x : Control Unit # (0-1)                                                                   | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                |
| HF0300                            | Data transfer check error [STGLUNERR]                     | (Data assurance check)<br>A LUN error was detected during a staging.                                                                                            | CTL Alarm Trace   | ② If not recovered, replace the Cache Units.                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                  |
| HF0400                            | Data transfer check error [NTMPRD]                        | (Data assurance check)<br>A LUN error was detected during a staging.                                                                                            | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                                                                                         |
| HF050x                            | Data transfer check error was detected [DTYMPERR] (CTL-x) | (Data guarantee check) The firmware detected that the dirty map, which manages the dirty data of the Cache memory, was illegal.<br>x : Control Unit # (0-1)     | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| To be continued to the next page. |                                                           |                                                                                                                                                                 |                   |                                                                                                                                                                                                                                                                               |                                                                                                                                         |



| Message code | Message text                             | Description                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                                                              |
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|              |                                          |                                                                                                                                                                                              |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                 | —                                                                                                                                                                                                                                                                                           |
| HF0700       | Data transfer check error [LU OWNERSHIP] | (Data guarantee check) It was detected that the DMA transfer tried to operate illegally for the LU without owner right.                                                                      | CTL Alarm Trace   | ① 1. When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>2. If not recovered, replace the all Cache Units.<br>② 1. When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>2. If not recovered, replace the all Cache Units. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
|              |                                          |                                                                                                                                                                                              |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                 | —                                                                                                                                                                                                                                                                                           |
| HF080x       | ENC recovery failed [Linkup NG] (CTL-x)  | The recovery of the ENC part of the Control Unit failed because the ENC part of the inserted Control Unit was not registered in the discover map of the backend.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                                          | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                                    |

| Message code | Message text                         | Description                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                           |
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| HF100x       | Data transfer check error [RDSEGERR] | A segment error was detected in the Disk Drive which tried to execute read.<br>x : Control Unit # (0-1)                              | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HF110x       | Data transfer check error [WSEGPDEV] | A segment error was detected in the Disk Drive which tried to execute write.                                                         | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><br>—     |
| HG0100       | CTL communication send time-out      | Communication receiving waiting time-out occurred.                                                                                   | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HG0210       | OTH CTL Response time-out [CMDFMWR]  | Time-out occurred in communication of request for updating the flash memory of the other system. (CMD)                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HG0311       | OTH CTL Response time-out [OFW]      | Communication waiting time-out occurred in the other system during off-line monitoring.                                              | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HG0312       | Resource release time-out            | General resource release waiting time-out occurred.                                                                                  | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HG0413       | Data share job time-out              | Job time-out occurred for request for share.                                                                                         | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HG0514       | LU-CTL change time-out               | Time-out occurred while LU was changed.                                                                                              | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HGA000       | Staging job time-out                 | A time-out occurred because a staging job was not completed within a certain period.                                                 | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HGA100       | Data staging time-out                | A time-out of waiting for staging completion occurred during the Copy-on-write SnapShot restoration copy job.                        | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| HGA200       | Data pool copy time-out              | A time-out of waiting for Copy-on-write SnapShot copy completion occurred during the Copy-on-write SnapShot restoration control job. | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |

| Message code | Message text                                          | Description                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                          |
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| HGA300       | Data restore time-out                                 | A time-out of waiting for restore copy completion occurred during the Copy-on-write SnapShot restoration control job.                          | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                |
| HGA400       | Data pool wait time-out                               | A time-out of waiting for the pool resource ensuring occurred during the Copy-on-write SnapShot restoration control job.                       | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                         |
| HGA50x       | Resource release time-out was detected [Core] (CTL-x) | The securing timed out because the shared resource (integrated resource) between the cores of MPU is not released.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                |
| HGA60x       | The forced DMA#0 suspend process timed out (CTL-x)    | [D-DMA Transfer Failure] The DMA transfer terminated abnormally involved in a DMA transfer failure of other ID.<br>x : Control Unit # (0-1)    | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | "Chapter 6. Warning Messages" (MSG 06-0000)                             |
|              |                                                       |                                                                                                                                                |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. |                                                                         |
| HH010x       | System parameter undefined (CTL-x)                    | A system parameter is not set.<br>x : Control Unit # (0-1)                                                                                     | CTL Alarm Trace   | ① Set the system parameter correctly in the WEB maintenance mode.                                                                                                                                                                                                             | WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000) |
| HH030x       | FLASH-RAM program I/F error (CTL-x)                   | Illegal interface between the flash boot program and RAM program was detected.<br>x : Control Unit # (0-1)                                     | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                |
| HH0400       | Unsupported function enabled                          | A function which the system did not support was set.                                                                                           | CTL Alarm Trace   | ① Set the system parameter correctly in the WEB maintenance mode.                                                                                                                                                                                                             | WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000) |
| HH0510       | Task make error [INMTSKERR]                           | Generation of the initial setting task failed.                                                                                                 | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                |
| HH0620       | JOB make error                                        | Generation of a job at start up failed.                                                                                                        | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                         |
| HH0930       | No system HDU                                         | The system area of the all Disk Drives became unavailable.                                                                                     | CTL Alarm Trace   | ① Contact the Technical Support Center.                                                                                                                                                                                                                                       | —                                                                       |
| HH0931       | No system HDU                                         | Information on takeover in the system area for all Disk Drives became unusable.                                                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                         |

| Message code | Message text                                  | Description                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                                                                                                |
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| HH0A40       | System HDU access error                       | Since access could not be made to the system area of the all Disk Drives because of a system area access error, the Control Unit was blocked. | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                              | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                      |
| HH0C00       | HDU removed before PS ON (Unit-x, HDU-y)      | The Disk Drive used until previous operation is not mounted when P/S is turned on.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)         | Simple Trace      | ① Turn off the main switch.                                                                                                                                                                                                                                                                                                                                                  | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a>                                                                 |
| HH0CAT       | SATA HDU removed before PS ON (Unit-x, HDU-y) | The Disk Drive used until previous operation is not mounted when P/S is turned on.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)         | Simple Trace      | ② Remove the power cables from the Power Units of all subsystem.<br>③ When the Disk Drive is not installed in the installation position of the Disk Drive displayed in the message, install the Disk Drive of the same model name as the Disk Drive installed in the Ready status.<br>When it is installed, replace the Disk Drive.<br>④ Turn on the power of the subsystem. | —<br><br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| HH0E0x       | CACHE access error (CACHE-x) [PON]            | A cache access error (unrecoverable) occurred when P/S was turned on.<br>x : Cache Unit # (0-3)                                               | CTL Alarm Trace   | ① Replace the Cache Unit.<br>② If not recovered, replace the above Control Unit.                                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>            |
| HH0Fxx       | RKA removed before PS ON (Unit-x)             | The additional frame which the Disk Drive used last time belonged to was not connected when the power was turned on.<br>x : Unit ID # (1-59)  | Simple Trace      | ① Make sure that the Additional Chassis is installed and connected, and then start up the subsystem again.<br>② Analyze the failure following <a href="#">Troubleshooting "8.1 Trouble Analysis by LED Indication of Front Bezel"</a> for the Unit # concerned.                                                                                                              | —<br><br><a href="#">Troubleshooting "8.1 Trouble Analysis by LED Indication of Front Bezel" (TRBL 08-0000)</a>                                               |
| HH1070       | PIN segment error [PINSEGOV]                  | Cache segments are insufficient for recovery of the PIN data of the information taken over.                                                   | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                              | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                      |
| HH1180       | DCTL hard error [PS ON]                       | A DMA hardware failure occurred while PS is turned on.                                                                                        | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                               |

| Message code | Message text                                      | Description                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                  | Reference page                                                                                                                                                                                                                                                                   |
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| HH1290       | System down selected<br>[USRDATLST]               | When data were lost, system shutdown was selected by the user.                                                                                                                                                            | CTL Alarm Trace   | ① See <a href="#">Troubleshooting "6.1.2 The Subsystem does not become Ready : Case 1 (Loading Failure)"</a> .                                                                                                                                                                                    | <a href="#">Troubleshooting "6.1.2 The Subsystem does not become Ready : Case 1 (Loading Failure)" (TRBL 06-0050)</a>                                                                                                                                                            |
| HH12A0       | Forced parity correction time-out                 | Time-out occurred during forced parity correction operation while P/S is turned on.                                                                                                                                       | CTL Alarm Trace   | ① Replace the Disk Drive.<br>When you want to know a model name of the Disk Drive or a revision of the drive firmware, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> .<br>② Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH13B0       | System change failed<br>[PIN]                     | The upgrade cannot be made because a pinned segment exists in the state in which the system change has not been made normally.                                                                                            | CTL Alarm Trace   | ① Return the Disk Drive to the subsystem of the lower grade model and reboot the subsystem.<br>② Make the upgrade again after eliminating the pinned segment.                                                                                                                                     | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—                                                                                                                                                                                                      |
| HH13B1       | System change failed<br>[PSOFF]                   | The upgrade cannot be made because the system change has not been made normally.                                                                                                                                          | CTL Alarm Trace   | ① Return the Disk Drive to the subsystem of the lower grade model and reboot the subsystem.<br>② Make the upgrade again after performing the deliberate shutdown.                                                                                                                                 | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a>                                                                                                          |
| HH16D0       | CTL recovery failed<br>[DRR ERR]                  | The DRR failure was detected when the Control Unit was inserted in the state in which the subsystem power was on, and then the cache memory of the inserted Control Unit was being restored.                              | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                         |
| HH1A00       | ENC recovery NG<br>HDD-NG (Unit-x,<br>HDD-y or z) | Though recovery of the Control Unit (in the basic frame) was attempted, it failed because a failure occurred in the Disk Drive (y or z) connected to the ENC.<br>x : Unit ID # (0-59)<br>y or z : Disk Drive # (0/2, 1/3) | CTL Alarm Trace   | ① Insert the Control Unit again after making the recovery by replacing the Disk Drive (y or z).                                                                                                                                                                                                   | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                               |

| Message code | Message text                        | Description                                                                                                                                            | Collect the error | Recovery methods                                                   | Reference page                                                                |
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| HH1B0x       | ENC recovery NG<br>HDD-NG (CTL-x)   | Though recovery of the Control Unit (in the Basic Chassis) was attempted, it failed because a failure occurred in the ENC.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                    | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>      |
| HH1J00       | ENC error inf. [CUDG ECTLREGERR]    | The Control Unit was detached because an CUDG ECTL register error occurred in the ENC.                                                                 | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1K00       | ENC error inf. [CUDG ENC RDYTOV]    | A ready time-out of the ENC in another system was detected.                                                                                            | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1L00       | ENC error inf. [CUDG SRAMERR]       | The Control Unit was detached because an CUDG SRAM Parity error occurred in the ENC.                                                                   | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1M00       | ENC error inf. [CUDG ENCCOMERR]     | The Control Unit was detached because an CUDG ENCCOMERR error occurred in the ENC.                                                                     | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                    | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>— |
| HH1N00       | ENC error inf. [ENCCOMERR]          | The Control Unit was detached because an CUDG ENCCOMERR error occurred in the ENC.                                                                     | CTL Alarm Trace   | ② If not recovered yet, contact the Technical Support Center. (*1) |                                                                               |
| HH1P00       | ENC error inf. [ECTL force test]    | The Control Unit was detached because an parity error occurred in the ENC.                                                                             | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1Q00       | SES error inf. [SES-HDU error]      | The Control Unit was detached because both of the two SES drives could not access the ENC.                                                             | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1W00       | ENC inf. [REGPERR]                  | REGPERR occurred in ENC and the corresponding CTL was detached.                                                                                        | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1X00       | ENC inf. [RAMPERR]                  | RAMPERR occurred in ENC and the corresponding CTL was detached.                                                                                        | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                    | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>      |
| HH1Y00       | ENC inf. [WDTCTNPERR]               | WDTCTNPERR occurred in ENC and the corresponding CTL was detached.                                                                                     | CTL Alarm Trace   |                                                                    |                                                                               |
| HH1Z0x       | ENC recovery NG<br>Loop-NG (CTL-x,) | An ENC recovery failure (Basic Chassis)<br>x : Control Unit # (0-1)                                                                                    | Simple Trace      | ① Collect Simple trace and contact the Technical Support Center.   | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>  |

\*1 : If ALM LED (red) lights on, and the same message is displayed again in spite of replacing the Control Unit in ①, the Control Unit on the opposite side may have a failure. Replace the Control Unit on the opposite side with the power turned off after checking with the customer.

| Message code                      | Message text                                         | Description                                                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HH270x                            | I/F Board is not installed (CTL-x)                   | The Interface Board is not installed.<br>x : Control Unit # (0-1)                                                                                                                                                                                | CTL Alarm Trace   | ① When the Interface Board is not installed in the Control Unit displayed in the message, install the Interface Board in the Control Unit.<br>② When the Interface Board is installed in the Control Unit displayed in the message, replace the Interface Board.<br>③ If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                                                            | <a href="#">Installation "2.4.7 (4) Installing the Control Unit, Cache Unit and Interface Board" (INST 02-0550)</a><br><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                  |
| HH2900                            | Cache capacity reduced although copy function enable | The cache capacity was reduced in the state in which any one of the copy functions (TrueCopy remote replication, TrueCopy Extended Distance, ShadowImage in-system replication, Copy-on-write SnapShot, and Modular Volume Migration) was valid. | Full Dump         | ① Return the cache capacity to that at the time when the power was turned off.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                                                                                                                                                                                          |
| HH2B00                            | Upgrade failed [PSOFF]                               | The upgrade from the lower grade model to the higher grade model cannot be made because the deliberate shutdown has not been performed.                                                                                                          | Simple Trace      | ① 1. Change it to the maintenance mode.<br>2. Set "Install Guard" displayed in <a href="http://IPAddress/instlgrd">http://IPAddress/instlgrd</a> to [Disable], select the lower model, and click the [Change] button.<br>3. Click [Others] in the menu frame of the maintenance mode window on WEB.<br>4. Set [Down Grade Check] of the [Others] window to "Disable".<br>5. Install the same firmware as the lower model (update installation).<br>6. Do the upgrading installation of the firmware for the lower grade model after disabling the installation guard. | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br>—<br><a href="#">WEB "3.6 Other" (WEB 03-0530)</a><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| To be continued to the next page. |                                                      |                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                 |

| Message code | Message text                           | Description                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|              |                                        |                                                                                                                                                        |                   | 7. Return the hardware configuration to that of the lower grade model.<br>8. Perform the deliberate shutdown of the subsystem after booting it while it is the lower grade model.<br>9. Execute the procedure for the upgrade from the lower grade model to the higher grade model.                                                                                                                                                                                                                                                                                                                                             | —<br><br><a href="#">Installation "1.5 Power On/Off Procedure" (INST 01-0130)</a><br><br>—                                                                                                                                                                                                                                                                                                                                        |
| HH2C00       | Upgrade failed [Single]                | The upgrade from the lower grade model to the upper grade model could not be made because the "System Startup Attribute" was set as the "Single Mode". | Simple Trace      | ① 1. Do the upgrading installation of the firmware for the lower grade model after disabling the installation guard.<br>2. Power off the subsystem after the updating installation is completed.<br>3. Return the hardware configuration to that of the lower grade model.<br>4. Change the mode to the Maintenance mode after booting the subsystem while it is the lower grade model.<br>5. Execute the "Go to Normal Mode" after setting the "System Setup Attribute" as the "Dual Active Mode".<br>6. Boot the subsystem.<br>7. Execute the procedure for the upgrade from the lower grade model to the higher grade model. | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a><br><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><br>—<br><br><a href="#">WEB "3.1 Transferring to the Maintenance Mode" (WEB 03-0000)</a><br><br><a href="#">WEB "3.2.1 Subsystem" (WEB 03-0070)</a><br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br><br>— |
| HH2D00       | Upgrade failed [Microprogram revision] | The upgrade from the lower grade model to the higher grade model cannot be made because the versions of their firmware are different from each other.  | Simple Trace      | ① Install the firmware of the higher grade model, whose system revision is the same as that of the firmware of the lower model, in the Disk Drive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                                                                                                                                                                                                                                                                                                     |



| Message code | Message text                                                    | Description                                                                                                                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                  | Reference page                                                                                                                                     |
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| HH2F00       | Downgrade failed<br>[Subsystem can not take over the user data] | The subsystem start-up of the lower model failed because it tried to downgrade from the upper model to the lower model.                                                                                                                                                       | Simple Trace      | ① Execute the initial setup to the subsystem that is the hardware configuration of the lower model, and start up the subsystem when operating the subsystem as a lower model.                                                                     | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                             |
|              |                                                                 |                                                                                                                                                                                                                                                                               |                   | ② If you operate the subsystem as an upper model, upgrade the hardware configuration of the subsystem to the upper model.                                                                                                                         | —                                                                                                                                                  |
|              |                                                                 |                                                                                                                                                                                                                                                                               |                   | ③ Connect the power cables to all Power Units of the subsystem.                                                                                                                                                                                   | —                                                                                                                                                  |
|              |                                                                 |                                                                                                                                                                                                                                                                               |                   | ④ Start the subsystem of the upper model.                                                                                                                                                                                                         | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                             |
| HH2Q00       | CTL recovery failed<br>[time-out]                               | The recovery of the Control Unit was not completed within the specified time by rebooting the Control Unit due to replacement of the Control Unit with the subsystem power turned on, update installation of the firmware, or automatic recovery of the blocked Control Unit. | CTL Alarm Trace   | ① 1. Remove the Control Unit whose recovery reboot fails and ALM LED is on.                                                                                                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
|              |                                                                 |                                                                                                                                                                                                                                                                               |                   | 2. Check if the size, the slot position and the number of the Cache Units to be installed in the removed Control Unit are correct.                                                                                                                | —                                                                                                                                                  |
|              |                                                                 |                                                                                                                                                                                                                                                                               |                   | 3. •When the installation of the Cache Units is incorrect, install the Cache Units in the Control Unit correctly. Then install the Control Unit again.<br>•When the installation of the Cache Units is correct, replace the removed Control Unit. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH490x       | SENC error [Queue Full] (CTL-x)                                 | Queue Full occurred in the SENC section of the Control Unit.<br>x : Control Unit # (0-1)                                                                                                                                                                                      | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit displayed in the message.                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>            |

| Message code | Message text                              | Description                                                                                                                                                                                        | Collect the error | Recovery methods | Reference page |
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| HH600x       | ENC error inf. [Header error] (CTL-x)     | The Control Unit displayed in the message was blocked because it was detected that the header of the acquired SES data was abnormal.<br>x : Control Unit # (0-1)                                   |                   | —                | —              |
| HH610x       | ENC error inf. [Fixed No. error] (CTL-x)  | The Control Unit displayed in the message was blocked because it was detected that the fixed value of the acquired SES data was abnormal.<br>x : Control Unit # (0-1)                              |                   | —                | —              |
| HH620x       | ENC error inf. [SES Rev. error] (CTL-x)   | The Control Unit displayed in the message was blocked because it was detected that the SES revision information of the acquired SES data was abnormal.<br>x : Control Unit # (0-1)                 |                   | —                | —              |
| HH630x       | ENC error inf. [F/W Rev. error] (CTL-x)   | The Control Unit displayed in the message was blocked because it was detected that the revision information of the ENC firmware of the acquired SES data was abnormal.<br>x : Control Unit # (0-1) |                   | —                | —              |
| HH640x       | ENC error inf. [ECTL Rev. error] (CTL-x)  | The Control Unit displayed in the message was blocked because it was detected that the revision information of ECTL of the acquired SES data was abnormal.<br>x : Control Unit # (0-1)             |                   | —                | —              |
| HH650x       | ENC error inf. [ENC Reboot error] (CTL-x) | The Control Unit displayed in the message was blocked because it was detected that the ENC was rebooting from the acquired SES data asynchronously with the firmware.<br>x : Control Unit # (0-1)  |                   | —                | —              |
| HH660x       | ENC error inf. [Slot No. error] (CTL-x)   | The Control Unit displayed in the message was blocked because it was detected that the ENC number of the acquired SES data did not match with the accessed ENC number.<br>x : Control Unit # (0-1) |                   | —                | —              |

| Message code | Message text                                | Description                                                                                                                                                                                                                              | Collect the error | Recovery methods | Reference page |
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| HH6700       | ENC error inf. [CUDG error code-y] (CTL-x)  | The Control Unit displayed in the message was blocked because it was detected that a CUDG error had occurred in the ENC from the SES data acquired by other system.<br>x : Control Unit # (0-1)<br>y : Optional code                     |                   | —                | —              |
| HH6800       | ENC error inf. [PK error code-y] (CTL-x)    | The Control Unit displayed in the message was blocked because it was detected that a PK failure had occurred in the ENC from the acquired SES data.<br>x : Control Unit # (0-1)<br>y : Optional code                                     |                   | —                | —              |
| HH6900       | ENC error inf. [SXP error code-y] (CTL-x)   | The Control Unit displayed in the message was blocked because it was detected that an SXP failure had occurred in the ENC from the acquired SES data.<br>x : Control Unit # (0-1)<br>y : Optional code                                   |                   | —                | —              |
| HH7000       | ENC error inf. [Write error code-y] (CTL-x) | The Control Unit displayed in the message was blocked because it was detected that an SES write failure had occurred in the ENC from the acquired SES data.<br>x : Control Unit # (0-1)<br>y : Optional code                             |                   | —                | —              |
| HH710x       | ENC error inf. [Write error] (CTL-x)        | The ENC displayed in the message was blocked because it was detected that the write data to the ENC did not match with the read data from the ENC in the processing command to the ENC.<br>x : Control Unit # (0-1)<br>y : Optional code |                   | —                | —              |

| Message code | Message text                                               | Description                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| HH720x       | ENC recovery failed (CTL-x)                                | The ENC Unit replacement failed due to an ENC failure.<br>x : Control Unit # (0-1)                                                                                | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                                                            |                                                                                                                                                                   |                   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
|              |                                                            |                                                                                                                                                                   |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| HH730x       | ENC error inf. [Remove] (CTL-Y)                            | The ENC Unit was removed.<br>x : Control Unit # (0-1)                                                                                                             |                   | —                                                                                                                                                                                                                                                                             | —                                                                        |
| HH740x       | The backend PCI error count exceeded the threshold (CTL-x) | The number of failures occurred exceeded the threshold value while performing PCI HARD RESET of the backend part of the Control Unit.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                                                            |                                                                                                                                                                   |                   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| HH750x       | Backend link error was detected (CTL-x)                    | The subsystem specified that the backend Link failed part was the Control Unit displayed in the message.<br>x : Control Unit # (0-1)                              |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
|              |                                                            |                                                                                                                                                                   |                   |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                  | Description                                                                                                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                    | Reference page                                                                                                                       |
|--------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| HH7600       | Backend down [ENC type error] (Unit-x, ENC-y) | When the subsystem started, an unsupported ENC was detected in the Additional Chassis.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                                                                               |                   | ① 1. Remove the power cables of the Power Units of all the subsystems.<br>2. Replace the ENC Unit displayed in the message.<br>3. Connect the power cables to the Power Units of all the subsystems.                                                                                                                                | —<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br>—                                                       |
| HH7700       | Backend down [Cable error] (Unit-x, ENC-y)    | When the subsystem started, an improper connection of the ENC cable of the Additional Chassis was detected.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                                                          |                   | ① 1. Check the wiring of the ENC cables connected to the chassis displayed in the message, and wire the ENC cables correctly again.<br>2. Remove the power cables of the Power Units of all the subsystems.<br>3. Connect the power cables to the Power Units of all the subsystems.<br>4. Turn on the Power Unit of the subsystem. | —<br>—<br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                |
| HH7800       | The array unit is missing (Unit-x)            | The Additional Chassis displayed in the message was unable to be recognized temporarily or constantly due to a Power Unit failure (including the case that the power of the additional chassis was turned off when the subsystem was Ready).<br>x : Unit ID # (0-59) |                   | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.20 Recovery Method when a Power Unit Failure of the Additional Chassis Occurred"</a> .                                                                                                                                                                      | <a href="#">Troubleshooting "6.1.20 Recovery Method when a Power Unit Failure of the Additional Chassis Occurred" (TRBL 06-0950)</a> |

| Message code | Message text                                              | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                             |
|--------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HH7900       | More than the maximum number of array units are connected | The Additional Chassis more than or equal to the connectable number was detected when the subsystem started. |                   | ① 1. Turn off the Power Units of all subsystems.<br>.....<br>2. Remove the power cables from the Power Units of the subsystem.<br>.....<br>3. Review the number of Additional Chassis connected to the subsystem so that the number of Additional Chassis does not exceed the maximum number.<br>.....<br>4. Install the power cables to the Power Units of the subsystem.<br>.....<br>5. Turn on the Power Unit of the subsystem. | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br>.....<br>—<br>.....<br>—<br>.....<br>—<br>.....<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |

| Message code | Message text                                    | Description                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                   | Reference page                                                                                                                                          |
|--------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| HH7C0x       | H-IPC firmware boot up failed (CTL-x)           | A start of the iSCSI firmware failed.<br>x : Control Unit # (0-1)                                                                                                                    | Simple Trace      | ① Replace the iSCSI Interface Board installed in the Control Unit displayed in the message.<br>② If not recovered, replace the Control Unit in which the replaced iSCSI Interface Board is installed.                              | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH7Dxy       | Microprogram error [ISM]                        | Logical illegality was detected in the firmware. (iSCSI Sequence Manager)<br>x : Detailed code<br>y : Detailed code                                                                  | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② When the ALARM LED (red) on the front side of the Basic Chassis lights up, replace the Control Unit whose ALM LED lights up. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                 |
| HH7Exy       | Microprogram error [ILM]                        | Logical illegality was detected in the firmware. (iSCSI login control)<br>x : Detailed code<br>y : Detailed code                                                                     | CTL Alarm Trace   |                                                                                                                                                                                                                                    |                                                                                                                                                         |
| HH7Fxy       | Microprogram error [ISD]                        | Logical illegality was detected in the firmware. (iSCSI driver)<br>x : Detailed code<br>y : Detailed code                                                                            | CTL Alarm Trace   |                                                                                                                                                                                                                                    |                                                                                                                                                         |
| HH7Gxy       | H-IPC soft reset has ended in failure (Port-xy) | A soft reset of the H-IPC (Host iSCSI Protocol Controller) LSI failed.<br>x : Control Unit # (0-1)<br>y : Port # (0 : A, 1 : B, 4 : E, 5 : F)                                        | Simple Trace      | ① Replace the iSCSI Interface Board which installs the Port number displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                             | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH7Hxy       | H-IPC hardware error (Port-xy)                  | The number of times, which the H-IPC (Host iSCSI Protocol Controller) LSI operated outside assumption, exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Port # (A-H) | Simple Trace      | ① Replace the iSCSI Interface Board installed in the Control Unit displayed in the message.<br>② If not recovered, replace the Control Unit in which the replaced iSCSI Interface Board is installed.                              | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH7I0x       | iSCSI firmware load failed (CTL-x)              | Loading of the iSCSI firmware failed.<br>x : Control Unit # (0-1)                                                                                                                    | Simple Trace      |                                                                                                                                                                                                                                    |                                                                                                                                                         |
| HH7J00       | H-IPC is not detected (Port-xy)                 | The iSCSI Interface Board is installed, but the H-IPC (Host iSCSI Protocol Controller) LSI cannot be recognized on the PCI.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)          | CTL Alarm Trace   |                                                                                                                                                                                                                                    |                                                                                                                                                         |

| Message code | Message text                  | Description                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                                                                               |
|--------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HH7L00       | ENC error inf. [LPFO]         | Since LPF0 (fail-over of SENC internal path) was detected, it was judged that the SENC part failure of the Control Unit occurred. | CTL Alarm Trace   | <p>① When "I5FE00 Connectivity path failure of SENC occurred" is displayed after this message, maintain it according to the message.</p> <p>② 1. Replace the Control Unit pointed out by "W01z0x CTL alarm" displayed after this message.</p> <p>2. If not recovered yet, replace the Control Unit after collecting the simple trace from the operating Control Unit (you cannot replace it with the subsystem power turned on).</p> | <p>—</p> <p>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</p> <p>Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</p> <p>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</p> |
| HH7N00       | H-IPC PCI STS REG error [OPE] | A parity error was detected when the H-IPC LSI accessed the internal Cache.                                                       | CTL Alarm Trace   | ① There is no problem when the ALM LED does light up because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                            |
| HH7P00       | H-IPC PCI STS REG error [ILE] | A parity error was detected when the H-IPC LSI accessed the internal RAM.                                                         | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in the message does not light up, replace the iSCSI Interface Board installed in the Control Unit.                                                                                                                                                                                                                                                                                  | Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)                                                                                                                                                  |
| HH7Q00       | H-IPC PCI STS REG error [ICE] | A parity error was detected when the H-IPC LSI accessed the internal RAM.                                                         | CTL Alarm Trace   | ① There is no problem when the ALM LED does not light up because the internal retry processing was executed in the Control Unit.                                                                                                                                                                                                                                                                                                     | —                                                                                                                                                                                                            |
| HH7R00       | H-IPC PCI STS REG error [OCE] | A Cache parity error was detected when the H-IPC LSI accessed the external local RAM.                                             | CTL Alarm Trace   | ② When "W01z0x CTL alarm" is displayed after this message, replace the Control Unit and the iSCSI Interface Board installed in the Control Unit, which are instructed in the message.                                                                                                                                                                                                                                                | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                                                                                                                     |
| HH7S00       | H-IPC PCI STS REG error [DPE] | A data parity error was detected when it accessed the PCI as the PCI master.                                                      | CTL Alarm Trace   | ③ When the ALARM LED (red) on the front side of the Basic Chassis lights up, replace the Control Unit displayed in the message and the iSCSI Interface Board installed in the Control Unit whose ALM LED lights up.                                                                                                                                                                                                                  | Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)                                                                                                                                                  |



| Message code | Message text                                         | Description                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                                                                                                                       |
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| HH7U00       | H-IPC PCI ECC error                                  | The number of times of the ECC error, which was detected when the H-IPC LSI accessed the internal RAM, exceeded the threshold value.                                                                              | CTL Alarm Trace   | <p>① Replace the iSCSI Interface Board which is installed in the Control Unit shown by "W01z0x CTL alarm" displayed after this message.</p> <p>② When the ALARM LED (red) on the front side of the Basic Chassis lights up, replace the iSCSI Interface Board installed in the Control Unit displayed in the message.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)                                                                                                                                                                                          |
| HH7V00       | The Additional Chassis removed before PS ON (Unit-x) | Subtract the subsystem in which the Disk Drive to configure the formatted logical unit or the Spare Disk Drive storing the recovered data is installed, then turn on the subsystem power.<br>x : Unit ID # (1-59) | Simple Trace      | <p>① 1. Turn off the main switch.</p> <p>2. Remove the power cables from the Power Units of all subsystem.</p> <p>3. Return the subtracted subsystem to the subsystem configuration before the subtraction.</p> <p>4. Turn on the subsystem power.</p> <p>5. If there is the Spare Disk Drive in use in the subsystem to be subtracted, replace the blocked Disk Drive.</p> <p>6. Check that the copy back operates and the status of the Spare Disk Drive becomes ready.</p> <p>7. If there is the Disk Drive which configures the formatted logical unit in the subsystem to be subtracted, check with the user if the data of the logical unit is necessary. If the data is necessary, request the user to backup the data.</p> <p>To be continued to the next page.</p> | <p>Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</p> <p>—</p> <p>—</p> <p>Installation "1.5.1 Subsystem Power On" (INST 01-0140)</p> <p>Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</p> <p>—</p> <p>—</p> |

| Message code | Message text                                                                           | Description                                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                  | Reference page                                                                                                                                                                                                                                                                                         |
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|              |                                                                                        |                                                                                                                                                                                                                        |                   | 8. Delete the logical unit.<br>9. Subtract the subsystem again.<br>10. When the subsystem of the unit ID# displayed in the message is connected, perform Troubleshooting "8.1 Trouble Analysis by LED Indication of Front Bezel". | <a href="#">System Parameter "[Procedure ③-D]Deleting LU" (SYSPR 03-0260)</a><br><a href="#">Addition/Removal/Relocation "2.3 Removing Additional Subsystem on Rack Frame" (ADD 02-0130)</a><br><a href="#">Troubleshooting "8.1 Trouble Analysis by LED Indication of Front Bezel" (TRBL 08-0000)</a> |
| HH7Wxy       | H-IPC firmware initialization failed (CTL-x, I/F-y)                                    | The iSCSI firmware failed to start.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1)                                                                                                                         | Simple Trace      | ① Replace the Inter face Board displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                |
| HH800x       | RKAKX recognition failed during the start-up process [BKW] (CTL-x)                     | The Control Unit displayed in the message detected an error of the RKAKX recognition while starting the subsystem, and the Control Unit start-up stopped due to the Control Unit blockade.<br>x : Control Unit # (0-1) |                   | ① Perform the maintenance according to the message code displayed at the same time.                                                                                                                                               | —                                                                                                                                                                                                                                                                                                      |
| HH8100       | Product number error was detected [discrepancy between ENC's of RKAKX] (RKAKX- (xx-y)) | The serial number of the RKAKX did not match between the ENC's.<br>x : RKAKX Chassis # (0-18)<br>y : A = A-side<br>B = B-side                                                                                          |                   | ① 1. Record the A-side or B-side displayed in the message.<br>2. Turn off the power of the subsystem.<br>3. Replace the ENC Unit of the RKAKX displayed in the message.<br>3. Turn on the power of the subsystem.                 | —<br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                   |

| Message code | Message text                                         | Description                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                                                                   |
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| HH8E00       | Single Mode although copy function enable            | The subsystem could not be started because System Startup Attribute was set to Single Mode even though Copy-on-write SnapShot or TrueCopy Extended Distance of the priced option was effective. | Simple Trace      | ① 1. Change the subsystem to the maintenance mode.<br>2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB.<br>3. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. | WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)<br>WEB "3.2.1 Subsystem" (WEB 03-0070)<br>WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)                                       |
| HH8F00       | Not enough Cache memory to use copy function         | The subsystem did not start because the capacity of the Cache memory to use Copy-on-write SnapShot or TrueCopy Extended Distance was insufficient due to the upgrade of the model.              | Simple Trace      | ① 1. Turn off the main switch.<br>2. Add the Cache memory in the capacity that the upgrade of the model is possible.<br>3. Turn on the power of the subsystem.                                                                                                                                   | Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)<br>Addition/Removal/Relocation "1.4.4 Adding a Cache Unit" (ADD 01-0390)<br>Installation "1.5.1 Subsystem Power On" (INST 01-0140) |
| HH8G00       | Single Mode although Modular Volume Migration enable | The subsystem could not be started because System Startup Attribute was set to Single Mode even though Modular Volume Migration of the priced option was effective.                             | Simple Trace      | ① 1. Change the subsystem to the maintenance mode.<br>2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB.<br>3. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. | WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)<br>WEB "3.2.1 Subsystem" (WEB 03-0070)<br>WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)                                       |

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| Message code | Message text                                                          | Description                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                                                                                                                        |
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| HH8H00       | ShadowImage function is not effective when single mode for CTL is set | Although "ShadowImage in-system replication" of the priced option is valid, the subsystem could not start because the system start attribute of the system parameter was set to the single mode. | Simple Trace      | <ol style="list-style-type: none"> <li>① 1. Change the subsystem to the maintenance mode.</li> <li>2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB.</li> <li>3. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB.</li> <li>4. • When using "ShadowImage in-system replication" of the priced option, set up the subsystem to a dual controller system.</li> <li>• When using the subsystem as a single controller system, lock "ShadowImage in-system replication" of the priced option, and then set up the subsystem to a single controller system.</li> </ol> | <p><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a></p> <p><a href="#">WEB "3.2.1 Subsystem" (WEB 03-0070)</a></p> <p><a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a></p> <p><a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a></p> |

| Message code | Message text                                                       | Description                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                                                                                                                                                                                                                                                                     |
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| HH8J00       | The system drives are composed of SAS HDUs and SATA HDUs.          | The SAS drives and the SATA drives are mixed in the system drive.                                                                                                                          | Simple Trace      | ① 1. Turn off the main switch.<br>2. Configure the system drive again only with the Disk Drives which have the same I/F.<br>3. Turn on the subsystem power again.                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                                                                                       |
| HH8K00       | TrueCopy function is not effective when single mode for CTL is set | Although "TrueCopy remote replication" of the priced option is valid, the subsystem could not start because the system start attribute of the system parameter was set to the single mode. | Simple Trace      | ① 1. Change the subsystem to the maintenance mode.<br>2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB.<br>3. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB.<br>4. • When using "TrueCopy remote replication" of the priced option, set up the subsystem to a dual controller system.<br>• When using the subsystem as a single controller system, lock "TrueCopy remote replication" of the priced option, and then set up the subsystem to a single controller system. | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.2.1 Subsystem" (WEB 03-0070)</a><br><a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a><br><a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a> |

| Message code | Message text                                                                         | Description                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| HH8L0x       | D-SPC detected the internal hardware error (CTL-x)                                   | D-SPC (Drive side SAS Protocol Chip) detected "internal hardware error" of D-SPC LSI.<br>x : Control Unit # (0-1)          | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH8M0x       | D-SPC detected DMA transfer (CTL-x)                                                  | D-SPC (Drive side SAS Protocol Chip) detected an error of Tx/Rx DMA transfer.<br>x : Control Unit # (0-1)                  | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          |                                                                          |
| HH8N0x       | Open Failure Bad Destination (CTL-x)                                                 | EXPANDER PHY responded to a failure of OPEN.<br>x : Control Unit # (0-1)                                                   | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HH8P0x       | Open Failure Wrong Destination (CTL-x)                                               | OPEN failed and PHY responded because the results that performed routing of EXPANDER differed.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| HH8Q0x       | Open Failure Protocol Not supported (CTL-x)                                          | OPEN failed and PHY responded due to the unsupported protocol.<br>x : Control Unit # (0-1)                                 | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH8R0x       | Open Failure STP Resource Busy (CTL-x)                                               | The STP resource became BUSY.<br>x : Control Unit # (0-1)                                                                  | CTL Alarm Trace   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          |                                                                          |
| HH8S0x       | Nexus Loss (CTL-x)                                                                   | OPEN failed due to other factors.<br>x : Control Unit # (0-1)                                                              | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HH8T0x       | Sas ctl resource was over (CTL-x)                                                    | It became an error because the internal resource of SAS_CTL was exceeded.<br>x : Control Unit # (0-1)                      | CTL Alarm Trace   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| HH8U0x       | D-SPC detected firmware error (CTL-x)                                                | The hardware detected FW defect.<br>x : Control Unit # (0-1)                                                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HH8V0x       | The initialization of PCI Express failed because of the hardware error [Drv] (CTL-x) | PCI hardware reset of D-SPC (Drive side SAS Protocol Chip) failed.<br>x : Control Unit # (0-1)                             | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                          | Description                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                           |
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| HH8W00       | Backend has been down [All the routes have been blockaded]                            | Failures occurred in both Routes (Normal Route and Alternate Route) and the Control Unit was not be able to access the Disk Drives.                                                                                            | Full Dump         | ① Turn off the main switch.                                                                                                                                                                                                                                                   | —                                                        |
|              |                                                                                       |                                                                                                                                                                                                                                |                   | ② Perform maintenance according to the warning message displaying the blocked ENC Unit or Control Unit.                                                                                                                                                                       | —                                                        |
|              |                                                                                       |                                                                                                                                                                                                                                |                   | ③ Turn on the subsystem power.                                                                                                                                                                                                                                                | Installation "1.5.1 Subsystem Power On" (INST 01-0140)   |
| HH8X0x       | D-SPC LSI received illegal SMP response frame (CTL-x)                                 | D-SPC (Drive side SAS Protocol Chip) received an illegal SMP response frame.<br>x : Control Unit # (0-1)                                                                                                                       | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| HH8Y0x       | D-SPC LSI received SMP response which indicated the command was not completed (CTL-x) | D-SPC (Drive side SAS Protocol Chip) received an SMP response frame from Expander normally, but the status of the command stored in the frame indicated abnormal termination.<br>x : Control Unit # (0-1)                      | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | "Chapter 6. Warning Messages" (MSG 06-0000)              |
| HH8Z0x       | D-SPC LSI received illegal discover sas nodes (CTL-x)                                 | D-SPC (Drive side SAS Protocol Chip) received an illegal SMP response frame from Expander or detected a time-out of SMP frame reception from Expander.<br>x : Control Unit # (0-1)                                             | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                        |
| HH900x       | D-SPC LSI detected SMP response frame error (CTL-x)                                   | It received an illegal SMP response frame or detected a time-out of SMP frame reception.<br>x : Control Unit # (0-1)                                                                                                           | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                          |
| HH910x       | ENC error count was over the threshold (CTL-x)                                        | The sense key was the check condition of 4 (hardware error) or 5 (illegal request), and the count of either received check condition exceeded the threshold among the SCSI statuses from Expander.<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                          |
| HH920x       | Backend diagnosis time-out was detected [code-x]                                      | The diagnosis of the backend part was not completed within the specified time.<br>x : Optional code                                                                                                                            |                   |                                                                                                                                                                                                                                                                               |                                                          |
| HH930x       | SCSI response of ENC was "BUSY" (CTL-x)                                               | Expander responded "busy" for the status of the SCSI command response (SCSI STATUS ERROR BUSY (Expander)).<br>x : Control Unit # (0-1)                                                                                         | Simple Trace      | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                        | "Chapter 6. Warning Messages" (MSG 06-0000)              |



| Message code | Message text                                                                    | Description                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| HH940x       | SCSI response of ENC was "QUEUE FULL" (CTL-x)                                   | Expander responded "Queue full" for the status of the SCSI command response. (SCSI STATUS ERROR QUEUE_FULL (Expander))<br>x : Control Unit # (0-1)                                        | Simple Trace      | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                        | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| HH950x       | Expander error of the CTL was detected [04-3400] (CTL-x)                        | The ENC part of the Control Unit responded the check condition frame whose sense key/sense code is 04/3400.<br>x : Control Unit # (0-1)                                                   | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HH960x       | Intermittent Expander error of the CTL was over the threshold [04-3400] (CTL-x) | The count that received the check condition frame, whose sense key/sense code is 04/3400, from the ENC part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1) | Simple Trace      | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| HH970x       | Expander error of the CTL was detected [05-CCCC] (CTL-x)                        | The ENC part of the Control Unit responded the check condition frame whose sense key/sense code is 05/CCCC.<br>x : Control Unit # (0-1)                                                   | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| HH980x       | Intermittent Expander error of the CTL was over the threshold [05-****] (CTL-x) | The count that received the check condition frame, whose sense key/sense code is 05/****, from the ENC part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| HH990x       | Expander error of the CTL was detected [05-CCCC] (CTL-x)                        | The ENC part of the Control Unit responded the check condition frame whose sense key/sense code is 05/CCCC.<br>x : Control Unit # (0-1)                                                   | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| HH9A0x       | Intermittent Expander error of the CTL was over the threshold [05-CCCC] (CTL-x) | The count that received the check condition frame, whose sense key/sense code is 05/CCCC, from the ENC part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1) | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |
| HH9B0x       | Expander error of the CTL was detected [0B-4400] (CTL-x)                        | The ENC part of the Control Unit responded the check condition frame whose sense key/sense code is 0B/4400.<br>x : Control Unit # (0-1)                                                   | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                           | Description                                                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                  |
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| HH9C0x       | Intermittent Expander error of the CTL was over the threshold [0B-4400] (CTL-x)        | The count that received the check condition frame, whose sense key/sense code is 0B/4400, from the ENC part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1)                                                                  | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                     |
| HH9D0x       | Expander error of the CTL was detected [0B-4B**] (CTL-x)                               | The ENC part of the Control Unit responded the check condition frame whose sense key/sense code is 0B/4B**.<br>x : Control Unit # (0-1)                                                                                                                    | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                                               |
| HH9E0x       | Intermittent Expander error of the CTL was over the threshold [0B-4B**] (CTL-x)        | The count that received the check condition frame, whose sense key/sense code is 0B/4B**, from the ENC part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1)                                                                  | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                                 |
| HH9F0x       | Expander error of the CTL was detected [Unexpected SSB] (CTL-x)                        | The ENC part of the Control Unit transmitted the check condition frame to which an unexpected sense key is set.<br>x : Control Unit # (0-1)                                                                                                                | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                                 |
| HH9G0x       | Intermittent Expander error of the CTL was over the threshold [Unexpected SSB] (CTL-x) | The count that received the check condition frame, to which an unexpected sense key is set, from the ENC part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1)                                                                | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                                 |
| HH9H00       | Backend down [Unit#ERR] (Unit-x)                                                       | When the subsystem started, the Additional Chassis whose Unit # is inconsecutive was detected (for example, the case that the rearmost chassis was connected to the Path incorrectly due to connecting the ENC cable incorrectly).<br>x : Unit ID # (0-59) | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.19 Recovery Method when the Subsystem Down of the Array Occurred due to the Incorrect ENC Cable Connection"</a> .                                                                                     | <a href="#">Troubleshooting "6.1.19 Recovery Method when the Subsystem Down of the Array Occurred due to the Incorrect ENC Cable Connection" (TRBL 06-0930)</a> |

| Message code | Message text                                          | Description                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                          |
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| HH9I0x       | Backend down [ENC type error] (CTL-x)                 | When the subsystem started, an unsupported ENC part was detected in the Control Unit of the chassis.<br>x : Control Unit # (0-1)               |                   | ① 1. Remove the power cables from the Power Units of all the subsystems.<br>2. Replace the Control Unit displayed in the message.<br>3. Connect the power cables to the Power Units of all the subsystems.                                                                                                                                                                                                                                                                                                                                                                         | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| HH9J00       | The array unit was missing (CTL-Unit)                 | The Basic Chassis was unable to be recognized temporarily due to a Power Unit failure.                                                         |                   | ① 1. Turn off the main switch.<br>2. Remove the power cables from the Power Units of all the subsystems.<br>3. Connect the power cables to the Power Units of all the subsystems.<br>4. Turn on the power of the subsystem again.<br>5. Check that the READY LED (green) on the subsystem lights up and the WARNING LED (orange) does not light up or blink, and "I10000 Subsystem is ready" is displayed in the Information message on WEB.<br>6. When you were unable to check it, perform the maintenance according to the message displayed in the Information Message on WEB. | —<br>—<br>—<br>—<br>—<br>—                                                                                                                              |
| HH9K0x       | ENC error was detected [Linkdown] (CTL-x)             | Link down was detected in the ENC part of the Control Unit.<br>x : Control Unit # (0-1)                                                        |                   | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                             |
| HH9L0x       | Unsupported ENC was detected [ENC type error] (CTL-x) | When the Control Unit was inserted in the Basic Chassis, an unsupported ENC part was detected in the Control Unit.<br>x : Control Unit # (0-1) |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                         |

| Message code | Message text                              | Description                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                      |
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| HH9M0x       | SAS Firmware error was detected (CTL-X)   | A hardware failure of SAS CTL was detected in the same route during the backend route diagnosis operation.<br>x : Control Unit # (0-1)                                        | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                            |
|              |                                           |                                                                                                                                                                               |                   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                         |
|              |                                           |                                                                                                                                                                               |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                   |
| HH9N0x       | ENC recovery failed [Cable error] (CTL-x) | It was detected that the ENC cables were connected incorrectly when the subsystem power was ON and the Control Unit or the firmware was replaced.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | ① 1. Remove the Control Unit displayed in the message.                                                                                                                                                                                                                        | <a href="#">Installation "2.4.2 (4) Removing the Control Unit" (INST 02-0370)</a>                                   |
|              |                                           |                                                                                                                                                                               |                   | 2. There are one or more ENC cables connected incorrectly to the backend path which the Control Unit displayed in the message configures. Review the wiring of all the ENC cables of the backend path which the Control Unit displayed in the message configures              | —                                                                                                                   |
|              |                                           |                                                                                                                                                                               |                   | 3. Rewire the ENC cables correctly                                                                                                                                                                                                                                            | —                                                                                                                   |
|              |                                           |                                                                                                                                                                               |                   | 4. Insert the Control Unit in the chassis.                                                                                                                                                                                                                                    | <a href="#">Installation "2.4.7 (4) Installing the Control Unit, Cache Unit and Interface Board" (INST 02-0550)</a> |

| Message code | Message text                                                                   | Description                                                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                              |
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| HH9P00       | System Startup Attribute is set to Single Mode although DP function is enabled | When starting the subsystem, although Dynamic Provisioning function was enabled, the firmware did not start the subsystem and let it go down because "System Startup Attribute" of "System Parameter" was set to "Single Mode". | Simple Trace      | ① 1. Change the subsystem to the maintenance mode.<br>2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB.<br>3. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB.                                                                                                                                                                                                                                                                                                                                              | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.2.1 Subsystem" (WEB 03-0070)</a><br><a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a>                                  |
| HH9Q00       | The system drives are composed of different types drives                       | The SAS Disk Drives, the Flash Drives or the SATA Disk Drives are mixed in the system drives.                                                                                                                                   | Simple Trace      | ① 1. If this message is displayed at the time of starting the subsystem and the subsystem goes down, turn off the main switch.<br>2. Reconfigure the system drives only with the SAS Disk Drives, the Flash Drives or the SATA Disk Drives.<br>3. Turn on the subsystem power again.<br>② 1. If this message is displayed at the time of replacing the Disk Drives or adding the Disk Drives, check the type (SAS Disk Drive, Flash Drive or SATA Disk Drive) of the already installed system drives.<br>2. Replace the Disk Drives of the same type (SAS Disk Drive, Flash Drive or SATA Disk Drive) as the already installed system drives. | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |

| Message code | Message text                                                                        | Description                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                                                                                                                                                                                                                                                                                     |
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| HH9R00       | Two or more HDUs have serial number problem                                         | It was detected that the serial number acquired at the time of starting the subsystem and the serial number of the configuration information do not match in two or more Disk Drives. | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.27 Recovery Method when the Disk Drive Serial Number Acquired at the time of Starting the Subsystem and the Serial Number of the Configuration Information do not Match"</a> .                                                                                                                                | <a href="#">Troubleshooting "6.1.27 Recovery Method when the Disk Drive Serial Number Acquired at the time of Starting the Subsystem and the Serial Number of the Configuration Information do not Match" (TRBL 06-1140)</a>                                                                                                                                       |
| HH9S00       | Upgrade failed [background LU format has not been completed]                        | Since the background LU formatting is not completed, the upgrade of the subsystem model cannot be executed.                                                                           | Simple Trace      | ① 1. Return the subsystem to the configuration before the upgrade according to the <a href="#">"Upgrade Procedure Manual"</a> .<br>2. Restart the subsystem.<br>3. Wait until the LU formatting running in the background is completed.<br>4. When the LU formatting running in the background is all completed, execute the upgrade of the subsystem model from the beginning again. | <a href="#">"Upgrade Procedure Manual"</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">"Upgrade Procedure Manual"</a>                                                                                                                                                                                            |
| HH9T00       | The cache memory capacity has been reduced before background LU format is completed | Since the background LU formatting is not completed, the removal of the Cache Unit cannot be executed.                                                                                | Simple Trace      | ① 1. Turn off the main switch of the subsystem.<br>2. Return the Cache Unit to the installation before the removal.<br>3. Restart the subsystem.<br>4. Wait until the LU formatting running in the background is completed.<br>5. When the LU formatting running in the background is all completed, execute the Cache Unit removal from the beginning again.                         | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Addition/Removal/Relocation "2.4.4 Removing a Cache Unit" (ADD 02-0310)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">Addition/Removal/Relocation "2.4.4 Removing a Cache Unit" (ADD 02-0310)</a> |

| Message code | Message text                                     | Description                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                          |
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| HH9U00       | Backend down [Cable error] (Unit-x)              | When the subsystem started, an improper connection of the ENC cable of the Additional Chassis was detected.<br>x : Unit ID # (0-59)                                                             |                   | ① 1. Turn off the input power switch of the subsystem.<br>2. Check the wiring of all ENC cables connected to the chassis with the chassis number displayed in the message and the subsequent numbers. If the ENC cables are connected incorrectly, wire the ENC cables correctly again.<br>3. Turn on the subsystem. | —<br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                        |
| HHA0xy       | H-IPC hardware error was detected (CTL-x, I/F-y) | The number of times to which H-IPC (Host iSCSI Protocol controller) LSI operated beyond the assumption exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1) | Simple Trace      | ① Replace the Interface Board displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                    | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HHA1xy       | iSCSI firmware load failed (CTL-x, I/F-y)        | The iSCSI firmware load failed.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1)                                                                                                      | Simple Trace      |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                         |
| HHA2xy       | H-IPC is not detected (CTL-x, I/F-y)             | The iSCSI Interface Board is installed, but H-IPC (Host iSCSI Protocol controller) LSI was unable to be recognized on PCI.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1)           | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                         |
| HHA4xy       | H-IPC ECC error was detected (CTL-x, I/F-y)      | The number of times of the ECC error detected when H-IPC LSI accessed the internal RAM exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Interface Board # (0-1)                 | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                         |

| Message code | Message text                        | Description                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                               | Reference page                                                           |
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| HI0100       | PS OFF failed [DSTG HUNG]           | Hang-up of destaging processing of the other system was detected when the plan was stopped.                              | CTL Alarm Trace   | ① Do not remove the Control Unit or Cache Backup Battery while performing the following procedures.<br>1. Remove the power cable from the Power Unit, and install the power cable after waiting for one minute.<br>2. Turn on the main switch. | —                                                                        |
| HI0201       | PS OFF failed [POFNONCLD]           | When PS is turned off, the information taken over is not set in the COLD state.                                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HI0202       | PS OFF failed [POFNOJOB]            | When PS is turned off, the plan stopping job has not been executed.                                                      | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HI0310       | OTHPs OFF time-out                  | Time-out in waiting for communication of the other system occurred while the plan was being stopped.                     | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HI0420       | System down selected [PS OFF]       | When the plan could not be stopped, system shutdown was selected by the user.                                            | CTL Alarm Trace   | ② If the WARNING LED or ALARM LED on the front of the basic chassis lights up when the subsystem is starting or after starting, perform the maintenance according to the displayed message.                                                    | —                                                                        |
| HI050x       | CACHE access error (CACHE-x) [POFF] | When the plan was stopped, system shutdown was caused by a cache access error. (unrecoverable)<br>x : Cache Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HI0600       | PS OFF failed [PIN]                 | The sequential shutdown could not be done because of the too much pinned data.                                           | CTL Alarm Trace   | ③ If the subsystem becomes Ready normally, turn off/on the main switch and reboot the subsystem.                                                                                                                                               | <a href="#">Installation "1.5 Power On/Off Procedure" (INST 01-0130)</a> |
| HJ01xx       | Microprogram error [INM]            | Logical discrepancy of the firmware was detected. (Initial setting)<br>x : Optional code                                 | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HJ02xx       | Microprogram error [POF]            | Logical discrepancy of the firmware was detected. (Stop of plan)<br>x : Optional code                                    | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HJ03xx       | Microprogram error [RST]            | Logical discrepancy of the firmware was detected. (Reset)<br>x : Optional code                                           | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HJ04xx       | Microprogram error [SCK]            | Logical discrepancy of the firmware was detected. (Kernel)<br>x : Optional code                                          | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HJ050x       | Microprogram error [CIT]            | Logical discrepancy of the firmware was detected. (Interruption)<br>x : Optional code                                    | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |
| HJ06xx       | Microprogram error [RSM]            | Logical discrepancy of the firmware was detected. (Resource control)<br>x : Optional code                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                |                                                                          |



| Message code | Message text             | Description                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                              |
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| HJ07xx       | Microprogram error [FTD] | Logical discrepancy of the firmware was detected.<br>(Tachyon driver control)<br>x : Optional code | CTL Alarm Trace   | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p>—</p> |
| HJ08xx       | Microprogram error [FSM] | Logical discrepancy of the firmware was detected.<br>(Sequence Manager)<br>x : Optional code       | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                    |
| HJ09xx       | Microprogram error [LSM] | Logical discrepancy of the firmware was detected. (Link service control)<br>x : Optional code      | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| HJ0Axx       | Microprogram error [HSC] | Logical discrepancy of the firmware was detected.<br>x : Optional code                             | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| HJ0Bxx       | Microprogram error [NCR] | Logical discrepancy of the firmware was detected. (NCR)<br>x : Optional code                       | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| HJ0Dxx       | Microprogram error [SCP] | Logical discrepancy of the firmware was detected. (SCP control)<br>x : Optional code               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| HJ0Exx       | Microprogram error [CMD] | Logical discrepancy of the firmware was detected. (Command)<br>x : Optional code                   | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| HJ0Fxx       | Microprogram error [PRS] | Logical discrepancy of the firmware was detected. (Reading first)<br>x : Optional code             | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |

| Message code | Message text             | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
|--------------|--------------------------|-----------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| HJ10xx       | Microprogram error [COW] | Logical discrepancy of the firmware was detected. (Writing together)<br>x : Optional code                 | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HJ11xx       | Microprogram error [RCH] | Logical discrepancy of the firmware was detected. (Cache control)<br>x : Optional code                    | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HJ12xx       | Microprogram error [RAD] | Logical discrepancy of the firmware was detected. (RAID control)<br>x : Optional code                     | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HJ13xx       | Microprogram error [DSC] | Logical discrepancy of the firmware was detected. (I/O execution control)<br>x : Optional code            | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                          |                                                                                                           |                   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
|              |                          |                                                                                                           |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| HJ14xx       | Microprogram error [DMA] | Logical discrepancy of the firmware was detected. (Data transfer control)<br>x : Optional code            | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HJ15xx       | Microprogram error [ERR] | Logical discrepancy of the firmware was detected. (Assistance in failure processing)<br>x : Optional code | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HJ16xx       | Microprogram error [RCF] | Logical discrepancy of the firmware was detected. (Configuration control)<br>x : Optional code            | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |
| HJ17xx       | Microprogram error [DRC] | Logical discrepancy of the firmware was detected. (Recovery of Disk Drive)<br>x : Optional code           | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text             | Description                                                                                                                | Collect the error | Recovery methods                                | Reference page                                                           |
|--------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------|
| HJ18xx       | Microprogram error [OFW] | Logical discrepancy of the firmware was detected. (Off-line monitoring)<br>x : Optional code                               | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HJ19xx       | Microprogram error [ONW] | Logical discrepancy of the firmware was detected. (On-line monitoring)<br>x : Optional code                                | CTL Alarm Trace   |                                                 |                                                                          |
| HJ1Axx       | Microprogram error [DST] | Logical discrepancy of the firmware was detected. (Emergency destaging)<br>x : Optional code                               | CTL Alarm Trace   |                                                 |                                                                          |
| HJ1Bxx       | Microprogram error [CPR] | Logical discrepancy of the firmware was detected. (Forced recovery of parity)<br>x : Optional code                         | CTL Alarm Trace   |                                                 |                                                                          |
| HJ1Cxx       | Microprogram error [COM] | Logical discrepancy of the firmware was detected. (Common function)<br>x : Optional code                                   | CTL Alarm Trace   |                                                 |                                                                          |
| HJ1Dxx       | Microprogram error [SV1] | Logical discrepancy of the firmware was detected. (SVP I/F)<br>x : Optional code                                           | CTL Alarm Trace   |                                                 |                                                                          |
| HJ1Exx       | Microprogram error [LUC] | Logical discrepancy of the firmware was detected. (Common function)<br>x : Optional code                                   | CTL Alarm Trace   |                                                 |                                                                          |
| HJ1Fxx       | Microprogram error [PR0] | Logical discrepancy of the firmware was detected. (Communication between Control Units)<br>x : Optional code               | CTL Alarm Trace   |                                                 |                                                                          |
| HJ20xx       | Microprogram error [BKW] | Logical discrepancy of the firmware was detected. (Back end control)<br>x : Optional code                                  | CTL Alarm Trace   |                                                 |                                                                          |
| HJ22xx       | Microprogram error [CCP] | Logical discrepancy of the firmware was detected. (Coupling copy job)<br>x : Optional code                                 | CTL Alarm Trace   |                                                 |                                                                          |
| HJ23xx       | Microprogram error [MDU] | Logical discrepancy of the firmware was detected. (during an execution of drive firmware renewal job)<br>x : Optional code | CTL Alarm Trace   |                                                 |                                                                          |
| HJ24xx       | Microprogram error [SDW] | Logical discrepancy of the firmware was detected. (Takeover writing job)<br>x : Optional code                              | CTL Alarm Trace   |                                                 |                                                                          |

| Message code | Message text             | Description                                                                                           | Collect the error | Recovery methods                                | Reference page                                                           |
|--------------|--------------------------|-------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------|
| HJ25xx       | Microprogram error [RVD] | Logical discrepancy of the firmware was detected. (RVR data transfer job)<br>x : Optional code        | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HJ26xx       | Microprogram error [RVP] | Logical discrepancy of the firmware was detected. (RVR communication job)<br>x : Optional code        | CTL Alarm Trace   |                                                 |                                                                          |
| HJ27xx       | Microprogram error [RVM] | Logical discrepancy of the firmware was detected. (RVR management)<br>x : Optional code               | CTL Alarm Trace   |                                                 |                                                                          |
| HJ28xx       | Microprogram error [STG] | Logical discrepancy of the firmware was detected. (Staging job)<br>x : Optional code                  | CTL Alarm Trace   |                                                 |                                                                          |
| HJ29xx       | Microprogram error [SPL] | Logical discrepancy of the firmware was detected. (mistake specializing control)<br>x : Optional code | CTL Alarm Trace   |                                                 |                                                                          |
| HJ2Axx       | Microprogram error [SML] | Logical discrepancy of the firmware was detected. (in the SendMail control)<br>x : Optional code      | CTL Alarm Trace   |                                                 |                                                                          |
| HJ2Bxx       | Microprogram error [SNP] | A logical error occurred. (Copy-on-write SnapShot job)<br>x : Optional code                           | CTL Alarm Trace   |                                                 |                                                                          |
| HJ2Cxx       | Microprogram error [POM] | A logical error occurred. (Pool management)<br>x : Optional code                                      | CTL Alarm Trace   |                                                 |                                                                          |
| HJ2Dxx       | Microprogram error [SNR] | A logical error occurred. (Copy-on-write SnapShot restoration control)<br>x : Optional code           | CTL Alarm Trace   |                                                 |                                                                          |
| HJ2Exx       | Microprogram error [SAM] | A logical error occurred. (S-Vol area management control)<br>x : Optional code                        | CTL Alarm Trace   |                                                 |                                                                          |
| HJ2Fxx       | Microprogram error [QFM] | Self contradiction of Format.<br>x : Optional code                                                    | CTL Alarm Trace   |                                                 |                                                                          |
| HJ30xx       | Microprogram error [SMR] | A logical error occurred. (SMART control)<br>x : Optional code                                        | CTL Alarm Trace   |                                                 |                                                                          |
| HJ31xx       | Microprogram error [DRF] | A logical error occurred. (Drive flash control)<br>x : Optional code                                  | CTL Alarm Trace   |                                                 |                                                                          |
| HJ32xx       | Microprogram error [OPR] | Contradiction of the forced parity correction.<br>x : Optional code                                   | CTL Alarm Trace   |                                                 |                                                                          |

| Message code | Message text                                | Description                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                   | Reference page                                                                                                      |
|--------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| HJ33xx       | Microprogram error [MPC]                    | Logical illegality of the firmware was detected. (Multi-protocol management control)<br>x : Optional code   | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                    | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                            |
| HJ34xx       | Microprogram error [JSD]                    | Logical illegality of the firmware was detected. (Job support driver)<br>x : Optional code                  | CTL Alarm Trace   |                                                                                                                                                                                                                                    |                                                                                                                     |
| HJ35xx       | Microprogram error [NSM]                    | A logical incorrectness of the firmware was detected. (NAS Sequence Manager control)<br>x : Detailed code   | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② When the ALARM LED (red) on the front side of the Basic Chassis lights up, replace the Control Unit whose ALM LED lights up. | Chapter 6. Warning Messages" (MSG 06-0000)<br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)              |
| HJ37xx       | Microprogram error [DMI]                    | Logical illegality of the firmware was detected (DDCB management information R/W job)<br>x : Optional code  | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                    | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                            |
| HJ3Axy       | Unsupported CACHE detected (CTL-x, CACHE-y) | An unsupported Cache memory was detected.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)             | Simple Trace      | ① Replace the Cache Unit displayed in this message to the Cache Unit supported by the Control Unit of the subsystem and the firmware revision.                                                                                     | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)<br>Firmware "1.8 Adaptable Firmware Revision" (FIRM 01-0180) |
| HJ3Bxx       | Microprogram error [MAP]                    | Logical illegality was detected in the firmware (intermediate LU mapping management).<br>x : Optional code  | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.                                                                                                                                   | Chapter 6. Warning Messages" (MSG 06-0000)                                                                          |
| HJ3Cxx       | Microprogram error [LMG]                    | Logical illegality was detected in the firmware (Modular Volume Migration management).<br>x : Optional code | CTL Alarm Trace   | ② In the case other than ①, replace the Control Unit which shows this message.                                                                                                                                                     | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                            |

| Message code | Message text                                  | Description                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| HJ40xx       | Microprogram error [BCM]                      | Logical discrepancy of the firmware was detected.<br>(Backend common control)<br>x : Optional code                                        | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| HJ41xx       | Microprogram error [BDM]                      | Logical discrepancy of the firmware was detected.<br>(Backend drive management control)<br>x : Optional code                              | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| HJ42xx       | Microprogram error [BER]                      | Logical discrepancy of the firmware was detected.<br>(Backend failure process control)<br>x : Optional code                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| HJ43xx       | Microprogram error [BKD]                      | Logical discrepancy of the firmware was detected.<br>(Backend diagnosis control)<br>x : Optional code                                     | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| HJ44xx       | Microprogram error [BPD]                      | Logical discrepancy of the firmware was detected.<br>(Backend protocol driver control)<br>x : Optional code                               | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| HJ45xx       | Microprogram error [BSM]                      | Logical discrepancy of the firmware was detected.<br>(Backend SAS management control)<br>x : Optional code                                | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| HJ46xx       | Microprogram error was detected [SRW] (CTL-y) | Logical discrepancy of the firmware was detected.<br>(Read/Write job in the system area)<br>x : Optional code<br>y : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| HJ47xx       | Microprogram error was detected [SMG] (CTL-y) | Logical inconsistency of the firmware was detected (Auto Migration management control).<br>x : Optional code<br>y : Control Unit # (0-1)  | CTL Alarm Trace   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | —                                                                        |
| HJ49xx       | Microprogram error was detected [RGX] (CTL-y) | An illegal logical error of the firmware was detected (RAID group extended control).<br>x : Optional code<br>y : Control Unit # (0-1)     | CTL Alarm Trace   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | —                                                                        |

| Message code                      | Message text                                            | Description                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                                                                              |
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| HJ4Axx                            | Microprogram error was detected [HDP] (CTL-y)           | An illegal logical error of the firmware was detected (HDP control).<br>x : Optional code<br>y : Control Unit # (0-1)                           | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                            | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                 |
| HJ4B00                            | There is not enough Cache memory to use DP function     | The subsystem did not start because the Cache memory capacity to use the Dynamic Provisioning function was insufficient by upgrading the model. | Simple Trace      | ① 1. Turn off the main switch.<br><br>2. Remove the power cables of the Basic Chassis.<br><br>3. Add the Cache memory capacity so that the Dynamic Provisioning function can be used.<br><br>4. Turn on the power of the subsystem.                                                                                                                                                                                                                           | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><br>—<br><br><a href="#">Addition/Removal/Relocation "1.4.4 Adding a Cache Unit" (ADD 01-0390)</a><br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                           |
| HJ4C00                            | Cache memory is removed although DP function is enabled | The Cache memory capacity was removed when the Dynamic Provisioning function was unlocked and enabled.                                          | Simple Trace      | ① 1. When using the Dynamic Provisioning function, turn off the main switch.<br><br>2. Remove the power cables of the Basic Chassis.<br><br>3. Return the Cache memory capacity to the capacity before removing the Cache memory.<br><br>4. Turn on the power of the subsystem.<br><br>② 1. When removing the Cache memory without using the Dynamic Provisioning function, turn off the main switch.<br><br>2. Remove the power cables of the Basic Chassis. | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><br>—<br><br>—<br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><br>— |
| To be continued to the next page. |                                                         |                                                                                                                                                 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                             |

| Message code | Message text                                  | Description                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                                                                                                                                                  |
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|              |                                               |                                                                                                                                              |                   | 3. Return the Cache memory capacity temporarily to the capacity before removing the Cache memory.<br>4. Turn on the power of the subsystem.<br>5. Lock the Dynamic Provisioning function of the priced option.<br>6. Execute the planned shutdown of the subsystem.<br>7. Remove the Cache memory. | —<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br><a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Addition/Removal/Relocation "2.4.4 Removing a Cache Unit" (ADD 02-0310)</a> |
| HJ4Dxx       | Microprogram error was detected [OCV] (CTL-y) | An illegal logical error of the firmware was detected (Online cache verify control).<br>x : Optional code<br>y : Control Unit # (0-1)        | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit displayed in the message.                                                                                                                 | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                                                         |
| HJ4Exx       | Microprogram error was detected [GPC] (CTL-y) | An illegal logical error of the firmware was detected (General-purpose copy job).<br>x : Optional code<br>y : Control Unit # (0-1)           | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                      | —                                                                                                                                                                                                                                                                                                                                                                               |
| HJ4Fxx       | Microprogram error was detected [ZDD] (CTL-y) | An illegal logical error of the firmware was detected (Zero "0" data deletion job control).<br>x : Optional code<br>y : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                 |
| HJ4Gxx       | Microprogram error was detected [PRM] (CTL-y) | An illegal logical error of the firmware was detected (Pool optimization management).<br>x : Optional code<br>y : Control Unit # (0-1)       | CTL Alarm Trace   |                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                 |
|              |                                               |                                                                                                                                              |                   | ② When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>③ When the ALARM LED (red) on the front side of the Basic Chassis lights up, replace the Control Unit whose ALM LED lights up.                                                                 | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                                                         |



| Message code | Message text                                  | Description                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                        |
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| HJ4Jxx       | Microprogram error was detected [GDS] (CTL-y) | An illegal logical error of the firmware was detected (General-purpose destage job).<br>x : Optional code<br>y : Control Unit # (0-1)      | CTL Alarm Trace   | ① When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                     |
| HJ4Kxx       | Microprogram error was detected [CYM] (CTL-y) | An illegal logical error of the firmware was detected (Copy system intermediate control).<br>x : Optional code<br>y : Control Unit # (0-1) | CTL Alarm Trace   |                                                                                                                                                                                                                                                                               |                                                                                                                                       |
| HJ4Lxx       | Microprogram error was detected [WRC] (CTL-y) | An illegal logical error of the firmware was detected (Write extension remote copy job).<br>x : Optional code<br>y : Control Unit # (0-1)  | CTL Alarm Trace   | ② When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>③ When the ALARM LED (red) on the front side of the Basic Chassis lights up, replace the Control Unit whose ALM LED lights up.                                            | <a href="#">Chapter 6. Warning Messages</a> (MSG 06-0000)<br><a href="#">Replacement "2.2.5 Replacing Control Unit"</a> (REP 02-0450) |

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| Message code | Message text                     | Description                                                                                                                                                                     | Collect the error | Recovery methods                                                                                     | Reference page                                                                  |
|--------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| HK0300       | D-DMA error (PT-04, DRIVE-CACHE) | D-DMA failure trace<br>Port #04, Disk Drive → Cache<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   | ① Collect the CTL Alarm Trace.                                                                       | <a href="#">Troubleshooting "7.4 Collecting CTL Alarm Trace" (TRBL 07-0090)</a> |
| HK0400       | D-DMA error (PT-05, DRIVE-CACHE) | D-DMA failure trace<br>Port #05, Disk Drive → Cache<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HK0500       | D-DMA error (PT-06, DRIVE-CACHE) | D-DMA failure trace<br>Port #06, Disk Drive → Cache<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HK0600       | D-DMA error (PT-07, DRIVE-CACHE) | D-DMA failure trace<br>Port #07, Disk Drive → Cache<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HK0700       | D-DMA error (PT-04, CACHE-DRIVE) | D-DMA failure trace<br>Port #04, Cache → Disk Drive<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HK0800       | D-DMA error (PT-05, CACHE-DRIVE) | D-DMA failure trace<br>Port #05, Cache → Disk Drive<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HK0900       | D-DMA error (PT-06, CACHE-DRIVE) | D-DMA failure trace<br>Port #06, Cache → Disk Drive<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HK0A00       | D-DMA error (PT-07, CACHE-DRIVE) | D-DMA failure trace<br>Port #07, Cache → Disk Drive<br>(forcible blockade by debug option)                                                                                      | CTL Alarm Trace   |                                                                                                      |                                                                                 |
| HL0000       | Other CTL workQPanick            | The processing became unable to be continued because a capacity of the task control queue became full.                                                                          | CTL Alarm Trace   | ① Replace the Control Unit whose ALM LED is on.                                                      | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>        |
| HSA000       | DFPC error detect [SYSTEM DOWN]  | The PDEV time-out occurred frequently in the screening or self heat-run system                                                                                                  | Full Dump         | ① Execute full dumps from all the Control Units and contact the department for coping with troubles. | <a href="#">Troubleshooting "7.5 Collecting Full Dump" (TRBL 07-0140)</a>       |
| HZ0200       | Sink error                       | When the Down mode was set for the RAM in order to perform a debug, a command was detected that was not executed at all during the specified period (three seconds in default). | CTL Alarm Trace   | ① Get a trace of the Control Unit detachment.                                                        | <a href="#">Troubleshooting "7.4 Collecting CTL Alarm Trace" (TRBL 07-0090)</a> |

| Message code | Message text                                             | Description                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                                     |
|--------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| HZ0C00       | TWSI access error was detected [Read, xx-yy-aa] (CTL-w)  | An error was detected when read of TWSI (Two Wired Serial Interface) operated.<br>xx : Optional code<br>yy : Optional code<br>aa : Optional code<br>w : Control Unit # (0-1)                        | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>            |
| HZ0D00       | TWSI access error was detected [Write, xx-yy-aa] (CTL-w) | An error was detected when write of TWSI (Two Wired Serial Interface) operated.<br>xx : Optional code<br>yy : Optional code<br>aa : Optional code<br>w : Control Unit # (0-1)                       | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                                  |
| HZ0H0x       | Directory reinitialization failed (CTL-x)                | Writing to the cache memory failed when the directory was reinitialized after the other one of the dual Control Unit was detached while the subsystem was being booted.<br>x : Control Unit # (0-1) | Simple Trace      | ① Replace the Control Unit shown in this message. Besides, take appropriate actions against the detachment of the other one of the dual Control Unit.<br>② If the trouble is not solved, replace all the cache memories in the Control Unit displayed in this message.        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
| HZ0Lxx       | DSC detected IOLIST error                                | An illegal transition status of the I/O request list queue was detected by the I/O execution control.                                                                                               | Simple Trace      | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.                                                                                                                                                                              | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                        |

| Message code                      | Message text       | Description                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                    | Reference page                                                                                |
|-----------------------------------|--------------------|-----------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| HZ0M00                            | DM-LU write failed | Write to the DM-LU failed, and the subsystem became the alarm status. | CTL Alarm Trace   | ① 1. Remove the power cables of the Basic Chassis.                                                                                                                                                                                                                                                                  | —                                                                                             |
|                                   |                    |                                                                       |                   | 2. Connect the power cables to the Basic Chassis.                                                                                                                                                                                                                                                                   | —                                                                                             |
|                                   |                    |                                                                       |                   | 3. Turn on the main switch, and start the subsystem.                                                                                                                                                                                                                                                                | <a href="#">Installation “1.5.1 Subsystem Power On” (INST 01-0140)</a>                        |
|                                   |                    |                                                                       |                   | 4. Check if the messages to require the Disk Drive replacement such as “HDU alarm” and “HDU error” are displayed referring to the WEB Information Message.                                                                                                                                                          | —                                                                                             |
|                                   |                    |                                                                       |                   | 5. If the message to require the Disk Drive replacement is displayed, perform the maintenance according to the message. If the messages to require the Disk Drive replacement such as “HDU alarm” and “HDU error” are not displayed, go to the procedure ①-10.                                                      | —                                                                                             |
|                                   |                    |                                                                       |                   | 6. Execute the planned shutdown of the subsystem.                                                                                                                                                                                                                                                                   | <a href="#">Installation “1.5.2 Subsystem Power Off (Sequential Shutdown)” (INST 01-0160)</a> |
|                                   |                    |                                                                       |                   | 7. When the planned shutdown of the subsystem is completed, the maintenance work is completed. When the planned shutdown of the subsystem fails and this message is displayed again, if the subsystem goes down, the maintenance work needs to be continued. Firstly, remove the power cables of the Basic Chassis. | —                                                                                             |
| To be continued to the next page. |                    |                                                                       |                   |                                                                                                                                                                                                                                                                                                                     |                                                                                               |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                |
|--------------|--------------|-------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|              |              |             |                   | 8. Connect the power cables to the Basic Chassis.                                                                                                                                                                                                                                                                                                    | —                                                                                             |
|              |              |             |                   | 9. Turn on the main switch, and start the subsystem.                                                                                                                                                                                                                                                                                                 | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                        |
|              |              |             |                   | 10. Connect Hitachi Storage Navigator Modular 2 to the subsystem.                                                                                                                                                                                                                                                                                    | —                                                                                             |
|              |              |             |                   | 11. Check the LU # of the DM-LU.<br>When two DM-LUs are created, check each LU #.                                                                                                                                                                                                                                                                    | —                                                                                             |
|              |              |             |                   | 12. Check if the DM-LU is a virtual LU.<br>When two DM-LUs are created, check if the DM-LU is a virtual LU for each DM-LU.                                                                                                                                                                                                                           | —                                                                                             |
|              |              |             |                   | 13. When the DM-LU is not a virtual LU, contact the Technical Support Center.<br>In case the DM-LU is a virtual LU, if either DM-LU is a virtual LU when two DM-LUs are created, request the customer/SE to create the free capacity more than or equal to the minimum capacity of the DM-LU (10 G bytes) in the DP pool to which the DM-LU belongs. | —                                                                                             |
|              |              |             |                   | 14. Check that the formatting of the DP pool created in the step ①-13. is completed (it takes a long time before completing the formatting).                                                                                                                                                                                                         | —                                                                                             |
|              |              |             |                   | 15. Execute the planned shutdown of the subsystem.                                                                                                                                                                                                                                                                                                   | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a> |

| Message code | Message text                                                             | Description                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                               | Reference page                                                                                                                                   |
|--------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| HZ0N0x       | Kernel processing error (CTL-x)                                          | The Kernel of the Control Unit's OS stopped illegally.<br>x : Control Unit # (0-1)                                                                                                                          | CTL Alarm Trace   | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.               | <a href="#">Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                       |
|              |                                                                          |                                                                                                                                                                                                             |                   | ② In the case other than ①, replace the Control Unit displayed in the message.                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                         |
|              |                                                                          |                                                                                                                                                                                                             |                   | ③ If this failure still occurs again, replace all Cache memories of the Control Unit displayed in the message. | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                           |
| HZ0Pxx       | Cache capacity reduced although Cache Partition Manager enable           | The cache memory capacity was reduced though Cache Partition Manager was valid (causing detachment of the both Control Units).<br>x : The original cache memory capacity per Control Unit (G bytes) (01-08) | Simple Trace      | ① 1. Return the cache memory capacity to the original one.<br>2. Reboot the disk array unit.                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| HZ0S00       | Not enough Cache memory to use Cache Partition Manager                   | The Cache capacity to use Cache Partition Manager was insufficient due to the upgrade of the model.                                                                                                         | Simple Trace      | ① Add the Cache memory in the capacity to be able to upgrade the model.                                        | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                           |
| HZ0T00       | Changing to Single Mode failed as Cache Partition Manager is enable      | The system start attribute was changed although the Cache partition management function was effective.                                                                                                      | Simple Trace      | ① Restore the system start attribute.                                                                          | <a href="#">System Parameter "4.2 (1) Setting Boot Options" (SYSPR 04-0050)</a>                                                                  |
|              | Changing to Dual Active Mode failed as Cache Partition Manager is enable |                                                                                                                                                                                                             |                   |                                                                                                                |                                                                                                                                                  |

This page is for editorial purpose only.



## Chapter 4. Progress Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

### • Detail of the message code variable value

|   | Contents                   | Detailed contents                                                                                                                                                                                                                                       |
|---|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| z | Chassis type               | 1 : SMS100, 2 : DF800S, 3 : DF800M, 4 : DF800H, 5 : SMS110, 6 : DF800ES, 7 : DF800EM, 8 : DF800EH, 9 : DF800EXS, A : RKAK, B : RKAKX, z : Classification is impossible                                                                                  |
| a | Disk Drive type            | 1 : SAS 10,000 rpm, 2 : SAS 15,000 rpm, 3 : SATA 7,200 rpm, 4 : SATA 10,000 rpm, 5 : SSD N/A, z : Classification is impossible                                                                                                                          |
| b | Disk Drive model name code | SAS : 0 : AJH146, 1 : AJH300, 2 : AKF400, 3 : AJF400, 4 : AKH146, 5 : AKH300, 6 : ALF146, 7 : AKH600<br>SATA : H : AVE250, J : AVE500, K : AVE750, L : AVE025, M : AVE050, N : AVE075, P : AVE100, Q : AVE1K, R : AVE2K<br>SSD : E : AKS100, F : AKS200 |
| c | Disk Drive model name      | Character string : 0 to 8 characters                                                                                                                                                                                                                    |
| d | Cache type                 | 1 : 1 G byte, 2 : 2 G bytes, 4 : 4 G bytes                                                                                                                                                                                                              |
| e | ENC Unit type              | 0 : RKAK ENC Unit, 1 : SMS110 ENC Unit, 2 : RKAKX ENC Unit, Undetermined : Power-saving ENC Unit                                                                                                                                                        |
| f | Host Connector             | Fixed value: 0                                                                                                                                                                                                                                          |

| Message code | Message text                                                     | Description                                                                                                                              | Collect the error | Recovery methods                                                                                                 | Reference page |
|--------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------|----------------|
| I0010x       | CTL recovered (CTL-x)                                            | The Control Unit recovered by replacing the Control Unit in the status of the subsystem powering on.<br>x : Control Unit # (0-1)         |                   | —                                                                                                                | —              |
| I00300       | Battery recovered                                                | The battery voltage became recovered.                                                                                                    |                   | —                                                                                                                | —              |
| I0030x       | Battery recovered (Battery-x)                                    | The battery voltage became recovered.<br>x : Cache Backup Battery # (0-3)                                                                |                   | —                                                                                                                | —              |
| I0040x       | Battery backup circuit recovered (CTL-x)                         | The battery charging circuit recovered.<br>x : Control Unit # (0-1)                                                                      |                   | ① When “W01z0x CTL alarm” is displayed before this message, disregard “I0040x Battery backup circuit recovered”. | —              |
| I00500       | FAN recovered (Unit-x, FAN-y)<br>FAN recovered (CTL-Unit, FAN-y) | The Fan Unit of the Basic Chassis or Additional Chassis recovered from the failure.<br>x : Unit ID # (0-59)<br>y : FAN Unit # (0-1)      |                   | —                                                                                                                | —              |
| I006z0       | PS recovered (Unit-x, PS-y)<br>PS recovered (CTL-Unit, PS-y)     | The voltage of the power supply recovered.<br>x : Unit ID # (0-59)<br>y : Power Unit # (0-1)<br>z : 0 = AC Power Unit, 1 = DC Power Unit |                   | —                                                                                                                | —              |

| Message code | Message text                                       | Description                                                                                                                                                                                                                                               | Collect the error | Recovery methods | Reference page |
|--------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|----------------|
| I007ab       | HDU recovered (Unit-x, HDU-y)                      | The Disk Drive was recovered.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>a : Disk Drive type (Refer to <a href="#">MSG 04-0000</a> ) for the detail)<br>b : Disk Drive model name code (Refer to <a href="#">MSG 04-0000</a> ) for the detail) |                   | —                | —              |
| I00800       | Data recovery to spare HDU (Unit-x, HDU-y)         | Data was recovered to the Spare Disk.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                                  |                   | —                | —              |
| I009ab       | Spare HDU recovered (Unit-x, HDU-y)                | The Spare Disk was recovered.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>a : Disk Drive type (Refer to <a href="#">MSG 04-0000</a> ) for the detail)<br>b : Disk Drive model name code (Refer to <a href="#">MSG 04-0000</a> ) for the detail) |                   | —                | —              |
| I00A00       | Loop recovered (PATH-x, LOOP-y)                    | The loop recovered.<br>x : Path # (0-7)<br>y : Loop # (0-1)                                                                                                                                                                                               |                   | —                | —              |
| I00Be0       | ENC recovered (Unit-x, ENC-y)                      | The PK failure of SW recovered.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)<br>e : ENC Unit type (Fixed value : 0)                                                                                                                                    |                   | —                | —              |
| I00D0x       | UPS recovered (UPS-x)                              | The UPS was recovered.<br>x : UPS # (0-1)                                                                                                                                                                                                                 |                   | —                | —              |
| I030xy       | Path recovered by web operation (Remote-x, Path-y) | The path was recovered by an operation from the Web.<br>x : Remote # (Array ID)<br>y : Path # (0-7)                                                                                                                                                       |                   | —                | —              |
| I031xy       | Path recovered automatically (Remote-x, Path-y)    | The path recovered automatically.<br>x : Remote # (Array ID)<br>y : Path # (0-7)                                                                                                                                                                          |                   | —                | —              |
| I04000       | Unreadable PIN recovered                           | Data has been restored due to recovery of the drives from the unreadable PIN.                                                                                                                                                                             |                   | —                | —              |
| I041xy       | Battery recovered (Additional Battery-y)           | The battery voltage became normal.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Backup Box # (0-1)                                                                                                                                   |                   | —                | —              |

| Message code | Message text                                 | Description                                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page |
|--------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| I0430x       | Backend route recovered (Path-x)             | The backend path failure was removed and the backend path recovered.<br>x : Path # (0-7)                                                                                                                              |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I10000       | Subsystem is ready                           | The unit is ready.                                                                                                                                                                                                    |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I11000       | All raid group initialized                   | All RAID groups were deleted.                                                                                                                                                                                         |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I111xx       | RAID group deleted (RG-x)                    | All LUs were deleted.<br>x : RAID group # (0-99)                                                                                                                                                                      |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I12000       | ALL LU initialized                           | All LUs were deleted.<br>(This is also displayed when the LU #0 is created.)                                                                                                                                          |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I12100       | LU deleted (LU-x)                            | LUs were deleted.<br>x : LU # (0-4095)                                                                                                                                                                                |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I12200       | LU format completed (LU-x)                   | LU formatting was completed.<br>x : LU # (0-4095)                                                                                                                                                                     |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I12300       | LU format failed (LU-x)                      | LU formatting stopped abnormally.<br>x : LU # (0-4095)                                                                                                                                                                | Simple Trace      | ① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message.<br>• W09zab HDU alarm<br>• W0Azab SATA HDU alarm<br>.....<br>② A Confirm that a Disk Drive to which the objective LU is allotted is mounted.<br>.....<br>③ If it is confirmed in the step ② that all the Disk Drives are installed and no failure has occurred in them, format the object LU again. | —              |
| I12400       | LU format start (LU-x)                       | An LU formatting was started.<br>x : LU # (0-4095)                                                                                                                                                                    |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I12500       | Unified LUs separated (UNI:LU-x)             | Dissolution of all LU unification (to dissolve unification of all the unified LUs and to split them into internal LUs) was executed.<br>x : An internal LU # of a unified LU to be spitted.<br>(0-4095)               |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
| I12600       | Last LU separated from unified LU (UNI:LU-x) | A separation of a final LU of a unified LU (to separate the last one of the internal LUs which have been combined with a unified LU) was executed.<br>x : An internal LU # of a unified LU to be spitted.<br>(0-4095) |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |

| Message code | Message text                          | Description                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reference page                                                                                                                                                                                       |
|--------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I12700       | LU reappeared (LU-x)                  | An internal LU(s) was validated again through splitting of an unified LU separation of a final LU.<br>x : An LU # of an internal LU which has been separated and validated. (0-4095) |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                    |
| I13000       | Spare HDU defined (Unit-x, HDU-y)     | A Spare Disk is registered.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                       |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                    |
| I13100       | Spare HDU deleted (Unit-x, HDU-y)     | Registration of a disk is called off.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                             |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                    |
| I14000       | System copy started (Unit-x, HDU-y)   | System copy was started.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-4)                                                                                                           |                   | ① Do not change the configuration during the system copy. Because of copying the system information after the configuration change, if the operations for changing the system configuration (LU creation, format, LU owner right change) are overlapped, the message may be displayed multiple times. Also, when the firmware was replaced online after changing the system configuration, the message may be displayed two or more times, but it is not a problem. | —                                                                                                                                                                                                    |
| I14100       | System copy completed (Unit-x, HDU-y) | System copy terminated normally.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-4)                                                                                                   |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                    |
| I14200       | System copy failed (Unit-x, HDU-y)    | System copy failed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-4)                                                                                                                | Simple Trace      | ① Replace the Disk Drive. When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> .                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |

| Message code | Message text                              | Description                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                                                                                                                       |
|--------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I15000       | Data recovery started (Unit-x, HDU-y)     | Data recovery was started.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                                                                                    |
| I15100       | Data recovery completed (Unit-x, HDU-y)   | Data recovery terminated normally.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                        |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                                                                                    |
| I15200       | Data recovery failed (Unit-x, HDU-y)      | Data recovery failed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                     | Simple Trace      | <p>① When the following messages is displayed before this message, refer to <a href="#">Troubleshooting "6.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)"</a>.</p> <ul style="list-style-type: none"> <li>• I30100 HDU error</li> <li>• I301AT SATA HDU error</li> <li>• W0L000 Unreadable PIN detected</li> </ul> <p>When the following messages is displayed before this message, refer to <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)"</a>.</p> <ul style="list-style-type: none"> <li>• W0Bzab Spare HDU alarm</li> <li>• W0Czab SATA Spare HDU alarm</li> </ul> | <p><a href="#">Troubleshooting "6.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)"</a> (TRBL 06-0640)</p> <p><a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)"</a> (TRBL 06-0650).</p> |
| I15300       | Data recovery partial (Unit-x, HDU-y)     | A part of the data could not be recovered, and the data restoration was completed by managing the data as it is not possible to read. (Incomplete writing is registered.)<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① See <a href="#">Troubleshooting "6.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">Troubleshooting "6.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)"</a> (TRBL 06-0640)                                                                                                                                               |
| I15A00       | Dynamic sparing start (Unit-x, HDU-y) [z] | Dynamic sparing started.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z : Detailed code                                                                                                                             |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                                                                                    |
| I18000       | PIN-over recovered                        | The PIN threshold value lowered.                                                                                                                                                                                             |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                                                                                    |
| I19000       | Online micro-update completed             | The hot replacement of the firmware was completed.                                                                                                                                                                           |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                                                                                    |

| Message code | Message text                                          | Description                                                                                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                        | Reference page |
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| I1A00x       | Permanent LU disable (Default CTL-x)                  | LU residence is not changed.<br>x : Default Control Unit # (0-2)<br>(In case of 2, it is applied to both Control Units.)                                                                                                                                                                  |                   | ① Set the unit in the ready state and turn off the power, then turn on the power again. | —              |
| I1A10x       | Permanent LU deleted (Default CTL-x)                  | LU residence is deleted. (When RAID group/LU is deleted)<br>x : Default Control Unit # (0-2)                                                                                                                                                                                              |                   | —                                                                                       | —              |
| I1A2xy       | Permanent LU warning recovered (CTL-x, ERR-y)         | LU residence OFF warning was called off.<br>x : Default Control Unit # (0-1)<br>y : Factor code<br>0: Too large LU<br>1: Cache access error<br>2: Regression of Control Unit<br>3: Abnormal battery voltage<br>4: Abnormal battery charging circuit<br>5: Larger than PIN threshold value |                   | —                                                                                       | —              |
| I1A30x       | Permanent LU enable (Default CTL-x)                   | The Turbo LU residence function was turned on.<br>x : Default Control Unit # (0-1)                                                                                                                                                                                                        |                   | —                                                                                       | —              |
| I1B000       | Forced parity correction started                      | Forced parity correction processing was started.                                                                                                                                                                                                                                          |                   | —                                                                                       | —              |
| I1B100       | Forced parity correction completed                    | Forced parity correction processing was finished.                                                                                                                                                                                                                                         |                   | —                                                                                       | —              |
| I1E000       | Online verify completed [odd unit]                    | Check of the frames with odd numbers was completed in the online verification.                                                                                                                                                                                                            |                   | —                                                                                       | —              |
| I1E100       | Online verify completed [even unit]                   | Check of the frames with even numbers was completed in the online verification.                                                                                                                                                                                                           |                   | —                                                                                       | —              |
| I1E200       | LU access enable [QuickShadow pair canceled] (LU-x)   | Read/Write to P-VOL enabled.<br>x : LU # (0-4095)                                                                                                                                                                                                                                         | Simple Trace      | —                                                                                       | —              |
| I1E300       | LU access disable [QuickShadow restore failed] (LU-x) | Read/Write to P-VOL disabled.<br>x : LU # (0-4095)                                                                                                                                                                                                                                        | Simple Trace      | ① Cancel all the pairs of the V-VOL in the P-VOL.                                       | —              |
| I1F000       | Data pool load failed                                 | The loading of pool information failed.                                                                                                                                                                                                                                                   | Simple Trace      | —                                                                                       | —              |

| Message code | Message text                                          | Description                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                      | Reference page                                                                                                              |
|--------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| I1G00x       | PSUE occurred [QuickShadow] (Data pool-x)             | All pairs in the data pool changed to PSUE status.<br>x : Data pool # (0-63)                                                                                                                           | Simple Trace      | ① Release the pair which became PSUE, and create the pair again.                                                                                                      | —                                                                                                                           |
| I1G100       | PSUE occurred (LU-x)                                  | All pairs to which P-VOL belongs changed to PSUE status.<br>x: LU # (0-4095)                                                                                                                           | Simple Trace      |                                                                                                                                                                       |                                                                                                                             |
| I1G200       | PSUE occurred (ShadowImage)                           | A pair, whose status was changed to PSUE, exists.                                                                                                                                                      | Simple Trace      | ① Refer to <a href="#">Troubleshooting "Chapter 9. Data Collection when a Failure Occurs in Program Product (P.P.)"</a> .                                             | <a href="#">Troubleshooting "Chapter 9. Data Collection when a Failure Occurs in Program Product (P.P.)" (TRBL 09-0000)</a> |
| I1G300       | CTL recovery start (CTL-x)                            | Because the recovery operation has been started, do not pull out the Control Unit.<br>x : Control Unit # (0-1)                                                                                         |                   | —                                                                                                                                                                     | —                                                                                                                           |
| I1G400       | Quick Format started (LU-x)                           | The Quick Format started a job that executes a formatting in the background.<br>x : LU # (0-4095)                                                                                                      |                   | —                                                                                                                                                                     | —                                                                                                                           |
| I1G500       | Quick Format completed (LU-x)                         | A formatting of the whole area in the LU was completed.<br>x : LU # (0-4095)                                                                                                                           |                   | —                                                                                                                                                                     | —                                                                                                                           |
| I1G600       | Quick Format Suspended                                | Quick Format was suspended since power shutdown and battery lost occurred, and the map controlling the formatted area was lost.                                                                        |                   | ① User data may be lost. Confirm the situation to user. And execute format again. Afterwards, restore the backup data.                                                | <a href="#">System Parameter "3.3 Setting of LU" (SYSPR 03-0130)</a>                                                        |
| I1G70x       | FC I/F ports remain offline (CTL-x)                   | The Fibre Channel interface board was made offline according to the instruction issued by Hitachi Storage Navigator Modular 2 at the time of the firmware hot replacement.<br>x : Control Unit # (0-1) |                   | ① When Hitachi Storage Navigator Modular 2 completes execution of the procedure for hot replacement of the firmware, the Fibre Channel interface port becomes online. | —                                                                                                                           |
| I1G80x       | FC I/F ports change to online (CTL-x)                 | The Fibre Channel interface board was made online according to the instruction issued by Hitachi Storage Navigator Modular 2 at the time of the firmware hot replacement.<br>x : Control Unit # (0-1)  |                   | —                                                                                                                                                                     | —                                                                                                                           |
| I1G900       | SATA HDU limit over [Self-monitoring] (Unit-x, HDU-y) | The count of drive errors exceeded its threshold value.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                                                             |                   | ① Replace the Disk Drive.                                                                                                                                             | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                      |

| Message code | Message text                                                          | Description                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                         | Reference page                                                                                                                              |
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| I1GA00       | Forced parity correction is stopped [user directions]                 | The forced parity correction was suspended because the Hitachi Storage Navigator Modular 2 instructed for the suspension during the forced parity correction process.                                    |                   | —                                                                                                                                        | —                                                                                                                                           |
| I1GB00       | Forced parity correction is started (LU-x)                            | The forced parity correction was started.<br>x : LU # (0-4095)                                                                                                                                           |                   | —                                                                                                                                        | —                                                                                                                                           |
| I1GC00       | Forced parity correction is completed (LU-x)                          | The forced parity correction was completed.<br>x : LU # (0-4095)                                                                                                                                         |                   | —                                                                                                                                        |                                                                                                                                             |
| I1GD00       | Forced parity correction is stopped [HDU alarm]                       | The forced parity correction was stopped because of a drive detachment.                                                                                                                                  |                   | —                                                                                                                                        |                                                                                                                                             |
| I1GE00       | Forced parity correction is stopped [Too Many Unreadable PINs] (LU-x) | The forced parity correction was stopped because a number of registered unwritten data per LU exceeded a certain value.<br>x : LU # (0-4095)                                                             | Simple Trace      | ①Refer to <a href="#">Troubleshooting "6.1.3 [Recovery method-5] : Incomplete write occurred during the forced parity correction."</a> . | <a href="#">Troubleshooting "6.1.3 [Recovery method-5] : Incomplete write occurred during the forced parity correction."</a> (TRBL 06-0270) |
| I1GG00       | HDU changed to spare (Unit-x, HDU-y)                                  | The configuration information was changed as follows. The data drive, which had been restored in the Active Spare mode, was changed to a Spare Drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | —                                                                                                                                        | —                                                                                                                                           |
| I1GH00       | Forced parity correction stopped by too many PINs (RG-x, LU-y)        | The forced parity correction of the target LU was suspended because the PIN over for each RAID group became near.<br>x : RAID group # (0-99)<br>y : LU # (0-4095)                                        | Simple Trace      | ①Refer to <a href="#">Troubleshooting "6.1.3 [Recovery method-4] : PIN over occurred during the forced parity correction."</a> .         | <a href="#">Troubleshooting "6.1.3 [Recovery method-4] : PIN over occurred during the forced parity correction."</a> (TRBL 06-0250)         |
| I1GJ00       | Forced parity correction stopped by too many PINs (PTT-x, LU-y)       | The forced parity correction of the target LU stopped because PIN-over for each partition became close.<br>x : Partition # (0-31)<br>y : LU # (0-4095)                                                   | Simple Trace      |                                                                                                                                          |                                                                                                                                             |
| I1GK00       | Forced parity correction stopped by too many PINs (DIR-x, LU-y)       | The forced parity correction of the target LU stopped because PIN-over for each DIR became close.<br>x : Directory # (0 or 1)<br>y : LU # (0-4095)                                                       | Simple Trace      |                                                                                                                                          |                                                                                                                                             |
| I1GM00       | The mode parameter change start                                       | The rewrite of the mode parameter of the Disk Drive started.                                                                                                                                             |                   | —                                                                                                                                        | —                                                                                                                                           |



| Message code | Message text                                                    | Description                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| I1GN00       | The mode parameter change complete                              | The rewrite of the mode parameter of the Disk Drive was completed.                                                               |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | —                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| I1GT00       | All DM-LU canceled                                              | Only one DM-LU was defined and the system released DM-LU in WARNING with write of all DM-LU disabled.                            |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | —                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| I1GU00       | Modification of Cache Partition skipped (PIN or Unreadable PIN) | The setting of cache partitions could not be changed because pinned data existed.                                                | Simple Trace      | <p>① Refer to <a href="#">Troubleshooting “6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)”</a>.</p> <p>② When either of the following messages is displayed before this message, take recovery actions according to the message.</p> <ul style="list-style-type: none"> <li>• W0L000 Unreadable PIN detected</li> <li>• W0M000 Unreadable PIN detected</li> </ul> <p>③ Check whether pinned data exist or not. When the pinned data exist, refer to <a href="#">Troubleshooting “6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)”</a>.</p> <p>④ Boot the subsystem after executing the deliberate shutdown in order to change the setting of cache partitions.</p> | <p><a href="#">Troubleshooting “6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)” (TRBL 06-0720)</a></p> <p>—</p> <p><a href="#">Troubleshooting “10.2.3 Displaying Logical Unit Failure Data Information” (TRBL 10-0100)</a></p> <p><a href="#">Troubleshooting “6.1.11 A Failure Occurred during Operation : Case 1 (PIN over)” (TRBL 06-0690)</a></p> <p><a href="#">Installation “1.5 Power On/Off Procedure” (INST 01-0130)</a></p> |
| I1GV00       | Modular Volume Migration completed (LU-x/y)                     | One Modular Volume Migration is completed.<br>x : Internal LU # of the P-VOL (0-4095)<br>y : Internal LU # of the S-VOL (0-4095) |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | —                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Message code | Message text                                                      | Description                                                                                                                                                                                                                                                                           | Collect the error | Recovery methods | Reference page |
|--------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|----------------|
| I1GW00       | Modular Volume Migration stopped (LU-x/y)                         | Modular Volume Migration was cancelled because the instruction of cancellation was received or the pair was changed to PSUE.<br>x : Internal LU # of the P-VOL (0-4095)<br>y : Internal LU # of the S-VOL (0-4095)                                                                    |                   | —                | —              |
| I1GX00       | Modular Volume Migration started (LU-x/y)                         | One Modular Volume Migration started.<br>x : Internal LU # of the P-VOL (0-4095)<br>y : Internal LU # of the S-VOL (0-4095)                                                                                                                                                           |                   | —                | —              |
| I1GY00       | The request of spin up of disk drives is accepted (RG-x)          | The spin-up was instructed by Hitachi Storage Navigator Modular 2 to the Disk Drive which was made to spin down for the power saving.<br>x : RAID group # (0-99)                                                                                                                      |                   | —                | —              |
| I1GZ00       | The spin up of disk drives completed (RG-x)                       | The Disk Drive which was made to spin-down for the power saving spun-up.<br>x : RAID group # (0-99)                                                                                                                                                                                   |                   | —                | —              |
| I1H000       | The request of spin down of disk drives is accepted (RG-x)        | The spin-down was instructed to the Disk Drive for the power saving from Hitachi Storage Navigator Modular 2.<br>x : RAID group # (0-99)                                                                                                                                              |                   | —                | —              |
| I1H100       | The spin down of disk drives completed (RG-x)                     | The Disk Drive set to the power saving spin-down.<br>x : RAID group # (0-99)                                                                                                                                                                                                          |                   | —                | —              |
| I1H200       | The recovery for the disk drives of power saving started (RG-x)   | Because a failure occurred in the Disk Drives to which the spin-down of the power saving was set, all the Disk Drives in the RAID Group displayed in the message were spin up, and the post-processing of the failure started.<br>x : RAID group # (0-99)                             |                   | —                | —              |
| I1H300       | The recovery for the disk drives of power saving completed (RG-x) | The post-processing of the failure of the Disk Drives to which the spin-down of the power saving was set was completed. And, the Disk Drives of the RAID Group displayed in the message were spin-down again according to the setting of the power saving.<br>x : RAID group # (0-99) |                   | —                | —              |

| Message code | Message text                                           | Description                                                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                      | Reference page                                                                                                                 |
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| I1H400       | Automatic health check of disk drives started (RG-x)   | The health check (it confirms that the adhesion of the head and the disk is prevented and the spindle motor rotates) started in the Disk Drive which was made to spin-down for the power saving started.<br>x : RAID group # (0-99) |                   | —                                                                                                                                                                     | —                                                                                                                              |
| I1H500       | Automatic health check of disk drives completed (RG-x) | The health check (it confirms that the adhesion of the head and the disk is prevented and the spindle motor rotates) of the Disk Drive which was made to spin-down for the power saving was completed.<br>x : RAID group # (0-99)   |                   | —                                                                                                                                                                     | —                                                                                                                              |
| I1H600       | PSUE occurred [SnapShot]                               | All SnapShot pairs were changed to PSUE, and the V-VOL data of the pairs changed to PSUE was discarded.                                                                                                                             | Simple Trace      | ① To recover the SnapShot pair from PSUE, request the customer to execute the pair creation (paircreate) after executing the pair release (pairsplit-S) for the pair. | —                                                                                                                              |
| I30100       | HDU error (Unit-x, HDU-y)                              | PDEV should be blocked because of an error, but it is not blocked since redundancy is insufficient.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                              | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)"</a> .                                          | <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a> |
| I301AT       | SATA HDU error (Unit-x, HDU-y)                         | PDEV should be blocked because of an error, but it is not blocked since redundancy is insufficient.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                              | Simple Trace      |                                                                                                                                                                       |                                                                                                                                |
| I30200       | System HDU error                                       | There is a drive which cannot handle the system before the system is ready.                                                                                                                                                         | Simple Trace      | ① Solve the failure according to "I14200 System copy failed" indicated before the message.                                                                            | —                                                                                                                              |
| I30300       | HDU read capacity failed (Unit-x, HDU-y)               | The insertion of the Disk Drive failed because the capacity of the replaced Disk Drive was small.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                |                   | ① Replace it with the Disk Drive of the same capacity or more as the Disk Drive before the replacement.                                                               | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                         |

| Message code | Message text                                                                    | Description                                                                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                                                          |
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| I30400       | HDU spin up failed (Unit-x, HDU-y)                                              | An insertion of a Disk Drive failed because of a Disk Drive failure.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                 |                   | ① Pull out the Disk Drive and insert it again. <sup>(*)</sup><br>② If the trouble is not solved in spite of the above operation, replace the Disk Drive.                                                                                                                                                                                                                                                                                                                                  | Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)                                                                                                                                                  |
| I30500       | HDU read capacity failed (Unit-x, HDU-y)                                        | An insertion of a Disk Drive failed because of an illegal read capacity.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                         |
| I30A00       | HDU number which is installed in RKAKX exceeds the restriction (Unit-x, HDU-y)  | The disk drives whose power consumption exceeded the product specification are installed in the RKAKX.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                               | Simple Trace      | ① 1. Remove the Disk Drives displayed in the message.<br>2. When installing the SAS Disk Drives in the RKAKX displayed in the message, install only the SAS Disk Drives in slots #A0 to #A18 and slots #B0 to #B18 of the RKAKX again.<br><b>Do not install SATA Disk Drives in this chassis.</b><br>Contact the customer/SE for the arrangement to install the SAS Disk Drives.<br>When removing the Disk Drives already used, perform the operation according to the removal procedure. | Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)<br>Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)<br>Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000) |
| I30B00       | The SAS HDU is installed in the restricted HDU slot of in RKAKX (Unit-x, HDU-y) | It is detected that the SAS Disk Drives are inserted in the slot #19 through #23 of the RKAKX.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                       |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                         |
| I30C00       | SAS HDU and SATA HDU cannot be installed in the same RKAKX (Unit-x, HDU-y)      | It is detected that the SATA Disk Drives are inserted in the slot #0 through #18 of the RKAKX chassis for the SAS, or the SAS Disk Drives are inserted in the slot #0 through #18 of the RKAKX chassis for the SATA.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   | 3. When installing the SATA Disk Drives in the RKAKX displayed in the message, install only the SATA Disk Drives in the RKAKX.<br>Contact the customer/SE for the arrangement to install the SATA Disk Drives.<br>When removing the Disk Drives already used, perform the operation according to the removal procedure.                                                                                                                                                                   | Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)<br>Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000)                                                           |

\*1 : If this message is issued frequently, it is suspected that one of the following cases have occurred.

- Symptom : Spin-up operation repeats interruption and restart because of contention with the RAID Manager command in the case where the ShadowImage in-system replication function is used.

Corrective action : Contact the system manager. If RAID Manager command is issued by polling in a short period, check the manual and change the value to be appropriate.

- Symptom : A spin up operation repeats an interruption and restart because LU switchings occur frequently.

Corrective action : Check the setting of the owner right to the LU and change it so that the LU switching does not occur owing to an I/O command issued by a host.

| Message code | Message text                           | Description                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                       |
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| I41000       | HDU error over (Unit-x, HDU-y) [HDRVC] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the recovered mechanism system.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)    |                   | ① Replace the Disk Drive.<br>When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> . | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |
| I41100       | HDU error over (Unit-x, HDU-y) [HDUNR] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered mechanism system.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41200       | HDU error over (Unit-x, HDU-y) [MDRCV] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the recovered medium system.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)       |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41300       | HDU error over (Unit-x, HDU-y) [MDUNR] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered medium system.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)    |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41400       | HDU error over (Unit-x, HDU-y) [RWRCV] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the recovered R/W system.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)          |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41500       | HDU error over (Unit-x, HDU-y) [RWUNR] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered R/W system.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)       |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41600       | HDU error over (Unit-x, HDU-y) [IFRCV] | The disk at the position indicated with x and y exceeds the threshold value because of an error in the recovered disk I/F.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)            |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |

| Message code | Message text                            | Description                                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                       |
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| I41700       | HDU error over (Unit-x, HDU-y) [IFUNR]  | The disk at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered disk I/F.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)              |                   | ① Replace the Disk Drive.<br>When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> . | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |
| I41800       | HDU error over (Unit-x, HDU-y) [CHRCV]  | The disk at the position indicated with x and y exceeds the threshold value because of an error in the recovered hardware.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                 |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41900       | HDU error over (Unit-x, HDU-y) [CHUNR]  | The disk at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered hardware.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)              |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41A00       | HDU error over (Unit-x, HDU-y) [SCRCV]  | The disk at the position indicated with x and y exceeds the threshold value because of an error in the recovered SCSI I/F.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                 |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41B00       | HDU error over (Unit-x, HDU-y) [SCUNR]  | The disk at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered SCSI I/F.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)              |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41C00       | HDU error over (Unit-x, HDU-y) [ONVRCV] | The disk at the position indicated with x and y exceeds the threshold value because of a correctable error in the on-line verification.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)    |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I41D00       | HDU error over (Unit-x, HDU-y) [ONVUNR] | The disk at the position indicated with x and y exceeds the threshold value because of an uncorrectable error in the on-line verification.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |

| Message code | Message text                            | Description                                                                                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                       |
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| I41E00       | HDU error over (Unit-x, HDU-y) [ONVHER] | In the disk located at a position shown as xy, the error count exceeded its threshold value owing to hardware errors (errors other than recovered error and media error) occurred in an online verification.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   | ① Replace the Disk Drive.<br>When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> . | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |
| I41F00       | HDU error over (Unit-x, HDU-y) [REAOV]  | An excess over the threshold value of the reassignment execution count occurred.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                             |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I4200x       | Online micro-update (CTL-x)             | The firmware of the Control Unit was replaced in the state in which the subsystem power was on.<br>x : Control Unit # (0-1)                                                                                                                                     |                   | —                                                                                                                                                                                                                                              | —                                                                                                                                                                                                    |
| I43000       | HDU byte check error (Unit-x, HDU-y)    | A failure was detected by the disk drive diagnosis.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                          | Simple Trace      | ① Replace the Disk Drive.<br>When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> . | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |

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| Message code | Message text                                                                                       | Description                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                       |
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| I52400       | HDU response timeout (Unit-x, HDU-y)                                                               | A Disk Drive failure was detected by frame sending diagnosis.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                               |                   | ① Replace the Disk Drive.<br>When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> . | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |
| I53500       | PSUE occurred [QuickShadow]                                                                        | When Copy-on-write SnapShot was executed, it was moved to PSUE.                                                                                                                | Simple Trace      | ① Refer to <a href="#">Troubleshooting "Chapter 9. Data Collection when a Failure Occurs in Program Product (P.P.)"</a> to collect necessary information.                                                                                      | <a href="#">Troubleshooting "Chapter 9. Data Collection when a Failure Occurs in Program Product (P.P.)" (TRBL 09-0000)</a>                                                                          |
| I53A0f       | Host connector recovered (Portxy)                                                                  | The Host Connector was recovered from a failure.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)<br>f : Host connector (Refer to <a href="#">(MSG 04-0000)</a> for the detail) |                   | —                                                                                                                                                                                                                                              | —                                                                                                                                                                                                    |
| I54E00       | Battery error inf. [More battery unit is required] (Battery-x)                                     | The number of Cache Backup Battery is less than the minimum number of installed units.<br>x : Cache Backup Battery # (0-1)                                                     |                   | ① Install the minimum number of Cache Backup Battery to be installed.                                                                                                                                                                          | <a href="#">Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)</a>                                                                                                                     |
| I54F00       | PS error inf. [PS status error] (Unit-x, PS-y)<br>PS error inf. [PS status error] (CTL-Unit, PS-y) | An error of the Power Unit of the Basic Chassis or Additional Chassis was detected.<br>x : Unit ID # (0-59)<br>y : Power Unit # (0-1)                                          |                   | ① Perform the maintenance according to the message text "PS alarm" displayed at the same time.                                                                                                                                                 | —                                                                                                                                                                                                    |
| I54G00       | PS error inf. [Remove] (Unit-x, PS-y)<br>PS error inf. [Remove] (CTL-Unit, PS-y)                   | The removal of the Power Unit of the Basic Chassis or Additional Chassis was detected.<br>x : Unit ID # (0-59)<br>y : Power Unit # (0-1)                                       |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| I54H0x       | FAN error inf. [Remove] (CTL-Unit, FAN-x)                                                          | The FAN Unit was removed.<br>x : FAN Unit # (0-1)                                                                                                                              |                   | —                                                                                                                                                                                                                                              | —                                                                                                                                                                                                    |
| I54J00       | ENC error inf. [Remove] (Unit-x, ENC-y)                                                            | The ENC Unit of the Additional Chassis was removed.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                            |                   | ① Insert the ENC Unit of the Additional Chassis in the slot of the ENC Unit displayed in the message.                                                                                                                                          | —                                                                                                                                                                                                    |

| Message code | Message text                                                     | Description                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                              |
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| I54K00       | FAN alarm [PS OFF] (Unit-x)<br>FAN alarm [PS OFF] (CTL-Unit)     | The planned shutdown was executed automatically due to a fan error of the Basic Chassis or Additional Chassis.<br>x : Unit ID # (0-59)                             |                   | ① Perform the maintenance according to the message text "PS alarm" or "FAN alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                    | —                                                                                                                                           |
| I54L0x       | Battery error inf. [Remove] (Battery-x)                          | The Cache Backup Battery was removed.<br>x : Cache Backup Battery # (0-3)                                                                                          |                   | ① 1. Check if the Cache Backup Battery displayed in the message is surely inserted all the way in the slot.<br>2. When the Cache Backup Battery is surely inserted all the way in the slot, replace the Cache Backup Battery. When it was removed consciously for removal, the executed removal procedure was incorrect. Therefore, insert the Cache Backup Battery once and check the message of "I0030x Battery recovered", and then remove the Cache Backup Battery in the correct procedure. | —<br><a href="#">Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)</a>                                                       |
| I54Mxy       | Battery error inf. [Cable error] (Additional Battery-y)          | The Additional Battery Box was removed.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Battery Box # (0-1)                                      |                   | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.23 Recovery Method when an Error of the Additional Battery Box Connection was Detected"</a> .                                                                                                                                                                                                                                                                                                                            | <a href="#">Troubleshooting "6.1.23 Recovery Method when an Error of the Additional Battery Box Connection was Detected" (TRBL 06-1010)</a> |
| I54N0x       | Battery error inf. [Charge circuit error] (Battery-x)            | An error of the charging circuit of the Cache Backup Battery was detected.<br>x : Cache Backup Battery # (0-3)                                                     |                   | ① Replace the Cache Backup Battery displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                     | <a href="#">Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)</a>                                                            |
| I54Pxy       | Battery error inf. [Charge circuit error] (Additional Battery-y) | An error of the charging circuit of the Additional Battery Box was detected.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Battery Box # (0-1) |                   | ① Replace the Additional Battery Box displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.14 Replacing Additional Battery Box" (REP 02-1280)</a>                                                         |

| Message code | Message text                                              | Description                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                    | Reference page                                                                                                                                                                                         |
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| I54Q0x       | Battery error inf. [I/F error] (Battery-x)                | An I/F failure of the Cache Backup Battery was detected.<br>x : Cache Backup Battery # (0-3)                                                       |                   | ① Replace the Cache Backup Battery displayed in the message.                                                                                                                                                                                                                                                        | <a href="#">Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)</a>                                                                                                                       |
| I54Rxy       | Battery error inf. [I/F error] (Additional Battery-y)     | An I/F failure of the Additional Battery Box was detected.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Battery Box # (0-1)   |                   | ① 1. Check if the power cable connected to the Additional Battery Box displayed in the message is surely inserted all the way in the connector.<br>2. When "I041xy Battery recovered" is not displayed in the Information message, replace the Additional Battery Box displayed in the message and the power cable. | —<br><br><a href="#">Replacement "2.2.14 Replacing Additional Battery Box" (REP 02-1280)</a><br><a href="#">Addition/Removal/Relocation "1.4.8 Adding an Additional Battery Box (e)" (ADD 01-0611)</a> |
| I54S0x       | Battery error inf. [Voltage error] (Battery-x)            | An error of the Cache Backup Battery voltage was detected.<br>x : Cache Backup Battery # (0-3)                                                     |                   | ① Replace the Cache Backup Battery displayed in the message.                                                                                                                                                                                                                                                        | <a href="#">Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)</a>                                                                                                                       |
| I54Txy       | Battery error inf. [Voltage error] (Additional Battery-y) | An error of the Additional Battery Box voltage was detected.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Battery Box # (0-1) |                   | ① Replace the Additional Battery Box displayed in the message.                                                                                                                                                                                                                                                      | <a href="#">Replacement "2.2.14 Replacing Additional Battery Box" (REP 02-1280)</a>                                                                                                                    |
| I54U0x       | The battery was added (Battery-x)                         | A Cache Backup Battery was added.<br>x : Cache Backup Battery # (0-3)                                                                              |                   | —                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                      |
| I54Vxy       | The battery added (Additional battery-y)                  | An Additional Battery Box was added.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Battery Box # (0-1)                         |                   | —                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                      |
| I54W0x       | The battery removed (Battery-x)                           | A Cache Backup Battery was subtracted.<br>x : Cache Backup Battery # (0-3)                                                                         |                   | —                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                      |
| I54Yxy       | The battery removed (Additional battery-y)                | An Additional Battery Box was subtracted.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Battery Box # (0-1)                    |                   | —                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                      |

| Message code | Message text                                                | Description                                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                         | Reference page                                                                                |
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| I54Z00       | PS error inf. [FAN speed error code-z/z] (Unit-x, PS-y)     | A fan error was detected in the Power Unit of the Basic Chassis or Additional Chassis.<br>x : Unit ID # (0-59)<br>y : Power Unit # (0-1)<br>z : Optional code                                                                             |                   | ① Perform the maintenance according to the message text "PS alarm" displayed at the same time.                           | —                                                                                             |
| I55000       | FAN error inf. [FAN speed error code-z/z] (Unit-x, FAN-y)   | A fan error of the Basic Chassis or Additional Chassis was detected.<br>x : Unit ID # (0-59)<br>y : FAN Unit # (0-1)<br>z : Optional code                                                                                                 |                   | ① Perform the maintenance according to the message text "FAN alarm" displayed at the same time.                          | —                                                                                             |
| I55100       | PS error inf. [FAN speed error code-y/y] (CTL-Unit, PS-x)   | An error of the fan in the Power Unit was detected.<br>x : Power Unit # (0-1)<br>y : Optional code                                                                                                                                        |                   | —                                                                                                                        | —                                                                                             |
| I55200       | FAN error inf. [FAN speed error code-y/y] (CTL-Unit, FAN-x) | An error of the fan was detected.<br>x : FAN Unit # (0-1)<br>y : Optional code                                                                                                                                                            |                   | —                                                                                                                        | —                                                                                             |
| I55300       | Please replace the Air Filter of Bezel                      | The Air Filter in the Front Bezel of the DC Power Unit passed the time for replacement.                                                                                                                                                   |                   | ① Replace the Air Filter in the Front Bezel of the DC Power Unit.                                                        | <a href="#">Replacement "3.3.2 Replacing the Air Filter of the Front Bezel" (REP 03-0050)</a> |
| I5G000       | ENC error inf. [Header error] (Unit-x, ENC-y)               | The ENC displayed in the message was blocked because it detected that the header of the SES data acquired from the ENC Unit of the Additional Chassis was abnormal.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                       |                   | ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time. | —                                                                                             |
| I5G100       | ENC error inf. [Fixed No. error] (Unit-x, ENC-y)            | The ENC displayed in the message was blocked because it was detected that the fixed value of the SES data acquired from the ENC Unit of the Additional Chassis was abnormal.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)              |                   |                                                                                                                          |                                                                                               |
| I5G200       | ENC error inf. [SES Rev. error] (Unit-x, ENC-y)             | The ENC displayed in the message was blocked because it was detected that the SES revision information of the SES data acquired from the ENC Unit of the Additional Chassis was abnormal.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   |                                                                                                                          |                                                                                               |

| Message code | Message text                                       | Description                                                                                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                         | Reference page |
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| I5G300       | ENC error inf. [F/W Rev. error] (Unit-x, ENC-y)    | The ENC displayed in the message was blocked because it was detected that the revision information of the ENC firmware of the SES data acquired from the ENC Unit of the Additional Chassis was abnormal.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                 |                   | ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time. | —              |
| I5G400       | ENC error inf. [ECTL Rev. error] (Unit-x, ENC-y)   | The ENC displayed in the message was blocked because it was detected that the revision information of ECTL of the SES data acquired from the ENC Unit of the Additional Chassis was abnormal.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                             |                   |                                                                                                                          |                |
| I5G500       | ENC error inf. [ENC Reboot error] (Unit-x, ENC-y)  | The ENC Unit displayed in the message was blocked because it detected from the acquired SES data that the ENC Unit of the Additional Chassis rebooted asynchronously with the command of the firmware of the array subsystem.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)             |                   |                                                                                                                          |                |
| I5G600       | ENC error inf. [Slot No. error] (Unit-x, ENC-y)    | The ENC Unit displayed in the message was blocked because it detected that the ENC number of the acquired SES data and that of the accessed Additional Chassis are mismatched.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                            |                   |                                                                                                                          |                |
| I5G700       | ENC error inf. [CUDG error code-z] (Unit-x, ENC-y) | The ENC Unit displayed in the message was blocked because it detected that a CUDG error occurred in the ENC Unit of the Additional Chassis by the SES data acquired from other system ENC of the Additional Chassis.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)<br>z : Optional code |                   |                                                                                                                          |                |

| Message code | Message text                                      | Description                                                                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                         | Reference page |
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| I5G900       | ENC error inf. [SXP error code-z] (Unit-x, ENC-y) | The ENC Unit displayed in the message was blocked because it detected that an SXP failure occurred in the ENC Unit of the Additional Chassis by the acquired SES data.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)<br>z : Optional code                             |                   | ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time. | —              |
| I5GB00       | ENC error inf. [Write error] (Unit-x, ENC-y)      | The ENC Unit displayed in the message was blocked because it detected that the write data to the ENC and the read data from the ENC Unit are mismatched by the processing command to the ENC of the Additional Chassis.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   |                                                                                                                          |                |
| I5H000       | Backend link error was detected (Unit-x, ENC-y)   | The subsystem specified that the back-end Link failed part is the ENC Unit of the Additional Chassis displayed in the message.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                                          |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.                          | —              |
| I5H100       | Backend link error was detected (Unit-x, HDU-y)   | The subsystem specified that the backend Link failed part was the HDU displayed in the message.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                      |                   | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.        | —              |

| Message code   | Message text                                                                     | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                              |
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| I5H3xy<br>(*1) | The search for the failure part of backend route error started (Path-x, Route-y) | Search (RES) of the failed part by the backend route started.<br>x : Path # (0-7)<br>y : Route # (0-1)       |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                                                                                                                           |
| I5H4xy         | The search for the failure part of backend route error ended (Path-x, Route-y)   | Search (RES) of the failed part by the backend route was completed.<br>x : Path # (0-7)<br>y : Route # (0-1) |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                                                                                                                           |
| I5H50x         | The backend postcode status error was detected (CTL-x)                           | A queue, whose transition status of POST of simple JOB is illegal, was detected.<br>x : Control Unit # (0-1) | CTL Alarm Trace   | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p>—</p> |

\*1 : If the Control Unit # (Route # displayed in the message code I5H3xy) that displayed this message is blocked after displaying the message, the END message (message code I5H4xy) of the processing which searches the failed part of the back-end route is not displayed in the Information Message.

| Message code | Message text                                                                          | Description                                                                                                                                                                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                                                                                           |
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| I5H60x       | The initialization of PCI Express failed because of the hardware error [DUAL] (CTL-X) | The initial setting of DUAL PCI Express of the Control Unit displayed in the message failed.<br>x : Control Unit # (0-1)                                                                                                                                                                                                                                         | CTL Alarm Trace   | ① Press the software reset button in 20 to 30 seconds after inserting the Control Unit in the Basic Chassis. If this message is displayed afterwards, disregard this message.<br>② Replace the Control Unit displayed in the message.<br>③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>—<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| I5H700       | ENC error count was over the threshold (Unit-x, ENC-y)                                | The count that received the SCSI status where the SCSI status code is check condition and the sense key is 4 (hardware error) or 5 (illegal request) from the ENC part of the Control Unit of the Basic Chassis displayed in the message or the ENC Unit of the Additional Chassis exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | —                                                                                                                                                                                                                                        |



| Message code                      | Message text                                                  | Description                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                    | Reference page                                                                      |
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| I5H800                            | Added unit failed [ENC type error] (Unit-x, ENC-y)            | When adding the Additional Chassis, an unsupported ENC Unit was detected in the Additional Chassis.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                    |                   | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.<br>2. Remove the Additional Chassis to be added from the existing chassis.<br>3. Replace the ENC Unit displayed in the message.<br>4. Add the Additional Chassis correctly again.                                                                                | —<br>—<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br>— |
| I5H900                            | Unsupported ENC was detected [ENC type error] (Unit-x, ENC-y) | When inserting the ENC Unit in the Additional Chassis, an unsupported ENC Unit was detected in the Additional Chassis.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.                                                                                                                                                                                                                                                     | —                                                                                   |
| I5HA00                            | Added unit failed [Cable error] (Unit-x, ENC-y)               | When adding the Additional Chassis, an improper connection of the ENC cable was detected.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                              |                   | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.<br>2. Remove the Additional Chassis to be added from the existing chassis.<br>3. Check the wiring of the ENC cable connected to the ENC Unit displayed in the message, and wire the ENC cable correctly again.<br>4. Add the Additional Chassis correctly again. | —<br>—<br>—<br>—                                                                    |
| I5HB00                            | ENC recovery failed [Cable error] (Unit-x, ENC-y)             | When inserting the ENC Unit in the Additional Chassis, an improper connection of the ENC cable was detected.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)           |                   | ① 1. Remove the ENC Unit displayed in the message.<br>2. There are one or more ENC cables connected incorrectly to the backend path of the ENC Unit displayed in the message. Review the wiring of all the ENC cables of the backend path of the ENC Unit displayed in the message                                                                  | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br>—           |
| To be continued to the next page. |                                                               |                                                                                                                                                                        |                   |                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |

| Message code | Message text                                                      | Description                                                                                                                                          | Collect the error | Recovery methods                                                                                | Reference page                                                            |
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|              |                                                                   |                                                                                                                                                      |                   | 3. Rewire the ENC cables correctly<br>4. Insert the ENC Unit in the Additional Chassis again.   | —<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a> |
| I5HC00       | ENC error was detected [Linkdown] (unit-x, ENC-y)                 | Link down was detected in the ENC Unit of the Additional Chassis.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                    |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time. | —                                                                         |
| I5HD00       | Connection was break for hdu (Unit-x, HDU-y)                      | Invalid Frame was received.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                                       |                   | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time. | —                                                                         |
| I5HE00       | D-SPC detected the offset error of the data frame (Unit-x, HDU-y) | Illegal OFFSET of the data frame was detected.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                    |                   |                                                                                                 |                                                                           |
| I5HF00       | Transfer length overrun was detected (Unit-x, HDU-y)              | SAS_CTL Rx Frame detected mismatch of transfer length (over run).<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                 |                   |                                                                                                 |                                                                           |
| I5HG00       | Transfer length underrun was detected (Unit-x, HDU-y)             | SAS_CTL Rx Frame detected mismatch of transfer length (UNDER RUN).<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                |                   |                                                                                                 |                                                                           |
| I5HH00       | Illegal NCQ command receive (Unit-x, HDU-y)                       | SAS_CTL received the invalid NCQ command.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                         |                   |                                                                                                 |                                                                           |
| I5HI00       | Frame not detected time out (Unit-x, HDU-y)                       | It became STP inactivity timeout between D-SPC (Drive side SAS Protocol Chip) and the Disk Drive.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23) |                   |                                                                                                 |                                                                           |
| I5HJ00       | Protocol check error was detected (Unit-x, HDU-y)                 | SAS_CTL received invalid Frame.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                                   |                   |                                                                                                 |                                                                           |
| I5HK00       | SATA Transport Error was detected (Unit-x, HDU-y)                 | SATA Transport Error was detected.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                                |                   |                                                                                                 |                                                                           |

| Message code | Message text                                        | Description                                                                                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                | Reference page |
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| I5HL00       | Open Failure Bad Destination (Unit-x, ENC-y)        | PHY of the ENC Unit of the Additional Chassis responded to the OPEN failure.<br>OPEN failure (abandon)<br>Bad Destination (EXPANDER)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                                |                   | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time. | —              |
| I5HM00       | Open Failure Wrong Destination (Unit-x, ENC-y)      | OPEN failed and PHY responded because the results that performed routing of EXPANDER differed.<br>OPEN failure (abandon) Wrong Destination (EXPANDER)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                               |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time. | —              |
| I5HN00       | Open Failure Protocol Not supported (Unit-x, ENC-y) | OPEN failed and PHY responded due to the unsupported protocol.<br>OPEN failure (abandon) Protocol Not supported (EXPANDER)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                                          |                   |                                                                                                 |                |
| I5HP00       | Open Failure STP Resource Busy (Unit-x, ENC-y)      | The STP resource became BUSY.<br>OPEN Failure (STP Resource Busy) (EXPANDER)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                                                                                        |                   |                                                                                                 |                |
| I5HQ00       | Nexus Loss (Unit-x, ENC-y)                          | The connection (OPEN) between the ENC Unit of the Additional Chassis and D-SPC (Drive-side SAS Protocol Chip) failed. Nexus Loss (EXPANDER)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                         |                   |                                                                                                 |                |
| I5HR00       | Illegal SMP response (Unit-x, ENC-y)                | The D-SPC (Drive-side SAS Protocol Chip) detected an ENC Unit failure of the additional chassis (SAS_SMP_REQUEST). (The D-SPC received the illegal SMP response frame from the ENC Unit of the Additional Chassis.)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1) |                   |                                                                                                 |                |

| Message code | Message text                                                                           | Description                                                                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                | Reference page                                                         |
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| I5HS00       | SMP response Frame error (Unit-x, ENC-y)                                               | SMP response Frame was accepted normally, but an error response existed.<br>(SAS_SMP_REQUESTE)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                                                                   |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time. | —                                                                      |
| I5HT00       | Illegal discover sas nodes receive (Unit-x, ENC-y)                                     | Receipt of illegal SMP response Frame or SMP frame acceptance became timeout.<br>(DISCOVER_SAS_NODES)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                                                            |                   |                                                                                                 |                                                                        |
| I5HU00       | SMP response Frame error (Unit-x, ENC-y)                                               | An error response of SMP response Frame existed.<br>(DISCOVER_SAS_NODES)<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)                                                                                                                                         |                   |                                                                                                 |                                                                        |
| I5HV00       | SCSI response error of ENC was detected (Unit-x, ENC-y)                                | The D-SPC (Drive-side SAS Protocol Chip) received the status other than the status byte code is good, check condition, busy and queue full from the ENC Unit of the Additional Chassis displayed in the message.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   |                                                                                                 |                                                                        |
| I5HW00       | HDU error [HDU Status = Command is not completed] (Unit-x, HDU-y)                      | Other status failures occurred due to the Disk Drive failure.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                 |                   | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time. | —                                                                      |
| I5HX00       | HDU error [HDU Status = Busy] (Unit-x, HDU-y)                                          | "status busy" occurred due to the Disk Drive failure.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                         |                   |                                                                                                 |                                                                        |
| I5HY00       | HDU error [HDU Status = Queue full] (Unit-x, HDU-y)                                    | "status queue full" occurred due to the Disk Drive failure.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                   |                   |                                                                                                 |                                                                        |
| I5HZ00       | HDU failure is detected [Command retry failed by PDEV time-out of HDU] (Unit-x, HDU-y) | It detected "PDEV TO failure retry over" of the command issued to the Disk Drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                             |                   | ① Replace the blocked Disk Drive.                                                               | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |

| Message code | Message text                                                                           | Description                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference page                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| I5I000       | ENC failure is detected [Command retry failed by PDEV time-out of ENC] (Unit-x, ENC-y) | It detected "PDEV TO failure retry over" of the command issued to EXP.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                       |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| I5I100       | HDU replace failed [Linkup NG] (Unit-x, HDU-y)                                         | The recovery of the Disk Drive failed because the inserted Disk Drive was not registered in the discover map.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                             | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| I5I200       | ENC recovery failed [Linkup NG] (Unit-x, ENC-y)                                        | The recovery of the ENC Unit failed because the ENC Unit inserted in the Additional Chassis was not registered in the back-end discover map.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      | ① 1. Check the wiring of the ENC cable connected to the ENC Unit displayed in the message, and wire the ENC cable correctly again.<br>2. Perform the dummy replacement <sup>(*)</sup> of the ENC Unit displayed in the message.<br>② Replace the ENC Unit displayed in the message.<br>③ 1. If not recovered, replace the connection source of the ENC Unit (ENC Unit or Control Unit).<br>2. Perform the dummy replacement <sup>(*)</sup> of the ENC Unit displayed in the message.<br>④ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>—<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |

\*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.

| Message code | Message text                                                            | Description                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                | Reference page |
|--------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------|----------------|
| I51400       | The addition of the unit failed [Linkup NG] (Unit-x, ENC-y)             | The addition of the Additional Chassis failed because the ENC Unit of the added Additional Chassis was not registered in the back-end discover map.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      | ① Perform the addition of the Additional Chassis from the beginning again.                      | —              |
| I51500       | SCSI response of ENC was "BUSY" (Unit-x, ENC-y)                         | Expander responded "busy" for the status of the SCSI command response (SCSI STATUS ERROR BUSY (Expander)).<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                          | Simple Trace      | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time. | —              |
| I51600       | SCSI response of ENC was "QUEUE FULL" (Unit-x, ENC-y)                   | Expander responded "Queue full" for the status of the SCSI command response. (SCSI STATUS ERROR QUEUE_FULL (Expander))<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                              | Simple Trace      |                                                                                                 |                |
| I51700       | Expander error of the ENC was detected [04-3400] (Unit-x, ENC-y)        | The ENC responded the check condition frame whose sense key/sense code is 04/3400.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                  | Simple Trace      |                                                                                                 |                |
| I51800       | Intermittent ENC error was over the threshold [04-3400] (Unit-x, ENC-y) | The count that received the check condition frame, whose sense key/sense code is 04/3400, from the ENC exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                | Simple Trace      |                                                                                                 |                |
| I51900       | Expander error of the ENC was detected [05-****] (Unit-x, ENC-y)        | The ENC responded the check condition frame whose sense key/sense code is 05/****.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                  | Simple Trace      |                                                                                                 |                |

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| Message code | Message text                                                            | Description                                                                                                                                                                          | Collect the error | Recovery methods                                                                                | Reference page |
|--------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------|----------------|
| I5IA00       | Intermittent ENC error was over the threshold [05-****] (Unit-x, ENC-y) | The count that received the check condition frame, whose sense key/sense code is 05/****, from the ENC exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time. | —              |
| I5IB00       | Expander error of the ENC was detected [05-CCCC] (Unit-x, ENC-y)        | The ENC responded the check condition frame whose sense key/sense code is 05/CCCC.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                   | Simple Trace      |                                                                                                 |                |
| I5IC00       | Intermittent ENC error was over the threshold [05-CCCC] (Unit-x, ENC-y) | The count that received the check condition frame, whose sense key/sense code is 05/CCCC, from the ENC exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      |                                                                                                 |                |
| I5ID00       | Expander error of the ENC was detected [0B-4400] (Unit-x, ENC-y)        | The ENC responded the check condition frame whose sense key/sense code is 0B/4400.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                   | Simple Trace      |                                                                                                 |                |
| I5IE00       | Intermittent ENC error was over the threshold [0B-4400] (Unit-x, ENC-y) | The count that received the check condition frame, whose sense key/sense code is 0B/4400, from the ENC exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      |                                                                                                 |                |
| I5IF00       | Expander error of the ENC was detected [0B-4B**] (Unit-x, ENC-y)        | The ENC responded the check condition frame whose sense key/sense code is 0B/4B**.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                   | Simple Trace      |                                                                                                 |                |
| I5IG00       | Intermittent ENC error was over the threshold [0B-4B**] (Unit-x, ENC-y) | The count that received the check condition frame, whose sense key/sense code is 0B/4B**, from the ENC exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) | Simple Trace      |                                                                                                 |                |



| Message code | Message text                                                                    | Description                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                 | Reference page                                                              |
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| I5IH00       | Expander error of the ENC was detected [Unexpected SSB] (Unit-x, ENC-y)         | The ENC transmitted the check condition frame to which an unexpected sense key is set.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                         | Simple Trace      | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.                                                                                  | —                                                                           |
| I5IJ00       | Intermittent ENC error was over the threshold [Unexpected SSB] (Unit-x, ENC-y)  | The count that received the check condition frame, to which an unexpected sense key is set, from the ENC exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)         | Simple Trace      |                                                                                                                                                                                  |                                                                             |
| I5IK00       | Expander error count of the ENC was over the threshold [CODE-z] (Unit-x, ENC-y) | D-SPC (Drive-side SAS Protocol Chip) detected a failure of the ENC and the failure count exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)<br>z : CODE # (0-FF)    | Simple Trace      |                                                                                                                                                                                  |                                                                             |
| I5IL00       | HDU error count was over the threshold [CODE-z] (Unit-x, HDU-y)                 | D-SPC (Drive-side SAS Protocol Chip) detected a Disk Drive failure and the failure count exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z : CODE # (0-FF) | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.                                                                                  | —                                                                           |
| I5J000       | The power-on of the array unit failed [ENC type error] (Unit-x, ENC-y)          | An unsupported ENC Unit was detected when the power of the chassis was turned on.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                              |                   | ① Replace the ENC Unit displayed in the message.                                                                                                                                 | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>        |
| I5J100       | The power-on of the array unit failed [Cable error] (Unit-x, ENC-y)             | An improper connection of the ENC cable was detected when the power of the chassis was turned on.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                              |                   | ① 1. Check the wiring of the ENC cable connected to the ENC Unit displayed in the message, and wire the ENC cable correctly again.<br>2. Turn on the power of the chassis again. | —<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |

| Message code                      | Message text                                                                             | Description                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                                                                                                                                                                                                                           |
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| I5J200                            | ENC error inf.<br>[RKAKX Product number error] (Unit-x, ENC-y)                           | The serial number of the Additional Chassis was unable to be acquired due to the SES access error of the ENC.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   | ① When "ENC alarm" is displayed at the same time, replace the ENC Unit displayed in this message.<br>② 1. When this message is displayed while adding the Additional Chassis, remove the Additional Chassis displayed in this message from the subsystem.<br>2. Replace the ENC Unit of the additional chassis displayed in the message.<br>3. Add the Additional Chassis again.                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Addition/Removal/Relocation "1.6 Adding the Additional Subsystem to the Rack Frame" (ADD 01-0660)</a><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.12 Replacing Additional Chassis of Rack Mount Style" (REP 02-1220)</a> |
| I5J300                            | Product number error was detected<br>[discrepancy between RKAKX-A and RKAKX-B] (RKAKX-x) | The serial number of the RKAKX did not match between the RKAKX-A and RKAKX-B.<br>x : RKAKX Chassis # (0-18)                                                   |                   | ① 1. When this message is displayed while starting the subsystem, check if the ENC cable connected to the RKAKX is connected correctly.<br>2. When the ENC cable is connected incorrectly, turn off the power of the subsystem.<br>3. Connect the ENC cable correctly again.<br>4. Turn on the power of the subsystem.<br>② 1. When this message is displayed while adding the RKAKX, check if the ENC cable of the added RKAKX displayed in the message is connected correctly.<br>2. If the ENC cable is connected incorrectly, remove the RKAKX displayed in this message from the subsystem. | —<br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—                                                                                                                                                                                   |
| To be continued to the next page. |                                                                                          |                                                                                                                                                               |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                          |

| Message code | Message text                                                                                 | Description                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                                                                                                                                                                                  |
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|              |                                                                                              |                                                                                           |                   | 3. Connect the ENC cable correctly again.<br>4. Add the RKAKX again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Addition/Removal/Relocation "1.6 Adding the Additional Subsystem to the Rack Frame" (ADD 01-0660)</a>                                                                                                                                                                                               |
| I5J400       | Product number error was detected<br>[RKAKXs have same product number]<br>(RKAKX-x, RKAKX-x) | Two RKAKXs which have the same serial number were detected.<br>x : RKAKX Chassis # (0-18) |                   | ① 1. When this message is displayed while starting the subsystem, check if the ENC cable connected to the RKAKX is connected correctly.<br>2. When the ENC cable is connected incorrectly, turn off the power of the subsystem.<br>3. Connect the ENC cable correctly again.<br>4. Turn on the power of the subsystem.<br>② 1. When this message is displayed while adding the RKAKX, the serial number of the added RKAKX displayed in the message is duplicated with the RKAKX already connected to the subsystem. Therefore, replace the RKAKX itself.<br>2. Add the RKAKX again. | —<br><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">Addition/Removal/Relocation "1.6 Adding the Additional Subsystem to the Rack Frame" (ADD 01-0660)</a> |

| Message code | Message text                                                                              | Description                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                                                                                                                                                                           |
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| I5J500       | Product number error was detected<br>[discrepancy between ENC of RKAKX]<br>(RKAKX- (x-y)) | The serial number of the RKAKX did not match between the ENCs.<br>x : RKAKX Chassis # (0-18)                              |                   | ① 1. Replace the added RKAKX displayed in the message.<br><br>2. Replace the ENC Unit of the added RKAKX displayed in the message.<br><br>3. Add the RKAKX again.                                                                                                                                                                                                                                                                                                                                                                                                                    | <a href="#">Replacement "2.2.12 Replacing Additional Chassis of Rack Mount Style" (REP 02-1220)</a><br><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><br><a href="#">Addition/Removal/Relocation "1.6 Adding the Additional Subsystem to the Rack Frame" (ADD 01-0660)</a> |
| I5J600       | Added unit failed<br>[Cable error] (Unit-x)                                               | When adding the Additional Chassis, an improper connection of the ENC cable was detected.<br>x : Unit ID # (0-59)         |                   | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.<br><br>2. Remove the ENC cables connecting the Additional Chassis to be added and the existing Chassis.<br><br>3. The power cables may have been inserted into the power connectors loosely. Be sure to insert the power cables firmly into the power connectors on two Power Units of the chassis to be added.<br><br>4. Check the wiring of the ENC cables connected to the chassis to be added, and wire the ENC cables correctly again.<br><br>5. Add the Additional Chassis correctly again. | —<br><br>—<br><br>—<br><br>—<br><br>—                                                                                                                                                                                                                                                                    |
| I5J700       | The power-on of the array unit failed<br>[Cable error] (Unit-x)                           | An improper connection of the ENC cable was detected when the power of the chassis was turned on.<br>x : Unit ID # (0-59) |                   | ① 1. Check the wiring of the ENC cable connected to the ENC Unit displayed in the message, and wire the ENC cable correctly again.<br><br>2. Turn on the power of the chassis again.                                                                                                                                                                                                                                                                                                                                                                                                 | —<br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                                                                                                                                                          |

| Message code | Message text                                                     | Description                                                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                           | Reference page                                                       |
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| I5YB00       | Loop S1 error (Path-x, Loop-y)                                   | The error count of LOOP S1 exceeded its threshold value.<br>x : Path # (0-7)<br>y : Loop # (0-1)                                                                                                                                                 |                   | —                                                                                                                                                                                                                                                                                          | —                                                                    |
| I5YP00       | ENC microprogram download info. (Revision Check NG Unit-x ENC-y) | The firmware revision acquired from the ENC Unit of the Additional Chassis that replaced the ENC firmware was different from the uploaded ENC firmware revision.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                 |                   | ① The ENC firmware displayed in the message is not updated. Replace the ENC Unit displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the ENC Unit. Check that the customer has no problem on the operation, and then perform it. | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a> |
| I5YY00       | ENC error inf. [PK error code-z] (Unit-x, ENC-y)                 | The ENC Unit displayed in the message was blocked because it detected that a package failure occurred in the ENC Unit of the Additional Chassis from the acquired SES data.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)<br>z : Optional code |                   | ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.                                                                                                                                                                   | —                                                                    |

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| Message code | Message text                                  | Description                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                |
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| I6010x       | LAN failure (CTL-x)                           | The LAN state is invalid.<br>x : Control Unit # (0-1)                                                                                                                                                  |                   | ① Confirm the LAN cable.<br>② A Replace the Control Unit of the No. indicated with x.                                                                                                                                                                                                                                                                                      | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| I603xy       | Obstacle part unknown (Path-x, Loop-y)        | Failed part was not identified by Loop diagnosis.<br>x : Path # (0-7)<br>y : Loop # (0-1)                                                                                                              | Simple Trace      | ① When one of the following messages is displayed before this message, take recovery actions according to the message.<br>• W01z0x "CTL alarm"<br>• W09zab "HDU alarm"<br>• W0Azab "SATA HDU alarm"<br>• W0Bzab "Spare HDU alarm"<br>• W0Czab "SATA Spare HDU alarm"<br>• W0Fze0 "ENC alarm"<br>• W0Gze0 "SENC alarm"<br>• I30100 "HDU error"<br>• I301AT "SATA HDU error" | —                                                                             |
| I6070x       | CACHE error over (CACHE-x) [CRECT]            | The number of cache correctable error occurrences exceeded its threshold value in the DMA transfer. (during the single system operation.)<br>x : Cache Unit # (0-3)                                    |                   | ① Remove the Cache Unit in which the failure occurred after the sequential shutdown.                                                                                                                                                                                                                                                                                       | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>        |
| I60D00       | Data pool has enough free space (Data pool-x) | The usage rate of the pool which was exceeding the threshold value of the user setting decreased to less than the threshold value of the user setting that PFUS is released.<br>x : Data pool # (0-63) |                   | —                                                                                                                                                                                                                                                                                                                                                                          | —                                                                             |
| I61000       | ENC error inf. [parity error]                 | Because a parity error occurred in the ENC, the ENC concerned was blocked.                                                                                                                             |                   | —                                                                                                                                                                                                                                                                                                                                                                          | —                                                                             |
| I61D00       | Shutdown Warning                              | The cache volatilized because the previous sequential shutdown had not been executed.                                                                                                                  |                   | ① From the next time on, turn off the power using the main switch.                                                                                                                                                                                                                                                                                                         | —                                                                             |
| I61E00       | PIN-over [Forced parity correction]           | A parity correction was terminated because an amount of pinned data exceeded its threshold value.                                                                                                      | Simple Trace      | —                                                                                                                                                                                                                                                                                                                                                                          | —                                                                             |

| Message code                      | Message text                                           | Description                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference page                                                                                                                                      |
|-----------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| I620xy                            | Link error was detected in the attached link (Port-xy) | The link system failure on the link where the board displayed in the message is connected occurred more than the threshold value count within the fixed time.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)  | Simple Trace      | ① Perform the maintenance referring to <a href="#">Troubleshooting "Chapter 5. Procedure for Investigating Disk Array Subsystem Regarding Fibre Channel Failure"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Troubleshooting "Chapter 5. Procedure for Investigating Disk Array Subsystem Regarding Fibre Channel Failure" (TRBL 05-0000)</a>        |
| I621xy                            | Link error in the path                                 | The illegal transferred data length occurred more times than the threshold value within a certain period caused by a failure that had occurred in the path concerned.<br>x : Path # (0-7)<br>y : Target ID (0) | Simple Trace      | ① Refer to the <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 06-0820)</a> |
| I622xy                            | Link down time-out was detected (Port-xy)              | The port displayed in the message and in which the remote path is set has not linked up for more than the specified time.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)                                      | Simple Trace      | When a port is a Fibre Channel interface<br>① 1. When the port displayed in the message has the link-up record, ask the customer/SE for the cooperation and replace any of the connection devices on the Fibre Channel link where the port displayed in the message is established (Interface Board in which the port displayed in the message is installed, host connector of the port displayed in the message, optical cable, GBIC <Fibre Channel Switch, HBA>, Fibre Channel Switch, Interface Board of the remote subsystem, host connector of the remote subsystem, extender, etc.).<br>2. Check that the Fibre Channel link links up and "Path alarm" recovers. | —<br>—                                                                                                                                              |
| To be continued to the next page. |                                                        |                                                                                                                                                                                                                |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                     |



| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page |
|-----------------------------------|--------------|-------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                                   |              |             |                   | <p>② 1. When the port displayed in the message has no link-up record, request the customer/SE to check if the following items are satisfied for the settings of the port displayed in the message and the port to be connected directly.</p> <ul style="list-style-type: none"> <li>• "Transfer rate" is the same or "transfer rate" supported by both ports exists, and a setting expected as a system is executed.</li> <li>• Topology is the same.</li> <li>• "Port address" is unmatched.</li> </ul>    | —              |
|                                   |              |             |                   | <p>2. If not recovered, ask the customer/SE for the cooperation and replace any of the connection devices on the Fibre Channel link where the port displayed in the message is established (Interface Board in which the port displayed in the message is installed, host connector of the port displayed in the message, optical cable, GBIC &lt;Fibre Channel Switch, HBA&gt;, Fibre Channel Switch, Interface Board of the remote subsystem, host connector of the remote subsystem, extender, etc.)</p> | —              |
|                                   |              |             |                   | <p>3. Check that the Fibre Channel link links up and "Path alarm" recovers.</p>                                                                                                                                                                                                                                                                                                                                                                                                                             | —              |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                               |
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|              |              |             |                   | ③ Refer to <a href="#">Troubleshooting "Chapter 5. Procedure for Investigating Disk Array Subsystem Regarding Fibre Channel Failure"</a> .                                                                                                                                                                                                                                                                           | <a href="#">Troubleshooting "Chapter 5. Procedure for Investigating Disk Array Subsystem Regarding Fibre Channel Failure" (TRBL 05-0000)</a> |
|              |              |             |                   | When a port is an iSCSI interface                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                              |
|              |              |             |                   | ① 1. When the port displayed in the message has the link-up record, ask the customer/SE for the cooperation and replace any of the connection devices on the link where the port concerned displayed in the message is established (Interface Board in which the port displayed in the message is installed, LAN cable, LAN Switch, Interface Board of the remote subsystem).                                        | —                                                                                                                                            |
|              |              |             |                   | 2. Check that the iSCSI link links up and "Path alarm" recovers.                                                                                                                                                                                                                                                                                                                                                     | —                                                                                                                                            |
|              |              |             |                   | ② 1. When the port displayed in the message has no link-up record, request the customer/SE to check if the following items are satisfied for the settings of the port displayed in the message and the port to be connected directly.<br>• "Negotiation mode (transfer rate, full duplex/half duplex)" is the same or "transfer rate" supported by both ports exists and a setting expected as a system is executed. | —                                                                                                                                            |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                              |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                         | Reference page                                                                                                                                     |
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|              |              |             |                   | 2. Ask the customer/SE for the cooperation and replace any of the connection devices on the link where the port displayed in the message is established (Interface Board in which the port displayed in the message is installed, LAN cable, LAN Switch, Interface Board of the remote subsystem, etc.). | —                                                                                                                                                  |
|              |              |             |                   | 3. Check that the iSCSI link links up and "Path alarm" recovers.                                                                                                                                                                                                                                         | —                                                                                                                                                  |
|              |              |             |                   | ③ Refer to <a href="#">Troubleshooting "Chapter 11. Procedure for the iSCSI System Failure Determination on the Disk Array Subsystem Side"</a> .                                                                                                                                                         | <a href="#">Troubleshooting "Chapter 11. Procedure for the iSCSI System Failure Determination on the Disk Array Subsystem Side" (TRBL 11-0000)</a> |

| Message code | Message text                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference page             |
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| I623xy       | The target of remote path cannot be connected (Port-xy) | <p>&lt;In the case of the direct connection&gt;</p> <p>Although the array subsystem displayed in the message tried to log in the remote subsystem, the remote subsystem was not connected. Alternatively, when the port displayed in the message linked up, the Loop Map of LILP indicated "the node on the Loop is not one-to-one connection" (although Fabric Switch is not connected, the subsystem other than two array subsystems, the array subsystem which displayed the message the remote subsystem of the remote site of the remote copy, is connected).</p> <p>&lt;In the case of the connection via SW&gt;</p> <p>Although the array subsystem displayed in the message tried to log in the remote subsystem, the serial number (WWN) of the remote subsystem was not registered in NameServer of SWFabric Switch.</p> <p>&lt;iSCSI port&gt;</p> <p>The connection and login from the array subsystem which displayed the message to the array subsystem of the remote site of the remote copy were terminated abnormally or timed out.</p> <p>x : Control Unit # (0-1)<br/>y : Port # (A-H)</p> | Simple Trace      | <p>When a port is a Fibre Channel interface</p> <p>① 1. Request the customer/SE to check if the setting of the remote path of the array subsystem which displayed the message and the setting of the remote path of the remote subsystem (interface type, remote array ID, local port #, remote port #) are correct.</p> <p>2. When the setting of the remote path is incorrect, request the customer/SE to delete the remote path consists of the ports displayed in the message, and then create the remote path again using the correct setting value.</p> <p>② 1. Request the customer/SE to check if the connection devices between the array subsystem which displayed the message and the remote subsystem of the remote site (array subsystem displayed in the message, optical cable, GBIC &lt;Fibre Channel Switch HBA&gt;, Fibre Channel Switch, remote subsystem of the remote copy, extender, etc.) are connected correctly.</p> <p>To be continued to the next page.</p> | <p>—</p> <p>—</p> <p>—</p> |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                    |
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|                                   |              |             |                   | 2. When the connection devices are not connected correctly, request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy after reconstructing the system.                                                                                                                                                                                                                                                  | "User's Guide" of the remote copy |
|                                   |              |             |                   | ③ 1. Ask the customer/SE for the cooperation and replace any of the connection devices between the array subsystem which displayed the message and the remote subsystem of the remote site of the remote copy (Interface Board in which the port displayed in the message is installed, host connector of the port displayed in the message, optical cable, GBIC <Fibre Channel Switch, HBA>, Fibre Channel Switch, Interface Board of the remote subsystem, host connector of the remote subsystem, extender, etc.) | —                                 |
|                                   |              |             |                   | 2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.                                                                                                                                                                                                                                                                                                                                           | "User's Guide" of the remote copy |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                   |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                                                                    |
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|                                   |              |             |                   | ④ 1. Refer to <a href="#">Troubleshooting "Chapter 5. Procedure for Investigating Disk Array Subsystem Regarding Fibre Channel Failure"</a> .<br>2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the <a href="#">"User's Guide"</a> of the remote copy.<br>When a port is an iSCSI interface                                                                                                                                                                                                                                                                           | <a href="#">Troubleshooting "Chapter 5. Procedure for Investigating Disk Array Subsystem Regarding Fibre Channel Failure" (TRBL 05-0000)</a><br><a href="#">"User's Guide"</a> of the remote copy |
|                                   |              |             |                   | ① 1. Request the customer/SE to check if the remote port IP address set to the array subsystem which displayed the message and the remote port TCP port number match the IP address of the remote subsystem by the remote path consists of the ports which displayed the message and the TCP port number.<br>2. When the setting value between the array subsystem which displayed the message and the remote subsystem of the remote site does not match, delete the remote path, and then create the remote path again using the same setting value between the array subsystem which displayed the message and the remote subsystem of the remote site. | —                                                                                                                                                                                                 |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                   |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                | Reference page                    |
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|                                   |              |             |                   | ② Request the customer/SE to check that the remote system of the remote copy is starting.                                                                                                                                                                                                                                                                                       | —                                 |
|                                   |              |             |                   | ③ 1. Request the customer/SE to check if the connection devices between the array subsystem which displayed the message and the remote subsystem of the remote site (Interface Board in which the port displayed in the message is installed, LAN cable, LAN Switch, interface board of the remote subsystem, WAN Optimization Controller <WOC>, etc.) are connected correctly. | —                                 |
|                                   |              |             |                   | 2. When the connection devices are not connected correctly, request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy after reconstructing the system.                                                                                                             | "User's Guide" of the remote copy |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                                   |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                                                                                                                     |
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|              |              |             |                   | <p>④ 1. Ask the customer/SE for the cooperation and replace any of the connection devices between the array subsystem which displayed the message and the remote subsystem of the remote site of the remote copy (Interface Board in which the port displayed in the message is installed, LAN cable, LAN Switch, Interface Board of the remote subsystem, WAN Optimization Controller &lt;WOC&gt;, etc.).</p> <p>2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to "User's Guide" of the remote copy.</p> | —                                                                                                                                                                                  |
|              |              |             |                   | <p>⑤ 1. Refer to Troubleshooting "Chapter 11. Procedure for the iSCSI System Failure Determination on the Disk Array Subsystem Side".</p> <p>2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to "User's Guide" of the remote copy.</p>                                                                                                                                                                                                                                                                      | <p>Troubleshooting "Chapter 11. Procedure for the iSCSI System Failure Determination on the Disk Array Subsystem Side" (TRBL 11-0000)</p> <p>"User's Guide" of the remote copy</p> |



| Message code                      | Message text                                                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                       | Reference page                                                                                                                                                                         |
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| I624xy                            | Login resources of remote array for remote copy are not enough (Port-xy) | <p>&lt;Fibre Channel port&gt;<br/>When the array subsystem which displayed the message logged in the remote subsystem of the remote site of the remote copy by the set remote path, "Since the ports of the remote subsystem are connected to the maximum number of initiators, the array subsystem which displayed this message cannot log in the port of the remote subsystem." is reported by the response by the PLOGI command from the remote subsystem.</p> <p>&lt;SCSI port&gt;<br/>When the array subsystem which displayed the message logged in the remote subsystem of the remote site of the remote copy by the set remote path, "Since the ports of the remote subsystem are connected to the maximum connectable number of initiators, the array subsystem which displayed this message cannot log in the port of the remote subsystem." is reported by the login response from the remote subsystem.<br/>x : Control Unit # (0-1)<br/>y : Port # (A-H)</p> | Simple Trace      | When a port is a Fibre Channel interface                                                                                                                                                               | <p>—</p> <p>"User's Guide" of the remote copy</p> <p>System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</p> <p>"User's Guide" of the remote copy</p> |
|                                   |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   | ① 1. Request the customer/SE to reduce one or more host computers connected to the ports of the remote subsystem of the remote copy by the remote path consists of the ports displayed in the message. |                                                                                                                                                                                        |
|                                   |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   | 2. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.                                                                       |                                                                                                                                                                                        |
|                                   |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   | When a port is an iSCSI interface                                                                                                                                                                      |                                                                                                                                                                                        |
|                                   |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   | ① 1. Request the customer/SE to check if the priced option of the remote copy is unlocked in the remote subsystem of the remote site viewed from the array subsystem displayed in the message.         |                                                                                                                                                                                        |
|                                   |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   | 2. When the priced option of the remote copy was not unlocked, request the customer/SE to unlock the priced option of the remote copy.                                                                 |                                                                                                                                                                                        |
|                                   |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   | 3. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.                                                                       |                                                                                                                                                                                        |
| To be continued to the next page. |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                                                                                                                                                                                                        |                                                                                                                                                                                        |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                    |
|--------------|--------------|-------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
|              |              |             |                   | ② 1. Request the customer/SE to check if the other unexpected array subsystem (B) logs in the port of the remote subsystem (A) of the remote site viewed from the array subsystem displayed in the message as the remote copy connection (concretely, the serial number of the remote subsystem (A) of the remote site is set as the remote array ID in the remote path property window of Hitachi Storage Navigator Modular 2 for the other unexpected array subsystem (B)). | —                                 |
|              |              |             |                   | 2. When the other unexpected array subsystem (B) logs in the port of the remote subsystem (A) of the remote site as the remote copy connection, request the customer/SE to delete the remote path of the other unexpected array subsystem (B).                                                                                                                                                                                                                                | —                                 |
|              |              |             |                   | 3. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.                                                                                                                                                                                                                                                                                                                                              | "User's Guide" of the remote copy |
|              |              |             |                   | ③ 1. Request the customer/SE to reduce one or more host computers connected to the ports of the remote subsystem of the remote copy by the remote path consists of the ports displayed in this message.                                                                                                                                                                                                                                                                       | —                                 |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                   |

| Message code | Message text                           | Description                                                                                                                                                                                                                                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                    | Reference page                                                                                                                                                        |
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|              |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                        |                   | 2. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.                                    | "User's Guide" of the remote copy                                                                                                                                     |
| I625xy       | Fabric connection failed (Port-xy)     | The transmission or response of the FLOGI, PLOGI, RCS_ID, SCR or RSCN frame which tried to be issued to Fabric Switch terminated abnormally by the login sequence for the remote-side disk array subsystem of the set remote path (a failure that the frame of the login sequence is damaged or timed out has occurred between the array subsystem and Fabric Switch).<br>x : Control Unit # (0-1)<br>y : Port # (A-H) | Simple Trace      | ① Replace the Fibre Channel Interface Board.<br><br>② Replace the host connector.<br><br>③ Replace the optical cable, extender, GBIC of Switch, Switch itself, etc. | Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)<br><br>Replacement "2.2.8 Replacing Host Connector" (REP 02-0950)<br><br>Refer to manual of each product. |
| I62600       | Path login failed                      | Sending and response of PLOGI and PRLI done at the time of a log-in to the set path terminated abnormally.                                                                                                                                                                                                                                                                                                             | Simple Trace      | ① Refer to the Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function".                                | Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 06-0820)                                   |
| I62700       | Link down time-out [Path]              | To a port for which a path has been set but no link up to the path has been done for longer than the regulated time, a setting of another path was requested.                                                                                                                                                                                                                                                          | Simple Trace      |                                                                                                                                                                     |                                                                                                                                                                       |
| I62800       | Path alarm for CTL alarm               | The path was detached as a result of the CTL detachment.                                                                                                                                                                                                                                                                                                                                                               | Simple Trace      | ① Replace the Control Unit whose ALM LED is on.                                                                                                                     | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                                                                              |
| I62900       | Remote equipment ID error              | Path detach occurred due to inconsistency of remote equipment IDs.                                                                                                                                                                                                                                                                                                                                                     | Simple Trace      | ① Refer to the Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function".                                | Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 06-0820)                                   |
| I62A00       | Remote option disable [RVRF]           | A path detachment occurred because the optional function of the remote DF was locked.                                                                                                                                                                                                                                                                                                                                  | Simple Trace      |                                                                                                                                                                     |                                                                                                                                                                       |
| I62B00       | Port un-mounting error                 | A path detachment occurred because the port was not installed.                                                                                                                                                                                                                                                                                                                                                         | Simple Trace      |                                                                                                                                                                     |                                                                                                                                                                       |
| I62D00       | Remote option disable [TrueCopy Basic] | A path detachment occurred because the optional TrueCopy remote replication function of the remote DF was locked.                                                                                                                                                                                                                                                                                                      | Simple Trace      |                                                                                                                                                                     |                                                                                                                                                                       |

| Message code | Message text                                     | Description                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference page                                                                       |
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| I63000       | Write uncompleted block detected                 | An incomplete writing was detected at the time of the staging in a data copying from the primary LU to the secondary LU.                                                                                                                                                 | Simple Trace      | ① Reformat the LU concerned.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">System Parameter "3.3 [Procedure ③-F] Formatting LU" (SYSPR 03-0290)</a> |
| I69000       | E-Mail parameter set failed                      | A setting of the E-mail parameters failed when making initial settings of the E-mail.                                                                                                                                                                                    | Simple Trace      | ① Check the E-mail parameters and make the setting again.                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                    |
| I69100       | E-Mail send failed                               | A sending of a mail for informing of a failure occurrence failed.                                                                                                                                                                                                        | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      |
| I6C000       | LU ownership was changed (LU-x/y->z)             | The switching in LU unit occurred.<br>x : LU # (0-4095)<br>y : Directory # before switching (last two digits : 0-1)<br>Core # of MPU (first two digits : 0-1)<br>z : Switching destination directory # (last two digits : 0-1)<br>Core # of MPU (first two digits : 0-1) |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | —                                                                                    |
| I6D000       | Data pool does not have free space (Data pool-x) | The usage of the pool increased and there was no free capacity of the pool.<br>x : Data pool # (0-63)                                                                                                                                                                    | Simple Trace      | ① 1. Delete an unnecessary pair in the SnapShot pair which is using the pool displayed in the message. Or secure the pool capacity by adding an LU to the pool. As for the methods above, ask the user to execute the methods.<br>2. When the pair changed to PSUE is a SnapShot pair, release the pair, and then create a pair again. When the pair changed to PSUE is a TrueCopy Extended Distance pair, resynchronize the pair. As for the methods above, ask the user to execute the methods. | —                                                                                    |

| Message code | Message text                                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                          | Reference page                                                                                                                                      |
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| I6D100       | Data pool utilization is over the threshold (Data pool-x) | The usage rate of the pool exceeded the threshold value set by the user.<br>x : Data pool # (0-63)                                                                                                                                                                                                                                                                                                                                                                                             |                   | ① Delete an unnecessary pair of SnapShot or TrueCopy Extended Distance, and increase the free capacity of the pool. Or increase the free capacity of the pool by adding an LU to the pool. As for the methods above, ask the user to execute the methods. | —                                                                                                                                                   |
| I6D300       | Unreadable PIN resisted (Unit-x, HDU-y, LU-z)             | The write incomplete area was registered in the P-VOL because there was the unreadable area in the pool LU during the restoration of the P-VOL of Copy-on-write SnapShot. Or the incomplete write was registered in the S-VOL because there was the unreadable area in the pool LU when restoring the S-VOL due to S-VOL-Takeover as a result of executing the [horctakeover] command with TrueCopy Extended Distance.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z : LU # (0-4095) | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.15 The Incomplete Write Area was Registered in the Restored VOL"</a> .                                                                                                                                        | <a href="#">Troubleshooting "6.1.15 The Incomplete Write Area was Registered in the Restored VOL" (TRBL 06-0770)</a>                                |
| I6D400       | Remote path setting unsupported on the remote Subsystem   | It was the firmware that the remote subsystem (subsystem of the communication partner) was unsupported.                                                                                                                                                                                                                                                                                                                                                                                        | Simple Trace      | ① 1. Update the firmware of Ver. 6.2/A or more.<br>2. Execute the path recovery instruction from WEB/Hitachi Storage Navigator Modular 2.                                                                                                                 | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a><br>—                                                                  |
| I6D500       | PSUE occurred [TrueCopy Basic]                            | The subsystem was started up with the cache that had volatilized owing to a power failure when a TrueCopy remote replication pair is in the status other than SMPL.                                                                                                                                                                                                                                                                                                                            | Simple Trace      | ① Refer to the <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a> .                                                                                                     | <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 06-0820)</a> |
| I6D600       | SENC error [Queue Full] (Unit-x, ENC-y)                   | The ENC Unit of the Additional Chassis responded to Queue full which is theoretically impossible.<br>x : Unit ID # (1-59)<br>y : SENC Unit # (0-1)                                                                                                                                                                                                                                                                                                                                             |                   | ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.                                                                                                                                                           | —                                                                                                                                                   |

| Message code | Message text                                          | Description                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                            | Reference page                                                               |
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| I6DH00       | Staging failed<br>[Forced parity correction] (LU-x)   | The correction cannot be made because the forced parity correction is in progress.<br>x : LU # (0-4095)                                                                                                     | Simple Trace      | ① Get the simple trace after the forced parity correction is completed and contact the department for coping with troubles.                                                                                                 | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| I6DJ00       | Forced parity correction LU is gone                   | The LU that required the forced parity correction disappeared.                                                                                                                                              |                   | —                                                                                                                                                                                                                           | —                                                                            |
| I6DK00       | Incomplete differential data detected                 | An incomplete DDCB was detected in the cascade connection of Copy-on-write SnapShot with TrueCopy remote replication/TrueCopy Extended Distance.                                                            | Simple Trace      | ① Split the TrueCopy remote replication/TrueCopy Extended Distance pair. When forming the pair again, form a Copy-on-write SnapShot pair first and then form a TrueCopy remote replication/TrueCopy Extended Distance pair. | —                                                                            |
| I6DL00       | P-VOL read failed<br>[TrueCopy Basic]                 | The P-VOL became unable to be read.                                                                                                                                                                         |                   |                                                                                                                                                                                                                             |                                                                              |
| I6DM00       | QuickShadow SMPL command received<br>[TrueCopy Basic] | Copy-on-write SnapShot received a command to split its pair.                                                                                                                                                |                   |                                                                                                                                                                                                                             |                                                                              |
| I6DN00       | Uncorrectable forced parity correction LU is gone     | The LU, the forced restoration for which by means of parity could not be continued, disappeared.                                                                                                            |                   | —                                                                                                                                                                                                                           | —                                                                            |
| I6DP00       | Bitmap Data Error<br>[TrueCopy Basic]                 | Data of a TrueCopy remote replication pair may have been lost.                                                                                                                                              |                   | ① Split a pair whose LU, which is in RAID 1 or RAID 1+0 TC and has a capacity of 1 T bytes or larger, is in the PSUE status. If an LU next to the LU concerned is in the PSUE status, split it also.                        | —                                                                            |
| I6DS00       | Cable connection detected (Unit-x, ENC-y, Path-z)     | The ENC cable of the chassis #, ENC # and PATH # displayed in the message was connected (for the exclusive of the self heatrun system).<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)<br>z : Path # (0-7) |                   | —                                                                                                                                                                                                                           | —                                                                            |

| Message code | Message text                                                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference page                                                                  |
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| I6DY00       | Drive response diagnosis detected the slowdown of HDU I/O performance (Unit-x, HDU- y ) | When the I/O performance of the Disk Drive is monitored for a certain period of time, it detected that the I/O performance of the Disk Drive displayed in the message is extremely inferior to other Disk Drives in the RAID group to which the Disk Drive belongs (in case of RAID 1, the I/O performance of the Disk Drive displayed in the message is inferior to the expected value).<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.<br>② Replace the Disk Drive displayed in the message.                                                                                                                                                                                                                                                                                                           | —<br><br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |
| I6E200       | ENC error inf. [Write error code-z] (Unit-x, ENC-y)                                     | The ENC Unit displayed in the message was blocked because it detected that an SES write failure occurred in the ENC Unit of the Additional Chassis by the acquired SES data.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)<br>z : Optional code                                                                                                                                                                                            |                   | ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                          | —                                                                               |
| I6E400       | Ownership change by LU failed (LU-x)                                                    | The change of the LU unit failed because of the heavy I/O load given by a host computer.<br>x : LU # (0-4095)                                                                                                                                                                                                                                                                                                                                | Simple Trace      | ① Try again after giving some pause to operation of Hitachi Storage Navigator Modular 2 or RAID Manager.<br>② When operation of RAID Manager failed, a pair status of TrueCopy remote replication, TrueCopy Extended Distance, ShadowImage in-system replication, or Copy-on-write SnapShot has been changed to PSUE. Therefore, change the status from PSUE first.<br>③ When the operation is not successful after trying it twice, stop the job and then perform the operation. | —                                                                               |
| I6E500       | TWSI access error was detected [Read, xx-yy-aa]                                         | An error was detected when read of TWSI (Two Wired Serial Interface) operated.<br>xx : Optional code<br>yy : Optional code<br>aa : Optional code                                                                                                                                                                                                                                                                                             | Simple Trace      | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | —                                                                               |

| Message code | Message text                                            | Description                                                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                    | Reference page                                                         |
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| I6E600       | TWSI access error was detected [Write, xx-yy-aa]        | An error was detected when write of TWSI (Two Wired Serial Interface) operated.<br>xx : Optional code<br>yy : Optional code<br>aa : Optional code                                                                                                         | Simple Trace      | —                                                                                                   | —                                                                      |
| I6EF00       | Forced parity correction LU changed status              | Because the forced parity correction was executed or skipped, the LU that was in the forced parity correction status of Unrestored 1 (which indicates that an instruction to execute or skip the forced parity correction is required), no longer exists. |                   | —                                                                                                   | —                                                                      |
| I6EG00       | PIN over recovered [directory threshold] (DIR-x)        | The excess of the threshold value of pinned data in each directory was solved. (Directory: Unit of cache domain management)<br>x : Directory # (0 or 1)                                                                                                   |                   | —                                                                                                   | —                                                                      |
| I6EH00       | PIN over recovered [partition threshold] (DIR-x, PTT-y) | The excess of the threshold value of pinned data in each partition was solved.<br>x : Directory # (0 or 1)<br>y : Partition # (0-31)                                                                                                                      |                   | —                                                                                                   | —                                                                      |
| I6EJ00       | PIN over recovered [RAID group threshold] (DIR-x, RG-y) | The excess of the threshold value of pinned data in a RAID group was solved.<br>x : Directory # (0 or 1)<br>y : RAID group # (0-99)                                                                                                                       |                   | —                                                                                                   | —                                                                      |
| I6EK00       | DM-LU canceled (LU-x)                                   | The write disabled DM-LU was cancelled (Display of the DM-LU cancellation message).<br>x : LU # (0-4095)                                                                                                                                                  |                   | —                                                                                                   | —                                                                      |
| I6EL00       | DM-LU read failed                                       | When the subsystem was booted, reading from the DM-LU failed owing to a trouble such as a drive error.                                                                                                                                                    | Simple Trace      | ① Replace the Disk Drive pointed out in the message, "HDU alarm. (Resolve the pair and reform it.)" | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |
| I6EM00       | DM-LU recovered (LU-x)                                  | The DM-LU was recovered from the trouble.<br>x : LU # (0-4095)                                                                                                                                                                                            |                   | —                                                                                                   | —                                                                      |
| I6EN00       | DM-LU write enable                                      | The deliberate shutdown was enabled because the DM-LU, which was accessible for writing, was created.                                                                                                                                                     |                   | —                                                                                                   | —                                                                      |



| Message code                      | Message text                                                        | Description                                                                                                                                                                                                                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                                                                      |
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| I6EP00                            | Changing to Single Mode failed as Cache Partition Manager is enable | The system start attribute was changed although the Cache partition management function was effective.                                                                                                                                                                                                                                                                                                                  | Simple Trace      | ① Restore the system start attribute.                                                                                                                                                                                                                                                                                                                                                                                                                                        | <a href="#">System Parameter "4.2 (1) Setting Boot Options" (SYSPR 04-0050)</a>                                                     |
|                                   | ② Restart the subsystem.                                            |                                                                                                                                                                                                                                                                                                                                                                                                                         |                   | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                     |
| I6ER00                            | Modular Volume Migration failed (LU-x/y)                            | One Modular Volume Migration terminated abnormally.<br>x : Internal LU # of the P-VOL (0-4095)<br>y : Internal LU # of the S-VOL (0-4095)                                                                                                                                                                                                                                                                               | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.16 Recovery Method of the Modular Volume Migration which Terminated Abnormally"</a> .                                                                                                                                                                                                                                                                                                                                            | <a href="#">Troubleshooting "6.1.16 Recovery Method of the Modular Volume Migration which Terminated Abnormally" (TRBL 06-0790)</a> |
| I6ES00                            | Modular Volume Migration failed                                     | One or more Modular Volume Migrations terminated abnormally.                                                                                                                                                                                                                                                                                                                                                            | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                     |
| I6EV0x                            | Drive spin down canceled [ERR-x] (RG-y)                             | The instruction of the spin-down of the Disk Drive to aim at the power saving was accepted from Hitachi Storage Navigator Modular 2.<br>x : Factor code<br>1 : Failure due to the I/O from the host<br>2 : Failure due to the copy system PP command existed<br>3 : Failure due to the I/O from the host and the copy system PP command existed<br>4 : Failure due to the failure occurrence<br>y : RAID group # (0-99) | Simple Trace      | ① 1. When the factor code is one, a command is issued from the initiator for the LUs created in the RAID Group displayed in the message, so that stop all the operations which use these LUs, and request the customer/SE to change the customer's system to the status that the command is not issued to these LUs.<br><br>2. Request the customer/SE to execute the spin down of the Disk Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again. | <div>—</div> <div>—</div>                                                                                                           |
| To be continued to the next page. |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                     |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page |
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|              |              |             |                   | ② 1. When the factor code is two, the operation of the copy system function (one of Modular Volume Migration, TrueCopy Extended Distance, TrueCopy remote replication, copy-on-write SnapShot and ShadowImage in-system replication, or two or more functions) of the priced option is being executed from RAID Manager for the LUs created in the RAID Group displayed in the message, so that wait for the maintenance work until the processing of the copy system function for these LUs is completed.   | —              |
|              |              |             |                   | 2. Request the customer/ SE to execute the spin down of the Disk Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.                                                                                                                                                                                                                                                                                                                                                            | —              |
|              |              |             |                   | ③ 1. When the factor code is three, the operation of the copy system function (one of Modular Volume Migration, TrueCopy Extended Distance, TrueCopy remote replication, copy-on-write SnapShot and ShadowImage in-system replication, or two or more functions) of the priced option is being executed from RAID Manager for the LUs created in the RAID Group displayed in the message, so that wait for the maintenance work until the processing of the copy system function for these LUs is completed. | —              |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page |
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|              |              |             |                   | 2. A command is issued from the initiator for the LUs created in the RAID Group displayed in the message, so that stop all the operations which use these LUs, and request the customer/ SE to change the customer's system to the status that the command is not issued to these LUs.                                                                                                                                                                                                                                                                                                                                                                                                           | —              |
|              |              |             |                   | 3. Request the customer/ SE to execute the spin down of the Disk Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —              |
|              |              |             |                   | ④ 1. When the factor code is four, one of the following message codes is displayed in the Information Message of WEB. Perform the maintenance according to the recovery method of the message code. <ul style="list-style-type: none"> <li>• I30100 HDU error (Unit-x, HDU-y)</li> <li>• W0L000 Unreadable PIN detected (Unit-x, HDU-y)</li> <li>• W0M000 Unreadable PIN detected (Unit-*, HDU-*)</li> <li>• W0R000 User data lost (LU-x)</li> <li>• W3G000 PIN is over directory threshold [write through] (DIR-x)</li> <li>• W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y)</li> <li>• W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y)</li> </ul> | —              |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |

| Message code | Message text                                                                         | Description                                                                                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page |
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|              |                                                                                      |                                                                                                                                                                                                                                                                                              |                   | 2. Request the customer/SE to execute the spin down of the Disk Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | —              |
| I6EY00       | Power saving recovery failed and power saving of the disk drives was canceled (RG-x) | <p>The post-processing of the failure of the Disk Drives to which the spin-down of the power saving was set terminated abnormally.</p> <p>Therefore, the spin-down setting of the power saving for the RAID Group displayed in the message was cancelled.</p> <p>x : RAID group # (0-99)</p> | Simple Trace      | <p>① 1. When the factor code is four, one of the following message codes is displayed in the Information Message of WEB. At first, remove the PIN segment according to the recovery method of the message code.</p> <ul style="list-style-type: none"> <li>• W0L000 Unreadable PIN detected (Unit-x, HDU-y)</li> <li>• W0M000 Unreadable PIN detected (Unit-*, HDU-*)</li> <li>• W3G000 PIN is over directory threshold [write through] (DIR-x)</li> <li>• W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y)</li> <li>• W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y)</li> </ul> <p>2. Request the customer/SE to execute the spin down of the Disk Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.</p> | —              |

| Message code | Message text                                                                | Description                                                                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page |
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| I6EZ00       | Health check failed and power saving of the disk drives was canceled (RG-x) | <p>The health check for the power saving Disk Drives which were spin-down terminated abnormally due to the drive failure. Therefore, the spin-down setting of the power saving for the RAID Group displayed in the message was cancelled.</p> <p>x : RAID group # (0-99)</p> | Simple Trace      | <p>① 1. When the factor code is four, one of the following message codes is displayed in the Information Message of WEB. At first, remove the PIN segment according to the recovery method of the message code.</p> <ul style="list-style-type: none"> <li>• W0L000 Unreadable PIN detected (Unit-x, HDU-y)</li> <li>• W0M000 Unreadable PIN detected (Unit-*, HDU-*)</li> <li>• W3G000 PIN is over directory threshold [write through] (DIR-x)</li> <li>• W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y)</li> <li>• W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y)</li> </ul> <p>2. Request the customer/SE to execute the spin down of the Disk Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.</p> | —              |

| Message code | Message text                                                                            | Description                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                              |
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| I6F90x       | [CSDS] The double error detection retry was over the threshold [0xyyyyyyyy] (CTL-x)     | The chipset detected "retry" of the "Double error".<br>x : Control Unit # (0-1)                             | Simple Trace      | ① 1. When the subsystem is a dual controller system, any of the following messages is already displayed. Therefore, perform the maintenance according to the message.<br>• In case of the Control Unit blockade<br>"W01z0x CTL alarm"<br>• In case of the ENC blockade<br>"W0Fze0 ENC alarm"                  | —                                                                                                                                                           |
| I6FA0x       | [CSDS] The correctable read memory error was over the threshold [0xyyyyyyyy] (CTL-x)    | The chipset detected "correctable read".<br>x : Control Unit # (0-1)                                        | Simple Trace      |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| I6FB0x       | The correctable PCIe device error was over the threshold [chipset] [0xyyyyyyyy] (CTL-x) | The chipset detected the correctable error of the PCI Express device.<br>x : Control Unit # (0-1)           | Simple Trace      |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |
| I6FC0x       | The specific correctable PCIe unit error was over the threshold [0xyyyyyyyy] (CTL-x)    | The chipset detected the correctable error other than the PCI Express standard.<br>x : Control Unit # (0-1) | Simple Trace      | 2. Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                    |
| I6FD0x       | The correctable PCI Express error message was received [0xyyyyyyyy] (CTL-x)             | The chipset detected the correctable error of the PCI Express standard.<br>x : Control Unit # (0-1)         | Simple Trace      | ② 1. When the subsystem is a single controller system, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the Control Unit displayed in the message.<br>3. Turn on the subsystem power. | —<br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |

| Message code                      | Message text                                                                         | Description                                                                                                                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                              |
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| I6FExx                            | Microprogram error [BKW] (code-x)                                                    | Logical discrepancy of the firmware occurred (backend monitoring).<br>x : Optional code                                                                                                                                                                                                                                      | Simple Trace      | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p>—</p> |
| I6FF00                            | ENC recovery failed (Unit-x, ENC-y)                                                  | The ENC Unit replacement of the Additional Chassis failed due to an ENC Unit failure.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                                                                                                                                        | Simple Trace      | ① Replace the ENC Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>                                                                                        |
| I6G000                            | The I/F type of the disk drive is different from other system drives (Unit-x HDU-y)  | The drive of a different type (SAS Disk Drive/Flash Drive/SATA Disk Drive) from other system drives was inserted in the system drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                     | Simple Trace      | ① Replace the Disk Drive displayed in the message to the same type of the Disk Drive as other system drives.                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                                                      |
| I6G100                            | The serial number of the HDU is different from the configuration info (Unit-x HDU-y) | It was detected that the serial number of the inquiry data acquired from the drive or the drive type name was different from the value acquired at the last spinup when starting the subsystem or spinning up the drive which was spun down due to electric power saving.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | <p>① 1. Check if the order to connect the Additional Chassis is not different from that the subsystem was Ready before. If it is different, turn off the subsystem power.</p> <p>2. Connect the ENC cable again so that the order to connect the Additional Chassis becomes the same as that the subsystem was Ready before.</p>                                                                                                                                                                                                                              | <p><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a></p> <p>—</p>                                               |
| To be continued to the next page. |                                                                                      |                                                                                                                                                                                                                                                                                                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                             |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                | Reference page                                                                |
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|              |              |             |                   | 3. Turn on the subsystem power.                                                                                                                                                                                                                 | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                        |
|              |              |             |                   | ② 1. Check if each ENC cable is connected correctly between the expected chassis. If there is any ENC cable that is not connected correctly, turn off the subsystem power.                                                                      | Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160) |
|              |              |             |                   | 2. Connect the ENC cable correctly again.                                                                                                                                                                                                       | —                                                                             |
|              |              |             |                   | 3. Turn on the subsystem power.                                                                                                                                                                                                                 | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                        |
|              |              |             |                   | ③ 1. Check if each ENC cable is connected to the ENC connector of the expected Control Unit or to the ENC connector of the ENC. If there is any ENC cable that is not connected correctly, turn off the subsystem power.                        | Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160) |
|              |              |             |                   | 2. Connect the ENC cable correctly again.                                                                                                                                                                                                       | —                                                                             |
|              |              |             |                   | 3. Turn on the subsystem power.                                                                                                                                                                                                                 | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                        |
|              |              |             |                   | ④ This message is output when the Disk Drive is replaced while the Power Unit of the subsystem or the Additional Chassis is turned off. In this case, perform the dummy replacement <sup>(*)</sup> of the Disk Drive displayed in this message. | Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)                        |
|              |              |             |                   | ⑤ If the Disk Drive is not recovered yet, replace the Disk Drive displayed in the message.                                                                                                                                                      |                                                                               |

\*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.



| Message code | Message text                                                                       | Description                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                           |
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| I6G200       | The read of the drive signature failed (Unit-x, HDU-y)                             | Read of the Disk Drive-specific information failed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                          | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.                                                                                                                                                                                           | —                                                                                                                                                        |
| I6G300       | The serial number of the disk drive is illegal (Unit-x, HDU-y)                     | It was detected that the serial number of the inquiry data of the Disk Drive or the Disk Drive model name was an illegal value.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)              | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.                                                                                                                                                                                           | —                                                                                                                                                        |
| I6G400       | The I/F type of the inserted HDU is different from the removed HDU (Unit-x, HDU-y) | The type of the drive (SAS Disk Drive/Flash Drive/SATA Disk Drive) after the replacement is different from the drive before the replacement.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① Replace the Disk Drive displayed in the message to the Disk Drive of the same type as the Disk Drive before the replacement.                                                                                                                                                                              | —                                                                                                                                                        |
| I6G50x       | The time required to complete the cycle copy was over the cycle time (CTG-x)       | The time required for the cycle copy of TrueCopy Extended Distance in the consistency group displayed in the message exceeded the set cycle time.<br>x : Consistency Group # (0-15)             |                   | —                                                                                                                                                                                                                                                                                                           | —                                                                                                                                                        |
| I6G600       | Auto Migration has failed                                                          | Auto Migration of the array failed.                                                                                                                                                             | Simple Trace      | ① The message to indicate the factor that Auto Migration terminated abnormally is displayed between the message "I6HC00 Auto Migration has started" indicating the start of Auto Migration of the array and this message "I6G600 Auto Migration has failed". Check the message and perform the maintenance. | —                                                                                                                                                        |
| I6G70x       | Collecting simple trace failed (CTL-x)                                             | The collection of the simple trace terminated abnormally.<br>x : Control Unit # (0-1)                                                                                                           |                   | ① 1. In case of the dual controller system, collect the simple trace from the other Control Unit.<br>2. Replace the Control Unit displayed in the message.<br>When the subsystem is in the normal mode, consult with the customer/SE and decide the opportunity to replace the Control Unit.                | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code                      | Message text                                                                             | Description                                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                      |
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| I6G8xy                            | Remote path recovered by the command from Storage Navigator Modular 2 (Remote-x, Path-y) | When the command to recover the remote path was executed from Hitachi Storage Navigator Modular 2, the remote path recovered.<br>x : Remote # (Array ID)<br>y : Path # (0-7)                                                                      |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                   |
| I6G9xy                            | The target of remote path was not found (Port-xy)                                        | The array subsystem of the remote site of TrueCopy remote replication or TrueCopy Extended Distance cannot be recognized due to the problem of the remote copy setting or remote path connection.<br>x : Control Unit # (0-1)<br>y : Port # (A-H) | Simple Trace      | <p>① 1. Request the customer/SE to check if [Remote Array ID] in the remote path property window of Hitachi Storage Navigator Modular 2 connected to the array subsystem which displayed the message matches the serial number of the remote subsystem of the remote copy.</p> <p>2. When the remote array ID and the serial number of the remote subsystem of the remote copy differ, request the customer/SE to delete the remote path consists of the ports displayed in the message and create the remote path again using the correct remote array ID.</p> <p>② 1. Request the customer/SE to check if the array subsystem which displayed the message is connected correctly to the remote subsystem of the remote copy.</p> <p>2. When the array subsystems of the remote copy are not connected correctly, request the customer/SE to delete the remote path consists of the ports displayed in this message, connect the remote path correctly again, and then create the remote path again.</p> | <p>—</p> <p>—</p> <p>—</p> <p>—</p> |
| To be continued to the next page. |                                                                                          |                                                                                                                                                                                                                                                   |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                  | Reference page |
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|                                   |              |             |                   | ③ 1. When the port displayed in the message is the Fibre Channel interface, request the customer/SE to check if [Local Port] and [Remote Port] in the remote path property window of Hitachi Storage Navigator Modular 2 are set correctly with the remote path consists of the ports.                                            | —              |
|                                   |              |             |                   | 2. When the setting is incorrect such as [Local Port] and [Remote Port] are different from the expected port number or physical configuration, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the correct setting values of [Local Port] and [Remote Port]. | —              |
|                                   |              |             |                   | ④ 1. When the port displayed in the message is the iSCSI interface, request the customer/SE to check if [Remote Port IP Address] and [Remote Port TCP Port Number] in the remote path property window of Hitachi Storage Navigator Modular 2 are the expected setting values by the remote path consists of the ports.            | —              |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                   |                |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page |
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|                                   |              |             |                   | 2. When either value of [Remote Port IP Address] and [Remote Port TCP Port Number] is set incorrectly, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the correct setting value.                                                                                                                                                                                                                                          | —              |
|                                   |              |             |                   | ⑤ 1. When the port displayed in the message is the iSCSI Interface Board, request the customer/SE to check if [Remote Port IP Address] and [Remote Port TCP Port Number] in the remote path property window of Hitachi Storage Navigator Modular 2 match "IP address of the remote subsystem for the array subsystem which displayed this message" and "TCP port number of the remote subsystem for the array subsystem which displayed this message" by the remote path consists of the ports. | —              |
|                                   |              |             |                   | 2. When either value of [Remote Port IP Address] and [Remote Port TCP Port Number] is set incorrectly, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the correct setting value.                                                                                                                                                                                                                                          | —              |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reference page |
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|                                   |              |             |                   | <p>⑥ 1. When the port displayed in the message is the Fibre Channel interface, request the customer/SE to check if [Local Port] and [Remote Port] in the remote path property window of Hitachi Storage Navigator Modular 2 are set in the port of the same Control Unit #.</p> <p>2. When [Local Port] and [Remote Path] are not set in the port of the same Control Unit #, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the port number of the same Control Unit.</p>                                                                                    | —              |
|                                   |              |             |                   | <p>⑦ 1. When the port displayed in the message is the iSCSI interface, request the customer/SE to check if [Local Port IP Address] and [Remote Port IP Address] in the remote path property window of Hitachi Storage Navigator Modular 2 are set by the IP address of the port of the same Control Unit #.</p> <p>2. When [Local Port IP Address] and [Remote Port IP Address] are not set by the IP address of the port of the same Control Unit #, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the IP address of the port of the same Control Unit.</p> | —              |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page |
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|                                   |              |             |                   | <p>⑧ 1. Request the customer/SE to check if the Control Unit of the array subsystem which displayed the message and the Control Unit of the remote subsystem are connected with the same Control Unit # by the remote path consists of the ports displayed in the message.</p> <p>2. When the remote path between the array subsystem which displayed the message and remote subsystem is not connected to the same Control Unit #, request the customer/SE to delete the remote path consists of the ports displayed in the message, connect the remote path again so that it connects to the port of the same Control Unit # between the local site and remote site array subsystems, and create the remote path again.</p> | —              |
|                                   |              |             |                   | <p>⑨ 1. When the customer is operating two-way remote copy, request the customer/SE to check if [Remote Array ID] in the remote path property window of Hitachi Storage Navigator Modular 2 matches the serial number of the array subsystem which displayed the message in the remote subsystem of the remote site viewed from the array subsystem which displayed the message.</p>                                                                                                                                                                                                                                                                                                                                          | —              |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |

| Message code                      | Message text                                                            | Description                                                                                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page |
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|                                   |                                                                         |                                                                                                                                                                                                                                                                                                    |                   | 2. When the remote array ID and the serial number of the array subsystem which displayed the message differ, request the customer/SE to delete the remote path consists of the ports displayed in the message, and then create the remote path again for the remote subsystem of the remote site viewed from the array subsystem which displayed the message.                                                                  | —              |
| I6GAxy                            | Login resources of local array for remote copy are not enough (Port-xy) | Since the maximum number of initiators that can log in immediately is already logged in for the ports displayed in the message, the array subsystem which displayed the message cannot receive login from the remote subsystem of the remote copy.<br>x : Control Unit # (0-1)<br>y : Port # (A-H) | Simple Trace      | ① Request the customer/SE to review the hardware configuration of the system and the system settings and reduce the host computers which log in the ports so that the remote subsystem of the remote copy can log in the ports displayed in the message.                                                                                                                                                                       | —              |
| I6GBxy                            | Path login authentication error (Port-xy)                               | Since the remote path was set in the array subsystem which displayed the message, the array subsystem which displayed the message logged in the remote subsystem of the remote copy. However, the CHAP authentication failed.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)                      | Simple Trace      | ① 1. When it is operated with the remote copy whose remote path setting is one-way, request the customer/SE to check if [CHAP Secret] in the remote path property window of Hitachi Storage Navigator Modular 2 is unselected (disabled).<br>2. When [CHAP Secret] is selected (set as enabled), request the customer/SE to delete the remote path, unselect (disable) the CHAP secret, and then create the remote path again. | —<br>—         |
| To be continued to the next page. |                                                                         |                                                                                                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                |                |

| Message code | Message text                                   | Description                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page |
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|              |                                                |                                                                                                                 |                   | ② 1. When the remote path setting was operated in the two-way remote copy, request the customer/SE to check if [CHAP Secret] is selected (enabled) in the remote path property window of Hitachi Storage Navigator modular2.<br>2. •When [CHAP Secret] is unselected (disabled), request the customer/SE to delete the remote path, set the CHAP secret, and then create the remote path again.<br>•When [CHAP Secret] is selected (enabled), request the customer/SE to delete the remote path consists of the ports displayed in the message, and then create the remote path again using the CHAP secret of the same value for both arrays subsystems of the local site and remote site of the remote copy. | —              |
| I6GC00       | Drive spinup was canceled (RG-x)               | The spinup of the Disk Drive by the electric power saving function was not executed.<br>x : RAID group # (0-99) | Simple Trace      | ① Perform the maintenance according to the message code "I6GD00 The power-on of the array unit failed (Unit-x)" displayed next to this message.<br>② Instruct the spinup again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —              |
| I6GD00       | The power-on of the array unit failed (Unit-x) | Turning on the power of the chassis failed.<br>x : Unit ID # (0-59)                                             | Simple Trace      | ① Perform the maintenance according to the message code output at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —              |



| Message code | Message text                                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page |
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| I6GE00       | [Performance]Queue-full occurs often (Port-x, Connected host num.=y, Queue depth=z)   | <p>Although the number of commands that can be processed at the same time is 512 per one port of the host interface part of the array subsystem, the subsystem responded to the host computer "Queue full" more than the threshold value per unit time because the port displayed in the message continued to receive the commands more than 512 at the same time from multiple or one host computer. The I/O performance of the host computer connected to the port of the host interface part displayed in this message may deteriorate.</p> <p>x : Port # (0-3)<br/>y : Host connection # (0-255)<br/>z : Command multiplex number (512)</p> | Simple Trace      | <p>① 1. When this message is displayed in the array subsystem after the customer/SE newly constructed the system or the path switching of the system operated, request the customer/SE to "review the number of hosts connected to the port displayed in this message or the number of tags per host" because the number of commands that can be processed at the same time is 512 per one port of the host interface part of the array subsystem.</p> <p>2. When this message is displayed after the customer/SE added a host to the array subsystem or changed the number of tags of the host, request the customer/SE to "review the number of hosts connected to the port displayed in this message or the number of tags per host" because the port of the array subsystem came to respond to the host "queue full" by having changed the setting of the system.</p> | —              |
| I6GF00       | The error of the data transfer length was detected in the drive write (Unit-x, HDU-y) | <p>When the Control Unit writes the data in the Disk Drive, the Control Unit received command complete from the Disk Drive before receiving a data transfer complete report. As a result, the Control Unit judged that the Disk Drive fails.</p> <p>x : Unit ID # (0-59)<br/>y : Disk Drive # (0-23)</p>                                                                                                                                                                                                                                                                                                                                        | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | —              |

| Message code | Message text                                                     | Description                                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                  |
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| I6GG00       | PIN over recovered [pool threshold] (DIR-x, Pool-y)              | The DP pool recovered from the PIN over.<br>x : Directory # (0 or 1)<br>y : Pool # (0-63)                                                                                                                                                 |                   | —                                                                                                                                                                                                                                                                                                                                                                | —                                                                                                                                                               |
| I6GH00       | DP Pool Consumed Capacity Early Alert (Pool-x)                   | The DP pool consumed capacity exceeded the Early Alert threshold value.<br>x : Pool # (0-63)                                                                                                                                              | Simple Trace      | ① Request the customer/SE to add the DP pool capacity referring to the "Dynamic Provisioning User's Guide".                                                                                                                                                                                                                                                      | <a href="#">"Dynamic Provisioning User's Guide"</a>                                                                                                             |
| I6GI00       | DP Pool Consumed Capacity Depletion Alert (Pool-x)               | The DP pool consumed capacity exceeded the Depletion Alert threshold value.<br>x : Pool # (0-63)                                                                                                                                          | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |
| I6GJ00       | DP Pool Consumed Capacity Over (Pool-x)                          | The DP pool consumed capacity reached the upper limit, and the DP pool unused capacity was depleted.<br>x : Pool # (0-63)                                                                                                                 | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |
| I6GK00       | Over Provisioning Ratio Forewarning (Pool-x)                     | The DP volume capacity of the DP pool exceeded the Over Provisioning Ratio Forewarning threshold value.<br>x : Pool # (0-63)                                                                                                              | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |
| I6GL00       | Over Provisioning Ratio Overwarning (Pool-x)                     | The DP volume capacity of the DP pool exceeded the Over Provisioning Ratio Overwarning threshold value.<br>x : Pool # (0-63)                                                                                                              | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |
| I6GP00       | The staging of the management information of DP pool failed      | When starting the subsystem, read of the HDP management information from the chunk for the save area failed. This changed all the ShadowImage pairs using the DP volumes to PSUE. Moreover, the DP pools were all changed to unformatted. | Simple Trace      | ① Check that "I6HS00 The format of all DP pools started because the read of these management data failed" is displayed in the Information Message on WEB after this message.<br>② Perform the maintenance according to <a href="#">Troubleshooting "6.1.25 Recovery Method when the Subsystem went Down because the Load of the DP Management Information"</a> . | —<br><br><a href="#">Troubleshooting "6.1.25 Recovery Method when the Subsystem went Down because the Load of the DP Management Information" (TRBL 06-1060)</a> |
| I6GQ00       | Forced parity correction stopped by too many PINs (POOL-x, LU-y) | Since the PIN number of the DP Pool displayed in the message came close to the threshold value of the subsystem, the firmware stopped the forced parity correction processing.<br>x : Pool # (0-63)<br>y : LU # (0-4095)                  | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.3 [Recovery method-4] : PIN over occurred during the forced parity correction."</a> .                                                                                                                                                                                                    | <a href="#">Troubleshooting "6.1.3 [Recovery method-4] : PIN over occurred during the forced parity correction." (TRBL 06-0250)</a>                             |

| Message code                      | Message text                                                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                          | Reference page                                                             |
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| I6GR00                            | Authentication failure of Host connector was detected (Portxy)                          | It was detected that the Host connector of the port displayed in the message was an unauthenticated product by authenticating the Host Connector.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)                                                                                                                                                                                                           | Simple Trace      | ① Replace the Host Connector displayed in the message.                                                                                                                                                                                                    | <a href="#">Replacement "2.2.8 Replacing Host Connector" (REP 02-0950)</a> |
| I6GS00                            | The failure of Host connector was detected (Portxy)                                     | It was detected that the Host Connector of the port displayed in the message had a failure by checking failures of the Host Connector.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)                                                                                                                                                                                                                      | Simple Trace      |                                                                                                                                                                                                                                                           |                                                                            |
| I6GT00                            | Transfer rate supported by host connector is not the same as interface board (Portxy)   | The Host Connector of the incorrect transfer rate was inserted into the port displayed in the message.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)                                                                                                                                                                                                                                                      | Simple Trace      | ① Insert the Host Connector of the same transfer rate as the Interface Board with the port displayed in the message into the port displayed in the message.                                                                                               | <a href="#">Replacement "2.2.8 Replacing Host Connector" (REP 02-0950)</a> |
| I6GU00                            | R/W command for the LUN is rejected due to invalid LUN process of array (LU-xxxx, yyyy) | Although a host read command or host write command was issued to the virtual LU displayed in the message, the firmware deterred the host access to the virtual LU displayed in the message because the firmware detected that "the received command is internally processed as a command for a different LU from the virtual LU to which the command was issued".<br>x : LU # (0-4095)<br>y : LU # (0-4095) | Simple Trace      | ① 1. Request the customer/SE to "refer to the system logs of the host computer and specify the virtual LU in which a failure has occurred for all the virtual LUs including the virtual LU # displayed in the message".                                   | —                                                                          |
|                                   |                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                             |                   | 2. Send the simple trace to the Technical Support Center.                                                                                                                                                                                                 | —                                                                          |
|                                   |                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                             |                   | 3. The Technical Support Center should check the analysis result of the system logs of the host computer and the simple trace, eliminate the logs not attributable to the virtual LU failure, and specify the virtual LU in which a failure has occurred. | —                                                                          |
| To be continued to the next page. |                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                                                                                                                                                                                                                                                           |                                                                            |

| Message code | Message text                                                                            | Description                                                                                                                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                | Reference page                                                                                                                                                                                               |
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|              |                                                                                         |                                                                                                                                                                                                                                                                                                        |                   | 4. Inform the customer/SE of "the control information of the virtual LUs specified by the Technical Support Center became illegal due to a failure of the subsystem, and the user data of these virtual LUs cannot be recovered".                                               | —                                                                                                                                                                                                            |
|              |                                                                                         |                                                                                                                                                                                                                                                                                                        |                   | 5. Check the customer/SE that "he/she has the LU setting information for the virtual LUs in which a failure has occurred". If the customer/SE does not have the setting information of the virtual LUs, request him/her to "record the setting information of the virtual LUs". | —                                                                                                                                                                                                            |
|              |                                                                                         |                                                                                                                                                                                                                                                                                                        |                   | 6. Format all the virtual LUs specified in the procedure ①-3 after acquiring the permission from the customer/SE.                                                                                                                                                               | —                                                                                                                                                                                                            |
|              |                                                                                         |                                                                                                                                                                                                                                                                                                        |                   | 7. Request the customer/SE to "create the file system again and restore the backup data as needed".                                                                                                                                                                             | —                                                                                                                                                                                                            |
| I6GV00       | Move drive (Unit-x1, HDU-y1) to slot (Unit-x2, HDU-y2) because of serial number problem | At the time of starting the subsystem, when the Disk Drive serial number is acquired from the Disk Drive, the Disk Drive whose installation slot is replaced at the previous subsystem starting time and this subsystem starting time was detected.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① Perform the maintenance according to Troubleshooting "6.1.27 Recovery Method when the Disk Drive Serial Number Acquired at the time of Starting the Subsystem and the Serial Number of the Configuration Information do not Match".                                           | Troubleshooting "6.1.27 Recovery Method when the Disk Drive Serial Number Acquired at the time of Starting the Subsystem and the Serial Number of the Configuration Information do not Match" (TRBL 06-1140) |

| Message code | Message text                                                                     | Description                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                              | Reference page |
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| I6GW00       | Internal temperature is over the threshold for Long Life Support                 | The temperature in the array subsystem exceeded the upper limit temperature.       |                   | ① 1. Select "Settings" – "Environmental Information" in Hitachi Storage Navigator Modular 2, and check the most recent "Array Temperatures".                                                                                                                                                                                                                  | —              |
|              |                                                                                  |                                                                                    |                   | 2. When the most recent "Array Temperatures" exceeds the upper limit temperature, request the customer/SE to improve the subsystem installation environment. The upper limit temperature is displayed in the window.                                                                                                                                          | —              |
|              |                                                                                  |                                                                                    |                   | 3. When the most recent "Array Temperatures" does not exceed the upper limit temperature, check that there is the measurement point which exceeds the upper limit temperature referring to the temperature in the subsystem in order from the most recent measurement point. Then, request the customer/SE to improve the subsystem installation environment. | —              |
| I6GX00       | Internal temperature has dropped to the threshold for Long Life Support or below | The temperature in the array subsystem decreased to the upper limit value or less. |                   | —                                                                                                                                                                                                                                                                                                                                                             | —              |

| Message code | Message text                                                             | Description                                                                                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                       | Reference page                                                                                                                |
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| I6GYxx       | The setting change of the DP Capacity Mode has failed (Code-xx)          | The change of the DP capacity mode terminated abnormally.<br>xx : Error factor code<br>01=The user data area is insufficient (the size of the installed Cache memory is insufficient).<br>02=The planned shutdown has not completed normally. |                   | In case the error factor code is "01"                                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | ① 1. Contact the customer/SE that the size of the Cache memory installed in the subsystem is insufficient for changing the DP capacity mode. Then, check the size of the Cache memory required for changing the DP capacity mode referring to the "Dynamic Provisioning User's Guide", and request the customer/SE to order the addition of the required Cache memory. | <a href="#">"Dynamic Provisioning User's Guide"</a>                                                                           |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | 2. Change the DP capacity mode by Hitachi Storage Navigator Modular 2 again.                                                                                                                                                                                                                                                                                           | —                                                                                                                             |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | 3. Execute the planned shutdown of the subsystem.                                                                                                                                                                                                                                                                                                                      | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a>                                 |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | 4. Turn on the power of the subsystem.                                                                                                                                                                                                                                                                                                                                 | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                        |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | In case the error factor code is "02"                                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | ② 1. After the subsystem is started, change the DP capacity mode by Hitachi Storage Navigator Modular 2 again.                                                                                                                                                                                                                                                         | —                                                                                                                             |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | 2. Execute the planned shutdown of the subsystem.                                                                                                                                                                                                                                                                                                                      | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a>                                 |
|              |                                                                          |                                                                                                                                                                                                                                               |                   | 3. Turn on the power of the subsystem.                                                                                                                                                                                                                                                                                                                                 | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                        |
|              |                                                                          |                                                                                                                                                                                                                                               |                   |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                               |
| I6GZ00       | The number of the channel port error has exceeded the threshold (PortXX) | The detection count of the channel port path failures exceeded the threshold value.<br>x : Port # (0A-0H, 1A-1H)                                                                                                                              | Simple Trace      | ① Perform the maintenance referring to <a href="#">Troubleshooting "6.1.29 Failure Determination and Recovery Methods of Fibre Channel Port Path"</a> .                                                                                                                                                                                                                | <a href="#">Troubleshooting "6.1.29 Failure Determination and Recovery Methods of Fibre Channel Port Path" (TRBL 06-1200)</a> |

| Message code | Message text                                                                        | Description                                                                                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                    | Reference page                                                                                                                                                                         |
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| I6H000       | A part of the capacity in the DP pool cannot be used causing by DP pool error       | Since the DP pool capacity is smaller than the set size due to a failure which has occurred during DP pool creation, the user cannot use part of the DP pool capacity. To recover the DP pool from the failure, it is required to restart the subsystem after performing the planned shutdown. | Simple Trace      | ① Restart the subsystem after performing the planned shutdown.<br>The value of the DP pool capacity is changed to the expected value by the automatic recovery function at the time of subsystem startup.<br>Consult with the customer/SE to decide the date & time for performing the planned shutdown of the subsystem.                                                                           | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a>                                                                                          |
| I6H100       | Unformatted area remains in the LU (LU-xxxx). Please contact support for assistance | Although the LU displayed in the message seems to be formatted completely from the Information Message on WEB or Hitachi Storage Navigator Modular 2, the unformatted area is actually remained in the LU due to the firmware defect before the update.<br>x : LU # (0-4095)                   | Simple Trace      | ① Contact the Technical Support Center for the instructions.                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                        |
| I6H700       | HDU information setup start                                                         | The write of the Disk Drive specific information started.                                                                                                                                                                                                                                      |                   | —                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                      |
| I6H800       | HDU information setup complete                                                      | The write of the Disk Drive specific information was completed.                                                                                                                                                                                                                                |                   | —                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                      |
| I6H900       | The drive signature file not found (Unit-x, HDU-y)                                  | The Disk Drive specific information file of the Disk Drive displayed in the message was not found.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                          |                   | ① 1. Wait until the utility mode is terminated.<br>2. Turn off all the power supply of the subsystem.<br>3. Prepare the most recent directory in which the specific information file of the Disk Drive displayed in the message is stored.<br>4. Turn on all the power supply of the subsystem.<br>5. Perform the write of the Disk Drive specific information again by resetting the utility mode. | —<br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br>—<br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>— |

| Message code | Message text                                           | Description                                                                                                                                                                                  | Collect the error | Recovery methods | Reference page |
|--------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|----------------|
| I6HA0x       | Online microprogram update is started (CTL-x)          | Reboot the Control Unit displayed in the message to execute the online firmware replacement.<br>x : Control Unit # (0-1)                                                                     |                   | —                | —              |
| I6HB0x       | Online microprogram update is being executed (CTL-x)   | The online firmware replacement for one Control Unit is completed. Next, execute the online firmware replacement for the Control Unit displayed in this message.<br>x : Control Unit # (0-1) |                   | —                | —              |
| I6HC00       | Auto Migration has started                             | Auto Migration of the array was started.                                                                                                                                                     |                   | —                | —              |
| I6HD00       | Auto Migration has completed successfully              | Auto Migration of the array was completed.                                                                                                                                                   |                   | —                | —              |
| I6HE0x       | Online microprogram update will be executed (CTL-x)    | The online firmware replacement for one Control Unit is completed. Next, execute the online firmware replacement for the Control Unit displayed in this message.<br>x : Control Unit # (0-1) |                   | —                | —              |
| I6HF00       | LU has been shrunk (LU-xxxx)                           | The LU was reduced.<br>x : Internal LU # (0-4095)                                                                                                                                            |                   | —                | —              |
| I6HG00       | RG Expansion started (RG-x)                            | The RAID group extension started.<br>x : RAID group # (0-99)                                                                                                                                 |                   | —                | —              |
| I6HH00       | RG Expansion has been completed (RG-x)                 | The RAID group extension terminated.<br>x : RAID group # (0-99)                                                                                                                              |                   | —                | —              |
| I6HJ00       | RG Expansion has been stopped by user operation (RG-x) | The RAID group extension was interrupted by the user.<br>x : RAID group # (0-99)                                                                                                             |                   | —                | —              |
| I6HK00       | DP pool format started (DP Pool-x)                     | The firmware started the DP pool format.<br>x : Pool # (0-63)                                                                                                                                |                   | —                | —              |
| I6HL00       | DP pool format has completed (DP Pool-x)               | The DP pool format was completed.<br>x : Pool # (0-63)                                                                                                                                       |                   | —                | —              |
| I6HM00       | DP pool has been deleted (DP Pool-x)                   | The DP pool was deleted.<br>x : Pool # (0-63)                                                                                                                                                |                   | —                | —              |
| I6HN00       | DP pool initialization was executed (DP Pool-x)        | The DP pool was initialized.<br>x : Pool # (0-63)                                                                                                                                            |                   | —                | —              |
| I6HP00       | DP pool has been expanded (DP Pool-x)                  | Since the user added the DP pool capacity, the firmware added RAID groups to the DP pool.<br>x : Pool # (0-63)                                                                               |                   | —                | —              |



| Message code | Message text                                                                        | Description                                                                                                                                                                                   | Collect the error | Recovery methods                                                                         | Reference page                                                                       |
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| I6HQ00       | LU has been created (LU-x)                                                          | The firmware created virtual LUs.<br>x : LU # (0-4095)                                                                                                                                        |                   | —                                                                                        | —                                                                                    |
| I6HR00       | LU has been expanded (LU-x)                                                         | The firmware extended the virtual LUs.<br>x : LU # (0-4095)                                                                                                                                   |                   | —                                                                                        | —                                                                                    |
| I6HS00       | The format of all DP pools started because the read of these management data failed | The format of all DP pools started because the read of the HDP management information failed. All the logical units in the DP pool are formatted and all the users in the DP pool are erased. | Simple Trace      | ① The format of the DP pool started. Therefore, format all LUs belonging to the DP pool. | <a href="#">System Parameter "3.3 [Procedure ③-F] Formatting LU" (SYSPR 03-0290)</a> |
| I6HT00       | DP Pool Optimization started [Zero Page Reclaim] (LU-x)                             | DP Pool optimization [Zero Page Reclaim] started.<br>x : LU # (0-4095)                                                                                                                        |                   | —                                                                                        | —                                                                                    |
| I6HU00       | DP Pool Optimization has completed [Zero Page Reclaim] (LU-x)                       | DP Pool optimization [Zero Page Reclaim] has completed.<br>x : LU # (0-4095)                                                                                                                  |                   | —                                                                                        | —                                                                                    |
| I6HV00       | DP Pool Optimization started [Rebalance] (LU-x)                                     | DP Pool optimization [Rebalance] started.<br>x : LU # (0-4095)                                                                                                                                |                   | —                                                                                        | —                                                                                    |
| I6HW00       | DP Pool Optimization has completed [Rebalance] (LU-x)                               | DP Pool optimization [Rebalance] has completed.<br>x : LU # (0-4095)                                                                                                                          |                   | —                                                                                        | —                                                                                    |
| I6HX00       | DP Pool Optimization has been aborted by user operation (LU-x)                      | DP Pool optimization was cancelled by the user's instruction.<br>x : LU # (0-4095)                                                                                                            |                   | —                                                                                        | —                                                                                    |
| I6HY00       | DP Pool Optimization has been aborted due to the user operation (LU-x)              | DP Pool optimization processing was unable to be continued by the user operation and the processing was stopped.<br>x : LU # (0-4095)                                                         |                   | —                                                                                        | —                                                                                    |

| Message code                      | Message text                                | Description                                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference page                                                                                                                                                                                                                                                                                                                                                        |
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| I6HZ00                            | DP Pool Optimization failed (LU-x, Code-yy) | <p>The DP pool optimization processing terminated abnormally due to the following factors (yy).</p> <p>x : LU # (0-4095)</p> <p>y : 01 = DP Pool detachment<br/>02 = DP Pool depletion<br/>03 = Destage time-out for DP management information</p> | Simple Trace      | <p>① When Code-yy is "01" [DP Pool Detachment], the status of the DP Pool to which the logical unit displayed as an error belongs is not normal and the processing cannot be done. Contact the Technical Support Center.</p> <p>② 1. When Code-yy is "02" [DP Pool Depletion], arrange in advance the Disk Drives of the same type as the Disk Drives which configure the LU displayed in the message for the number of Disk Drives which configure the RAID group to which the LU displayed in the message belongs. Select [Group] - [Logical Unit] in the unit window of Hitachi Storage Navigator Modular 2, and refer to [RAID Level] and [Drive Type] of the LU# displayed in the message.</p> <p>2. By using the prepared Disk Drive, create a RAID group of the same RAID level, the same number of Disk Drives, and the same number of parity groups as the RAID group to which the LU displayed in the message belongs.</p> <p>3. Create a logical unit in the RAID group.</p> | <p>—</p> <p><a href="#">System Parameter "3.3 Setting of LU [Procedure ③-A] Preparing of setting LU" (SYSPR 03-0150)</a></p> <p><a href="#">System Parameter "3.2 RAID Group Setting [Procedure ②-B] Creating RAID group" (SYSPR 03-0040)</a></p> <p><a href="#">System Parameter "3.3 Setting of LU [Procedure ③-A] Preparing of setting LU" (SYSPR 03-0150)</a></p> |
| To be continued to the next page. |                                             |                                                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                 | Reference page                                           |
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|              |              |             |                   | <p>4. Request the customer/SE to add the DP Pool capacity using the logical unit created in ②-3 referring to "Dynamic Provisioning User's Guide".</p> <p>When adding capacity, it must be the same drive type as that of the DP pool currently used and the same RAID group.</p> | "Dynamic Provisioning User's Guide"                      |
|              |              |             |                   | <p>③ 1. When Code-yy is "03" [Destage time-out for DP management information], request the customer/SE to stop the operation using the DP pool.</p>                                                                                                                              | —                                                        |
|              |              |             |                   | <p>2. Request to execute the DP pool optimization again.</p> <p>Request the customer/SE to wait until the optimization is completed normally while stopping the operation and to restart the operation using the DP pool after it is completed normally.</p>                     | "Dynamic Provisioning User's Guide"                      |
|              |              |             |                   | <p>3. Even if the DP pool optimization still terminated abnormally, stop all the operations, perform the planned shutdown of the subsystem, and then restart the subsystem.</p>                                                                                                  | Installation "1.5 Power On/Off Procedure" (INST 01-0130) |
|              |              |             |                   | <p>4. Request to execute the DP pool optimization again while stopping the operation using the DP pool.</p> <p>Request the customer/SE to restart the operation using the DP pool after it is completed normally.</p>                                                            | "Dynamic Provisioning User's Guide"                      |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                |                                                          |

| Message code | Message text                                                                              | Description                                                                                                                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                    | Reference page |
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|              |                                                                                           |                                                                                                                                                                                                                                                                                                                                |                   | 5. Even if the DP pool optimization still terminated abnormally, send the simple trace to the Technical Support Center and follow the maintenance work instruction by the Technical Support Center. | —              |
| I6J000       | HDU error counter is over the threshold<br>[Self-Monitoring]<br>(Unit-x, HDU-y)           | In the self media check function of the firmware, the failure counter acquired from the Disk Drive exceeded the threshold value of the drive maintenance (dynamic sparing starting factor message).<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                         |                   | —                                                                                                                                                                                                   | —              |
| I6J100       | The SCSI Reservation for the LU has been forced to release by user<br>(Code-xxx, LU-yyyy) | SCSI reservation for the LU specified by the user was forcibly opened by the user operation.<br>x : OPR = The LU reserve by the Open Reserve command was opened.<br>KEY = The Key of the Persistent Group Reserve was opened.<br>PGR = The LU reserve by the Persistent Group Reserve command was opened.<br>y : LU # (0-4095) |                   | —                                                                                                                                                                                                   | —              |

| Message code | Message text                                         | Description                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                       | Reference page   |
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| I85000       | The installation of the add unit is started (Unit-x) | The online addition of the Additional Chassis started.<br>x : Unit ID # (1-59)                          |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                      | —                |
| I85100       | Added unit failure info. [MICROCHG]                  | The online addition of the Additional Chassis failed because the firmware replacement is operating.     |                   | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.<br>2. Wait until the firmware replacement is completed.<br>3. Perform the addition of the Additional Chassis again from the beginning.                                                                                                                                                                                              | —<br>—<br>—      |
| I85200       | Added unit failure info. [WARNING]                   | The online addition of the Additional Chassis failed because the subsystem is in the Warning status.    |                   | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.<br>2. When the subsystem is in the Warning status, recover the failure that changed the subsystem to the Warning status referring to the other output Information Message.<br>3. Check that the WARN LED on the front of the Basic Chassis goes out.<br>4. Perform the addition of the Additional Chassis again from the beginning. | —<br>—<br>—<br>— |
| I85300       | Added unit failure info. [ENCMICROCHG]               | The online addition of the Additional Chassis failed because the ENC firmware replacement is operating. |                   | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.<br>2. When executing the online ENC firmware download, wait until it is completed.<br>3. Perform the addition of the Additional Chassis again from the beginning.<br>② 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.                                                                             | —<br>—<br>—<br>— |
|              |                                                      |                                                                                                         |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                                                                      |                  |

| Message code | Message text                                        | Description                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                    | Reference page                                                       |
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|              |                                                     |                                                                                                                                                                               |                   | 2. When the automatic ENC firmware download is operating, wait until it is completed. If the READY LED on the front of the Basic Chassis is blinking, wait until the LED lights up. | —                                                                    |
|              |                                                     |                                                                                                                                                                               |                   | 3. Execute the addition of the Additional Chassis again using Hitachi Storage Navigator Modular 2.                                                                                  | —                                                                    |
| I85400       | Added unit failure info. [BKDIAG]                   | The online addition of the Additional Chassis failed because the backend diagnosis processing is operating.                                                                   | Simple Trace      | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.                                                                                                  | —                                                                    |
|              |                                                     |                                                                                                                                                                               |                   | 2. Wait for about five minutes until the backend diagnosis processing is completed.                                                                                                 | —                                                                    |
|              |                                                     |                                                                                                                                                                               |                   | 3. Perform the addition of the Additional Chassis again from the beginning.                                                                                                         | —                                                                    |
| I85500       | Added unit failure info. [ADDENCNG] (Unit-x, ENC-y) | The online addition of the Additional Chassis failed because an error was detected in the ENC Unit of the Additional Chassis.<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1) | Simple Trace      | ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.                                                                                                  | —                                                                    |
|              |                                                     |                                                                                                                                                                               |                   | 2. Remove the Additional Chassis to be added from the operating subsystem.                                                                                                          | —                                                                    |
|              |                                                     |                                                                                                                                                                               |                   | 3. Replace the ENC Unit displayed in the message.                                                                                                                                   | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a> |
|              |                                                     |                                                                                                                                                                               |                   | 4. Perform the addition of the Additional Chassis again from the beginning.                                                                                                         | —                                                                    |

| Message code | Message text                                            | Description                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference page                                                                                                                                                                                 |
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| I85600       | Added unit failure info. [TIMEOUT]                      | The addition of the Additional Chassis failed because the online addition processing of the Additional Chassis timed out. | Simple Trace      | <ol style="list-style-type: none"> <li>① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</li> <li>2. Remove the Additional Chassis to be added from the operating subsystem.</li> <li>3. Perform the addition of the Additional Chassis again from the beginning.</li> <li>② If not recovered, collect the Simple Trace, and then contact the Technical Support Center.</li> </ol>                                                                      | <p>—</p> <p>—</p> <p>—</p> <p><a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a></p>                                                                                 |
| I85700       | Added unit failure info. [MICROBKW]                     | A logical failure of the firmware occurred in the online addition processing of the Additional Chassis.                   | Simple Trace      | <ol style="list-style-type: none"> <li>① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</li> <li>2. Remove the Additional Chassis to be added from the operating subsystem.</li> <li>3. Replace the Control Unit in which the failure occurred.</li> <li>4. Perform the addition of the Additional Chassis again from the beginning.</li> <li>5. If not recovered, collect the Simple Trace, and then contact the Technical Support Center.</li> </ol> | <p>—</p> <p>—</p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p>—</p> <p><a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a></p> |
| I85800       | The installation of the add unit was completed (Unit-x) | The online addition of the Additional Chassis was completed normally.<br>x : Unit ID # (1-59)                             |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | —                                                                                                                                                                                              |

| Message code | Message text               | Description                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page   |
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| I85900       | Added unit failed (Unit-x) | The online addition processing of the Additional Chassis terminated abnormally.<br>x : Unit ID # (1-59) |                   | ① 1. Remove the power cables of the Additional Chasses to be added.<br>2. Remove the Additional Chassis to be added from the existing chassis.<br>3. The message to indicate a factor the addition failure of the Additional Chassis is displayed between the message codes "I85000 The installation of the add unit is started (Unit-x)" and "I85900 Added Unit failed (Unit-x)". Perform the maintenance according the recovery method of that message.<br>4. Add the Additional Chassis correctly again. | —<br>—<br>—<br>— |



| Message code | Message text                                                                           | Description                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                     | Reference page                                                           |
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| I85A00       | PCI configuration access error was detected [DUAL_PCI Express core, 0xyyyzzzz] (CTL-x) | An error was detected by access to the PCI configuration register of the Dual PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Optional code<br>z : Optional code | Simple Trace      | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (When the firmware of the Control Unit displayed in this message is being replaced, it is not necessary to replace the firmware of this Control Unit again after replacing the Control Unit.) | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
|              |                                                                                        |                                                                                                                                                                                    |                   | ② When this message is displayed after inserting the Control Unit and the displayed Control Unit is being recovered, replace the Control Unit displayed in this message.                                                                                                                             | —                                                                        |
|              |                                                                                        |                                                                                                                                                                                    |                   | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.                                                                                                                | —                                                                        |
|              |                                                                                        |                                                                                                                                                                                    |                   | 2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).                                                                                                                                                                                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|              |                                                                                        |                                                                                                                                                                                    |                   | 3. Turn on the power of the subsystem. (When this message is displayed while executing the firmware replacement, it is not necessary to execute the firmware replacement again after replacing the Control Unit.)                                                                                    | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>   |
| I85B00       | More than the maximum number of added units are connected                              | The Additional Chassis more than or equal to the connectable number was detected when the Additional Chassis was added.                                                            |                   | ① The maximum number of Additional Chassis is connected to the subsystem. Review the work instructions.                                                                                                                                                                                              | —                                                                        |

| Message code | Message text                              | Description                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                      | Reference page                                                                                                                                      |
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| I900xx       | RSP abort command P (Key [OB], Code [xy]) | The response failure (Aborted Command Path) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code | Simple Trace      | ① Refer to the <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a> . | <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a> (TRBL 06-0820) |
| I90100       | Command time out                          | The time-out exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.                                                                                                                  | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |
| I902xx       | RSP abort command C (Key [OB], Code [xy]) | The response failure (Aborted Command CTL) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code  | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |
| I903xx       | RSP etc. (Key [x])                        | The response failure (off-range sense key) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Sense key                                                                   | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |
| I904xx       | RSP hard error (Key [04], Code [xy])      | The response failure (Hard Error) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code           | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |
| I905xx       | RSP medium error (Key [03], Code [xy])    | The response failure (Medium Error) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code         | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |

| Message code | Message text                              | Description                                                                                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                      | Reference page                                                                                                                                      |
|--------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| I906xx       | RSP illegal request (Key [05], Code [xy]) | The response failure (Illegal Request) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code | Simple Trace      | ① Refer to the <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a> . | <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a> (TRBL 06-0820) |
| I907xx       | RSP miscompare (Key [0E], Code [xy])      | The response failure (Miscompare) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code      | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |
| I908xx       | RSP not ready (Key [02], Code [xy])       | The response failure (Not Ready) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : Upper two figures of a sense code<br>y : Lower two figures of a sense code       | Simple Trace      |                                                                                                                                                       |                                                                                                                                                     |
| I909xx       | RSP status error [x]                      | The SCSI status error in a response exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.<br>x : SCSI status                                                                   |                   |                                                                                                                                                       |                                                                                                                                                     |
| I90A00       | RSP other field error                     | The field error in a response exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.                                                                                            |                   |                                                                                                                                                       |                                                                                                                                                     |
| IA0000       | Coupling started (LU-x/y)                 | An initial copy was started.<br>x : Copy source LU # (0-4095)<br>y : Copy destination LU # (0-4095)                                                                                                                          |                   | —                                                                                                                                                     | —                                                                                                                                                   |

| Message code                      | Message text                                                       | Description                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                         | Reference page |
|-----------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| IA3E00                            | Pair cache partition(s) changed to auto selection mode             | The setting of the pair Cache partition whose segment size of the Cache partition is not corresponding among the pair Cache partition set to LU was changed to the Auto setting. | Simple Trace      | ① 1. Check if the segment size of the pair Cache partition corresponds to the segment size of the Cache partition of the LU for the LU belongs to the Cache partition which changed the segment size.                                                    | —              |
|                                   |                                                                    |                                                                                                                                                                                  |                   | 2. If it is necessary for the customer's system environment, set the segment size of the Cache partition which is not corresponding to the same value as the segment size of the Cache partition of the LU, or reset the pair Cache partition of the LU. | —              |
| IB0000                            | Coupling completed (LU- x/y)                                       | An initial copy completed normally.<br>x : Copy source LU # (0-4095)<br>y : Copy destination LU # (0-4095)                                                                       |                   | —                                                                                                                                                                                                                                                        | —              |
| IB100x                            | SNMP function recovered (CTL-x)                                    | The SNMP function recovered from the Warning status by the setting change.<br>x : Control Unit # (0-1)                                                                           |                   | —                                                                                                                                                                                                                                                        | —              |
| IB110x                            | SNMP error cleared by stopping SNMP Agent Support Function (CTL-x) | The Warning status of the SNMP function was cancelled because the SNMP Agent Support Function was locked or disabled.<br>x : Control Unit # (0-1)                                |                   | —                                                                                                                                                                                                                                                        | —              |
| IB1300                            | SNMP configuration                                                 | It was detected that the configuration of the SNMP was illegal.                                                                                                                  | Simple Trace      | ① 1. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2.                                                                                                                                                                                       | —              |
|                                   |                                                                    |                                                                                                                                                                                  |                   | 2. If not recovered, check if the character string entered in CONFIG.TXT is not 256 characters or more.<br>In the case of 256 or more characters, change to the character string of 255 characters or less.                                              | —              |
| To be continued to the next page. |                                                                    |                                                                                                                                                                                  |                   |                                                                                                                                                                                                                                                          |                |

| Message code | Message text                  | Description                       | Collect the error | Recovery methods                                                                                                                                                                         | Reference page                                                           |
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|              |                               |                                   |                   | ② 1. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again.                                                                                                                 | —                                                                        |
|              |                               |                                   |                   | 2. If not recovered yet, check if there is any error in the format of CONFIG.TXT. If there is any error, correct the format.                                                             | —                                                                        |
|              |                               |                                   |                   | ③ Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again.                                                                                                                    | —                                                                        |
| IB1400       | SNMP agent detected the error | The SNMP agent detected an error. | Simple Trace      | ① 1. Check if the character string entered in CONFIG.TXT is not 256 characters or more. In the case of 256 or more characters, change to the character string of 255 characters or less. | —                                                                        |
|              |                               |                                   |                   | 2. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again.                                                                                                                   | —                                                                        |
|              |                               |                                   |                   | 3. If not recovered, check if there is any error in the format of CONFIG.TXT. If there is any error, correct the format.                                                                 | —                                                                        |
|              |                               |                                   |                   | ② 1. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again.                                                                                                                 | —                                                                        |
|              |                               |                                   |                   | 2. If not recovered yet, replace the Control Unit displayed in "W3Q00x SNMP error occurred in the SNMP function".                                                                        | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                              | Description                                                                                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                 | Reference page                                                           |
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| IB1500       | SNMP IP address error                     | The SNMP agent cannot start because the IP address of the LAN port for the user is "0".                                                                                                                                                                                                                                                                  | Simple Trace      | ① Set the IP address of the LAN port for the user.                                                               | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ② Disable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2.                          | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ③ Enable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2.                           | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ④ If not recovered, repeat ① again.                                                                              | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ⑤ If not recovered yet, replace the Control Unit displayed in "W3Q00x SNMP error occurred in the SNMP function". | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| IB1600       | SNMP Initialization error                 | The initialization of the SNMP function failed                                                                                                                                                                                                                                                                                                           | Simple Trace      | ① Disable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2.                          | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ② Enable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2.                           | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ③ If not recovered, repeat ① again.                                                                              | —                                                                        |
|              |                                           |                                                                                                                                                                                                                                                                                                                                                          |                   | ④ If not recovered yet, replace the Control Unit displayed in "W3Q00x SNMP error occurred in the SNMP function". | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| IB1700       | SNMP RAM Device allocation error for SNMP | Securing the SNMP information to the RAM failed.                                                                                                                                                                                                                                                                                                         | Simple Trace      | ① Replace the Control Unit displayed in "W3Q00x SNMP error occurred in the SNMP function".                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| IB1900       | Remote copy failed (CTG-x)                | The instruction of the pair formation or the resynchronization of TrueCopy Extended Distance was accepted, and the data transfer failed while the status of the pair was the copy (this message may be displayed even if the message "IB1B00 Remote copy started" which started the copy is not displayed in advance).<br>x : Consistency Group # (0-15) | Simple Trace      | ① Execute the initial copy or the resynchronization again.                                                       | —                                                                        |

| Message code | Message text                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                     | Collect the error | Recovery methods | Reference page |
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| IB1A00       | Remote resync started (LU-x/y, CTG-z) | The resynchronization of the TrueCopy Extended Distance pair started.<br>x : Internal LU # of Primary LU (0-4095)<br>y : Internal LU # of Secondary LU (0-4095)<br>z : Consistency Group # (0-15)                                                                                                                                                                                                                               |                   | —                | —              |
| IB1B00       | Remote copy started (LU-x/y, CTG-z)   | An initial copy of the TrueCopy Extended Distance pair started.<br>x : Internal LU # of Primary LU (0-4095)<br>y : Internal LU # of Secondary LU (0-4095)<br>z : Consistency Group # (0-15)                                                                                                                                                                                                                                     |                   | —                | —              |
| IB1D00       | Remote copy completed (CTG-x, y/z)    | The initial copy or the resynchronization of the pair of TrueCopy Extended Distance was completed (z of the message text "CTG-x, y/z" may not be consistent with the number of the message "IB1B00 Remote copy started" which started the copy).<br>x : Consistency Group # (0-15)<br>y : The number of LUs that the copy was completed (1-2046)<br>z : The number of all LUs during the copy in the consistency group (1-2046) |                   | —                | —              |

| Message code | Message text                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                       |
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| IB1E00       | Remote option disable [TrueCopy Extended Distance] | <p>Since the setting of the remote copy is inappropriate on the remote subsystem (subsystem of the communication partner), the remote copy cannot operate. The following causes are considered.</p> <ol style="list-style-type: none"> <li>1. The license key of TrueCopy Extended Distance is locked on the remote subsystem (subsystem of the communication partner).</li> <li>2. The license key of TrueCopy Extended Distance is unlocked on the remote subsystem (subsystem of the communication partner), but it is disabled.</li> <li>3. The license keys of TrueCopy Extended Distance and TrueCopy Modular Distributed are unlocked on the remote subsystem (subsystem of the communication partner), but they are enabled.</li> </ol> | Simple Trace      | <p>① When the license key of TrueCopy Extended Distance of the priced option is locked on the remote subsystem (subsystem of the communication partner), unlock the license key of TrueCopy Extended Distance.</p> <p>② When the license key of TrueCopy Extended Distance of the priced option is unlocked on the remote subsystem (subsystem of the communication partner), but it is disabled, enable the license key of TrueCopy Extended Distance.</p> <p>③ When the license keys of TrueCopy Extended Distance of the priced option and TrueCopy Modular Distributed are unlocked on the remote subsystem (subsystem of the communication partner), but they are enabled, set [Replication] – [Remote Path] – [Distributed Mode] of Hitachi Storage Navigator Modular 2 to [Edge] on the remote subsystem (subsystem of the communication partner) or lock the license key of TrueCopy Modular Distributed of the priced option.</p> | <a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a> |
| IB1F00       | PSUE occurred [Snapshot] (CTG-x, MU-y)             | <p>The "pairsplit-mscas" command was not completed because "pairsplit" in the pair of Copy-on-write SnapShot of the remote side subsystem could not be executed due to the internal processing waiting of the remote disk subsystem. [PSUE factor of the pair of Copy-on-write SnapShot]</p> <p>x : Consistency Group # (0-63)</p> <p>y : Mirroring # of Copy-on-write SnapShot (0-13)</p>                                                                                                                                                                                                                                                                                                                                                      | Simple Trace      | <p>① Release the Copy-on-write SnapShot pair cascaded to the S-Vol of the pair of TrueCopy Extended Distance by indicating "pairsplit-mscas", and form the pair again.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | —                                                                                                    |



| Message code | Message text                                                 | Description                                                                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                   | Reference page                            |
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| IB1G00       | Pair status changed by the error (CTG-x)                     | The pair of TrueCopy Extended Distance changed in the abnormal status because a failure occurred.<br>x : Consistency Group # (0-15)                                                                                                                                               | Simple Trace      | ① When the message code "IB1M00 The change of the remote pair status failed" is displayed immediately before it, perform the maintenance according to the message.                                                 | —                                         |
| IB1H00       | Pair status changed by no available data pool (CTG-x)        | The pair of TrueCopy Extended Distance changed in the abnormal status because the usage rate of the data pool exceeded the threshold value.<br>x : Consistency Group # (0-15)                                                                                                     | Simple Trace      | ② Remove the failure which changed it in the abnormal status for the pair of TrueCopy Extended Distance in the consistency group referring to "RAID Manager System Administrator Guide".                           | "RAID Manager System Administrator Guide" |
|              |                                                              |                                                                                                                                                                                                                                                                                   |                   | ③ Reform the pair of TrueCopy Extended Distance. The method of the pair reformation differs depending on the status of the pair.                                                                                   | —                                         |
|              |                                                              |                                                                                                                                                                                                                                                                                   |                   | ④ Execute the resynchronization for the pair which changed to PSUE and PFUS. Or form the pair again after releasing it. Reform the pair after releasing it for the pair which changed to PSUS (R/W impossible).    | —                                         |
| IB1M00       | The change of the remote pair status failed (LU-x/y, code-z) | The change of the pair status on the remote side failed in the resynchronization of TrueCopy Extended Distance.<br>x : LU# of the pair of the local side subsystem (0-4095)<br>y : The number of LUs of the pair of the remote side subsystem (0-4095)<br>z : Error detailed code | Simple Trace      | ① Perform the resynchronization of the pair of TrueCopy Extended Distance again after recovering the error factor indicated by the error detailed code referring to the "RAID Manager System Administrator Guide". | "RAID Manager System Administrator Guide" |
| IB1N00       | P-VOL read failed [TrueCopy]                                 | The P-VOL became unable to be read.                                                                                                                                                                                                                                               |                   | ① Split the TrueCopy remote replication pair. When forming the pair again, form a Copy-on-write SnapShot pair first and then form a TrueCopy remote replication pair.                                              | —                                         |
| IB1P00       | SnapShot SMPL command received [TrueCopy]                    | Copy-on-write SnapShot received a command to split its pair.                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                    |                                           |
| IB1Q00       | LU access enable [SnapShot pair canceled] (LU-x)             | Read/Write to P-VOL enabled.<br>x : LU # (0-4095)                                                                                                                                                                                                                                 | Simple Trace      | —                                                                                                                                                                                                                  | —                                         |

| Message code | Message text                                       | Description                                                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                            | Reference page                                               |
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| IB1R00       | LU access disable [SnapShot restore failed] (LU-x) | Read/Write to P-VOL disabled.<br>x : LU # (0-4095)                                                                                                                                                                                                                 | Simple Trace      | ① Cancel all the pairs of the V-VOL in the P-VOL.                                                                                                                                                                                                                                                                                                                           | —                                                            |
| IB1S0x       | PSUE occurred [SnapShot] (Data pool-x)             | All SnapShot pairs which are using the data pool displayed in the message were changed (SnapShot) to PSUE, and the data of all V-VOLs of the pair was discarded.<br>x : Data pool # (0-63)                                                                         | Simple Trace      | ① To recover the SnapShot pair from PSUE, request the customer to execute the pair creation (paircreate) after executing the pair release (pairsplit-S) for the pair.                                                                                                                                                                                                       | —                                                            |
| IB1T00       | PSUE occurred [TrueCopy] (LU-xP/yS)                | The local side subsystem (this subsystem) of TrueCopy remote replication changed the pair status of the P-VOL to PSUE.<br>x : LU# (0-4095) of the P-VOL of the local side subsystem (this subsystem)<br>y : LU# (0-4095) of the S-VOL of the remote side subsystem | Simple Trace      | ① 1. Recover the failure which caused PSUE referring to the "RAID Manager System Administrator Guide".<br>2. Perform the resynchronization for the pair which displayed the message.                                                                                                                                                                                        | "RAID Manager System Administrator Guide"                    |
| IB1U00       | PSUE occurred [TrueCopy] (LU-xS/yP)                | The local side subsystem (this subsystem) of TrueCopy remote replication changed the pair status of the S-VOL to PSUE.<br>x : LU# (0-4095) of the S-VOL of the local side subsystem (this subsystem)<br>y : LU# (0-4095) of the P-VOL of the remote side subsystem | Simple Trace      | ① 1. Collect a simple trace from the remote side subsystem (subsystem of the communication partner).<br>2. Recover the failure which caused PSUE referring to the "RAID Manager System Administrator Guide".<br>3. Perform the resynchronization for the pair which displayed the message.                                                                                  | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040) |
| IB1V00       | PSUE occurred [TrueCopy]                           | The status of the pair of TrueCopy remote replication changed the pair status of the LU to PSUE for all the LUs other than SMPL.                                                                                                                                   | Simple Trace      | ① When the status of the path with the remote side subsystem (subsystem of the communication partner) is not normal, recover the path to normal referring to the "RAID Manager System Administrator Guide".<br>② When the status of the path with the remote side subsystem (subsystem of the communication partner) is normal, perform the resynchronization for the pair. | "RAID Manager System Administrator Guide"                    |

| Message code | Message text                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                                       |
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| IB1W00       | Remote option disable [TrueCopy] | <p>Since the setting of the remote copy is inappropriate on the remote subsystem (subsystem of the communication partner), the remote copy cannot operate. The following causes are considered.</p> <ol style="list-style-type: none"> <li>1. The license key of TrueCopy remote replication is locked on the remote subsystem (subsystem of the communication partner).</li> <li>2. The license key of TrueCopy remote replication is unlocked on the remote subsystem (subsystem of the communication partner), but it is disabled.</li> <li>3. The license keys of TrueCopy remote replication and TrueCopy Modular Distributed are unlocked on the remote subsystem (subsystem of the communication partner), but they are enabled.</li> </ol> | Simple Trace      | <p>① When the license key of TrueCopy remote replication of the priced option is locked on the remote subsystem (subsystem of the communication partner), unlock the license key of TrueCopy remote replication.</p> <p>② When the license key of TrueCopy remote replication of the priced option is unlocked on the remote subsystem (subsystem of the communication partner), but it is disabled, enable the license key of TrueCopy remote replication.</p> <p>③ When the license keys of TrueCopy remote replication of the priced option and TrueCopy Modular Distributed are unlocked on the remote subsystem (subsystem of the communication partner), but they are enabled, set [Replication] – [Remote Path] – [Distributed Mode] of Hitachi Storage Navigator Modular 2 to [Edge] on the remote subsystem (subsystem of the communication partner) or lock the license key of TrueCopy Modular Distributed of the priced option.</p> | <a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a> |
| IB1Y00       | Audit logs were cleared          | The monitoring log was initialized.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —                                                                                                    |

| Message code                      | Message text                                          | Description                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                    |
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| IB20xy                            | The creation of default certificate failed (CTL-x)    | The creation of the SSL default certificate file failed.<br>x : Control Unit # (0-1)<br>y : Error factor # (1-3)                                                                           | Simple Trace      | ① 1. Perform the planned shutdown of the subsystem and restart it.<br>2. If not recovered, contact the Technical Support Center.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Installation "1.5 Power On/Off Procedure" (INST 01-0130)</a><br>—                                                     |
| IB21xy                            | The creation of user certificate failed (CTL-x)       | The creation of the SSL user certificate file failed.<br>x : Control Unit # (0-1)<br>y : Error factor # (1-3)                                                                              | Simple Trace      | ① Perform the maintenance referring to <a href="#">Troubleshooting "6.1.21 Recovery Method when the Creation of the SSL User Certificate File Failed"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <a href="#">Troubleshooting "6.1.21 Recovery Method when the Creation of the SSL User Certificate File Failed" (TRBL 06-0960)</a> |
| IB220x                            | The error was detected in the SSL certificate (CTL-x) | The array subsystem detected that the imported SSL certificate data was illegal when the secure communication was received from the host computer application.<br>x : Control Unit # (0-1) | Simple Trace      | ① 1. Request the customer/SE to start Hitachi Storage Navigator Modular 2.<br>2. Request the customer/SE to log in Hitachi Storage Navigator Modular 2.<br>3. Request the customer/SE to select the array subsystem in which the failure occurred and click the "Array Edit" button.<br>4. Check whether the port to be used in the array edit window is "Normal Port" or "Secure Port".<br>5. When the port to be used is "Secure Port", request the customer/SE to change the port to be used to "Normal Port".<br>When the port to be used is "Normal Port", go to step 6.<br>6. Request the customer/SE to press the [OK] button in the array edit window. | —<br>—<br>—<br>—<br>—<br>—                                                                                                        |
| To be continued to the next page. |                                                       |                                                                                                                                                                                            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                            |
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|              |              |             |                   | 7. Request the customer/SE to create a user certificate and private key according to <a href="#">User's Guide "Changing Server Certificate and Private Key"</a> of the subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <a href="#">User's Guide</a>                                                                              |
|              |              |             |                   | 8. • When the main window of the array subsystem is displayed, request the customer/SE to update the user certificate and private key according to <a href="#">User's Guide "Changing Server Certificate and Private Key"</a> .<br>• When the main window of the array subsystem is not displayed, connect to WEB.<br>Then, referring to <a href="#">WEB "1.5 Displaying the Special Window"</a> , open the WEB window ( <a href="http://Subsystem IP address/sslc_init/">http://Subsystem IP address/sslc_init/</a> ). After that, initialize the certificate in the WEB window.<br>Request the customer/SE to execute the setting of "Port to Be Used", "Valid/Invalid of Normal Port" and the update of "Server Certificate and Private Key" as needed. | <a href="#">User's Guide</a><br><br><a href="#">WEB "1.5 Displaying the Special Window" (WEB 01-0070)</a> |
|              |              |             |                   | 9. When it is completed normally, return the port to be used to "Secure Port" in the array edit window.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | —                                                                                                         |

| Message code | Message text                   | Description                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page |
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| IB2300       | Remote array is Hub array      | Although this subsystem was "Hub array subsystem" of the remote copy or "Normal array subsystem", the remote subsystem of the remote copy was also "Hub array subsystem". | Simple Trace      | ① 1. Specify the remote subsystem referring to "W0K0xy Path alarm (Remote-x, Path-y)" displayed with this message at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —              |
| IB2400       | Remote array is not Edge array | Although this subsystem was "Hub array subsystem" of the remote copy, the remote subsystem was not "Edge array subsystem".                                                | Simple Trace      | 2. Request the customer/ SE to review the setting of the Distributed mode for this subsystem and the remote subsystem of the remote copy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | —              |
|              |                                |                                                                                                                                                                           |                   | 3. •When the TrueCopy Modular Distributed function is used, specify the subsystem which should be originally "Edge array subsystem" on the subsystem configuration for this subsystem and the remote subsystem of the remote copy, and request the customer/ SE to change the Distributed mode of the subsystem which should be originally "Edge array subsystem" to "Edge".<br>• When the TrueCopy Modular Distributed function is unused, specify the subsystem which should be originally "Normal array subsystem" on the system configuration for this subsystem and the remote subsystem of the remote copy, and request the customer/ SE to change the Distributed mode of the subsystem which should be originally "Normal array subsystem" to "Normal". | —              |
|              |                                |                                                                                                                                                                           |                   | 4. Request the customer/ SE to execute the path recovery command.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —              |

| Message code | Message text               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                  | Reference page |
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| IC0000       | Coupling failed (LU- x/y)  | An initial copy terminated abnormally.<br>x : Copy source LU #<br>(0-4095)<br>y : Copy destination LU #<br>(0-4095)                                                                                                                                                                                                                                                                                                                                                                                                      |                   | ① Define the pair of the ShadowImage in-system replication again. | —              |
| IC1000       | Coupling stopped (LU- x/y) | After performing the following, when the ShadowImage pair is in the SplitPending status, the user instructed the resynchronization (not specifying the normal mode or quick mode). Therefore, the initial copy in the background was stopped.<br>• After specifying the quick mode and creating a ShadowImage pair<br>• After specifying the quick mode during the initial copy operation of ShadowImage and splitting the ShadowImage pair<br>x : Copy source LU #<br>(0-4095)<br>y : Copy destination LU #<br>(0-4095) |                   | —                                                                 | —              |
| ID0000       | Resync started (LU- x/y)   | A resynchronization was started.<br>x : Copy source LU #<br>(0-4095)<br>y : Copy destination LU #<br>(0-4095)                                                                                                                                                                                                                                                                                                                                                                                                            |                   | —                                                                 | —              |
| IE0000       | Resync completed (LU- x/y) | A resynchronization completed normally.<br>x : Copy source LU #<br>(0-4095)<br>y : Copy destination LU #<br>(0-4095)                                                                                                                                                                                                                                                                                                                                                                                                     |                   | —                                                                 | —              |
| IF0000       | Resync failed (LU- x/y)    | A resynchronization terminated abnormally.<br>x : Copy source LU #<br>(0-4095)<br>y : Copy destination LU #<br>(0-4095)                                                                                                                                                                                                                                                                                                                                                                                                  |                   | ① Define the pair of the ShadowImage in-system replication again. | —              |

| Message code | Message text                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                            | Reference page                                                                                                              |
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| IF1000       | Resync stopped (LU-x/y)                   | <p>After performing the following, when the ShadowImage pair is in the SplitPending status, the user instructed the resynchronization (not specifying the normal mode or quick mode). Therefore, the resynchronization copy in the background was stopped.</p> <ul style="list-style-type: none"> <li>After specifying the quick mode during the resynchronization copy operation of ShadowImage and splitting the ShadowImage pair</li> </ul> <p>x : Copy source LU # (0-4095)<br/>y : Copy destination LU # (0-4095)</p> |                   | —                                                                                                                                                                                                           | —                                                                                                                           |
| IG0000       | PSUE occurred (LU-x/y)                    | <p>The pair status was changed to PSUE when the Shadow Image function was being used.</p> <p>x : Primary LU # (0-4095)<br/>y : Secondary LU # (0-4095)</p>                                                                                                                                                                                                                                                                                                                                                                 | Simple Trace      | ① Make a recovery from the failure already occurred. Refer to <a href="#">Troubleshooting "Chapter 9 Data Collection when a Failure Occurs in Program Product (P.P.)" to collect necessary information.</a> | <a href="#">Troubleshooting "Chapter 9. Data Collection when a Failure Occurs in Program Product (P.P.)" (TRBL 09-0000)</a> |
| IH0000       | LU unified (UNI : LU-x,M : LU-x,S : LU-y) | <p>LUs were unified.</p> <p>x : LU # of the unified LU after the unification and a Main LU (0-4095)<br/>y : LU # of a Sub LU before the unification (0-4095)</p>                                                                                                                                                                                                                                                                                                                                                           |                   | —                                                                                                                                                                                                           | —                                                                                                                           |
| IQ0000       | Remote copy started (LU- x/y)             | <p>The TrueCopy remote replication/TrueCopy Extended Distance initial copy was started.</p> <p>x : Number of an internal LU of the local DF (0-4095)<br/>y : Number of an internal LU of the remote DF (0-4095)</p>                                                                                                                                                                                                                                                                                                        |                   | —                                                                                                                                                                                                           | —                                                                                                                           |
| IR0000       | Remote copy completed (LU- x/y)           | <p>The initial copy by the TrueCopy remote replication/TrueCopy Extended Distance was completed normally.</p> <p>x : Number of an internal LU of the local DF (0-4095)<br/>y : Number of an internal LU of the remote DF (0-4095)</p>                                                                                                                                                                                                                                                                                      |                   | —                                                                                                                                                                                                           | —                                                                                                                           |



| Message code | Message text                      | Description                                                                                                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                     | Reference page                                                                                                                      |
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| IS0000       | Remote copy failed (LU- x/y)      | The initial copy by the TrueCopy remote replication/TrueCopy Extended Distance terminated abnormally.<br>x : Number of an internal LU of the local DF (0-4095)<br>y : Number of an internal LU of the remote DF (0-4095)                                                               | Simple Trace      | ① Define the pair of the TrueCopy remote replication/TrueCopy Extended Distance again.                                               | —                                                                                                                                   |
| IT0000       | Remote resync started (LU- x/y)   | The re-synchronization by TrueCopy remote replication/TrueCopy Extended Distance was started.<br>x : Number of an internal LU of the local DF (0-4095)<br>y : Number of an internal LU of the remote DF (0-4095)                                                                       |                   | —                                                                                                                                    | —                                                                                                                                   |
| IU0000       | Remote resync completed (LU- x/y) | The re-synchronization by the TrueCopy remote replication/TrueCopy Extended Distance was completed normally.<br>x : Number of an internal LU of the local DF (0-4095)<br>y : Number of an internal LU of the remote DF (0-4095)                                                        |                   | —                                                                                                                                    | —                                                                                                                                   |
| IV0000       | Remote resync failed (LU- x/y)    | The re-synchronization by the TrueCopy remote replication/TrueCopy Extended Distance terminated abnormally.<br>x : Number of an internal LU of the local DF (0-4095)<br>y : Number of an internal LU of the remote DF (0-4095)                                                         | Simple Trace      | ① Perform the re-synchronization using the TrueCopy remote replication/TrueCopy Extended Distance again.                             | —                                                                                                                                   |
| IW0000       | Remote PSUE occurred (LU-xP/yS)   | In the local DF (this subsystem) controlled by the TrueCopy remote replication/TrueCopy Extended Distance, the pair status of the primary LU was changed to PSUE.<br>x : Number of an internal LU of the local DF (0-4095)<br>y : Number of an internal LU of the remote DF (0-4095)   | Simple Trace      | ① Refer to the Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function". | Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 06-0820) |
| IX0000       | SRC PSUE occurred (LU-xS/yP)      | In the local DF (this subsystem) controlled by the TrueCopy remote replication/TrueCopy Extended Distance, the pair status of the secondary LU was changed to PSUE.<br>x : Number of an internal LU of the local DF (0-4095)<br>y : Number of an internal LU of the remote DF (0-4095) | Simple Trace      |                                                                                                                                      |                                                                                                                                     |

| Message code | Message text                                                                                           | Description                                                                                                                       | Collect the error | Recovery methods                                                         | Reference page |
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| IXX000       | SELF HEATRUN:<br>Began self heatrun                                                                    | The self heatrun was started.                                                                                                     |                   | —                                                                        | —              |
| IXX100       | SELF HEATRUN:<br>The number of<br>defined LU is x                                                      | The defined LUN (self heatrun<br>execution target LU) was<br>displayed.<br>x : LU # (0-4095)                                      |                   | —                                                                        | —              |
| IXX200       | SELF HEATRUN:<br>Finished self heatrun                                                                 | The execution of the self<br>heatrun was completed.                                                                               |                   | —                                                                        | —              |
| IXX300       | SELF HEATRUN:<br>Began loop test [loop<br>(x)]                                                         | The loop test was started.<br>x : Loop # (0-1)                                                                                    |                   | —                                                                        | —              |
| IXX400       | SELF HEATRUN:<br>Finished loop test<br>[loop (x)]                                                      | The loop test was completed.<br>x : Loop # (0-1)                                                                                  |                   | —                                                                        | —              |
| IXX500       | SELF HEATRUN:<br>Test pattern SAS-[x]<br>started<br>SELF HEATRUN<br>Began the test pattern<br>SAS-[xx] | The SELF HEATRUN system<br>started the test of the SAS test<br>pattern displayed in the<br>message.<br>x : Test pattern number    |                   | —                                                                        | —              |
| IXX600       | SELF HEATRUN:<br>Began the test pattern<br>SATA-[x]                                                    | The execution of the test pattern<br>for SATA was started.<br>x : Test pattern number                                             |                   | —                                                                        | —              |
| IXX700       | SELF HEATRUN:<br>Began the test pattern<br>[x]                                                         | The execution of the test pattern<br>of the input file was started.<br>x : Test pattern number                                    |                   | —                                                                        | —              |
| IXX800       | SELF HEATRUN:<br>Finished the test<br>pattern [x]                                                      | The execution of the test pattern<br>was completed.<br>x : Test pattern number                                                    |                   | —                                                                        | —              |
| IXX900       | SELF HEATRUN:<br>execution time [x;y;z]                                                                | The time required for the test<br>was displayed.<br>x : Execution time (hh)<br>y : Execution time (mm)<br>z : Execution time (ss) |                   | —                                                                        | —              |
| IXXA00       | SELF HEATRUN:<br>HDU alarm (Unit-x,<br>HDU-y)                                                          | The drive failure occurred.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                    | Simple Trace      | ① Analyze the failure of the<br>Disk Drive displayed in this<br>message. | —              |
| IXXB00       | SELF HEATRUN:<br>Online verify stopped                                                                 | The online verify was stopped.                                                                                                    |                   | —                                                                        | —              |
| IXXC00       | SELF HEATRUN:<br>Online verify started                                                                 | The online verify was started.                                                                                                    |                   | —                                                                        | —              |
| IXXD00       | SELF HEATRUN:<br>started the collection<br>of statistical<br>information (Time<br>takes 85~300sec.)    | The statistical information<br>collection was started.                                                                            |                   | —                                                                        | —              |
| IXXE00       | SELF HEATRUN:<br>finished the collection<br>of statistical<br>information                              | The statistical information<br>collection was completed.                                                                          |                   | —                                                                        | —              |

| Message code | Message text                                                                   | Description                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                  | Reference page                                                                                                                                                                                                                        |
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| IXXF00       | LBA = x                                                                        | LBA was detected when the drive failure occurred.<br>x : Logical block address                                                                                                                        |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |
| IXXG00       | Key/Code = x/y                                                                 | The sense key/sense code was detected when the drive failure occurred.<br>x : sense key<br>y : sense code                                                                                             |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |
| IXXH00       | Cmd/Len(blk) =x/y                                                              | The operation code and the number of transfer blocks were detected when the drive failure occurred.<br>x : Operation code<br>y : Number of transfer blocks                                            |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |
| IXXI00       | [SELF HEATRUN] Configuration error was detected (Too many units are connected) | Since the Additional Chassis whose Unit # is 13 or more are connected in the self heat-run system, a sufficient load examination may not be performed when executing the heat-run to all HDUs.        |                   | ① 1. Delete the RAID Groups and the LUs created in the Additional Chassis whose Unit # is 13 or more.<br><br>2. Subtract the number of the Additional Chassis to be connected to the number of the chassis whose Unit # is 12 or less.<br><br>3. Execute the self heat-run again. | System Parameter "3.2 [Procedure ②-D]Deleting RAID group" (SYSPR 03-0090)<br>System Parameter "3.3 [Procedure ③-D]Deleting LU" (SYSPR 03-0260)<br>Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000) |
| IXXJ00       | SELF HEATRUN Began the test pattern SSD-[xx]                                   | The self heatrun system started the test of the Flash Drive test pattern displayed in the message.<br>xx : Test pattern number                                                                        |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |
| IXXK00       | SELF HEATRUN : Unsupported HDU Product Identification (Unit-x, HDU-y)          | A Disk Drive with the product ID which does not support the firmware for the LT (Lead Time) shortened version of self heatrun system was detected.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |
| IY0000       | HDU error report (Unit-x, HDU-y) [z-z]                                         | Drive detachment because of a failure (bad ALPA) drive error report receipt.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z-z : Detail code                                                  |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |
| IY0600       | DFPC error detect (Unit-x, HDU-y) [HDU TIME OUT]                               | Drive detachment because of a failure (PDEV time-out) detected by the DFPC.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                        |                   | —                                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                     |

| Message code | Message text                                            | Description                                                                                                                                                     | Collect the error | Recovery methods | Reference page |
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| IY0800       | HDU online verify error (Unit-x, HDU-y)<br>[04-3200]    | Drive detachment owing to detection of sector exhaustion in the online verification.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                         |                   | —                | —              |
| IY0900       | HDU removed (Unit-x, HDU-y)                             | Drive detachment because of pulling out of the drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                        |                   | —                | —              |
| IY0A00       | HDU detach command receive (Unit-x, HDU-y)              | Drive detachment instructed by the Mode Select command.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                      |                   | —                | —              |
| IY0B00       | Dynamic sparing command receive (Unit-x, HDU-y)         | Drive detachment owing to a dynamic sparing instructed by the Mode Select command.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                           |                   | —                | —              |
| IY0C00       | Staging error (Unit-x, HDU-y)                           | Drive detachment because of a staging failure.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                               |                   | —                | —              |
| IY0D00       | HDU intermittent error over (Unit-x, HDU-y)             | Drive detachment because of the exceeded threshold value of the HDU intermittent failure count.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)              |                   | —                | —              |
| IY0E00       | Dynamic sparing error (Unit-x, HDU-y)<br>[MEDIUM]       | Drive detachment because of the exceeded threshold value of media error count occurs in the dynamic sparing.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   | —                | —              |
| IY0F00       | LA error [errcode:LUN] (Unit-x, HDU-y)                  | Drive detachment because of an LA error. (LUN)<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                               |                   | —                | —              |
| IY0G00       | LA error [errcode:LBA] (Unit-x, HDU-y)                  | Drive detachment because of an LA error. (LBA)<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                               |                   |                  |                |
| IY0H00       | LRC error (Unit-x, HDU-y)                               | Drive detachment because of an LRC error.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                    |                   | —                | —              |
| IY0I00       | Backend diagnostic error (Unit-x, HDU-y)<br>[HDU ERROR] | Drive detachment because of a backend diagnostic error.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                      |                   | —                | —              |

| Message code | Message text                                          | Description                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                       |
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| IY0J00       | Backend diagnostic error (Unit-x, HDU-y) [DUAL PORT]  | Drive detachment because of a dual port failure of a drive<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                           |                   | —                                                                                                                                                                                                                                              | —                                                                                                                                                                                                    |
| IY0K00       | HDU inquiry failed (Unit-x, HDU-y)                    | Drive detachment because of a failure of the Inquiry command at the time of the drive start-up<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                       |                   | —                                                                                                                                                                                                                                              | —                                                                                                                                                                                                    |
| IY0L00       | HDU read capacity failed (Unit-x, HDU-y)              | Drive detachment because of a failure of the Read Capacity command at the time of the drive start-up<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                 |                   | —                                                                                                                                                                                                                                              | —                                                                                                                                                                                                    |
| IY0M00       | Forced parity correction PIN-over (Unit-x, HDU-y)     | The drive was detached owing to a PIN-over during a forced parity correction.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                        |                   | ① Replace the Disk Drive.<br>When you want to make sure of a model name and drive firmware revision of the Disk Drive, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> . | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |
| IY0P00       | HDU error outside of regulation [SMR] (Unit-x, HDU-y) | Detachment of the drive under the SMART control because of its nonstandard head<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                      |                   | ① Replace the Disk Drive.                                                                                                                                                                                                                      | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                                                                                               |
| IY0Q00       | HDU error time-out [SMR] (Unit-x, HDU-y)              | Detachment of a drive under the SMART control because of a time-out of a response to a command.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                      |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| IY0R00       | HDU error status [SMR] (Unit-x, HDU-y)                | Detachment of a drive under the SMART control because of an abnormal state of the heads.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                             |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| IY0T00       | Write and compare error occurred (Unit-x, HDU-y)      | The drive was detached because a comparison error occurred during the write and compare operation of the writing assurance function.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |
| IY0U00       | SMART sequence error over [SMR] (Unit-x, HDU-y)       | Detachment of a drive under the SMART control.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                                                       |                   |                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |

| Message code | Message text                                              | Description                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                       | Reference page                                                                                                                                                                                                                                                          |
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| IY0V00       | P-VOL HDU error [ShadowImage]                             | A double failure of drives (a failure of a single drive in the case of RAID 0) occurred in a ShadowImage in-system replication P-VOL.                                                                            |                   | ① Refer to <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)"</a> and <a href="#">"6.1.10 Data Recovery does not Terminate Normally: Case 3 (Spare Disk Drive Failure)"</a> . | <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a><br><a href="#">Troubleshooting "6.1.10 Data Recovery does not Terminate Normally: Case 3 (Spare Disk Drive Failure)" (TRBL 06-0670)"</a> |
| IY0W00       | HDU intermittent error over 3 (Unit-x, HDU-y)             | The Disk Drive was blocked because the intermittent failure of the Disk Drive exceeded the threshold value.<br>Drive blockade 3<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                               |                   | ① Perform the maintenance according to the message text "HDU alarm" or "HDU error" displayed at the same time.                                                                                                                         | —                                                                                                                                                                                                                                                                       |
| IY0X00       | Data recovery restarted over by HDU alarm (Unit-x, HDU-y) | Because drive detachment of a RAID group of RAID 6 occurred during the correction operation of it, the correction operation was restarted from the beginning.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   | —                                                                                                                                                                                                                                      | —                                                                                                                                                                                                                                                                       |
| IY0Y00       | Write sequence error was detected (Unit-x, HDU-y)         | [D-DMA Transfer Failure] When the data was read from the Disk Drive, an error of the WRITE_SEQUENCE code was detected in D-PORT #04 to #07 of D-CTL LSI.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)      |                   | —                                                                                                                                                                                                                                      | —                                                                                                                                                                                                                                                                       |
| IY1000       | HDU write/read error (Unit-x, HDU-y)                      | A Disk Drive failure was detected in the Disk Drive diagnosis.<br>x : Unit ID # (1-59)<br>y : Disk Drive # (0-23)                                                                                                | Simple Trace      | ① Perform the maintenance according to "HDU alarm" displayed after this message.<br>• W09zab HDU alarm<br>• W0Azab SATA HDU alarm                                                                                                      | —                                                                                                                                                                                                                                                                       |
| IY1100       | The spin up of the disk drive failed (Unit-x, HDU-y)      | The spin-up of the Disk Drive which was spin-down for the power saving failed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                | Simple Trace      |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                         |
| IY1200       | The spin down of the disk drive failed (Unit-x, HDU-y)    | The spin-down of the Disk Drive for the power saving failed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                  | Simple Trace      |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                         |

| Message code                      | Message text                                                                       | Description                                                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                                                      |
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| IY1300                            | The error in the inquiry data of the disk drive was detected (Unit-x, HDU-y)       | It was detected that the Inquiry data of the Disk Drive displayed in the message was different before the spin-down due to the power saving and after the spin-up of this time.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)  | Simple Trace      | ① Perform the maintenance according to "HDU alarm" displayed after this message.<br>• W09zab HDU alarm<br>• W0Azab SATA HDU alarm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | —                                                                                                                                                                                   |
| IY1400                            | The error in the read capacity data of the disk drive was detected (Unit-x, HDU-y) | A sector size error was detected in the Read capacity data acquired from the Disk Drive displayed in the message.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                                                                                                                                                   |
| IY1500                            | Data recover cannot be started because of non available spare HDUs (Unit-x, HDU-y) | Since a Spare Disk Drive that can recover the data of the failed Disk Drive was not in the subsystem, the data of the failed Disk Drive was not recovered to a Spare Disk Drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) |                   | ① Replace the Disk Drive displayed in the message.<br>② If you want to recover the data of the failed Disk Drive to a Spare Disk Drive first before replacing the failed Disk Drive, set a Spare Disk Drive newly, and execute the reconstruction of the data from Hitachi Storage Navigator Modular 2. The concrete work is shown below.<br>1. Check if a Disk Drive that can recover the data of the failed Disk Drive is in the subsystem. Specifically, check if a Disk Drive to meet the following conditions of (a), (b), (c) and (d) is in the subsystem.<br>If there is no Disk Drive to meet the above-mentioned conditions, check if a Disk Drive to meet the conditions of (a), (b), (c) and (e) is in the subsystem.<br>If there is no Disk Drive to meet the conditions in the subsystem, you cannot construct the data of the failed Disk Drive even though you set a Spare Disk Drive newly. | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br>—<br><a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a> |
| To be continued to the next page. |                                                                                    |                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |

| Message code | Message text                                                                  | Description                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page |
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|              |                                                                               |                                                                                                                                                                                                                         |                   | (a) It does not belong to any RAID Groups.<br>(b) It is not set to the Spare Disk Drive.<br>(c) It has the same I/F as the I/F (SAS/SATA) of the failed Disk Drive.<br>(d) Same model name as the failed Disk Drive.<br>(e) In the RAID Group to which the failed Disk Drive belongs, it has the same capacity or more for the Disk Drive that has the smallest capacity among the Disk Drives to configure the RAID Group.<br>2. Select one Disk Drive to meet the conditions of a Spare Disk Drive, and set the Disk Drive to a Spare Disk.<br>3. Execute the reconstruction of the data from Hitachi Storage Navigator Modular 2. | —              |
| IY1600       | LA/LRC error was detected (Unit-x, HDU-y)                                     | The Disk Drive was blocked because the LA/LRC error exceeded the threshold value.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                    |                   | ① Perform the maintenance according to the message text "HDU alarm" or "HDU error" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | —              |
| IY1700       | HDU error was detected [RSP Code Error] (Unit-x, HDU-y)                       | The firmware received "SCSI Response frame" whose "RESPONSE_CODE field" is an invalid value from the Disk Drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                     | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | —              |
| IY1800       | Installed HDD numbers are over the limit for one backend path (Unit-x, HDU-y) | You cannot use the Disk Drive displayed in the message because the Disk Drive exceeding the maximum connection number per back-end path is installed in the chassis.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① Review the Disk Drive configuration of the subsystem and the specification of the back-end path, and install the Disk Drive again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | —              |



| Message code | Message text                                                             | Description                                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                                                                                                                                                                              |
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| IY1900       | Unsupported HDU was detected (Unit-x, HDU-y)                             | It was detected that the unsupported Disk Drive was installed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                     | Simple Trace      | ① Replace the Disk Drive displayed in the message to the Disk Drive supported by the firmware of the subsystem.<br>① 1. Remove the Disk Drive displayed in the message once.<br>2. Upgrade the version of the firmware of the subsystem to the version which supports this Disk Drive.<br>3. Insert this Disk Drive again. | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a><br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |
| IY1A00       | Invalid HDU interface had been recognized (Unit-x, HDU-y)                | An invalid type of the interface (SAS/SATA) in the Disk Drive was detected due to a temporary ENC (Expander) failure.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                              | Simple Trace      | ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.                                                                                                                                                                                                                            | —                                                                                                                                                                                                                                                                                                           |
| IY1B00       | Data recovery does not start by memory error of SATA HDD (Unit-x, HDU-y) | The drive restoration of the RAID Group became unable to be executed because a memory failure occurred in the operating SATA drive in the degenerating RAID group.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)"</a> .                                                                                                                                                                   | <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally : Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a>                                                                                                                                                                              |
| IY2000       | Restore started (LU-x/y)                                                 | The restoration copy started.<br>x : Copy source LU # (0-4095)<br>y : Copy destination LU # (0-4095)                                                                                                                  |                   | —                                                                                                                                                                                                                                                                                                                          | —                                                                                                                                                                                                                                                                                                           |
| IY2100       | Restore completed (LU-x/y)                                               | The restoration copy terminated normally.<br>x : Copy source LU # (0-4095)<br>y : Copy destination LU # (0-4095)                                                                                                      |                   | —                                                                                                                                                                                                                                                                                                                          | —                                                                                                                                                                                                                                                                                                           |
| IY2200       | Restore failed (LU-x/y)                                                  | The restoration copy terminated abnormally.<br>x : Copy source LU # (0-4095)<br>y : Copy destination LU # (0-4095)                                                                                                    | Simple Trace      | ① Restore the data using the backup data after splitting the pair.                                                                                                                                                                                                                                                         | —                                                                                                                                                                                                                                                                                                           |

| Message code | Message text                      | Description                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                                                                                                                                    |
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| IZ0000       | HDU firmware download start       | An updating of the drive firmware was started.                                                                                       |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | —                                                                                                                                                                                                                                                                 |
| IZ0100       | HDU firmware download end         | An updating of the drive firmware was completed.                                                                                     |                   | ① Turn off the subsystem power, and turn it on again                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | —                                                                                                                                                                                                                                                                 |
| IZ0200       | HFWD completed (Unit-x, HDU-y)    | An updating of the drive firmware was completed normally.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                         |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | —                                                                                                                                                                                                                                                                 |
| IZ0300       | HDU update failed (Unit-x, HDU-y) | The drive firmware updating or the physical format utility processing abnormally.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① 1. Turn off the main switch after a rewriting of the drive firmware or a process of the physical format utility is completed (after a message, "IZ0100 HDU firmware download end" is displayed and the READY LED (green) on the front side of the subsystem blinks slowly (once/second)).<br>2. Remove the power cables from the Power Units of all the installed subsystems.<br>3. Turn on the main switch of the subsystem. (Check that the READY LED (green) on the front of the Basic Chassis lights up after four minutes usually (five minutes in case of the RKH).)<br>4. When the ALARM LED (red) or WARNING LED (orange) on the front side of the subsystem is on, maintain it according to the Information message.<br>5. Replace a Disk Drive pointed out in the message.<br>To be continued to the next page. | —<br><br><a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Installation "1.5 Power On/Off Procedure" (INST 01-0130)</a><br>—<br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |

| Message code | Message text                                | Description                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                        | Reference page                                                                                                 |
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|              |                                             |                                                                                                                                                                                                                    |                   | 6. Execute the drive firmware update of the physical format utility again (refer to <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware"</a> when replacing the drive firmware). | <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware"</a> (TRBL 14-0000) |
| IZ0600       | HFWD no target HDU                          | When an attempt is made to update the drive firmware, the target drive does not exist. However, there is no problem if this message appears when the target Disk Drive already has the latest version of firmware. |                   | ① Check whether the specified drive firmware is correct or not. If it is wrong, replace the drive firmware again by specifying the correct one.                                                                         | <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware"</a> (TRBL 14-0000) |
| IZ0700       | HFWD no redundancy [PG]<br>(Unit-x, HDU-y)  | Though the drive was the one whose firmware was to be updated, the updating was aborted because it was impossible to preserve redundancy of a parity group.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)     |                   | —                                                                                                                                                                                                                       | —                                                                                                              |
| IZ0800       | HFWD no redundancy [SYS]<br>(Unit-x, HDU-y) | Though the drive was the one whose firmware was to be updated, the updating was aborted because it was impossible to preserve redundancy of the system drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)   |                   | —                                                                                                                                                                                                                       | —                                                                                                              |
| IZ0900       | HFWD no redundancy [SES]<br>(Unit-x, HDU-y) | Though the drive was the one whose firmware was to be updated, the updating was aborted because it was impossible to preserve redundancy of the SES drive.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)      |                   | —                                                                                                                                                                                                                       | —                                                                                                              |

| Message code | Message text                                   | Description                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                                                                                                                                                        |
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| IZ0A00       | HDU update failed by CTL alarm (Unit-x, HDU-y) | The drive firmware updating or the physical format utility processing failed due to the Control Unit blockade.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | <p>① Make sure that "W01z0x CTL alarm" is displayed in the Information message or the ALM LED on the Control Unit is lit.</p> <p>② Search a cause of the failure by referring to (recording) a statement displayed in the Information message.</p> <p>③ Turn off the main switch after a rewriting of the drive firmware or a process of the physical format utility is completed ("IZ0100 HDU firmware download end" is displayed and the READY LED (green) on the front side of the subsystem blinks slowly (once/second)).</p> <p>④ Remove the power cables from the Power Units of all the installed subsystems.</p> <p>⑤ Turn on the main switch of the subsystem. (Check that the READY LED (green) on the front of the Basic Chassis lights up after four minutes usually (five minutes in case of the RKH).)</p> <p>⑥ When the ALARM LED (red) or WARNING LED (orange) on the front side of the subsystem is on, maintain it according to the Information message.</p> <p>⑦ Execute the drive firmware update of the physical format utility again (refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" when replacing the drive firmware).</p> | <p>—</p> <p><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a></p> <p>—</p> <p><a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a></p> |

| Message code | Message text                                    | Description                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference page                                                                                                                                                                                                                                                    |
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| IZ0B00       | CACHE destage check error                       | Execution is impossible because unsaved information remains on the cache.                                                                                               | Full Dump         | <p>① Perform the regular sequential shutdown.</p> <p>② Power on the subsystem. (Make sure that the READY LED (green) comes on four minutes later normally.)</p> <p>③ When the ALARM LED (red) or WARNING LED (orange) on the front side of the subsystems is on, maintain it according to the Information message.</p> <p>④ Execute the drive firmware update of the physical format utility again (refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" when replacing the drive firmware).</p>                                                                                                                                                                                                                              | <p>Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</p> <p>Installation "1.5.1 Subsystem Power On" (INST 01-0140)</p> <p>—</p> <p>Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</p> |
| IZ0C00       | HDU update failed by Loop alarm (Unit-x, HDU-y) | <p>The drive firmware updating or the physical format utility processing failed due to the Loop failure.</p> <p>x : Unit ID # (0-59)</p> <p>y : Disk Drive # (0-23)</p> |                   | <p>① Search a cause of the detachment by referring to (recording) a statement on the Fibre Channel loop detachment in the Information message.</p> <p>② Turn off the main switch after a rewriting of the drive firmware or a process of the physical format utility is completed ("IZ0100 HDU firmware download end" is displayed and the READY LED (green) on the front side of the subsystem blinks slowly (once/second)).</p> <p>③ Remove the power cables from the Power Units of all the installed subsystems.</p> <p>④ Turn on the main switch of the subsystem. (Check that the READY LED (green) on the front of the Basic Chassis lights up after four minutes usually (five minutes in case of the RKH).)</p> <p>To be continued to the next page.</p> | <p>—</p> <p>—</p> <p>Installation "1.5 Power On/Off Procedure" (INST 01-0130)</p>                                                                                                                                                                                 |

| Message code                      | Message text                                             | Description                                                                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                   |
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|                                   |                                                          |                                                                                                                                                                                                                           |                   | ⑤ When the ALARM LED (red) or WARNING LED (orange) on the front side of the subsystem is on, maintain it according to the Information message.<br>⑥ Execute the drive firmware update of the physical format utility again (refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" when replacing the drive firmware).                                                                                                                                                                                                                                                         | —<br>Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)                                                              |
| IZ0D00                            | HFWD SENC microprogram revision check NG (Unit-x, ENC-y) | The rewriting of the drive firmware was suspended because it is the revision that the SENC firmware is not supporting the rewriting function of the SATA drive firmware.<br>x : Unit ID # (0-59)<br>y : SENC Unit # (0-1) | Simple Trace      | ① 1. Turn off the main switch.<br>2. Remove the power cables from the Power Units of all subsystem.<br>3. Turn on the power of the subsystem again.<br>4. Select [Settings] – [Advanced Settings] on the unit window on the Hitachi Storage Navigator Modular 2, and click the [Open Advanced Settings] button.<br>5. Select the [Maintenance] on the applet window, and click the [Set] button at the lower right of the window.<br>6. Select the [ENC Micro Update] tab on the Maintenance window.<br>7. Click the [Change] button of the automatic download, select [Enable], and then click the [OK] button. | Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)<br>—<br>Installation "1.5.1 Subsystem Power On" (INST 01-0140)<br>—<br>—<br>—<br>— |
| To be continued to the next page. |                                                          |                                                                                                                                                                                                                           |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                  |

| Message code | Message text                                    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                                                                                                                                                 |
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|              |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   | 8. Turn off the subsystem power.<br>9. Turn on the subsystem power again.<br>10. Check that "IXYR00 Automatic ENC microprogram download completed successfully" is displayed in the Information Message on WEB. (*1)<br>11. Perform the drive firmware replacement again. | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a> |
| IZ0E00       | HDU firmware update was skipped (Unit-x, HDU-y) | The drive firmware replacement was not executed for the Disk Drive displayed in the message. It is due to any of the following reasons.<br><ul style="list-style-type: none"> <li>• A Disk Drive which configures the parity group including the blocked Disk Drive</li> <li>• A Disk Drive which was blocked before executing the drive firmware replacement</li> <li>• A Disk Drive in the electric power saving mode</li> <li>• A Disk Drive which is executing a system copy or trying to execute a system copy</li> </ul> x : Unit ID # (0-59)<br>y : Disk Drive # (0-23) | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.18 Recovery Method for Disk Drives which Skipped Drive Firmware Replacement"</a> .                                                                                                                | <a href="#">Troubleshooting "6.1.18 Recovery Method for Disk Drives which Skipped Drive Firmware Replacement" (TRBL 06-0920)</a>                                                                                                                                                               |

\*1 : When the READY LED (green) on the front of the Basic Chassis is blinking at high speed, it may take 30 to 50 minutes at the maximum (40 to 60 minutes at the maximum in the case of the RKH) until this message is displayed. Also, when the WARNING LED (orange) on the front of the basic chassis is blinking at high speed, it may take 30 to 85 minutes at the maximum until this message is displayed.

| Message code                      | Message text                                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                   |
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| IZ0F00                            | HDU firmware update failed by the internal CHK1 Reset of a controller (Unit-x, HDU-y) | The drive firmware replacement stopped because CHK1 reset for internal retry was executed in the Control Unit.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                                                                                                                                                                                                | Simple Trace      | ① Check that "IZ0G00 HDU firmware download failed" is output in the Information message on WEB.<br>② Replace the drive firmware again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —<br><br><a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a>          |
| IZ0G00                            | HDU firmware download failed                                                          | The drive firmware replacement terminated abnormally.                                                                                                                                                                                                                                                                                                                                                                                            | Simple Trace      | ① Perform the maintenance according to the message displayed at the same time or the dialog message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —                                                                                                                                |
| IZ0H00                            | HDU firmware update was rejected because the prerequisite is upheld                   | Since any of the following processing was already operating, the drive firmware replacement was not able to start.<br><ul style="list-style-type: none"> <li>• Online firmware replacement</li> <li>• Firmware replacement with the subsystem power turned on</li> <li>• ENC firmware replacement with the subsystem power tuned on</li> <li>• Automatic ENC firmware replacement</li> <li>• Back-end failed part isolation diagnosis</li> </ul> | Simple Trace      | ① 1. When the message code "I6HA0x Online microprogram update is started" or "W3B00x Online micro-update started" is displayed and "I19000 Online micro-update completed" or "W01z0x CTL alarm" is not displayed, wait until "I19000 Online micro-update completed" or "W01z0x CTL alarm" is displayed.<br>2. Replace the drive firmware.<br><br>② 1. When the message code "IZY000 ENC microprogram download start" is displayed and "IZY100 ENC microprogram download complete" or "IZYM00 ENC microprogram download error detected" is not displayed, wait until "IZY100 ENC microprogram download complete" or "IZYM00 ENC microprogram download error detected" is displayed. | —<br><br><a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a><br><br>— |
| To be continued to the next page. |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                  |



| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                 |
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|              |              |             |                   | 2. Replace the drive firmware.                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a> |
|              |              |             |                   | ③ 1. When the message code "IZYS00 Automatic ENC microprogram download start" is displayed and "IZYR00 Automatic ENC microprogram download completed successfully" or "IZYQ Automatic ENC microprogram download failed" is not displayed, wait until "IZYR00 Automatic ENC microprogram download completed successfully" or "IZYQ Automatic ENC microprogram download failed" is displayed. | —                                                                                                              |
|              |              |             |                   | 2. Replace the drive firmware.                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a> |
|              |              |             |                   | ④ 1. When the message code "I5H3xy The search for the failure part of backend route error started" is displayed and "I5H4xy The search for the failure part of backend route error ended" is not displayed, wait until "I5H4xy The search for the failure part of backend route error ended" is displayed.                                                                                  | —                                                                                                              |
|              |              |             |                   | 2. Replace the drive firmware.                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a> |

| Message code | Message text                                                     | Description                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                                                                                                                           | Reference page                                                           |
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| IZW000       | ENC microprogram download info. (CHG ENCMFPLANE NG Unit-x ENC-y) | When rebooting the ENC of the Additional Chassis after completing the download of the ENC firmware, switching of the valid ENC firmware failed.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   | ① The ENC firmware displayed in the message is not updated. Replace the ENC Unit displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the ENC Unit. Check that the customer has no problem on the operation, and then perform it. | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>     |
| IZW100       | ENC microprogram download info. (CHG ENCMFPLANE NG CTL-x)        | After completing the ENC firmware download, the ENC firmware switching failed at the time of ENC reboot.<br>x : Control Unit # (0-1)                                                            |                   | ① Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| IZW200       | ENC microprogram download info. (ENC REBOOT NG Unit-x ENC-y)     | The ENC reboot of the Additional Chassis after completing the ENC firmware download failed.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                     |                   | ① The ENC firmware displayed in the message is not updated. Replace the ENC Unit displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the ENC Unit. Check that the customer has no problem on the operation, and then perform it. | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>     |
| IZW300       | ENC microprogram download info. (ENC REBOOT NG CTL-x)            | After completing the ENC firmware download, reboot of the ENC part of the Control Unit failed.<br>x : Control Unit # (0-1)                                                                      |                   | ① Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                       | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| IZY000       | ENC microprogram download start                                  | An ENC firmware downloading was started.                                                                                                                                                        |                   | —                                                                                                                                                                                                                                                                                          | —                                                                        |
| IZY100       | ENC microprogram download complete                               | An ENC firmware downloading was completed.                                                                                                                                                      |                   | —                                                                                                                                                                                                                                                                                          | —                                                                        |
| IZY20x       | ENC#x microprogram download start                                | An ENC firmware downloading was started.<br>x : ENC Unit # (0-1)                                                                                                                                |                   | —                                                                                                                                                                                                                                                                                          | —                                                                        |
| IZY40x       | ENC#x microprogram download complete                             | An ENC firmware downloading was completed.<br>x : ENC Unit # (0-1)                                                                                                                              |                   | —                                                                                                                                                                                                                                                                                          | —                                                                        |

| Message code                      | Message text                                        | Description                                                                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                           |
|-----------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| IZY500                            | ENC microprogram download info. (Unit-x, ENC-y)     | When downloading the ENC firmware in the ENC Unit of the Additional Chassis, it was detected that the value of the data assured area was abnormal by the SES data from the ENC Unit of the Additional Chassis for the SES command.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   | ① The ENC firmware displayed in the message is not updated. Replace the ENC Unit displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the ENC Unit. Check that the customer has no problem on the operation, and then perform it.                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>                     |
| IZY800                            | ENC microprogram download info. (SES Unit-x, ENC-y) | When downloading the ENC firmware in the ENC Unit of the Additional Chassis, the issued SES command terminated abnormally.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1)                                                                                                         |                   | ① 1. When the subsystem is in the Warning status, recover the failure that changed the subsystem to the Warning status referring to the other output Information Message.<br>2. Check that the WARNING LED on the subsystem goes out.<br>3. If the automatic download of the ENC firmware is operating when the message is first output, check that the automatic download of the ENC firmware is completed normally.<br>4. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again.<br>② 1. Replace the ENC Unit displayed in the message. | —<br>—<br>—<br>—<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a> |
| To be continued to the next page. |                                                     |                                                                                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                          |

| Message code | Message text                                                    | Description                                                                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                               |
|--------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|              |                                                                 |                                                                                                                                                                                                                  |                   | <p>2. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again.</p> <p>③ If not recovered yet, collect the Simple Trace, and then contact the Technical Support Center.</p>                                                                                                                            | <p>—</p> <p><a href="#">Troubleshooting “7.3 Collecting Simple Trace” (TRBL 07-0040)</a></p> |
| IZY900       | ENC microprogram download info. (ENC microprogram Unit-x ENC-y) | <p>When downloading the ENC firmware, a STATUS error was detected from the STATUS READ command response from the ENC Unit of the Additional Chassis.</p> <p>x : Unit ID # (0-59)</p> <p>y : ENC Unit # (0-1)</p> |                   | ① 1. If this failure occurs while executing the online ENC firmware download or the offline ENC firmware download, the data of the ENC firmware to be installed may be illegal. Therefore, acquired the data of the ENC firmware again.                                                                                                                                                                                                                   | —                                                                                            |
|              |                                                                 |                                                                                                                                                                                                                  |                   | 2. Execute the online ENC firmware download or the offline ENC firmware download again.                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                            |
|              |                                                                 |                                                                                                                                                                                                                  |                   | ② 1. The ENC firmware displayed in the message is not updated. Replace the ENC Unit displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the ENC Unit. Check that the customer has no problem on the operation, and then perform it. If this failure occurs while operating the automatic download of the ENC firmware, do not replace the ENC Unit and execute the online firmware replacement. | <a href="#">Replacement “2.2.9 Replacing ENC Unit” (REP 02-1020)</a>                         |

| Message code | Message text                                          | Description                                                                                                                                     | Collect the error | Recovery methods                                   | Reference page                                                                                |
|--------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| IZYA00       | ENC microprogram download CACHE destage check error   | Unsaved information remained in the cache.                                                                                                      |                   | ① Retry after shutdown.                            | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a> |
| IZYB00       | ENC microprogram file open error<br>[xxxxxxxxxxxx]    | A display file open error occurred to the Ram disk.<br>xxxxxxxxxxxx :<br>Error replacement file name                                            |                   | ① Replace the ENC firmware file in the service PC. | —                                                                                             |
| IZYB01       | ENC microprogram file read error<br>[xxxxxxxxxxxx]    | A display file read error occurred to the Ram disk.<br>xxxxxxxxxxxx :<br>Error replacement file name                                            |                   |                                                    |                                                                                               |
| IZYB02       | ENC microprogram file size over<br>[xxxxxxxxxxxx]     | The display file size exceeds the specified value.<br>xxxxxxxxxxxx :<br>Error replacement file name                                             |                   |                                                    |                                                                                               |
| IZYB03       | ENC microprogram file size mismatch<br>[xxxxxxxxxxxx] | The display file size and the designated value are mismatched.<br>xxxxxxxxxxxx :<br>Error replacement file name                                 |                   |                                                    |                                                                                               |
| IZYB04       | ENC microprogram read data error<br>[xxxxxxxxxxxx]    | A contents error in the file occurred.<br>xxxxxxxxxxxx :<br>Error replacement file name                                                         |                   |                                                    |                                                                                               |
| IZYK00       | Read command response time over                       | 50 or more read commands, which were instructed by a host and took longer than 100 ms for the drive to respond, were detected.                  |                   | —                                                  | —                                                                                             |
| IZYL00       | Write command response time over                      | 50 or more write commands, which were instructed by a host and took longer than 100 ms for the drive to respond, were detected.                 |                   | —                                                  | —                                                                                             |
| IZYM00       | ENC microprogram download error detected (Unit-x)     | A failure was detected in the download of the ENC firmware for the ENC Unit of the Basic Chassis or Additional Chassis.<br>x : Unit ID # (1-59) |                   | —                                                  | —                                                                                             |
|              | ENC microprogram download error detected (CTL-Unit)   |                                                                                                                                                 |                   |                                                    |                                                                                               |

| Message code | Message text                                               | Description                                                                                                                                                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                             | Reference page                                                           |
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| IZYQ00       | Automatic ENC microprogram download failed                 | The automatic ENC firmware downloading terminated abnormally.                                                                                                                                                                                                                                                                                                            | Simple Trace      | <p>① Make sure that the "IZY20x ENC#x microprogram download start" and "IZYM00 ENC microprogram download error detected (Unit-x)" were displayed before this message.</p> <p>② Take recovery actions following messages displayed between the "IZY20x ENC#x microprogram download start" and "IZYM00 ENC microprogram download error detected (Unit-x)".</p> | —                                                                        |
| IZYR00       | Automatic ENC microprogram download completed successfully | The automatic ENC firmware downloading was completed normally.                                                                                                                                                                                                                                                                                                           |                   | —                                                                                                                                                                                                                                                                                                                                                            | —                                                                        |
| IZYS00       | Automatic ENC microprogram download start                  | <p>The automatic ENC firmware downloading was started.</p> <p>The following are conditions and this message is displayed.</p> <ul style="list-style-type: none"> <li>• After the subsystem is Ready</li> <li>• After recovering the Disk Drive/ENC Unit/Control Unit</li> <li>• After replacing the firmware</li> <li>• After completing the chassis addition</li> </ul> |                   | <p>① Suspend the maintenance work.</p> <p>② Restart the suspended maintenance work after checking that the message code "IZYR00 Automatic ENC microprogram download completed successfully" or "IZYQ00 Automatic ENC microprogram download failed" is displayed.</p>                                                                                         | —                                                                        |
| IZYT00       | ENC microprogram download info. (CTL-x)                    | <p>When downloading the ENC firmware, it was detected that the value of the data guarantee area was abnormal in the SES data for the SES command.</p> <p>x : Control Unit # (0-1)</p>                                                                                                                                                                                    |                   | ① Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |

| Message code | Message text                                | Description                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                | Reference page                                                               |
|--------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| IZYU00       | ENC microprogram download info. (SES CTL-x) | When downloading the ENC firmware, the issued SES command terminated abnormally.<br>x : Control Unit # (0-1) |                   | ① 1. When the subsystem is in the Warning status, recover the failure that changed the subsystem to the Warning status referring to the other output Information Message.                                       | —                                                                            |
|              |                                             |                                                                                                              |                   | 2. Check that the WARNING LED on the subsystem goes out.                                                                                                                                                        | —                                                                            |
|              |                                             |                                                                                                              |                   | 3. If the automatic download of the ENC firmware is operating when the message is first output, check that the automatic download of the ENC firmware is completed normally.                                    | —                                                                            |
|              |                                             |                                                                                                              |                   | 4. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again. | —                                                                            |
|              |                                             |                                                                                                              |                   | ② 1. Replace the ENC Unit displayed in the message.                                                                                                                                                             | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>         |
|              |                                             |                                                                                                              |                   | 2. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again. | —                                                                            |
|              |                                             |                                                                                                              |                   | ③ If not recovered yet, collect the Simple Trace, and then contact the Technical Support Center.                                                                                                                | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |

| Message code | Message text                                                     | Description                                                                                                                                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                           | Reference page                                                           |
|--------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| IZYV00       | ENC microprogram download info. (ENC microprogram CTL-x)         | When downloading the ENC firmware, a STATUS error was detected in the response of the STATUS READ command from the ENC.<br>x : Control Unit # (0-1)                                                                                                                                                                   |                   | ① Replace the ENC Unit displayed in the message.                                                                                                                                                                                                                                                                           | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>     |
|              |                                                                  |                                                                                                                                                                                                                                                                                                                       |                   | ② If this failure occurs while the automatic download of the ENC firmware is operating, the data of the ENC firmware stored in the system disk of the subsystem may be illegal. Therefore, stored the normal data of the ENC firmware in the subsystem disk of the subsystem by executing the online firmware replacement. | —                                                                        |
|              |                                                                  |                                                                                                                                                                                                                                                                                                                       |                   | ③ 1. If this failure occurs while executing the online ENC firmware download or the offline ENC firmware download, the data of the ENC firmware to be installed may be illegal. Therefore, acquired the data of the ENC firmware again.                                                                                    | —                                                                        |
|              |                                                                  |                                                                                                                                                                                                                                                                                                                       |                   | 2. Execute the online ENC firmware download or the offline ENC firmware download again.                                                                                                                                                                                                                                    | —                                                                        |
| IZYW00       | ENC microprogram download info. (Revision Check NG CTL-x)        | After replacing the ENC firmware, the firmware revision acquired from the ENC was different from the revision of the downloaded ENC firmware.<br>x : Control Unit # (0-1)                                                                                                                                             |                   | ① Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                       | <a href="#">Replacement "2.2.9 Replacing Control Unit" (REP 02-0450)</a> |
| IZYY00       | ENC microprogram download info. (GET ENCMFPLANE NG Unit-x ENC-y) | When downloading the ENC firmware and rebooting the ENC Unit of the Additional Chassis, it detected that the area different from the one updated the ENC firmware between two areas where the ENC firmware in the Flash memory of the ENC Unit is stored was enabled.<br>x : Unit ID # (0-59)<br>y : ENC Unit # (0-1) |                   | ① The ENC firmware displayed in the message is not updated. Replace the ENC Unit displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the ENC Unit. Check that the customer has no problem on the operation, and then perform it.                                 | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>     |



| Message code | Message text                                              | Description                                                                                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                   | Reference page                                                                                                 |
|--------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| IZYZ00       | ENC microprogram download info. (GET ENCMFPLANE NG CTL-x) | When the ENC was rebooted by downloading the ENC firmware, it was detected that the area different from the area which updated the ENC firmware was enabled between two areas where the ENC firmware in the Flash memory of the ENC was stored.<br>x : Control Unit # (0-1) |                   | ① Replace the Control Unit displayed in the message.                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                       |
| IZZ000       | HFWD file open error [x]                                  | A file open error was detected.<br>x : A name of the file concerning the error                                                                                                                                                                                              |                   | ① Copy the drive firmware file from the supplied medium to the PC and replace the drive firmware again.<br><br>② If not recovered yet, call the Technical Support Center for coping with troubles. | <a href="#">Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000)</a> |
| IZZ001       | HFWD file read error [x]                                  | A file read error was detected.<br>x : A name of the file concerning the error                                                                                                                                                                                              |                   |                                                                                                                                                                                                    |                                                                                                                |
| IZZ002       | HFWD file size over [x]                                   | A file size over occurred.<br>x : A name of the file concerning the error                                                                                                                                                                                                   |                   |                                                                                                                                                                                                    |                                                                                                                |
| IZZ003       | HFWD read data over [x]                                   | Data read from the file was illegal.<br>x : A name of the file concerning the error                                                                                                                                                                                         |                   |                                                                                                                                                                                                    | —                                                                                                              |
| IZZ004       | HFWD file size mismatch [x]                               | A file size is different from the estimated one.<br>x : A name of the file concerning the error                                                                                                                                                                             |                   |                                                                                                                                                                                                    |                                                                                                                |

This page is for editorial purpose only.

## Chapter 5. Flash Detected Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

| Message code | Message text                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                          |
|--------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| R100yy       | FPC is not detected (CTL-x)                                                          | The detection of the FPC failed.<br>x : Control Unit# (0-1)<br>y : Chip error code<br>(y:z) =<br>(01 : Path-0)<br>(02 : Path-1)<br>(03 : Path-0/1)<br>(04 : Path-2)<br>(05 : Path-0/2)<br>(06 : Path-1/2)<br>(07 : Path-0/1/2)<br>(08 : Path-3)<br>(09 : Path-0/3)<br>(0A : Path-1/3)<br>(0B : Path-0/1/3)<br>(0C : Path-2/3)<br>(0D : Path-0/2/3)<br>(0E : Path-1/2/3)<br>(0F : Path-0/1/2/3)<br>(10 : Port-0A)<br>(11 : Path-0/PortA) | Simple Trace      | ① When “W01z0x CTL alarm” is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                    | “Chapter 6. Warning Messages” (MSG 06-0000)<br>Replacement “2.2.5 Replacing Control Unit” (REP 02-0450) |
| R1010x       | The backend PCI error count exceeded the threshold (CTL-x)                           | The retry count of PCI HARD RESET for the backend part of the Control Unit exceeded the threshold value.<br>x : Control Unit # (0-1)                                                                                                                                                                                                                                                                                                    | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                 | Replacement “2.2.5 Replacing Control Unit” (REP 02-0450)                                                |
| R1020x       | The initialization of PCI Express failed because of the hardware error [Drv] (CTL-x) | The initial setting of the Drv-side PCI Express core of the Control Unit became an error.<br>x : Control Unit # (0-1)                                                                                                                                                                                                                                                                                                                   | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to “W01z0x CTL alarm”.<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | “Chapter 6. Warning Messages” (MSG 06-0000)<br>—                                                        |
| R20Q00       | Vector registration failure [OFFREQ]                                                 | The vector registration of the OFFREQ interrupt failed.                                                                                                                                                                                                                                                                                                                                                                                 | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                       | Replacement “2.2.5 Replacing Control Unit” (REP 02-0450)                                                |
| R20R00       | Vector registration failure [DCTLERR]                                                | The vector registration of the DCTLERR interrupt failed.                                                                                                                                                                                                                                                                                                                                                                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                         |
| R20S00       | Vector registration failure [DRAMERR]                                                | The vector registration of the DRAMERR interrupt failed.                                                                                                                                                                                                                                                                                                                                                                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                         |

| Message code | Message text                                                      | Description                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                           |
|--------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| R2280x       | [DCTL]The ECC write parity error was detected (CTL-x)             | D-CTL LSI detected a parity error in the ECC added part when executing write to the Cache memory.<br>x : Control Unit # (0-1)                                            | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R2290x       | [DCTL]The ECC generation error was detected (CTL-x)               | D-CTL LSI detected an ECC generation error in the ECC added part when executing write to the Cache memory.<br>x : Control Unit # (0-1)                                   | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br><br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><br>—     |
| R22Axy       | [DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y) | D-CTL LSI detected an error of two bits or more when executing read to the Cache memory.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)                           | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                        | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
| R22B0x       | [DCTL]The ECC correction failed (CTL-x)                           | D-CTL LSI detected discrepancy of the ECC correction when executing read to the Cache memory.<br>x : Control Unit # (0-1)                                                | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                     | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R22C0x       | [DCTL]The sequencer time-out error was detected (CTL-x)           | D-CTL LSI detected time-out of sequence or a parity error of time-out count.<br>x : Control Unit # (0-1)                                                                 | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                                                                                                                      | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R22D0x       | [DCTL]The RCTL error was detected (CTL-x)                         | D-CTL LSI detected that the Cache control part did not receive a response of the RCTL (CACHE-I/F) signal which indicates a response of read.<br>x : Control Unit # (0-1) | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                             | —                                                                        |

| Message code | Message text                                                                        | Description                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
|--------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| R22E0x       | [DCTL]The RCLK error was detected (CTL-x)                                           | D-CTL LSI detected that the Cache control part did not receive a response of the RCLK (CACHE-I/F) signal which is a clock for taking read data.<br>x : Control Unit # (0-1) | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R22F0x       | [DCTL]The CACHE address was over the address space [MPU] (CTL-x)                    | D-CTL LSI detected a Cache address over error when the Cache of MPU was accessed.<br>x : Control Unit # (0-1)                                                               | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R22G0x       | [DCTL]The address parity error was detected [MPU] (CTL-x)                           | D-CTL LSI detected an address parity error in the transfer address received in the Cache control part.<br>x : Control Unit # (0-1)                                          | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| R22H0x       | [DCTL]The length parity error was detected (CTL-x)                                  | D-CTL LSI detected a length parity error in the transfer word length received in the Cache control part.<br>x : Control Unit # (0-1)                                        | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22J0x       | [DCTL]The CACHE Address was over the address space [DMA] (CTL-x)                    | D-CTL LSI detected a Cache address over error at the Cache access of H_PORT, D_PORT, DMA #0 or MDMA.<br>x : Control Unit # (0-1)                                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22K0x       | [DCTL]The dummy area access error was detected (CTL-x)                              | D-CTL LSI detected access to the access prohibited area in the added area of the 4- byte dummy data of the Cache memory.<br>x : Control Unit # (0-1)                        | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22L0x       | [DCTL]The address parity error was detected in the slave command bridge (CTL-x)     | D-CTL LSI detected a parity error in the address from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                                              | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22M0x       | [DCTL]The length parity error was detected in the slave command bridge (CTL-x)      | D-CTL LSI detected a parity error in the length from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                                               | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22N0x       | [DCTL]The BYTE-ENABLE parity error was detected in the slave command bridge (CTL-x) | D-CTL LSI detected a parity error in the BYTE_EN from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                                              | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22P0x       | [DCTL]The write data parity error was detected in the slave command bridge (CTL-x)  | D-CTL LSI detected a parity error in the write data from Cmd_BridgeS.<br>x : Control Unit # (0-1)                                                                           | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                      | Description                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
|--------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| R22Q0x       | [DCTL]The read data parity error was detected in the slave command bridge (CTL-x) | D-CTL LSI detected a parity error in the read data from Cmd_BridgeS.<br>x : Control Unit # (0-1)                   | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R22R0x       | [DCTL]The BYTE-ENABLE error of the slave command bridge was detected (CTL-x)      | D-CTL LSI detected an unfair pattern of BYTE_EN from Cmd_BridgeS.<br>x : Control Unit # (0-1)                      | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R22S0x       | [DCTL]The length error was detected (CTL-x)                                       | D-CTL LSI detected an unfair pattern of length from Cmd_BridgeS.<br>x : Control Unit # (0-1)                       | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| R22T0x       | [DCTL]The address parity error of the register interface was detected (CTL-x)     | D-CTL LSI detected an error response (address parity error) of REG-I/F in the MP part.<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22R0x       | [DCTL]The BYTE-ENABLE error of the slave command bridge was detected (CTL-x)      | D-CTL LSI detected an unfair pattern of BYTE_EN from Cmd_BridgeS.<br>x : Control Unit # (0-1)                      | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22W0x       | [DCTL]The read data parity error was detected in the register interface (CTL-x)   | D-CTL LSI detected a parity error in the read data received in the REG-I/F part.<br>x : Control Unit # (0-1)       | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22Y0x       | [DCTL]The CACHE read data parity error was detected (CTL-x)                       | D-CTL LSI detected a parity error in the data read from the Cache memory.<br>x : Control Unit # (0-1)              | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R22Z0x       | [DCTL]The MP sequencer error was detected (CTL-x)                                 | D-CTL LSI detected an error in the control sequence of the MP part.<br>x : Control Unit # (0-1)                    | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R2300x       | [DCTL]The master command bridge D1 port error was detected (CTL-x)                | D-CTL LSI detected an error in Cmd_BridgeM_D1.<br>x : Control Unit # (0-1)                                         | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R2310x       | [DCTL]The master command bridge D0 port error was detected (CTL-x)                | D-CTL LSI detected an error in Cmd_BridgeM_D0.<br>x : Control Unit # (0-1)                                         | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R2320x       | [DCTL]The refresh error was detected (CTL-x)                                      | D-CTL LSI detected an error in the refresh control part for the Cache memory.<br>x : Control Unit # (0-1)          | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R2330x       | [DCTL]The CACHE0 error was detected (CTL-x)                                       | D-CTL LSI detected an error in the Cache0 part.<br>x : Control Unit # (0-1)                                        | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code | Message text                                                                 | Description                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| R2340x       | [DCTL]The CACHE1 error was detected (CTL-x)                                  | D-CTL LSI detected an error in the Cache1 part.<br>x : Control Unit # (0-1)                                 | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R2350x       | [DCTL]The MCTL error was detected (CTL-x)                                    | D-CTL LSI detected an error interruption of MCTL.<br>x : Control Unit # (0-1)                               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2360x       | [DCTL]The slave command bridge error was detected [MP] (CTL-x)               | D-CTL LSI detected an error in Cmd_BridgeS_MP.<br>x : Control Unit # (0-1)                                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2370x       | [DCTL]The bridge error was detected [DRV0] (CTL-x)                           | D-CTL LSI detected a bridge error. (D #0)<br>x : Control Unit # (0-1)                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R2380x       | [DCTL]The bridge error was detected [DRV1] (CTL-x)                           | D-CTL LSI detected a bridge error. (D #1)<br>x : Control Unit # (0-1)                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2390x       | [DCTL]The bridge error was detected [external access] (CTL-x)                | D-CTL LSI detected a bridge error. (Ext_Accs)<br>x : Control Unit # (0-1)                                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23A0x       | [DCTL]The bridge error was detected [cross DRV0] (CTL-x)                     | D-CTL LSI detected a bridge error. (Cross_Drv0)<br>x : Control Unit # (0-1)                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23B0x       | [DCTL]The bridge error was detected [cross DRV1] (CTL-x)                     | D-CTL LSI detected a bridge error. (Cross_Drv1)<br>x : Control Unit # (0-1)                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23C0x       | [DCTL]The master command bridge error was detected in the DUAL I/F (CTL-x)   | D-CTL LSI detected an error in Cmd_BridgeM_DUAL.<br>x : Control Unit # (0-1)                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23D0x       | [DCTL]The message signal interrupt control error was detected (CTL-x)        | D-CTL LSI detected an error in MSI (Message Signal Interrupt) CTL.<br>x : Control Unit # (0-1)              | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23E0x       | [DCTL]The PCI root complex error was detected [P_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error".<br>x : Control Unit # (0-1)                               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23F0x       | [DCTL]The unsupported request error was detected [P_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23G0x       | [DCTL]The PCI Express ECRC error was detected [P_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23H0x       | [DCTL]The malformed transaction layer protocol was detected [P_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |

| Message code | Message text                                                                        | Description                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| R23J0x       | [DCTL]The receiver overflow was detected [P_IRQ6] (CTL-x)                           | D-CTL LSI detected "Receiver overflow". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                         | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R23K0x       | [DCTL]The unexpected completion was detected [P_IRQ6] (CTL-x)                       | D-CTL LSI detected "Unexpected completion". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                     | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R23L0x       | [DCTL]The completer abort was detected [P_IRQ6] (CTL-x)                             | D-CTL LSI detected "Completer abort". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                           | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| R23M0x       | [DCTL]The completion time-out was detected [P_IRQ6] (CTL-x)                         | D-CTL LSI detected "Completion time-out". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23N0x       | [DCTL]The poisoned transaction layer protocol was detected [P_IRQ6] (CTL-x)         | D-CTL LSI detected "poisoned TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23P0x       | [DCTL]The data link protocol error was detected [P_IRQ6] (CTL-x)                    | D-CTL LSI detected "Data Link Protocol error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23Q0x       | [DCTL]The training error was detected [P_IRQ6] (CTL-x)                              | D-CTL LSI detected "Training error". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23R0x       | [DCTL]The poison error of the completion without data was detected [P_IRQ6] (CTL-x) | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23S0x       | [DCTL]The unsupported request was detected [P_IRQ6] (CTL-x)                         | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R23T0x       | [DCTL]The size error was detected in the completion without data [P_IRQ6] (CTL-x)   | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                             | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |



| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                           |
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| R23U0x       | [DCTL]The internal parity error of the configuration read was detected [P_IRQ6] (CTL-x)  | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                      | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R23V0x       | [DCTL]The completion without data was discarded because of the time-out [P_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [P_PCI_E_IRQ6] x : Control Unit # (0-1) | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R23W0x       | [DCTL]The issued completion without data was discarded [P_IRQ6] (CTL-x)                  | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| R23Y0x       | [DCTL]The interrupt message to issue was discarded [P_IRQ6] (CTL-x)                      | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| R23Z0x       | [DCTL]The PCI device error was detected [internal bus error] [P_IRQ6] (CTL-x)            | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| R2400x       | [DCTL]The PCI device error was detected [internal memory error] [P_IRQ6] (CTL-x)         | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                               | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| R2410x       | [DCTL]The rollover of the replay number was detected [P_IRQ6] (CTL-x)                    | D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [P_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                                                          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| R2420x       | [DCTL]The PCI root complex error was detected [D0_IRQ6] (CTL-x)                          | D-CTL LSI received "PCI RC (Root Complex) error". [D0_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                                                        | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |
| R2430x       | [DCTL]The unsupported request error was detected [D0_IRQ6] (CTL-x)                       | D-CTL LSI detected "Unsupported request error". [D0_PCI_E_IRQ6] x : Control Unit # (0-1)                                                                                                                                                                                          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                          |

| Message code | Message text                                                                         | Description                                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| R2440x       | [DCTL]The PCI Express ECRC error was detected [D0_IRQ6] (CTL-x)                      | D-CTL LSI detected "ECRC error". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R2450x       | [DCTL]The malformed transaction layer protocol was detected [D0_IRQ6] (CTL-x)        | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R2460x       | [DCTL]The receiver overflow was detected [D0_IRQ6] (CTL-x)                           | D-CTL LSI detected "Receiver overflow". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                         | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| R2470x       | [DCTL]The unexpected completion was detected [D0_IRQ6] (CTL-x)                       | D-CTL LSI detected "Unexpected completion". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                     | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2480x       | [DCTL]The completer abort was detected [D0_IRQ6] (CTL-x)                             | D-CTL LSI detected "Completer abort". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                           | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2490x       | [DCTL]The completion time-out was detected [D0_IRQ6] (CTL-x)                         | D-CTL LSI detected "Completion time-out". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                       | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24A0x       | [DCTL]The poisoned transaction layer protocol was detected [D0_IRQ6] (CTL-x)         | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24B0x       | [DCTL]The data link protocol error was detected [D0_IRQ6] (CTL-x)                    | D-CTL LSI detected "Data Link Protocol error". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24C0x       | [DCTL]The training error was detected [D0_IRQ6] (CTL-x)                              | D-CTL LSI detected "Training error". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24D0x       | [DCTL]The poison error of the completion without data was detected [D0_IRQ6] (CTL-x) | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24E0x       | [DCTL]The unsupported request was detected [D0_IRQ6] (CTL-x)                         | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                              |
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| R24F0x       | [DCTL]The completer abort was detected in the completion status [D0_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                          | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| R24G0x       | [DCTL]The size error was detected in the completion without data [D0_IRQ6] (CTL-x)       | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                       | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| R24H0x       | [DCTL]The internal parity error of the configuration read was detected [D0_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                      | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R24J0x       | [DCTL]The completion without data was discarded because of the timeout [D0_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R24K0x       | [DCTL]The issued completion without data was discarded [D0_IRQ6](CTL-x)                  | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                   | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R24L0x       | [DCTL]The interrupt message to issue was discarded [D0_IRQ6] (CTL-x)                     | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R24M0x       | [DCTL]The PCI device error was detected [internal bus error] [D0_IRQ6] (CTL-x)           | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R24N0x       | [DCTL]The PCI device error was detected [internal memory error] [D0_IRQ6] (CTL-x)        | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                               | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |

| Message code | Message text                                                                  | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                           |
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| R24P0x       | [DCTL]The rollover of the replay number was detected [D0_IRQ6] (CTL-x)        | D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [D0_PCI_E_IRQ6] x : Control Unit # (0-1)                 | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R24Q0x       | [DCTL]The PCI root complex error was detected [D1_IRQ6] (CTL-x)               | D-CTL LSI received "PCI RC (Root Complex) error". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R24R0x       | [DCTL]The unsupported request error was detected [D1_IRQ6] (CTL-x)            | D-CTL LSI detected "Unsupported request error". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                        |
| R24S0x       | [DCTL]The PCI Express ECRC error was detected [D1_IRQ6] (CTL-x)               | D-CTL LSI detected "ECRC error". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                                 | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24T0x       | [DCTL]The malformed transaction layer protocol was detected [D1_IRQ6] (CTL-x) | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6] x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24U0x       | [DCTL]The receiver overflow was detected [D1_IRQ6] (CTL-x)                    | D-CTL LSI detected "Receiver overflow". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                          | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24V0x       | [DCTL]The unexpected completion was detected [D1_IRQ6] (CTL-x)                | D-CTL LSI detected "Unexpected completion". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                      | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24W0x       | [DCTL]The completer abort was detected [D1_IRQ6] (CTL-x)                      | D-CTL LSI detected "Completer abort". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24Y0x       | [DCTL]The completion time-out was detected [D1_IRQ6] (CTL-x)                  | D-CTL LSI detected "Completion time-out". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                        | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R24Z0x       | [DCTL]The poisoned transaction layer protocol was detected [D1_IRQ6] (CTL-x)  | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)  | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2500x       | [DCTL]The data link protocol error was detected [D1_IRQ6] (CTL-x)             | D-CTL LSI detected "Data Link Protocol error". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |
| R2510x       | [DCTL]The training error was detected [D1_IRQ6] (CTL-x)                       | D-CTL LSI detected "Training error". [D1_PCI_E_IRQ6] x : Control Unit # (0-1)                             | Full Dump         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                          |

| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                              |
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| R2520x       | [DCTL]The poison error of the completion without data was detected [D1_IRQ6] (CTL-x)     | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data".<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                             | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| R2530x       | [DCTL]The unsupported request was detected [D1_IRQ6] (CTL-x)                             | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                            | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| R2540x       | [DCTL]The completer abort was detected in the completion status [D1_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R2550x       | [DCTL]The size error was detected in the completion without data [D1_IRQ6] (CTL-x)       | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R2560x       | [DCTL]The internal parity error of the configuration read was detected [D1_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                           | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R2570x       | [DCTL]The completion without data was discarded because of the timeout [D1_IRQ6] (CTL-x) | D-CTL LSI tried to issue Cpl (Completion)/CplID (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplID was discarded.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R2580x       | [DCTL]The issued completion without data was discarded [D1_IRQ6] (CTL-x)                 | D-CTL LSI discarded Cpl (Completion)/CplID (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                    | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |

| Message code | Message text                                                                      | Description                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                              |
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| R2590x       | [DCTL]The interrupt message to issue was discarded [D1_IRQ6] (CTL-x)              | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| R25A0x       | [DCTL]The PCI device error was detected [internal bus error] [D1_IRQ6] (CTL-x)    | D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt].<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                 | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R25B0x       | [DCTL]The PCI device error was detected [internal memory error] [D1_IRQ6] (CTL-x) | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt].<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                    | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| R25C0x       | [DCTL]The rollover of the replay number was detected [D1_IRQ6] (CTL-x)            | D-CTL LSI detected "roll-over" of REPLAY_NUMBER.<br>[D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                               | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R25D0x       | [DCTL]The PCI root complex error was detected [E_IRQ6] (CTL-x)                    | D-CTL LSI received "PCI RC (Root Complex) error".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                               | Full Dump         | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                        | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                 |
| R25E0x       | [DCTL]The unsupported request error was detected [E_IRQ6] (CTL-x)                 | D-CTL LSI detected "Unsupported request error".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                 | Full Dump         | ② Replace the Control Unit displayed in the message.                                                                                                                                                                                                                          | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                    |
| R25F0x       | [DCTL]The PCI Express ECRC error was detected [E_IRQ6] (CTL-x)                    | D-CTL LSI detected "ECRC error". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                   | Full Dump         | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.                                                                                         | —                                                                                                                                           |
| R25G0x       | [DCTL]The malformed transaction layer protocol was detected [E_IRQ6] (CTL-x)      | D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                   | Full Dump         | 2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).                                                                                                                                                                                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                    |
| R25H0x       | [DCTL]The receiver overflow was detected [E_IRQ6] (CTL-x)                         | D-CTL LSI detected "Receiver overflow". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                            | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| R25J0x       | [DCTL]The unexpected completion was detected [E_IRQ6] (CTL-x)                     | D-CTL LSI detected "Unexpected completion".<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                     | Full Dump         | 3. Turn on the power of the subsystem.                                                                                                                                                                                                                                        | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                      |

| Message code | Message text                                                                            | Description                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                 | Reference page                                                           |
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| R25L0x       | [DCTL]The completion time-out was detected [E_IRQ6] (CTL-x)                             | D-CTL LSI detected "Completion time-out". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                       | Full Dump         | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                                                                           | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R25M0x       | [DCTL]The poisoned transaction layer protocol was detected [E_IRQ6] (CTL-x)             | D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                 | Full Dump         | ② Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R25N0x       | [DCTL]The data link protocol error was detected [E_IRQ6] (CTL-x)                        | D-CTL LSI detected "Data Link Protocol error". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                  | Full Dump         | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —                                                                        |
| R25P0x       | [DCTL]The training error was detected [E_IRQ6] (CTL-x)                                  | D-CTL LSI detected "Training error". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| R25Q0x       | [DCTL]The poison error of the completion without data was detected [E_IRQ6] (CTL-x)     | D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R25R0x       | [DCTL]The unsupported request was detected [E_IRQ6] (CTL-x)                             | D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>   |
| R25S0x       | [DCTL]The completer abort was detected in the completion status [E_IRQ6] (CTL-x)        | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| R25T0x       | [DCTL]The size error was detected in the completion without data [E_IRQ6] (CTL-x)       | The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                             | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                          |
| R25U0x       | [DCTL]The internal parity error of the configuration read was detected [E_IRQ6] (CTL-x) | D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                            | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                          |



| Message code | Message text                                                                             | Description                                                                                                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                              | Reference page                                                                                              |
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| R25V0x       | [DCTL]The completion without data was discarded because of the timeout [E_IRQ6] (CTL-x)  | D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② Replace the Control Unit displayed in the message.                                                | "Chapter 6. Warning Messages" (MSG 06-0000)<br><br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| R25W0x       | [DCTL]The issued completion without data was discarded [E_IRQ6] (CTL-x)                  | D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                   | Full Dump         | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other | —<br><br>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                           |
| R25Y0x       | [DCTL]The interrupt message to issue was discarded [E_IRQ6] (CTL-x)                      | When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                            | Full Dump         | Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem.                                                                                            | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                                                      |
| R25Z0x       | [DCTL]The PCI request was discarded by the timeout [internal bus error] [E_IRQ6] (CTL-x) | D-CTL LSI could not execute the request from the internal bus of D-CTL in the set time because the condition such as Credit was not enough.<br>[E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                               | Full Dump         |                                                                                                                                                                                                               |                                                                                                             |
| R2600x       | [DCTL]The PCI request was discarded by the internal bus error [E_IRQ6] (CTL-x)           | NSWC (internal but of D-CTL: I/F Slave Wrapper Control) set the error bit of TXDB (Transmit side Data Buffer) due to some errors on the internal bus of D-CTL. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                               | Full Dump         |                                                                                                                                                                                                               |                                                                                                             |
| R2610x       | [DCTL]The PCI request was discarded [internal bus error] [E_IRQ6] (CTL-x)                | D-CTL LSI discarded the request from the internal path of D-CTL. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)<br>(Control Unit # in which a failure occurred)                                                                                                                             | Full Dump         |                                                                                                                                                                                                               |                                                                                                             |
| R2620x       | [DCTL]The PCI device error was detected [internal memory error] [E_IRQ6] (CTL-x)         | D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                                                                                  | Full Dump         |                                                                                                                                                                                                               |                                                                                                             |



| Message code | Message text                                                                     | Description                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                          |
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| R2630x       | [DCTL]The internal bus error was detected [E_PCI6] (CTL-x)                       | D-CTL LSI detected the internal bus error interrupt of D-CTL. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                    | Full Dump         | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.                                                                                                                                                                                                                           | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                             |
| R2640x       | [DCTL]The rollover of the replay number was detected [E_IRQ6] (CTL-x)            | D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [E_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                                 | Full Dump         | ② Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                |
| R2650x       | [DCTL]The slave dual error was detected in the DUAL I/F (CTL-x)                  | D-CTL LSI detected an error in the DUAL-Slave part.<br>x : Control Unit # (0-1)                                                                                                             | Full Dump         | ③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —                                                                                                                                       |
| R2660x       | [DCTL]The CACHE error was detected in the DUAL I/F (CTL-x)                       | D-CTL LSI detected an error in the Cache part. [Dual]<br>x : Control Unit # (0-1)                                                                                                           | Full Dump         |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                |
| R2670x       | [DCTL]The slave command bridge error was detected in the DUAL I/F (CTL-x)        | D-CTL LSI detected an error in Cmd_BridgeS. [Dual]<br>x : Control Unit # (0-1)                                                                                                              | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                         |
| R2680x       | [DCTL]The completer abort was detected in the completion status [P_IRQ6] (CTL-x) | D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1) | Full Dump         |                                                                                                                                                                                                                                                                                                                                  | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                  |
| R2690x       | [DCTL]The internal bus error was detected [P_PCI6] (CTL-x)                       | D-CTL LSI detected the internal bus error interrupt of D-CTL. [P_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                    | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                    | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| R26A0x       | [DCTL]The internal bus error was detected [D0_PCI6] (CTL-x)                      | D-CTL LSI detected the internal bus error interrupt of D-CTL. [D0_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                   | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                    | —                                                                                                                                       |
| R26B0x       | [DCTL]The internal bus error was detected [D1_PCI6] (CTL-x)                      | D-CTL LSI detected the internal bus error interrupt of D-CTL. [D1_PCI_E_IRQ6]<br>x : Control Unit # (0-1)                                                                                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                         |

| Message code | Message text                                                                             | Description                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                                                                                     |
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| R26C00       | [DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y/z)                      | D-CTL LSI detected an ECC uncorrectable error of two bits or more from each of two Cache memories when reading the Cache memories.<br>x : Control Unit # (0-1)<br>y/z : Cache Unit # (0-3) | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                                                                                                                                                             |
| R26D00       | [DCTL]The error without the factor was detected in the DUAL I/F (CTL-x)                  | DUALS of D-CTL LSI detected a failure, but there was no detailed factor in the register of DUALS.<br>x : Control Unit # (0-1)                                                              | Full Dump         | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② Replace the Control Unit displayed in the message.<br>③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>—<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| R26E00       | PCI Configuration access error was detected [HostX_PCI Express core, 0xYYYYZZZZ] (CTL-x) | An error occurred in the Configuration access of the HOST PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>yy : Optional code<br>zz : Optional code                           | Full Dump         | ① When HOST # displayed in the message is "0", replace Interface Board #0 which is installed in the Control Unit displayed in the message, and when HOST # is "1", replace Interface Board #1.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                                                           | <a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                            |

| Message code | Message text                                                                            | Description                                                                                                                                                      | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                           |
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| R26F00       | PCI Configuration access error was detected [DrvX_PCI Express core, 0xYYYYZZZZ] (CTL-x) | An error occurred in the Configuration access of the Drv PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>yy : Optional code<br>zz : Optional code  | Full Dump         | <p>① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.</p> <p>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".</p> <p>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.</p> | <p>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</p> <p>Chapter 6. Warning Messages" (MSG 06-0000)</p> <p>—</p>                                                                                                                               |
| R26G00       | PCI Configuration access error was detected [DUAL_PCI Express core, 0xYYYYZZZZ] (CTL-x) | An error occurred in the Configuration access of the Dual PCI Express core of D-CTL LSI.<br>x : Control Unit # (0-1)<br>yy : Optional code<br>zz : Optional code | Full Dump         | <p>① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.</p> <p>② Replace the Control Unit displayed in the message.</p> <p>③ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.</p> <p>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).</p> <p>3. Turn on the power of the subsystem.</p>                                     | <p>Chapter 6. Warning Messages" (MSG 06-0000)</p> <p>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</p> <p>—</p> <p>Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</p> <p>Installation "1.5.1 Subsystem Power On" (INST 01-0140)</p> |
| R26H00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0)       | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0) [Dual].<br>x : Control Unit # (0-1)                                                    | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)                                                                                                                                                                                                   |

| Message code | Message text                                                                            | Description                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                      |
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| R26J00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1)       | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1) [Dual].<br>x : Control Unit # (0-1)                                                                                               | Full Dump         | ① Replace the Cache Unit displayed in the message.                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                              |
| R26K00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0/2)     | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0/2) [Dual].<br>x : Control Unit # (0-1)                                                                                             | Full Dump         | ① Replace the Cache Unit displayed in the message. (However, when Cache Unit #2 is not installed, replace only Cache Unit #0.)                                                                                                                                                                                                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                              |
| R26L00       | [DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1/3)     | D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1/3) [Dual].<br>x : Control Unit # (0-1)                                                                                             | Full Dump         | ① Replace the Cache Unit displayed in the message. (However, when Cache Unit #3 is not installed, replace only Cache Unit #1.)                                                                                                                                                                                                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                              |
| R26M0x       | [DCTL]The bridge time-out was detected by the dual core error [C_BrgM_DUAL] (CTL-x)     | D-CTL LSI (Cmd_BridgeM) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                                  | Full Dump         | ① Replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                            |
| R26N0x       | [DCTL]The bridge time-out was detected by the dual core error [external access] (CTL-x) | D-CTL LSI (Ext_Accs) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                                     | Full Dump         | ② 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | —<br><br><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| R26P0x       | [DCTL]The bridge time-out was detected by the dual core error [cross DRV0] (CTL-x)      | D-CTL LSI (Cross_Drv0) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                     |
| R26Q0x       | [DCTL]The bridge time-out was detected by the dual core error [cross DRV1] (CTL-x)      | D-CTL LSI (Cross_Drv1) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core).<br>x : Control Unit # (0-1)                                                   | Full Dump         |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                     |
| R312xy       | ECC uncorrectable error (CTL-z)                                                         | The ECC uncorrectable error occurred while the hardware error interrupt was being suppressed.<br>x : Code (1 : LDR)<br>(2 : MNT)<br>(3 : INS)<br>(4 : COM)<br>y : Detail code #<br>z : Control Unit # (0-1) | Full Dump         | ① Replace all the cache memories installed in the Control Unit.<br>② If not recovered, replace the Control Unit.                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                  |

| Message code | Message text                                                                       | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                           |
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| R3130x       | [CSDS]The uncorrectable error on the write was detected [0xyyyyyyy] (CTL-x)        | The chipset detected DED (double error detect) in write to DRAM from chipset.<br>x : Control Unit # (0-1) | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| R3140x       | [CSDS]The uncorrectable read memory error was detected [0xyyyyyyy] (CTL-x)         | The chipset detected DED (double error detect).<br>x : Control Unit # (0-1)                               | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>              |
| R3150x       | The processor system bus error was detected [0xyyyyyyy] (CTL-x)                    | The chipset detected a Processor system bus error.<br>x : Control Unit # (0-1)                            | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                        |
| R3160x       | The internal bus error of the chipset was detected [0xyyyyyyy] (CTL-x)             | The chipset detected an NSI (internal bus of chipset) error.<br>x : Control Unit # (0-1)                  | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R3170x       | The PCI Express device error was detected [chipset] [0xyyyyyyy] (CTL-x)            | The chipset detected an error of the PCI Express device.<br>x : Control Unit # (0-1)                      | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R3180x       | The specific PCI Express unit error was detected [chipset] [0xyyyyyyy] (CTL-x)     | The chipset detected an error other than the standard of PCI Express.<br>x : Control Unit # (0-1)         | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R3190x       | The PCI Express error message was received [chipset] [0xyyyyyyy] (CTL-x)           | The chipset detected a PCI error of the standard of PCI Express.<br>x : Control Unit # (0-1)              | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R31A0x       | The error was detected in the buffer unit of the chipset [0xyyyyyyy] (CTL-x)       | The chipset detected an error in the buffer unit of chipset.<br>x : Control Unit # (0-1)                  | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R31B0x       | The machine check error was detected (CTL-x)                                       | The chipset detected a machine check error.<br>x : Control Unit # (0-1)                                   | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R31C0x       | The LPC bridge error was detected [0xyyyyyyy] (CTL-x)                              | The chipset detected an error in the LPC bridge.<br>x : Control Unit # (0-1)                              | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R31D0x       | [CSDS]The double error detection retry was over the threshold [0xyyyyyyy] (CTL-x)  | The chipset detected retry of Double error.<br>x : Control Unit # (0-1)                                   | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |
| R31E0x       | [CSDS]The correctable read memory error was over the threshold [0xyyyyyyy] (CTL-x) | The chipset detected a correctable read.<br>x : Control Unit # (0-1)                                      | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                          |

| Message code                      | Message text                                                                            | Description                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                                                                                         |
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| R31F0x                            | The correctable PCIe device error was over the threshold [chipset] [0xyyyyyyyy] (CTL-x) | The chipset detected a correctable error of the PCI Express device.<br>x : Control Unit # (0-1)                                           | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                                                                                                                                                                                      | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                               |
| R3200x                            | The specific correctable PCIe unit error was over the threshold [0xyyyyyyyy] (CTL-x)    | The chipset detected a correctable error other than the PCI Express standard.<br>x : Control Unit # (0-1)                                 | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                                                                                                                                       | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                                                                                            |
| R3210x                            | The correctable PCI Express error message was received [0xyyyyyyyy] (CTL-x)             | The chipset detected a correctable error of the PCI Express standard.<br>x : Control Unit # (0-1)                                         | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit.                                                                                                                                                              | —                                                                                                                                                                                                                      |
| R322xy                            | CACHE correctable error was over the threshold [CRECT] (CTL-x, CACHE-y)                 | A Cache correctable error exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3)                             | Full Dump         | ① Replace the Cache Unit displayed in the message.<br>② If not recovered, replace the Control Unit displayed in the message.                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                     |
| R40Z0x                            | The initialization of PCI Express failed because of the hardware error [DUAL] (CTL-x)   | The initial setting of the DUAL PCI-Express core became an error.<br>x : Control Unit # (0-1)<br>(Control Unit # that detected a failure) | Full Dump         | ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time.<br>② 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE.<br>2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem. | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br>—<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| To be continued to the next page. |                                                                                         |                                                                                                                                           |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                        |

| Message code | Message text                                          | Description                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                |
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| R53200       | A bad LBA was detected in START80A.DAT file           | It was detected that write LBA of the upload file of the firmware was illegal.                     | Simple Trace      | ① 1. Acquire the firmware from CD-R again.                                                                                                                                                                                                                                    | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| R53300       | A bad LBA was detected in START80X.DAT file           | It was detected that write LBA of the upload file of the firmware was illegal.                     | Simple Trace      | 2. Reinstall the firmware.                                                                                                                                                                                                                                                    |                                                               |
| R53400       | The model check error was detected in the upload file | When the chassis type written in the file of the read firmware was checked, an error was detected. | Simple Trace      | ① 1. Acquire the file of the firmware again.<br>2. Reinstall the firmware.                                                                                                                                                                                                    | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| R53500       | D-SPC firmware download was started                   | The firmware download of SAS CTL (D-SPC) started.                                                  |                   | —                                                                                                                                                                                                                                                                             | —                                                             |
| R53600       | D-SPC firmware download was completed successfully    | The firmware download of SAS CTL (D-SPC) was completed normally.                                   |                   | —                                                                                                                                                                                                                                                                             | —                                                             |
| R537xy       | D-SPC firmware download was failed                    | The firmware download of SAS CTL (D-SPC) failed.<br>x : Any code                                   | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)      |
|              |                                                       |                                                                                                    |                   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | Chapter 6. Warning Messages" (MSG 06-0000)                    |
|              |                                                       |                                                                                                    |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                             |

| Message code | Message text                                                           | Description                                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                       |
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| R53800       | Down grade install NG [TrueCopy Extended Distance feature is unlocked] | Since the priced option of TrueCopy Extended Distance is unlocked, the update installation for the version downgrade to the firmware that does not support the TrueCopy Extended Distance function cannot be executed. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.                                                                                                                                                                                  | Installation "1.5.1 Subsystem Power On" (INST 01-0140)                               |
|              |                                                                        |                                                                                                                                                                                                                        |                   | 2. Check that the subsystem becomes Ready.                                                                                                                                                                                                                                    | —                                                                                    |
|              |                                                                        |                                                                                                                                                                                                                        |                   | 3. Delete all pairs and paths created by the TrueCopy Extended Distance function referring to the "TrueCopy Extended Distance User's Guide".                                                                                                                                  | "TrueCopy Extended Distance User's Guide"                                            |
|              |                                                                        |                                                                                                                                                                                                                        |                   | 4. Lock the license key of TrueCopy Extended Distance of the priced option.                                                                                                                                                                                                   | System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000) |
|              |                                                                        |                                                                                                                                                                                                                        |                   | 5. Change it to the maintenance mode.                                                                                                                                                                                                                                         | WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)              |
|              |                                                                        |                                                                                                                                                                                                                        |                   | 6. Execute the update installation of the firmware again to downgrade the version of the firmware.                                                                                                                                                                            | WEB "3.3.1 Microprogram" (WEB 03-0270)                                               |
| R5390x       | D-SPC detected the firmware error (CTL-x)                              | D-SPC (Drive-side SAS Protocol Chip) detected a firmware defect.<br>x : Control Unit # (0-1)                                                                                                                           | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                             |
|              |                                                                        |                                                                                                                                                                                                                        |                   | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | "Chapter 6. Warning Messages" (MSG 06-0000)                                          |
|              |                                                                        |                                                                                                                                                                                                                        |                   | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                    |



| Message code                      | Message text                                                                        | Description                                                                                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                               | Reference page                                                |
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| R53A00                            | Down grade install NG [This firmware cannot be uploaded for the controller]         | The firmware to be installed is not supporting the Control Unit installed in the subsystem.                                                                                                                                                          | Simple Trace      | ① Install the firmware supporting the Control Unit installed in the subsystem.                                                                                                                                                                                                                                                 | —                                                             |
| R53Cxy                            | The creation of default certificate failed (CTL-x)                                  | The creation of the SSL default certificate file failed.<br>x : Control Unit # (0-1)<br>y : Error factor # (1-3)                                                                                                                                     | Simple Trace      | ① 1. Perform the planned shutdown of the subsystem and restart it.                                                                                                                                                                                                                                                             | Installation “1.5 Power On/Off Procedure” (INST 01-0130)      |
|                                   |                                                                                     |                                                                                                                                                                                                                                                      |                   | 2. If not recovered, contact the Technical Support Center.                                                                                                                                                                                                                                                                     | —                                                             |
| R53D00                            | Unsupported controller was detected by the firmware which had tried to be installed | The unsupported Control Unit was detected by the firmware installed in the subsystem.                                                                                                                                                                | Simple Trace      | ① Check if the firmware is the correct version.<br>If the firmware version is incorrect, install the correct firmware.<br>When the firmware is correct, replace the Control Unit displayed in the message to the Control Unit supported by the firmware to be installed in the subsystem, and then install the firmware again. | Firmware “Chapter 1. Installation of Firmware” (FIRM 01-0000) |
| R53E00                            | Down grade install NG [RG Expansion feature is used]                                | You cannot execute the version downgrade to the firmware which does not support the RAID Group expansion function because the RAID Group expansion function is running or the specific operation of the RAID Group expansion function was performed. | Simple Trace      | ① Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.                                                                                                                                                                                                                                      | Installation “1.5.1 Subsystem Power On” (INST 01-0140)        |
|                                   |                                                                                     |                                                                                                                                                                                                                                                      |                   | ② Check that the subsystem becomes Ready.                                                                                                                                                                                                                                                                                      | —                                                             |
|                                   |                                                                                     |                                                                                                                                                                                                                                                      |                   | ③ Select [Group] – [RAID Group] of Hitachi Storage Navigator Modular 2, and check whether the RAID Group expansion processing is “Expanding (x)” or “Waiting expansion (n) (x)” referring to [Status] of all RAID Groups.                                                                                                      | —                                                             |
| To be continued to the next page. |                                                                                     |                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                |                                                               |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                       | Reference page                                                                          |
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|              |              |             |                   | ④ 1. When "Expanding (x)" or "Waiting expansion (n) (x)" is displayed in [Status] of the RAID Group in one or more RAID Groups, wait until "Normal" is displayed in [Status] of all the RAID Groups. In this case, it takes time to complete the RAID Group expansion processing. When [Status] of all the RAID Groups changes to "Normal", go to Step ⑤.                              | <a href="#">"ShadowImage in-system replication User's Guide"</a>                        |
|              |              |             |                   | 2. When "Normal" is displayed in [Status] of all the RAID Groups, you cannot execute the version downgrade to the firmware which does not support the RAID Group expansion function because the specific operation of the RAID Group expansion function is performed. Execute the update installation of the firmware of the version which supports the RAID Group expansion function. | —                                                                                       |
|              |              |             |                   | ⑤ Change it to the maintenance mode after completing all the RAID Group expansion processing.                                                                                                                                                                                                                                                                                          | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a> |
|              |              |             |                   | ⑥ Perform the update installation of the firmware again to downgrade the version of the firmware.                                                                                                                                                                                                                                                                                      | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                  |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                                      |                                                                                         |

| Message code | Message text                                                     | Description                                                                                                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                                                                                                                                                                                                       |
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|              |                                                                  |                                                                                                                                                                                                                                                                    |                   | <p>⑦ If this message is displayed again, the version downgrade to the firmware which does not support the RAID Group expansion function because the specific operation of the RAID Group expansion function is performed. Perform the update installation of the firmware which supports the RAID Group expansion function.</p>                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      |
| R53F00       | Down grade install NG [ShadowImage Quick mode feature executing] | You cannot execute the version downgrade to the firmware which does not support the ShadowImage Quick mode function because a ShadowImage pair whose pair status is PSUS(SP) or PAIR (IS) exists in the array subsystem using the ShadowImage Quick mode function. | Simple Trace      | <p>① Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.</p> <p>② Check that the subsystem becomes Ready.</p> <p>③ 1. When a ShadowImage pair whose pair status is PAIR (IS) exists in the array subsystem, refer to "ShadowImage in-system replication User's Guide", split the pair, and wait until the pair status changes to PSUS.</p> <p>2. When a ShadowImage pair whose pair status is PSUS (SP) exists in the array subsystem, wait until the pair status changes to PSUS.</p> <p>④ Change it to the maintenance mode.</p> <p>⑤ Perform the update installation of the firmware again to downgrade the version of the firmware.</p> | <p>Installation "1.5.1 Subsystem Power On" (INST 01-0140)</p> <p>—</p> <p>"ShadowImage in-system replication User's Guide"</p> <p>—</p> <p>WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</p> <p>WEB "3.3.1 Microprogram" (WEB 03-0270)</p> |

| Message code                      | Message text                                                             | Description                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                          |
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| R53G00                            | The error of Initial setup has been detected because RKAKX is connected. | The RKAKX is connected to Unit #0. Therefore, you cannot execute Initial Setup of the firmware which does not support the RKAKX.                     | Simple Trace      | ① Execute Initial Setup with the firmware which supports the RKAKX. Or, execute the Initial Setup after changing the connection configuration of the subsystem so that the RKA is connected as Unit #0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">WEB "3.3.4 Installation Procedure" (WEB 03-0350)</a>                                                                                                        |
| R53H00                            | Down grade installation [RKAKX is connected.]                            | You cannot execute the update installation of the version downgrade to the firmware which does not support the RKAKX because the RKAKX is connected. | Simple Trace      | ① Perform the update installation of the firmware which supports the RKAKX. Or, perform the update installation of the firmware whose version is to be downgraded after removing the RKAKX.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">WEB "3.3.4 Installation Procedure" (WEB 03-0350)</a><br><a href="#">Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000)</a> |
| R53J00                            | Down grade installation [the LU Format is being executed on the S-VOL.]  | The version downgrade installation of the firmware cannot be executed because Format is in execution for the S-VOL of ShadowImage.                   | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.<br>4. Refer to [Replication] – [Local Replication] of the unit window of Hitachi Storage Navigator Modular 2, and record all LU #s of the secondary volume.<br>5. Refer to [Group] – [RAID Group] – [Logical Unit] tab of the unit window of Hitachi Storage Navigator Modular 2, and check that "Status" of at least one or more logical units is "Formatting (Normal (Quick Formatting (**%)))" for the logical units of the secondary volume which were checked before. | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br>—<br>—<br>—<br>—                                                                         |
| To be continued to the next page. |                                                                          |                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                         |

| Message code | Message text                                                                    | Description                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                                                                                                                                                                                                                                |
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|              |                                                                                 |                                                                                                                                                                                                       |                   | 6. Wait until the formatting of the logical units which were checked before is completed ("Status" of the logical unit changes to Normal).<br>7. Change it to the maintenance mode.<br>8. Perform the update installation of the firmware again to downgrade the version of the firmware.                                                                                                                                                                                                                                                                                                                                                                                                                   | —<br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                                                                                                                                                                                        |
| R53L00       | Down grade install NG [The Distributed mode of TC-Distributed Feature is "Hub"] | Since the Distributed mode of the TrueCopy Modular Distributed function is "Hub", the version downgrade installation to the firmware not supporting "Hub" of the Distributed mode cannot be executed. | Simple Trace      | ① Check if the firmware to be installed is the expected revision.<br>When the firmware whose installation failed is not the expected revision, order the firmware of the expected revision, and install it again from the beginning.<br>② 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.<br>4. Set the Distributed mode to "Edge" referring to the "TrueCopy remote Distributed User's Guide".<br>5. Change it to the maintenance mode.<br>6. Perform the update installation of the firmware again to downgrade the version of the firmware. | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br>—<br><a href="#">"TrueCopy remote Distributed User's Guide"</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a> |

| Message code | Message text                                                     | Description                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                                                                                                                                  |
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| R53M00       | Down grade install NG [Dynamic Provisioning feature is unlocked] | Since the priced option of Dynamic Provisioning is unlocked, you cannot perform the update installation for downgrading the version to the firmware not supporting the Dynamic Provisioning function. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Delete the DP volumes and DP pools created by the Dynamic Provisioning function referring to the "Dynamic Provisioning User's Guide".<br>4. Lock the license key of Dynamic Provisioning of the priced option.<br>5. Change it to the maintenance mode.<br>6. Perform the update installation of the firmware again to downgrade the version of the firmware. | Installation "1.5.1 Subsystem Power On" (INST 01-0140)<br>—<br>"Dynamic Provisioning User's Guide"<br>System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)<br>WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)<br>WEB "3.3.1 Microprogram" (WEB 03-0270) |
| R53N00       | Down grade install NG [RADIUS server is used]                    | Since the user authentication is set to "RADIUS" in at least one account of the account authentication function, you cannot downgrade the version to the firmware not supporting the RADIUS server.   | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Display the registered account list and delete the accounts whose user authentication is "RADIUS" referring to the "Account Authentication User's Guide".<br>4. Change it to the maintenance mode.<br>5. Perform the update installation of the firmware again to downgrade the version of the firmware.                                                      | Installation "1.5.1 Subsystem Power On" (INST 01-0140)<br>—<br>"Account Authentication User's Guide"<br>WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)<br>WEB "3.3.1 Microprogram" (WEB 03-0270)                                                                                       |

| Message code | Message text                                                          | Description                                                                                                                                                                                             | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                                                                                                                                                              |
|--------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R53Q00       | Down grade install NG [The number of registered accounts is too much] | Since 21 or more public accounts are registered in the account authentication function, you cannot downgrade the version to the firmware not supporting the registration of 21 or more public accounts. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Display the registered account list and delete the accounts whose account type is "Public" to reduce the number of the registered accounts to 20 or less referring to the "Account Authentication User's Guide".<br>4. Change it to the maintenance mode.<br>5. Perform the update installation of the firmware again to downgrade the version of the firmware. | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">"Account Authentication User's Guide"</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                   |
| R53R00       | Down grade install NG [Command Devices are created with DP Volume]    | Since the command device using the virtual LU exists, the version downgrade to the firmware which is not supporting the command device of the virtual LU cannot be executed.                            | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.<br>4. Delete the command device referring to the "Hitachi Storage Navigator Modular 2 User's Guide".<br>5. Change it to the maintenance mode.<br>6. Perform the update installation of the firmware again to downgrade the version of the firmware.                                               | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br>—<br><a href="#">"Hitachi Storage Navigator Modular 2 User's Guide"</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a> |

| Message code | Message text                                            | Description                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| R53S00       | Down grade install NG [DM-LU is created with DP Volume] | Since the DM-LU using the virtual LU exists, the version downgrade to the firmware which is not supporting the DM-LU of the virtual LU cannot be executed. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.<br>4. Examine the unlocked licenses referring to [Settings] – [Licenses] of the unit window of Hitachi Storage Navigator Modular 2.<br>5. Among the unlocked licenses, cancel all the pairs referring to the “User’s Guide” (*1) of the licenses concerned.<br>6. Delete the Differential Management LU referring to the “Hitachi Storage Navigator Modular 2 User’s Guide”.<br>7. Change it to the maintenance mode.<br>8. Perform the update installation of the firmware again to downgrade the version of the firmware. | <a href="#">Installation “1.5.1 Subsystem Power On” (INST 01-0140)</a><br>—<br>—<br><a href="#">System Parameter “Chapter 6. Setting an Extra-cost Optional Feature” (SYSPR 06-0000)</a><br><a href="#">“User’s Guide”</a><br><a href="#">“Hitachi Storage Navigator Modular 2 User’s Guide”</a><br><a href="#">WEB “Chapter 3. The Maintenance Mode Operation Procedure” (WEB 03-0000)</a><br><a href="#">WEB “3.3.1 Microprogram” (WEB 03-0270)</a> |

\*1 : License name and manual name.

| No. | License name   | Manual name                                                    |
|-----|----------------|----------------------------------------------------------------|
| 1   | SHADOWIMAGE    | <a href="#">ShadowImage in-system replication User’s Guide</a> |
| 2   | TRUECOPY       | <a href="#">TrueCopy remote replication User’s Guide</a>       |
| 3   | SNAPSHOT       | <a href="#">Copy-on-write SnapShot User’s Guide</a>            |
| 4   | TC-EXTENDED    | <a href="#">TrueCopy Extended Distance User’s Guide</a>        |
| 5   | TC-DISTRIBUTED | <a href="#">TrueCopy Modular Distributed User’s Guide</a>      |



| Message code | Message text                                                         | Description                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                      | Reference page                                                                          |
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| R53U00       | Down grade installing [Too many HDDs are installed for new firmware] | The version cannot be downgraded since the number of installable drives per back-end path is not supported by the firmware to be installed. | Simple Trace      | ① When using the number of Disk Drives currently connected continuously, perform the update installation of the firmware supporting the connection of 61 or more Disk Drives per back-end path.       | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                  |
|              |                                                                      |                                                                                                                                             |                   | ② 1. When downgrading the version of the firmware, click [Go to Normal Mode] of the menu frame on WEB and start the subsystem.                                                                        | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                  |
|              |                                                                      |                                                                                                                                             |                   | 2. Check that the subsystem becomes Ready.                                                                                                                                                            | —                                                                                       |
|              |                                                                      |                                                                                                                                             |                   | 3. Remove the RKAKX or RKAK until the number of installable Disk Drives per back-end path becomes 60 or less referring to <a href="#">Addition/Removal/Relocation "2.4.3 Removing a Disk Drive"</a> . | <a href="#">Addition/Removal/Relocation "2.4.3 Removing a Disk Drive" (ADD 02-0220)</a> |
|              |                                                                      |                                                                                                                                             |                   | 4. Change it to the maintenance mode.                                                                                                                                                                 | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a> |
|              |                                                                      |                                                                                                                                             |                   | 5. Perform the update installation of the firmware again to downgrade the version of the firmware.                                                                                                    | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                  |

| Message code | Message text                                                                                        | Description                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference page                                                                                                                                                                                                                                                                                                                                                   |
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| R53V00       | Down grade installation [Volume Migration using the DP volume exists, the pair of DP volume exists] | Since the Volume Migration pair using the DP volume exists, the version cannot be downgraded to the firmware not supporting Volume Migration of the DP volume. | Simple Trace      | <ol style="list-style-type: none"> <li>① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.</li> <li>2. Check that the subsystem becomes Ready.</li> <li>3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.</li> <li>4. Check the migration status referring to [Settings] – [Detail Settings] – [Start Detail Settings] button – [Volume Migration] – [Pair] in the unit window of Hitachi Storage Navigator Modular 2.</li> <li>5. When a pair whose pair status is "Copying" or "Waiting" exists, wait until the pair status changes to "Completed". If the pair status changes to "Error", request the customer/SE for the maintenance.</li> <li>6. When a pair whose pair status is "Completed" exists, perform the pair release for the pair concerned referring to the "Modular Volume Migration User's Guide"</li> <li>7. Change it to the maintenance mode.</li> <li>8. Perform the update installation of the firmware again to downgrade the version of the firmware.</li> </ol> | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br>—<br><a href="#">"Modular Volume Migration User's Guide"</a><br>—<br><a href="#">"Modular Volume Migration User's Guide"</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a> |

| Message code | Message text                                                                    | Description                                                                                                                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference page                                                                          |
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| R53W00       | Down grade install NG [Dynamic Provisioning Optimization function is executing] | Since the optimization of Dynamic Provisioning is in execution, the version cannot be downgraded to the firmware not supporting the optimization function of Dynamic Provisioning. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                  |
|              |                                                                                 |                                                                                                                                                                                    |                   | 2. Check that the subsystem becomes Ready.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                                       |
|              |                                                                                 |                                                                                                                                                                                    |                   | 3. Request the customer/SE to determine whether to wait until the optimization of Dynamic Provisioning is completed or to suspend the optimization of Dynamic Provisioning.<br>• When waiting until the optimization of Dynamic Provisioning is completed, request the customer/SE to check the completion of the optimization and contact the service personnel after completing the optimization.<br>• When suspending the optimization of Dynamic Provisioning, request the customer/SE to suspend the optimization referring to the "Dynamic Provisioning User's Guide". | <a href="#">"Dynamic Provisioning User's Guide"</a>                                     |
|              |                                                                                 |                                                                                                                                                                                    |                   | 4. Change it to the maintenance mode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a> |
|              |                                                                                 |                                                                                                                                                                                    |                   | 5. Perform the update installation of the firmware again to downgrade the version of the firmware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                  |

| Message code | Message text                                                           | Description                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                                                                                                                                                                                                                                                                                                                            |
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| R53X00       | Down grade install NG [SSD is installed]                               | Since the SSD (Solid State Drive: Flash Drive) is installed, the version cannot be downgraded to the firmware not supporting the SSD.     | Simple Trace      | ① Order the firmware supporting the SSD (Solid State Drive: Flash Drive) and install the firmware again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                                                                                                                                                                                                                                                                                                                                    |
| R53Y00       | Down grade install NG [Too many RKAKXs are connected for new firmware] | The version cannot be downgraded in the firmware to be installed because the number of RKAKX not supported is installed in the subsystem. | Simple Trace      | ① When using the currently connected RKAKX continuously, perform the update installation of the firmware supporting the connection of two or more RKAKXs.<br>② 1. When downgrading the version of the firmware, click [Go to Normal Mode] of the menu frame on WEB and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Remove the RKAKXs or RKAKs until the maximum configuration (three RKAKs + one RKAKX) or (seven RKAKs) becomes as follows referring to <a href="#">Addition/Removal/Relocation "2.3 Removing Additional Subsystem on Rack Frame"</a> .<br>4. Change it to the maintenance mode.<br>5. Perform the update installation of the firmware again to downgrade the version of the firmware. | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br>—<br><a href="#">Addition/Removal/Relocation "2.3 Removing Additional Subsystem on Rack Frame" (ADD 02-0130)</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a> |

| Message code | Message text                                                                         | Description                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                      | Reference page                                                                                                                                                |
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| R53Z00       | Down grade install NG [The background process of Dynamic Provisioning is running]    | Since the operation directed to the DP Volume is operating in the background, the version cannot be downgraded to the firmware which is not supporting the operation in the background of the DP Volume. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.                                                                                          | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                        |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 2. Check that the subsystem becomes Ready.                                                                                                                                            | —                                                                                                                                                             |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 3. Change it to the maintenance mode again after waiting for about five minutes.                                                                                                      | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a>                                                                       |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 4. Perform the update installation of the firmware again to downgrade the version of the firmware.                                                                                    | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                                                                                        |
| R54000       | Down grade install NG [Advanced Security Mode of Account Authentication is "ENABLE"] | Since Advanced Security Mode of the Account authentication function is "Enabled", the version downgrade to the firmware which is not supporting Advanced Security Mode is impossible.                    | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.                                                                                          | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                        |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 2. Check that the subsystem becomes Ready.                                                                                                                                            | —                                                                                                                                                             |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.                                                                                                                      | —                                                                                                                                                             |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 4. Refer to "Settings" – "License" in the unit window of Hitachi Storage Navigator Modular 2, and check the "Status" of ACCOUNT. When "Status" is "Disabled", change it to "Enabled". | <a href="#">System Parameter "Chapter 6. Setting an Extra-cost Optional Feature" (SYSPR 06-0000)</a><br><a href="#">"Account Authentication User's Guide"</a> |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 5. Set Advanced Security Mode to "Disabled" referring to <a href="#">"Account Authentication User's Guide"</a> .                                                                      | <a href="#">"Account Authentication User's Guide"</a>                                                                                                         |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 6. Change it to the maintenance mode.                                                                                                                                                 | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a>                                                                       |
|              |                                                                                      |                                                                                                                                                                                                          |                   | 7. Perform the update installation of the firmware again to downgrade the version of the firmware.                                                                                    | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a>                                                                                                        |

| Message code | Message text                                                  | Description                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                    | Reference page                                                                                                                                                                                                                                               |
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| R54100       | A bad LBA was detected in the uploaded firmware file          | It was detected that the write LBA value written in the firmware upload file was illegal.                                                                | Simple Trace      | ① 1. Acquire the firmware from CD-R again.<br>2. Reinstall the firmware.                                                                                                                                                                                                                                                                                            | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                                                                                                                                |
| R54200       | Down grade install NG [The SAS HDD is installed in the RKAKX] | Since the SAS Disk Drive is installed in RKAKX, the version downgrade to the firmware which is not supporting the SAS Disk Drive is impossible in RKAKX. | Simple Trace      | ① 1. Perform the update installation of the firmware supporting the SAS Disk Drive installation in RKAKX.<br>2. Nevertheless, if the version downgrade of the firmware is necessary, only when RKAKX in which the SAS Disk Drive is installed is connected as the Additional Chassis of UNIT #1 or more, remove all RKAKXs, and then perform the version downgrade. | <a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a><br><br><a href="#">Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000)</a><br><br><a href="#">Firmware "1.4.3 Procedure for the Version Downgrade" (FIRM 01-0810)</a> |

| Message code | Message text                                                                          | Description                                                                                                                                                                                                                                                                                           | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                                                                                                                                                                                                                                                                                                  |
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| R54300       | Down grade install NG [The remote path is connected to the unsupported frontend port] | In the setting of the TrueCopy remote replication function or the TrueCopy Extended Distance function, the version downgrade cannot be performed because the remote path connection port of the remote-side array subsystem is set as the unsupported front-end port in the firmware to be installed. | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>2. Check that the subsystem becomes Ready.<br>3. Connect Hitachi Storage Navigator Modular 2 to the subsystem.<br>4. Examine the unlocked licenses referring to [Settings] – [Licenses] of the unit window of Hitachi Storage Navigator Modular 2.<br>5. Among the unlocked licenses, refer to the “User’s Guide” (*1) of the relevant license, and delete the remote path whose remote path connection port is set as the unsupported front-end port.<br>6. Change it to the maintenance mode.<br>7. Perform the update installation of the firmware again to downgrade the version of the firmware. | <a href="#">Installation “1.5.1 Subsystem Power On” (INST 01-0140)</a><br>—<br>—<br><a href="#">System Parameter “Chapter 6. Setting an Extra-cost Optional Feature” (SYSPR 06-0000)</a><br><a href="#">“User’s Guide”</a><br><a href="#">WEB “Chapter 3. The Maintenance Mode Operation Procedure” (WEB 03-0000)</a><br><a href="#">WEB “3.3.1 Microprogram” (WEB 03-0270)</a> |

\*1 : License name and manual name.

| No. | License name | Manual name                                              |
|-----|--------------|----------------------------------------------------------|
| 1   | TRUECOPY     | <a href="#">TrueCopy remote replication User’s Guide</a> |
| 2   | TC- EXTENDED | <a href="#">TrueCopy Extended Distance User’s Guide</a>  |

| Message code | Message text                           | Description                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                           | Reference page                                                                                                                                                                                           |
|--------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RA00xx       | Microprogram error [FLS]               | A system shutdown occurred because of a logical contradiction.<br>x : Any code                                         | Full Dump         | ① Turn on the power again.                                                                                                                                                                 | —                                                                                                                                                                                                        |
| RA01xx       | Microprogram error [COM]               | Logical illegality of the firmware was detected. (common function).<br>x : Any code                                    | Full Dump         | ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.<br>② In the case other than ①, replace the Control Unit which shows this message.         | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                  |
| RA0410       | Host name delete error                 | The network download function failed to delete the host name.                                                          | Full Dump         | ① Check the directory, in which the main system is stored, entered in the WEB window.<br>② Replace the Control Unit if the error recurs.                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                 |
| RA0411       | NFS unmount error                      | An NFS unmounting resulted in an error during operation of the network download function.                              | Full Dump         |                                                                                                                                                                                            |                                                                                                                                                                                                          |
| RA0412       | NFS mount error                        | An NFS mounting resulted in an error during operation of the network download function.                                | Full Dump         |                                                                                                                                                                                            |                                                                                                                                                                                                          |
| RA0413       | Host name add error                    | The network download function failed to add the host name.                                                             | Full Dump         |                                                                                                                                                                                            |                                                                                                                                                                                                          |
| RA0414       | NFS file open error                    | A file opening resulted in an error during operation of the network download function.                                 | Full Dump         | ① Check if the directory, in which the main system is stored, entered in the Web window and the files stored in it are correct.<br>② Replace the Control Unit if the error recurs.         | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                 |
| RA0415       | System file error                      | An error was detected in a file in the directory storing the system during operation of the network download function. | Full Dump         |                                                                                                                                                                                            |                                                                                                                                                                                                          |
| RA30xy       | CACHE size mismatch b/w. CTL (CACHE-x) | A cache mounting error occurred.<br>x : Cache Unit # (0-3)                                                             | Simple Trace      | ① 1. Check if the Cache Unit is installed in a correct location by referring to the location of the corresponding Cache Unit on the normal mate Control Unit.<br>2. Replace the Cache Unit | <a href="#">Troubleshooting "10.2.1 Maintenance with the Hitachi Storage Navigator Modular 2 (GUI Version)" (TRBL 10-0080)</a><br><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
| RA4000       | CTL synchronized error                 | Synchronization failed.                                                                                                | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                 |



| Message code | Message text                        | Description                                                                        | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference page                                                                                                                                                                                                                                                                                           |
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| RA4100       | CTL initial synchronized error      | Time-out occurred in another system because of an initial synchronization.         | Full Dump         | ① Click the Information Message in the WEB window and scroll the window of [Controller 0] and [Controller 1]. When the CUDG error is displayed, follow the recovery method in the CUDG detection message.<br>② When the CUDG error is not displayed, replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                | <a href="#">"Chapter 2. CUDG Detected Messages" (MSG 02-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                            |
| RA4200       | Maintenance mode synchronized error | A synchronization error occurred in maintenance mode.                              | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                                                                 |
| RA6000       | CTL number mismatch                 | The single mode is set in the system parameter but dual mode is selected actually. |                   | ① Set the system parameter correctly in the WEB maintenance mode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a>                                                                                                                                                                                                                  |
| RA6100       | System parameter undefined          | System parameter information (common) is not set.                                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                          |
| RA7000       | Microprogram revision mismatch      | The systems drive-loaded between Control Units are mismatched.                     |                   | ① If this message is displayed when the subsystem power is turned on, turn on the power again.<br>② 1. If this message is displayed when the subsystem power is on and the Control Unit is replaced, the replaced Control Unit and the ENC cable of the Additional Chassis are not connected correctly. First, check the ENC cable connection.<br>2. Remove the replaced Control Unit temporarily.<br>3. Connect the ENC cable correctly again.<br>4. Install the Control Unit again.<br>③ Replace the Control Unit to a new Control Unit again.<br>④ If not recovered yet, contact the Technical Support Center. | —<br>—<br><a href="#">Installation "2.4.2 (4) Removing the Control Unit" (INST 02-0370)</a><br>—<br><a href="#">Installation "2.4.7 (4) Installing the Control Unit, Cache Unit and Interface Board" (INST 02-0550)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>— |

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| Message code | Message text                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Collect the error | Recovery methods                                                                                                                                                                              | Reference page                                                                                                                                                |
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| RA7600       | CTL unit type is different between the controllers | <p>It was detected that the types of Control Unit #0 and Control Unit #1 are mismatched due to the occurrence of any one of the following failures at the time of the system start, Control Unit replacement with the subsystem power tuned on or firmware replacement.</p> <ul style="list-style-type: none"> <li>Control Unit installation error</li> <li>Control Unit failure</li> <li>PCI bus failure between the Control Units</li> <li>Power Unit failure of the Control Unit</li> </ul> <p>Since the revision of D-CTL LSI of each Control Unit is not the allowed combination, you cannot install the Control Unit #0 and the Control Unit #1, which are already installed in the current subsystem, in the subsystem at the same time (for debug).</p> | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.22 Recovery Method when Detecting the Mismatch of the Control Unit Model Names between the Control Units"</a> .       | <a href="#">Troubleshooting "6.1.22 Recovery Method when Detecting the Mismatch of the Control Unit Model Names between the Control Units" (TRBL 06-0980)</a> |
| RA7900       | System HDU spin up failed                          | Spin-up of the system drive failed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.24 Recovery Method when the Spin-up of the System Drive Failed"</a> .                                                 | <a href="#">Troubleshooting "6.1.24 Recovery Method when the Spin-up of the System Drive Failed" (TRBL 06-1030)</a>                                           |
| RA7A00       | CACHE installation error (CACHE-0)                 | The Cache Unit is not installed in slot #0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Simple Trace      | ① Install the Cache Unit in slot #0.                                                                                                                                                          | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>                                                                                        |
|              | CACHE installation error (CACHE-0/1)               | Although the Cache Units must be installed in both slot #0 and slot #1, it is only installed in either slot or it is installed in neither slot.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Simple Trace      | ① Install the Cache Units in both slot #0 and slot #1.                                                                                                                                        |                                                                                                                                                               |
| RA7E0x       | CTL unit type error detected (CTL-x)               | <p>An illegal Frame type was detected.</p> <p>x : Control Unit # (0-1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Simple Trace      | <p>① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message.</p> <p>② In the case other than ①, replace the Control Unit displayed in the message.</p> | <p><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p>            |

| Message code | Message text                                     | Description                                                                                                                                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                              |
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| RA7F00       | TWSI access error was detected [Read, xx-yy-aa]  | In case where the Flash program of the early stage, which the Control Unit began to start, is operating, an error was detected when read of TWSI (Two Wired Serial Interface) operated.<br>xx : Optional code<br>yy : Optional code<br>aa : Optional code  | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a> |
| RA8000       | TWSI access error was detected [Write, xx-yy-aa] | In case where the Flash program of the early stage, which the Control Unit began to start, is operating, an error was detected when write of TWSI (Two Wired Serial Interface) operated.<br>xx : Optional code<br>yy : Optional code<br>aa : Optional code | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| RA830x       | CACHE sleep termination process time-out         | The release of Cache sleep (status before the Cache Unit becomes electrically usable) timed out.<br>x : 1=LDR, 2=MNT, 3=INS                                                                                                                                | Full Dump         | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit whose ALM LED is on.                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                    |
| RA840x       | PONCNT parity error                              | PONCNT parity error.<br>x : 1=LDR, 2=MNT, 3=INS                                                                                                                                                                                                            | Full Dump         | ② If not recovered, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                                                                                  | <a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                                 |
| RA850x       | DDR2 I/O buffer error                            | The adjustment of the impedance for the I/O buffer of DDR2 terminated abnormally.<br>x : 1=LDR, 2=MNT, 3=INS                                                                                                                                               | Full Dump         | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                           |
| RA870x       | The setting of CACHE termination failed          | The setting of the terminate value of the Cache Unit terminated abnormally.<br>x : 1=LDR, 2=MNT, 3=INS                                                                                                                                                     | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| RA880x       | CTL number error                                 | It was detected that the SLOT # bit of the PLD GPIO #0 register was an abnormal value.<br>x : 1=LDR, 2=MNT, 3=INS                                                                                                                                          | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| RA8900       | DCTL hard register error [EMACIN/A_CTLIN]        | The other Control Unit is not installed on the register or the blocked status was detected at the same time.                                                                                                                                               | Full Dump         |                                                                                                                                                                                                                                                                               |                                                                                                                                             |
| RA8A00       | DCTL EMACIN not detected                         | The EMACIN bit error occurred during insertion of the Control Unit performed in the state in which the subsystem power was on.                                                                                                                             | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                    |

| Message code | Message text                                                                        | Description                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                                       |
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| RA8F00       | The coexistence error of the system drives was detected                             | SAS HDU and SATA HDU are mixed in the system drive.                                                                        | Full Dump         | ① 1. Turn off the main switch.<br><br>2. Configure the system drive only with either SAS HDU or SATA HDU again.<br><br>3. Turn on the power of the subsystem.                                                                                                                 | Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)<br><br>—<br><br>Installation "1.5.1 Subsystem Power On" (INST 01-0140) |
| RA8G0x       | The MAC address error was detected (CTL-x)                                          | It was detected that the MAC address was illegal.<br>x : Control Unit # (0-1)                                              | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.                                                                                                                                                         | Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)                                                                                             |
| RA8H0x       | The chipset error was detected at the early stage of the CTL initialization (CTL-x) | In starting of the Control Unit, a failure of "chipset" occurred in the early stage.<br>x : Control Unit # (0-1)           | Full Dump         | ② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                                                                                                                                          | "Chapter 6. Warning Messages" (MSG 06-0000)                                                                                                          |
| RA8lxy       | Microprogram error was detected [BCM]                                               | Logical discrepancy of the firmware was detected. (Backend common control)<br>x : Characters<br>y : Characters             | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                                    |
| RA8Jxy       | Microprogram error was detected [BDM]                                               | Logical discrepancy of the firmware was detected. (Backend drive management control)<br>x : Characters<br>y : Characters   | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| RA8Kxy       | Microprogram error was detected [BER]                                               | Logical discrepancy of the firmware was detected. (Backend failure processing control)<br>x : Characters<br>y : Characters | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| RA8Lxy       | Microprogram error was detected [BPD]                                               | Logical discrepancy of the firmware was detected. (Backend protocol driver control)<br>x : Characters<br>y : Characters    | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| RA8Mxy       | Microprogram error was detected [BSM]                                               | Logical discrepancy of the firmware was detected. (Backend SAS management control)<br>x : Characters<br>y : Characters     | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| RA8Nxy       | Microprogram error was detected [DSC]                                               | Logical discrepancy of the firmware was detected. (I/O execution control)<br>x : Characters<br>y : Characters              | Simple Trace      |                                                                                                                                                                                                                                                                               |                                                                                                                                                      |

| Message code | Message text                                                                     | Description                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                |
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| RA8P0x       | Backend error count of the CTL was over the threshold [CODE-y] (CTL-x)           | D-SPC (Drive-side SAS Protocol Chip) detected a Control Unit failure and the failure count exceeded the threshold value.<br>x : Control Unit # (0-1)<br>y : Code # (0-FF)                                                      | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit displayed in this message.<br>② When the ALM LED on the Control Unit displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm".                 | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a>                                                                   |
| RA8Q0x       | Backend error count of the CTL was over the threshold [SAS_FW REBOOT NG] (CTL-x) | The initial setting of D-SPC (Drive-side SAS Protocol Chip) terminated abnormally.<br>x : Control Unit # (0-1)                                                                                                                 | Simple Trace      | ③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | —                                                                                                                                                                                                             |
| RA8R0x       | Backend error count of the CTL was over the threshold [SAS_FW FATAL] (CTL-x)     | A fatal error of D-SPC (Drive-side SAS Protocol Chip) was detected.<br>x : Control Unit # (0-1)                                                                                                                                | Simple Trace      | ① 1. Remove the Control Unit displayed in the message.<br>2. Reconnect the ENC cable connected to the remove Control Unit correctly.<br>3. Insert the Control Unit in the chassis.                                                                                            | <a href="#">Installation "2.4.2 (4) Removing the Control Unit" (INST 02-0370)</a><br>—<br><a href="#">Installation "2.4.7 (4) Installing the Control Unit, Cache Unit and Interface Board" (INST 02-0550)</a> |
| RA8S0x       | ENC recovery failed [Cable error] (CTL-x)                                        | When the subsystem power is ON and the Control Unit or the firmware is replaced, it was detected that the ENC cable between the Control Unit and the Additional Chassis was connected incorrectly.<br>x : Control Unit # (0-1) | Simple Trace      | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                      |
| RA9000       | Task make error                                                                  | Generation of a task or a semaphore failed.                                                                                                                                                                                    | Full Dump         | —                                                                                                                                                                                                                                                                             | —                                                                                                                                                                                                             |
| RAA000       | CUDG skip                                                                        | CUDG skip was made.                                                                                                                                                                                                            | —                 | —                                                                                                                                                                                                                                                                             | —                                                                                                                                                                                                             |
| RAA100       | Remote reboot execute                                                            | A remote rebooting was done.                                                                                                                                                                                                   | —                 | —                                                                                                                                                                                                                                                                             | —                                                                                                                                                                                                             |
| RAA200       | Option data initialized                                                          | The unlocking information was initialized owing to an occurrence of a sum check error in the take-over information area (FM) in which the unlocking information is stored.                                                     | —                 | —                                                                                                                                                                                                                                                                             | —                                                                                                                                                                                                             |

| Message code | Message text                               | Description                                                                                                                                | Collect the error | Recovery methods                                                                                                                                                                                                                                    | Reference page                                                                |
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| RB0000       | Upload system error                        | An incorrect firmware (with an incorrect file and/or directory configuration) was specified during a upload.                               | Simple Trace      | ① Check the firmware you want to install and install it over again.                                                                                                                                                                                 | —                                                                             |
| RB0100       | File remove error                          | Deletion of a file on the RAM disk failed.                                                                                                 | Simple Trace      | ① Turn on the power again.<br>② If the problem is not solved in spite of the above operation, replace the Control Unit on which the ALM LED is lit                                                                                                  | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| RB0400       | System parameter update error              | Update of the system parameters failed at the time of start-up. (The threshold value concerning the system parameter update was exceeded.) | Simple Trace      | ① Reset the system parameters correctly in the Maintenance mode of the Web.<br>② If the system is still abnormal, replace the above Control Unit.                                                                                                   | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| RB0500       | System parameter load failed               | Reading of the system parameter information from the system area failed.                                                                   | Simple Trace      | ① Reset the system parameters correctly in the Maintenance mode of the Web.<br>② If not recovered yet, replace the Disk Drives #0 to #4 of the RKM/RKS or the Disk Drives #0 to #4 of the RKAK corresponding to the unit ID#0 connected to the RKH. | —<br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>   |
| RB0800       | System parameter update failed             | Writing on all drives failed.                                                                                                              | Simple Trace      | ① Turn on the power again.<br>② If the system is still abnormal, reset the system parameters correctly in the Maintenance mode of the Web.                                                                                                          | —                                                                             |
| RB0900       | System parameter update partially complete | Writing on one to four system drives failed.                                                                                               | Simple Trace      | ① Check the firmware you want to install and install it over again.                                                                                                                                                                                 | —                                                                             |
| RB0A00       | Upload file SUM check error                | A sum check error occurred in a read file during a upload.                                                                                 | Simple Trace      | ① Make the caches in the two slots the same.                                                                                                                                                                                                        | —                                                                             |
| RB0Cxy       | CACHE pair check error (CACHE-x/y)         | Cache pair check error (Caches installed in the Slot #0, Slot #1, Slot#2 and Slot#3 are different each other.)<br>x : Cache Unit # (0-3)   | Simple Trace      | ① Turn on the power again.<br>② If the problem is not solved in spite of the above operation, replace the Control Unit on which the ALM LED is lit                                                                                                  | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| RB0D00       | RAM disk create failed                     | Creation of the RAM disk failed.                                                                                                           | Full Dump         |                                                                                                                                                                                                                                                     |                                                                               |

| Message code | Message text                         | Description                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                       | Reference page                                                                |
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| RB0G00       | Initial setup of microprogram failed | Although "Install Guard" displayed in "http://lpaddress/instlgrd" is set to [Disable], it tried to execute [Initial setup] of the firmware. | Simple Trace      | ① Change "Install Mode" on the Microprogram Setup window to [Update] and perform the update installation of the firmware.                                                                                                                                                                              | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| RB0I00       | Bad LBA detected in START80M.DAT     | It was detected that the write LBA of the uploaded file was an illegal value.                                                               | Simple Trace      | ① 1. Acquire the firmware from CD-R again.<br>2. Reinstall the firmware.                                                                                                                                                                                                                               | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| RB0J00       | Bad LBA detected in START80S.DAT     | It was detected that the write LBA of the uploaded file was an illegal value.                                                               | Simple Trace      |                                                                                                                                                                                                                                                                                                        |                                                                               |
| RB3000       | File size error                      | An error was detected in file size.                                                                                                         | Simple Trace      | ① Check the firmware you want to install                                                                                                                                                                                                                                                               | —                                                                             |
| RB3100       | File open error                      | Opening of file failed.                                                                                                                     | Simple Trace      |                                                                                                                                                                                                                                                                                                        |                                                                               |
| RB3200       | File read error                      | Reading of file failed.                                                                                                                     | Simple Trace      |                                                                                                                                                                                                                                                                                                        |                                                                               |
| RB3500       | Bad block ID                         | An illegal block ID was detected.                                                                                                           | Simple Trace      |                                                                                                                                                                                                                                                                                                        |                                                                               |
| RB7000       | Program size too large               | The program is too large in size.                                                                                                           |                   |                                                                                                                                                                                                                                                                                                        |                                                                               |
| RB8000       | Old microprogram exists              | There was another system when installation was started.                                                                                     |                   | ① If installation may be continued (In this case, all the data in the Disk Drive are deleted (The RAID group and LU deformation are initialized)), insert the next FD and continue installation.<br>② When the data in the Disk Drive need to be saved, stop the work and perform update installation. | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| RB8100       | Install failed                       | Installation failed.                                                                                                                        | Full Dump         | ① The cause of the failure is indicated under the message. Solve the failure according to the procedure indicated under the message.                                                                                                                                                                   | —                                                                             |
| RB8200       | Install partially complete           | Installation failed in a part of the drive.                                                                                                 | Full Dump         | ① See [Procedure of locating failed part when the message of "Install partially complete" is output].                                                                                                                                                                                                  | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| RB8300       | Empty system retry full install      | Update installation cannot be executed since a system does not exist in the Disk Drive.                                                     |                   | ① Execute new installation.                                                                                                                                                                                                                                                                            | —                                                                             |



| Message code | Message text               | Description                         | Collect the error | Recovery methods                                                                                                                                                                                                                             | Reference page                                                                                                        |
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| RB8400       | Download failed            | Drive-loading failed.               | Simple Trace      | ① If this message is displayed when the subsystem power is turned on, refer to <a href="#">Troubleshooting "6.1.2 The Subsystem does not Become Ready : Case 1 (Loading Failure)"</a> (TRBL 06-0050).                                        | <a href="#">Troubleshooting "6.1.2 The Subsystem does not Become Ready : Case 1 (Loading Failure)"</a> (TRBL 06-0050) |
|              |                            |                                     |                   | ② 1. If this message is displayed when the subsystem power is on and the Control Unit is replaced, the replaced Control Unit and the ENC cable of the Additional Chassis are not connected correctly. First, check the ENC cable connection. | —                                                                                                                     |
|              |                            |                                     |                   | 2. Remove the replaced Control Unit temporarily.                                                                                                                                                                                             | <a href="#">Installation "2.4.2 (4) Removing the Control Unit"</a> (INST 02-0370)                                     |
|              |                            |                                     |                   | 3. Connect the ENC cable correctly again.                                                                                                                                                                                                    | —                                                                                                                     |
|              |                            |                                     |                   | 4. Install the Control Unit again.                                                                                                                                                                                                           | <a href="#">Installation "2.4.7 (4) Installing the Control Unit, Cache Unit and Interface Board"</a> (INST 02-0550)   |
|              |                            |                                     |                   | ③ Replace the Control Unit to a new Control Unit again.                                                                                                                                                                                      | <a href="#">Replacement "2.2.5 Replacing Control Unit"</a> (REP 02-0450)                                              |
| RB8500       | Microprogram extract error | Depression of main firmware failed. |                   | ④ If not recovered yet, contact the Technical Support Center.                                                                                                                                                                                | —                                                                                                                     |
|              |                            |                                     |                   | ① Execute update installation.                                                                                                                                                                                                               | <a href="#">Firmware "Chapter 1. Installation of Firmware"</a> (FIRM 01-0000)                                         |
|              |                            |                                     |                   | ② If not recovered, replace the Control Unit whose ALM LED is on.                                                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit"</a> (REP 02-0450)                                              |

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| Message code | Message text                           | Description                                                                                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                                                       |
|--------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RBA000       | Down grade check NG                    | Although the version down of the firmware was attempted, the update installation terminated abnormally because Down Grade Check was not Disable.                          |                   | ① Change the setting of the downgrade check to Disable, and then updating installation of the firmware again.                                                                                                                                                                                                                                                                                                                                                                    | <a href="#">WEB "3.3 Setup" (WEB 03-0270)</a>                                                                                                                                                        |
| RBC000       | No drive available                     | There is not a Disk Drive to install.                                                                                                                                     | Simple Trace      | ① Check if the subsystem of the unit ID #0 is the RKAK for the AMS2500.<br>If it is not so, install the subsystem again so that the subsystem of the unit ID #0 may become the RKAK.<br>② Replace the Disk Drives #0 to #4 of the subsystem of the unit ID #0 one at a time.                                                                                                                                                                                                     | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                                                                                               |
| RBC10x       | Drive block size error (Unit-0, HDU-x) | The value of the block size of the capacity data reported from the Disk Drive was other than the specified value.<br>x : Disk Drive# (0-23)                               |                   | ① Replace the Disk Drive.<br>Check the model name of the Disk Drive or the drive firmware revision.                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a> |
| RBC20x       | Unknown drive (Unit-0, HDU-x)          | The value of the logical block address of the capacity data reported from the Disk Drive was equal to or less than the size of the system area.<br>x : Disk Drive# (0-23) |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      |
| RBE000       | Flash memory write error               | Writing in the flash memory failed.                                                                                                                                       | Simple Trace      | ① When the ALARM LED on the front of the Basic Chassis lights up, replace the Control Unit whose ALM LED is on.<br>② If not recovered, perform the maintenance according to "W01z0x CTL alarm".<br>③ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><br><a href="#">"Chapter 6. Warning Messages" (MSG 06-0000)</a><br><br>—                                                 |
| RBE100       | Flash memory SUM check error           | A sum check error is detected in the flash memory.                                                                                                                        | Full Dump         | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                             |

| Message code | Message text                                               | Description                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                  | Reference page                                                                                                                                            |
|--------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| RBE200       | Flash program update error                                 | When the FM firmware which failed in maintenance of the flash version is updated, its version is not matched to the version of the main firmware.                   |                   | ① Perform the installation upgrade.<br>② If not recovered, replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                          | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| RBE300       | Flash program update start                                 | Updating of the FM1 flash program was started by the latest REV maintenance function of the flash program.                                                          |                   | —                                                                                                                                                                                                                                                                                                                                                                 | —                                                                                                                                                         |
| RBE301       | Flash program update end                                   | Updating of the FM1 flash program was started by the latest REV maintenance function of flash program.                                                              |                   | —                                                                                                                                                                                                                                                                                                                                                                 | —                                                                                                                                                         |
| RBE500       | Initial setup error by LU access restriction               | The Initial setup failed because access to the LU was restricted.                                                                                                   | Simple Trace      | ① The Initial setup is impossible. To update the firmware, do it by means of the update installation.                                                                                                                                                                                                                                                             | —                                                                                                                                                         |
| RBE600       | Config clear restart error by LU access restriction        | The Config clear restart failed because access to the LU was restricted.                                                                                            | Simple Trace      | ① The Config clear restart is impossible. To reboot, specify the TakeOver (takeover reboot).                                                                                                                                                                                                                                                                      | —                                                                                                                                                         |
| RBE900       | Upgrade failed (the installed microprogram is incorrect)   | The upgrade from the lower model to the upper model failed.                                                                                                         |                   | ① Perform the update installation of the firmware for the upper model which is the same revision as the firmware installed in the lower model.                                                                                                                                                                                                                    | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                             |
| RBEA00       | Downgrade failed (the installed microprogram is incorrect) | The installation of the firmware for the lower model to the chassis of the upper model failed.                                                                      |                   | ① Since the revision of the firmware of the lower model to install needs to be the same as that of the revision of the firmware already installed in the subsystem, install the firmware of the same revision as the firmware revision displayed on the WEB window of the maintenance mode. In that case, specify the lower model for the model of the subsystem. | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                             |
| RBEN00       | Installation of the other CTL detected on install mode     | The start-up could not be made because the FM mode was the installation mode (for emergency) at the time of the installation of a Control Unit of the other system. | Full Dump         | ① When the FM MODE is the installation mode, pull out the JP and make the start-up again.<br>② If not recovered, replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                    | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                             |

| Message code | Message text                                                            | Description                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference page                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RBEQ00       | Down grade install NG [Going to Maintenance Mode procedure is abnormal] | The downgrade installation of the firmware cannot be performed because it entered the maintenance mode before the subsystem starts.      | Simple Trace      | ① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a>                                                                                                                                                                                                                                                                                                                                        |
| RBES00       | Down grade install NG [FLASH program revision mismatch]                 | Because the FLASH firmware version is not consistent between the Control Units, the firmware downgrade installation cannot be performed. | Simple Trace      | 2. Install the firmware again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                                                                                                                                                                                                                                                                                 |
| RBET00       | Check sum error detected in all system drives                           | Check sum error was detected in all system drives during installing the firmware update.                                                 | Simple Trace      | ① 1. Turn off the main switch.<br>2. Turn on the main switch again after 20 seconds or more elapsed after turning it off.<br>3. Change it to the maintenance mode after the READY LED (green) lights on or "RB8400 Download failed" is displayed on the Information Message of WEB and the subsystem goes down.<br>4. Update the firmware again.<br>5. When the firmware is updated, if this message is displayed and this failure occurs even if the above-mentioned recovery method is repeated three times, perform new installation. | <a href="#">Installation "1.5.2 Subsystem Power Off (Sequential Shutdown)" (INST 01-0160)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a><br><a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| RBEU00       | Bad LBA detected in START80H.DAT                                        | It was detected that the write LBA of the uploaded file was illegal.                                                                     | Simple Trace      | ① 1. Acquire the firmware from CD-R again.<br>2. Reinstall the firmware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                                                                                                                                                                                                                                                                                 |

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## Chapter 6. Warning Messages

### • Detail of the message code variable value

|   | Contents                   | Detailed contents                                                                                                                                                                                                                                       |
|---|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| z | Chassis type               | 1 : SMS100, 2 : DF800S, 3 : DF800M, 4 : DF800H, 5 : SMS110, 6 : DF800ES, 7 : DF800EM, 8 : DF800EH, 9 : DF800EXS, A : RKAK, B : RKAKX, z : Classification is impossible                                                                                  |
| a | Disk Drive type            | 1 : SAS 10,000 rpm, 2 : SAS 15,000 rpm, 3 : SATA 7,200 rpm, 4 : SATA 10,000 rpm, 5 : SSD N/A, z : Classification is impossible                                                                                                                          |
| b | Disk Drive model name code | SAS : 0 : AJH146, 1 : AJH300, 2 : AKF400, 3 : AJF400, 4 : AKH146, 5 : AKH300, 6 : ALF146, 7 : AKH600<br>SATA : H : AVE250, J : AVE500, K : AVE750, L : AVE025, M : AVE050, N : AVE075, P : AVE100, Q : AVE1K, R : AVE2K<br>SSD : E : AKS100, F : AKS200 |
| c | Disk Drive model name      | Character string : 0 to 8 characters                                                                                                                                                                                                                    |
| d | Cache type                 | 1 : 1 G byte, 2 : 2 G bytes, 4 : 4 G bytes                                                                                                                                                                                                              |
| e | ENC Unit type              | 0 : RKAK ENC Unit, 1 : SMS110 ENC Unit, 2 : RKAKX ENC Unit, Undetermined : Power-saving ENC Unit                                                                                                                                                        |
| f | Host Connector             | Fixed value: 0                                                                                                                                                                                                                                          |

| Message code                      | Message text      | Description                                                                                                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                    |
|-----------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W01z0x                            | CTL alarm (CTL-x) | The Control Unit was regressed (It had a failure or was not connected), or a failure was detected in the Control Unit of another system during the initial setting operation.<br>x : Control Unit # (0-1)<br>z : Chassis type (Refer to <a href="#">MSG 06-0000</a> for the detail) | CTL Alarm Trace   | <p>① When "I19000 Online micro-update completed" is displayed before this message, it shows that no Control Unit failure has occurred.</p> <p>② When the ALARM LED (red) is lit, take a recovery action according to in <a href="#">Troubleshooting "6.1.1 System Down"</a>.</p> <p>③ Take the recovery actions according to the messages listed in <a href="#">Troubleshooting "4.5 The Priority Error Messages when "CTL alarm" is Displayed"</a>.</p> <p>④ If only "H90210 CTL failure" is displayed besides this message, connect the Control Unit on which the ALM LED is illuminating to the Web, and follow the recovery instruction message displayed on the Web.</p> | <p>—</p> <p><a href="#">Troubleshooting "6.1.1 System Down" (TRBL 06-0020)</a></p> <p><a href="#">Troubleshooting "4.5 The Priority Error Messages when "CTL alarm" is Displayed" (TRBL 04-0180)</a></p> <p>—</p> |
| To be continued to the next page. |                   |                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                   |

| Message code | Message text                          | Description                                                                                                                                                  | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                        |
|--------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                       |                                                                                                                                                              |                   | ⑤ When the failures have occurred in both ENC Unit #0 and Control Unit #0 of Unit #0 connected to the RKH, replace ENC Unit #0. Moreover, when the failures have occurred in both ENC Unit #1 and Control Unit #1 of Unit #0 connected to the RKH, replace ENC Unit #1.<br>⑥ Replace the Control Unit whose ALM LED is on.<br>⑦ When the ALARM LED on the front of the Basic Chassis does not light up and the ALM LED on the Control Unit displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Control Unit. | <a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>— |
| W02000       | Other CTL removed                     | A shutdown occurred in MPU on the Control Unit of another system.                                                                                            | Simple Trace      | ① Replace the Control Unit whose ALM LED is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                              |
| W03z0x       | Battery alarm (Battery-x)             | An error occurred in the Cache Backup Battery.<br>x : Cache Backup Battery # (0-3)<br>z : Chassis type (Refer to <a href="#">MSG 06-0000</a> for the detail) | Simple Trace      | ① Perform the maintenance according to the recovery procedure of the message text "Battery error inf." displayed at the same time with the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                                                                                     |
| W0400x       | Battery back up circuit alarm (CTL-x) | The battery backup circuit failed.<br>x : Control Unit # (0-1)                                                                                               |                   | ① When any one of the following messages is displayed, follow the recovery procedure given by it.<br>• W03z0x Battery alarm<br>• W3Tzxy Additional Battery<br>② If only "W0400x Battery back up circuit alarm" is displayed, replace a Control Unit that has the number "x".                                                                                                                                                                                                                                                                                                                                | —<br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                         |



| Message code | Message text                | Description                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                        |
|--------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| W05z00       | FAN alarm (Unit-x, FAN-y)   | An error occurred in the Fan Assembly of the Basic Chassis or Additional Chassis.<br>x : Unit ID # (0-59)<br>y : FAN Unit # (0-1)<br>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)  |                   | ① Replace the FAN Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Replacement "2.2.3 Replacing FAN Unit" (REP 02-0350)</a>                                                                                  |
| W06z00       | FAN alarm (CTL-Unit, FAN-x) | The FAN Unit failed.<br>x : FAN Unit # (0-1)<br>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)                                                                                       |                   |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                       |
| W07zy0       | PS alarm (Unit-w, PS-x)     | An error occurred in the Power Unit.<br>w : Unit ID # (0-59)<br>x : Power Unit # (0-1)<br>y : 0 = AC Power Unit, 1 = DC Power Unit<br>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail) |                   | ① Replace the Power Unit displayed in the message.                                                                                                                                                                                                                                                                                                                                                               | <a href="#">Replacement "2.2.4 Replacing Power Unit" (REP 02-0390)</a>                                                                                |
| W08zy0       | PS alarm (CTL-Unit, PS-x)   | An error occurred in the Power Unit.<br>x : Power Unit # (0-1)<br>y : 0 = AC Power Unit, 1 = DC Power Unit<br>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)                         |                   | ① After checking that the Disk Drives in which the spin-up command was executed were all spun up, remove the inserted Power Unit from the chassis, and insert it again after 20 seconds or more passed. (*1)<br>② When one of the following messages is displayed at the same time, follow the recovery procedure given by the message.<br>• W05z00 FAN alarm<br>• W06z00 FAN alarm<br>③ Replace the Power Unit. | <a href="#">Replacement "2.2.4 Replacing Power Unit" (REP 02-0390)</a><br>—<br><a href="#">Replacement "2.2.4 Replacing Power Unit" (REP 02-0390)</a> |

\*1 : If the part was replaced at the time between the execution and the completion of the spin-up of the priced option, Power Saving (until "I1GZ00 The spin up of disk drives completed" is displayed for the RAID Group that "I1GY00 The request of spin up of disk drives is accepted" is displayed in "Information Message" on WEB), the part may not recover normally.

| Message code | Message text                            | Description                                                                                                                                                                                                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| W09zab       | HDU alarm (Unit-x, HDU-y, Type-c)       | The Disk Drive is blocked.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z : Chassis type (Refer to (MSG 06-0000) for the detail)<br>a : Disk Drive type (Refer to (MSG 06-0000) for the detail)<br>b : Disk Drive model name code (Refer to (MSG 06-0000) for the detail)<br>c : Disk Drive model name (Character string : 0 to 8 characters) | Simple Trace      | ① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message. <ul style="list-style-type: none"><li>• I30A00 HDU number which is installed in RKAKX exceeds the restriction</li><li>• I30B00 The SAS HDU is installed in the restricted HDU slot of in RKAKX</li><li>• I30C00 SAS HDU and SATA HDU cannot be installed in the same RKAKX</li></ul>                                                                                                                                                                                     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                                                                                                                                                                         |
| W0Azab       | SATA HDU alarm (Unit-x, HDU-y, Type-c)  | The Disk Drive is blocked.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z : Chassis type (Refer to (MSG 06-0000) for the detail)<br>a : Disk Drive type (Refer to (MSG 06-0000) for the detail)<br>b : Disk Drive model name code (Refer to (MSG 06-0000) for the detail)<br>c : Disk Drive model name (Character string : 0 to 8 characters) | Simple Trace      | ② Replace the Disk Drive. <sup>(*)</sup><br>When you want to know a model name of the Disk Drive or a revision of the drive firmware, refer to Replacement “1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive”.<br><br>③ 1. If not recovered, replace either of the following. <ul style="list-style-type: none"><li>• Replace the Control Unit when the blocked Disk Drive is installed in the RKS and RKM.</li><li>• Replace the ENC Unit when the blocked Disk Drive is installed in the Additional Chassis.</li></ul> Replace the following parts referring to the detected Control Unit # and detected core # of the underlined part of “07/29/2008 10:01:00 00 W09A3J HDU alarm ...” on the message.<br>#: Detect Controller #/<br>Detect Core # <table><tr><th>#</th><th>Replacement Part Locations</th></tr><tr><td>00</td><td>Control Unit #0</td></tr><tr><td>01</td><td>/ENC Unit #0</td></tr><tr><td>10</td><td>Control Unit #1</td></tr><tr><td>11</td><td>/ENC Unit #1</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | #              | Replacement Part Locations | 00 | Control Unit #0 | 01 | /ENC Unit #0 | 10 | Control Unit #1 | 11 | /ENC Unit #1 | Replacement “2.2.1 Replacing Disk Drive” (REP 02-0030)<br>Replacement “1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive” (REP 01-0110)<br><br>Replacement “2.2.5 Replacing Control Unit” (REP 02-0450)<br><br>Replacement “2.2.9 Replacing ENC Unit” (REP 02-1020) |
| #            | Replacement Part Locations              |                                                                                                                                                                                                                                                                                                                                                        |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                                                                                                                         |
| 00           | Control Unit #0                         |                                                                                                                                                                                                                                                                                                                                                        |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 01           | /ENC Unit #0                            |                                                                                                                                                                                                                                                                                                                                                        |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 10           | Control Unit #1                         |                                                                                                                                                                                                                                                                                                                                                        |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 11           | /ENC Unit #1                            |                                                                                                                                                                                                                                                                                                                                                        |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                                                                                                                         |
| W0Bzab       | Spare HDU alarm (Unit-x, HDU-y, Type-c) | The Spare Disk failed.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)<br>z : Chassis type (Refer to (MSG 06-0000) for the detail)<br>a : Disk Drive type (Refer to (MSG 06-0000) for the detail)<br>b : Disk Drive model name code (Refer to (MSG 06-0000) for the detail)<br>c : Disk Drive model name (Character string : 0 to 8 characters)     | Simple Trace      | 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|                |                            |    |                 |    |              |    |                 |    |              |                                                                                                                                                                                                                                                                                                  |

\*1 : The sequential shutdown may be failed if the Disk Drive is in the blocked status. Maintain the blocked Disk Drive before executing the sequential shutdown.

| Message code | Message text                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                                                                                            |
|--------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W0Czab       | SATA Spare HDU alarm (Unit-x, HDU-y, Type-c) | <p>The Spare Disk failed.</p> <p>x : Unit ID # (0-59)</p> <p>y : Disk Drive # (0-23)</p> <p>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)</p> <p>a : Disk Drive type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)</p> <p>b : Disk Drive model name code (Refer to <a href="#">(MSG 06-0000)</a> for the detail)</p> <p>c : Disk Drive model name (Character string : 0 to 8 characters)</p> | Simple Trace      | <p>2. Perform the dummy replacement <sup>(*)</sup> for the Disk Drive displayed in the message after replacing the Control Unit or ENC Unit.</p> <p>④ 1. If not recovered yet, replace the other Control Unit or ENC Unit.</p> <p>2. Perform the dummy replacement <sup>(*)</sup> for the Disk Drive displayed in the message.</p> | <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a></p> <p><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a></p> |

\*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.

| Message code | Message text                      | Description                                                                                                                                                                                                                              | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                                                                                                                                                                                                                                             |
|--------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W0D000       | HDU inquiry error (Unit-x, HDU-y) | An inquiry error occurred in a Disk Drive inserted with the power turned on.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                                                                          | Simple Trace      | ① Replace the Disk Drive. <sup>(*)1</sup><br>When you want to know a model name of the Disk Drive or a revision of the drive firmware, refer to <a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                  | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a><br><a href="#">Replacement "1.1.3 Procedure for Making Sure of Model Name and Drive Firmware of Disk Drive" (REP 01-0110)</a>                                                                                                       |
| W0E000       | LU alarm (LU-x)                   | LU was blocked.<br>x : LU # (0-4095)                                                                                                                                                                                                     | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation : Case 3 (LU Blockade)"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation : Case 3 (LU Blockade)" (TRBL 06-0740)</a>                                                                                                                                                                                         |
| W0Fze0       | ENC alarm (Unit-x, ENC-y)         | A failure occurred in the ENC Unit.<br>x : Unit ID # (1-59)<br>y : ENC Unit # (0-1)<br>z : Chassis type (Refer to <a href="#">MSG 06-0000</a> for the detail)<br>e : ENC Unit type (Refer to <a href="#">MSG 06-0000</a> for the detail) | Simple Trace      | ① 1. Check the wiring of the ENC cable connected to the ENC Unit displayed in the message, and wire the ENC cable correctly again.<br>2. Perform the dummy replacement <sup>(*)2</sup> of the ENC Unit displayed in the message.<br>② Replace the ENC Unit displayed in the message.<br>③ 1. If not recovered, replace the connection source of the ENC Unit (ENC Unit or Control Unit).<br>2. Perform the dummy replacement <sup>(*)2</sup> of the ENC Unit displayed in the message.<br>④ 1. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE. | —<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br>— |

To be continued to the next page.

\*1 : The sequential shutdown may be failed if the Disk Drive is in the blocked status. Maintain the blocked Disk Drive before executing the sequential shutdown.

\*2 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.

| Message code | Message text               | Description                                                                                                                                                                                                                 | Collect the error | Recovery methods                                                                                                                                                                                          | Reference page                                                                                                                                     |
|--------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                            |                                                                                                                                                                                                                             |                   | 2. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on).<br>3. Turn on the power of the subsystem.                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a><br><a href="#">Installation "1.5.1 Subsystem Power On" (INST 01-0140)</a> |
| W0Gze0       | SENC alarm (Unit-x, ENC-y) | The SENC Unit failed.<br>x : Unit ID # (0-59)<br>y : SENC Unit # (0-1)<br>z : Chassis type (Refer to <a href="#">MSG 06-0000</a> for the detail)<br>e : ENC Unit type (Refer to <a href="#">MSG 06-0000</a> for the detail) | Simple Trace      | ① When this message is displayed at the time of the subsystem startup, the ENC cable may also have a connection error. Check the cable connection.<br>② Replace the SENC unit pointed out in the message. | —<br><a href="#">Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)</a>                                                                          |

| Message code | Message text                  | Description                                                                                                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference page                                                                                                                                                      |
|--------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W0Hz0x       | UPS alarm (UPS-x)             | <p>Abnormality occurred in the UPS. Or it detected that the UPS interlock cable could not be connected to the UPS.</p> <p>x : UPS # (0-1)</p> <p>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)</p>                                                       |                   | <p>① When the interlock of the UPS is not used, check the setting of the rotary switch.</p> <ul style="list-style-type: none"> <li>• When the remote adaptor is used, the rotary switch is "2".</li> <li>• When the remote adaptor is not used, the rotary switch is "0".</li> </ul> <p>② Check if the UPS interlock cable is connected firmly to the Control Unit and the UPS. If it is connected loosely, connect the UPS interlock cable firmly.</p> <p>③ The take a recovery action referring to the UPS manual.</p> | <p><a href="#">Installation "1.6 (2) Setting the Rotary switch" (INST 01-0180)</a></p> <p>—</p> <p>—</p>                                                            |
| W0Jzcy       | CACHE alarm (CTL-x, CACHE-y)  | <p>A cache access error occurred. (unrecoverable)</p> <p>x : Control Unit #</p> <p>0 : Control Unit #0</p> <p>1 : Control Unit #1</p> <p>2 : Control Unit #0 and #1</p> <p>y : Cache Unit # (0-3)</p> <p>c : Cache type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)</p> | Simple Trace      | <p>① Replace the Cache Unit.</p> <p>② If not recovered, replace the above Control Unit.</p>                                                                                                                                                                                                                                                                                                                                                                                                                              | <p><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p>       |
| W0K0xy       | Path alarm (Remote-x, Path-y) | <p>A detachment of the path between the DF's occurred.</p> <p>x : Remote # (Array ID)</p> <p>y : Path # (0-7)</p>                                                                                                                                                                   |                   | <p>① Check whether the power supply of the remote subsystem as a pair turns on or not.</p> <p>Turn on if the power off.</p> <p>② Check whether the remote equipment is in the Ready status and the path blockage is recovered or not.</p> <p>③ If it has not recovered, refer to <a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function"</a>.</p>                                                                                               | <p>—</p> <p><a href="#">Troubleshooting "6.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 06-0820)</a></p> |

| Message code                      | Message text                            | Description                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference page                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W0L000                            | Unreadable PIN detected (Unit-x, HDU-y) | An unreadable PIN with a failed drive identified has occurred.<br>x : Unit ID # (0-59)<br>y : Disk Drive # (0-23)                                                             | Simple Trace      | ① When "H20100 Parity generation LA error" is displayed after this message and the ALARM LED (red) on the Front Bezel lights up, perform <a href="#">Troubleshooting "6.1.1 System Down"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Troubleshooting "6.1.1 System Down"</a> (TRBL 06-0020)                                                                                                                                                                                                                                                                                                                   |
| W0M000                            | Unreadable PIN detected (Unit-*, HDU-*) | An unreadable PIN without a failed drive identified has occurred.<br><br>* : This denotes that the failed drive, which caused the incomplete writing, could not be specified. | Simple Trace      | ② When "W3D00 Forced parity correction LU is detected" is displayed before this message and the forced parity correction is being executed, perform the maintenance according to <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> .<br>③ When the message code "H20100 Parity generation LA error" is displayed after this message, refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> .<br>④ When the message is displayed during the Disk Drive restoration and "I15300 Data recovery partial" is displayed after completing it, perform the maintenance according to <a href="#">Troubleshooting "6.1.7 The Power cannot be Turned Off : Case 4 (Cache Memory Failure)"</a> . | <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> (TRBL 06-0110)<br><a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> (TRBL 06-0720)<br><a href="#">Troubleshooting "6.1.7 The Power cannot be Turned Off : Case 4 (Cache Memory Failure)"</a> (TRBL 06-0620) |
| To be continued to the next page. |                                         |                                                                                                                                                                               |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                      |

| Message code | Message text                             | Description                                                                                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                                                                                                                                                                                                                          |
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|              |                                          |                                                                                                                                                                                                                                                      |                   | <p>⑤ When the message is displayed during the Disk Drive restoration and "115200 Data recovery failed" is displayed after completing it, perform the maintenance according to <a href="#">Troubleshooting "6.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)"</a>.</p> <p>⑥ When "I6D300 Unreadable PIN resisted" is displayed with this message at the same time, perform the maintenance according to the message.</p> <p>⑦ When a RAID level of the RAID group, one of whose components is the failed Disk Drive, is RAID 0, refer to <a href="#">Troubleshooting "6.1.14 A Failure Occurred during Operation: Case 4 (Incomplete Writing)"</a>.</p> | <p><a href="#">Troubleshooting "6.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)"</a> (TRBL 06-0640)</p> <p>—</p> <p><a href="#">Troubleshooting "6.1.14 A Failure Occurred during Operation: Case 4 (Incomplete Writing)"</a> (TRBL 06-0760).</p> |
| W0N00x       | Parity generation LA error [DRR] (CTL-x) | An LA error occurred during the parity generation. (DRR failure)<br>x : Control Unit # (0-1)                                                                                                                                                         | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> (TRBL 06-0720)                                                                                                                                                     |
| W0Pz0f       | Host connector alarm (Portxy)            | A trouble occurred in the Host Connector.<br>x : Control Unit # (0-1)<br>y : Port # (A-H)<br>z : Chassis type (Refer to <a href="#">MSG 06-0000</a> for the detail)<br>f : Host connector type (Refer to <a href="#">MSG 06-0000</a> for the detail) | Simple Trace      | ① Replace the Host Connector displayed in the message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">Replacement "2.2.8 Replacing Host Connector"</a> (REP 02-0950)                                                                                                                                                                                              |
| W0Q000       | LU alarm                                 | LU blockage occurred.                                                                                                                                                                                                                                | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation : Case 3 (LU Blockade)"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation : Case 3 (LU Blockade)"</a> (TRBL 06-0740)                                                                                                                                                      |



| Message code | Message text                                    | Description                                                                                                                                                            | Collect the error | Recovery methods                                                                                                                   | Reference page                                                                                                                       |
|--------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| W0R000       | User data lost (LU-x)                           | The user data were lost since the Cache memory was volatilized. (*1)<br>x : LU # (0-4095)                                                                              | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> . | <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> (TRBL 06-0110) |
| W0S000       | PS OFF failed [NO HDU]                          | The plan was not stopped since there was not a Disk Drive to save the information to be taken over.                                                                    | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.6 The Power cannot be Turned Off : Case 3 (Control Unit Failure)"</a> .                | <a href="#">Troubleshooting "6.1.6 The Power cannot be Turned Off : Case 3 (Control Unit Failure)"</a> (TRBL 06-0600)                |
| W0T000       | PS OFF failed [CACHE ERR]                       | The plan was not stopped since a cache failure occurred and the PIN data could not be saved.                                                                           | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.7 The Power cannot be Turned Off : Case 4 (Cache Memory Failure)"</a> .                | <a href="#">Troubleshooting "6.1.7 The Power cannot be Turned Off : Case 4 (Cache Memory Failure)"</a> (TRBL 06-0620)                |
| W0U0xy       | DMA error (DMA-y)                               | DMA failed.<br>x : 00 (DDR)<br>1y (DDMA)<br>2y (HDMA)<br>FF (unknown)<br>y : D-CTL LSI port # (0-7, F)                                                                 | Simple Trace      | ① Control Unit of the No. indicated by "Cx" (x: Control Unit #) in the log message.                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit"</a> (REP 02-0450)                                                             |
| W0V0xy       | LA error [errcode:LUN] (D_PT-00, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Drive Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> .                  | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> (TRBL 06-0720)                  |
| W0W0xy       | LA error [errcode:LUN] (D_PT-01, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Drive Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                                    |                                                                                                                                      |
| W0Y0xy       | LA error [errcode:LUN] (H_PT-00, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Host Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      |                                                                                                                                    |                                                                                                                                      |

\*1 : When "LU-0000" is displayed, the LU #0 data or the configuration information on the subsystem is lost.

Check the LU #0 status in the Hitachi Storage Navigator Modular 2, and if LU #0 has errors, follow the recovery methods ①. If it is normal, the recovery operation is not needed.

| Message code | Message text                                       | Description                                                                                                                                                            | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                         |
|--------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| W0Z0xy       | LA error<br>[errcode:LUN] (H PT-01, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Host Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a><br>(TRBL 06-0720) |
| W100xy       | LA error<br>[errcode:LBA] (D_PT-00, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Drive Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W120xy       | LA error<br>[errcode:LBA] (D_PT-01, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Drive Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W130xy       | LA error<br>[errcode:LBA] (H PT-00, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Host Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W140xy       | LA error<br>[errcode:LBA] (H PT-01, CTL-x, TRNS-y) | An LA error (including a LUN error) occurred in the Drive Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W150xy       | LA error<br>[errcode:LUN] (D_PT-02, CTL-x, TRNS-y) | A LUN error occurred in the Drive Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction                         | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W160xy       | LA error<br>[errcode:LUN] (D_PT-03, CTL-x, TRNS-y) | A LUN error occurred in the Drive Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction                         | Simple Trace      |                                                                                                                   |                                                                                                                        |

| Message code | Message text                                       | Description                                                                                                                                    | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                         |
|--------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| W170xy       | LA error<br>[errcode:LBA] (D_PT-02, CTL-x, TRNS-y) | A LBA error occurred in the Drive Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a><br>(TRBL 06-0720) |
| W180xy       | LA error<br>[errcode:LBA] (D_PT-03, CTL-x, TRNS-y) | A LBA error occurred in the Drive Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W190xy       | LA error<br>[errcode:LUN] (H_PT-02, CTL-x, TRNS-y) | A LUN error occurred in the Host Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1A0xy       | LA error<br>[errcode:LUN] (H_PT-03, CTL-x, TRNS-y) | A LUN error occurred in the Host Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1B0xy       | LA error<br>[errcode:LBA] (H_PT-02, CTL-x, TRNS-y) | A LBA error occurred in the Host Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1C0xy       | LA error<br>[errcode:LBA] (H_PT-03, CTL-x, TRNS-y) | A LBA error occurred in the Host Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction  | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1D0xy       | LRC error (D_PT-00, CTL-x, TRNS-y)                 | A LRC error occurred in the Drive Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1E0xy       | LRC error (D_PT-01, CTL-x, TRNS-y)                 | A LRC error occurred in the Drive Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |

| Message code | Message text                                              | Description                                                                                                                                        | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                         |
|--------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| W1F0xy       | LRC error (D_PT-02, CTL-x, TRNS-y)                        | A LRC error occurred in the Drive Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction     | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a><br>(TRBL 06-0720) |
| W1G0xy       | LRC error (D_PT-03, CTL-x, TRNS-y)                        | A LRC error occurred in the Drive Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction     | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1H0xy       | LRC error (H_PT-02, CTL-x, TRNS-y)                        | A LRC error occurred in the Host Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1J0xy       | LRC error (H_PT-03, CTL-x, TRNS-y)                        | A LRC error occurred in the Host Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1K00x       | Data transfer check error [SEGPOSERR] (CTL-x)             | (Data assurance check)<br>An illegal cache writing segment position was detected.<br>x : Control Unit # (0-1)                                      | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1L000       | EDC LA error [error code : LUN] (H_PT-00, CTL-x, TRANS-y) | An EDC_LUN error occurred in the Host Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1M000       | EDC LA error [error code : LUN] (H_PT-01, CTL-x, TRANS-y) | An EDC_LUN error occurred in the Host Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W1N000       | EDC LA error [error code : LUN] (H_PT-02, CTL-x, TRANS-y) | An EDC_LUN error occurred in the Host Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |

| Message code | Message text                                              | Description                                                                                                                                        | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                      |
|--------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| W1P000       | EDC LA error [error code : LUN] (H_PT-03, CTL-x, TRANS-y) | An EDC_LUN error occurred in the Host Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)</a> |
| W1Q000       | EDC LA error [error code : LBA] (H_PT-00, CTL-x, TRANS-y) | An EDC_LBA error occurred in the Host Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W1R000       | EDC LA error [error code : LBA] (H_PT-01, CTL-x, TRANS-y) | An EDC_LBA error occurred in the Host Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W1S000       | EDC LA error [error code : LBA] (H_PT-02, CTL-x, TRANS-y) | An EDC_LBA error occurred in the Host Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W1T000       | EDC LA error [error code : LBA] (H_PT-03, CTL-x, TRANS-y) | An EDC_LBA error occurred in the Host Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W1U000       | EDC LA error [error code : CRC] (H_PT-00, CTL-x, TRANS-y) | An EDC_CRC error occurred in the Host Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W1V0xy       | LRC error (H_PT-00, CTL-x, TRNS-y)                        | A LRC error occurred in the Host Port #00.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W1W0xy       | LRC error (H_PT-01, CTL-x, TRNS-y)                        | A LRC error occurred in the Host Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                     |

| Message code | Message text                                              | Description                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                      |
|--------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| W1Y000       | EDC LA error [error code : CRC] (H_PT-01, CTL-x, TRANS-y) | An EDC_CRC error occurred in the Host Port #01.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction                                | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)</a> |
| W1Z000       | EDC LA error [error code : CRC] (H_PT-02, CTL-x, TRANS-y) | An EDC_CRC error occurred in the Host Port #02.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction                                | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W20000       | EDC LA error [error code : CRC] (H_PT-03, CTL-x, TRANS-y) | An EDC_CRC error occurred in the Host Port #03.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction                                | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W230xy       | LA error [errcode:LUN] (D_PT-05, CTL-x, TRNS-y)           | [D-DMA Transfer Failure] An LUN error was detected in D-PORT #05 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W240xy       | LA error [errcode:LUN] (D_PT-06, CTL-x, TRNS-y)           | [D-DMA Transfer Failure] An LUN error was detected in D-PORT #06 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W250xy       | LA error [errcode:LUN] (D_PT-07, CTL-x, TRNS-y)           | [D-DMA Transfer Failure] An LUN error was detected in D-PORT #07 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W260xy       | LA error [errcode:LBA] (D_PT-04, CTL-x, TRNS-y)           | [D-DMA Transfer Failure] An LBA error was detected in D-PORT #04 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |

| Message code | Message text                                       | Description                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                         |
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| W270xy       | LA error<br>[errcode:LBA] (D_PT-05, CTL-x, TRNS-y) | [D-DMA Transfer Failure] An LBA error was detected in D-PORT #05 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a><br>(TRBL 06-0720) |
| W280xy       | LA error<br>[errcode:LBA] (D_PT-06, CTL-x, TRNS-y) | [D-DMA Transfer Failure] An LBA error was detected in D-PORT #06 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W290xy       | LA error<br>[errcode:LBA] (D_PT-07, CTL-x, TRNS-y) | [D-DMA Transfer Failure] An LBA error was detected in D-PORT #07 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2A0xy       | LRC error (D_PT-04, CTL-x, TRNS-y)                 | [D-DMA Transfer Failure] An LRC error was detected in D-PORT #04 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2B0xy       | LRC error (D_PT-05, CTL-x, TRNS-y)                 | [D-DMA Transfer Failure] An LRC error was detected in D-PORT #05 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2C0xy       | LRC error (D_PT-06, CTL-x, TRNS-y)                 | [D-DMA Transfer Failure] An LRC error was detected in D-PORT #06 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2D0xy       | LRC error (D_PT-07, CTL-x, TRNS-y)                 | [D-DMA Transfer Failure] An LRC error was detected in D-PORT #07 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |

| Message code | Message text                                       | Description                                                                                                                               | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                         |
|--------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| W2E0xy       | LA error<br>[errcode:LUN] (H_PT-04, CTL-x, TRNS-y) | A LUN error occurred in host port #04.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a><br>(TRBL 06-0720) |
| W2F0xy       | LA error<br>[errcode:LUN] (H_PT-05, CTL-x, TRNS-y) | A LUN error occurred in host port #05.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2G0xy       | LA error<br>[errcode:LUN] (H_PT-06, CTL-x, TRNS-y) | A LUN error occurred in host port #06.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2H0xy       | LA error<br>[errcode:LUN] (H_PT-07, CTL-x, TRNS-y) | A LUN error occurred in host port #07.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2J0xy       | LA error<br>[errcode:LBA] (H_PT-04, CTL-x, TRNS-y) | A LBA error occurred in host port #04.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2K0xy       | LA error<br>[errcode:LBA] (H_PT-05, CTL-x, TRNS-y) | A LBA error occurred in host port #05.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2L0xy       | LA error<br>[errcode:LBA] (H_PT-06, CTL-x, TRNS-y) | A LBA error occurred in host port #06.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2M0xy       | LA error<br>[errcode:LBA] (H_PT-07, CTL-x, TRNS-y) | A LBA error occurred in host port #07.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |



| Message code | Message text                                            | Description                                                                                                                                    | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                         |
|--------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| W2N0xy       | LRC error (H_PT-04, CTL-x, TRNS-y)                      | A LRC error occurred in host port #04.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a><br>(TRBL 06-0720) |
| W2P0xy       | LRC error (H_PT-05, CTL-x, TRNS-y)                      | A LRC error occurred in host port #05.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2Q0xy       | LRC error (H_PT-06, CTL-x, TRNS-y)                      | A LRC error occurred in host port #06.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2R0xy       | LRC error (H_PT-07, CTL-x, TRNS-y)                      | A LRC error occurred in host port #07.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction      | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2S000       | EDC LA error [error code:LUN] (H_PT-04, CTL-x, TRANS-y) | An EDC_LUN error occurred in host port #04.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2T000       | EDC LA error [error code:LUN] (H_PT-05, CTL-x, TRANS-y) | An EDC_LUN error occurred in host port #05.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2U000       | EDC LA error [error code:LUN] (H_PT-06, CTL-x, TRANS-y) | An EDC_LUN error occurred in host port #06.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |
| W2V000       | EDC LA error [error code:LUN] (H_PT-07, CTL-x, TRANS-y) | An EDC_LUN error occurred in host port #07.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                        |

| Message code | Message text                                            | Description                                                                                                                                    | Collect the error | Recovery methods                                                                                                  | Reference page                                                                                                      |
|--------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| W2W000       | EDC LA error [error code:LBA] (H_PT-04, CTL-x, TRANS-y) | An EDC_LBA error occurred in host port #04.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> . | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)</a> |
| W2Y000       | EDC LA error [error code:LBA] (H_PT-05, CTL-x, TRANS-y) | An EDC_LBA error occurred in host port #05.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W2Z000       | EDC LA error [error code:LBA] (H_PT-06, CTL-x, TRANS-y) | An EDC_LBA error occurred in host port #06.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W30000       | EDC LA error [error code:LBA] (H_PT-07, CTL-x, TRANS-y) | An EDC_LBA error occurred in host port #07.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W31000       | EDC LA error [error code:CRC] (H_PT-04, CTL-x, TRANS-y) | An EDC_CRC error occurred in host port #04.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W32000       | EDC LA error [error code:CRC] (H_PT-05, CTL-x, TRANS-y) | An EDC_CRC error occurred in host port #05.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W34000       | EDC LA error [error code:CRC] (H_PT-06, CTL-x, TRANS-y) | An EDC_CRC error occurred in host port #06.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |
| W35000       | EDC LA error [error code:CRC] (H_PT-07, CTL-x, TRANS-y) | An EDC_CRC error occurred in host port #07.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction | Simple Trace      |                                                                                                                   |                                                                                                                     |

| Message code | Message text                          | Description                                                                                                                                                                                                                                                                                         | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                    |
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| W36000       | PIN write error                       | PIN data were not saved in the Disk Drive since a hardware error occurred.                                                                                                                                                                                                                          | Simple Trace      | ① Perform the maintenance according to Troubleshooting "6.1.5 The Power cannot be Turned Off : Case 2 (Hardware Failure)".                                                                                                                                                                                                                                                                                                                                                                                                                                    | <a href="#">Troubleshooting "6.1.5 The Power cannot be Turned Off : Case 2 (Hardware Failure)" (TRBL 06-0580)</a> |
| W3800x       | SNMP invalid (CTL-x) [Config]         | There is not SNMP information but SNMP information has not been introduced. The SNMP function has not started up.<br>x : Control Unit # (0-1)                                                                                                                                                       |                   | ① Install the information for SNMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | —                                                                                                                 |
| W390xy       | Permanent LU warning (CTL-x, ERR-y)   | Residence OFF warning occurred in the LU residence mode.<br>x : Default Control Unit # (0-1)<br>y : Factor code<br>0 : Too large LU<br>1 : Cache access error<br>2 : Regression of Control Unit<br>3 : Abnormal battery voltage<br>4 : Abnormal battery charging circuit                            | Simple Trace      | ① y=0 : Return the configuration of Cache memory. (Add cache memory.)<br>y=1 : Perform maintenance described in message code "W0Jzcy CACHE alarm".<br>To resume the LU cache resident function after recovering from a cache failure, turn off and then on an array unit.<br>y=2 : Perform maintenance described in message code "W01z0x CTL alarm".<br>y=3 : Perform maintenance described in message code "W03z0x Battery alarm" and "W3Tzxy Battery alarm".<br>y=4 : Perform maintenance described in message code "W0400x Battery back up circuit alarm". | —                                                                                                                 |
| W3A00x       | Online micro-update executing (CTL-x) | The firmware of a Control Unit has not been replaced with the power turned on.<br>x : Control Unit # (0-1)<br>This message is indicated to warn that firmware of a Control Unit is being replaced with the power turned on.<br>If replacement of the firmware is finished, this warning disappears. |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                                                                                 |

| Message code | Message text                                          | Description                                                                                                                                                                   | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                                                                       |
|--------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| W3B00x       | Online micro-update started (CTL-x)                   | The Control Unit was blocked falsely to replace the firmware with the power turned on, or the Control Unit of another system was blocked falsely.<br>x : Control Unit # (0-1) |                   | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —                                                                                                                                    |
| W3C00x       | Serial number error [WWN] (CTL-x)                     | WWW could not be set since the serial number of the subsystem was set incorrectly.<br>x : Control Unit # (0-1)                                                                |                   | ① Check if the serial number of the subsystem is set correctly.                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">System Parameter "4.2 Configuration Settings" (SYSPR 04-0020)</a>                                                        |
| W3D000       | Forced parity correction LU is detected               | An LU, which required the forced parity correction, was detected.                                                                                                             |                   | ① Refer to <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> .                                                                                                                                                                                                                                                                                                                                              | <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 06-0110)</a> |
| W3E000       | Uncorrectable forced parity correction LU is detected | An LU, the forced restoration for which by means of parity could not be continued, was detected.                                                                              |                   | ① Check the LU information using the Hitachi Storage Navigator Modular 2.<br>② Have the LU, the forced restoration for which by means of parity cannot be continued, skip the restoration by issuing an instruction to skip the restoration using the Hitachi Storage Navigator Modular 2. <sup>(*)</sup><br>The warning is removed after all the LUs, the forced restoration for which by means of parity cannot be continued, receive an instruction to skip the restoration. | —                                                                                                                                    |

\*1 : When there is an LU which is not executing the forced parity correction, the dynamic sparing is suppressed and the data recovery is always executed by the correction copy. Also, the copy back from the Spare Disk Drive does not operate. In this case, perform the "Skip" instruction for all the LUs that the LU status is "Uncorrected 2" after the data recovery to the Spare Disk Drive. The dynamic sparing and the copy back can be executed now by this operation.

| Message code | Message text                                                        | Description                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                      | Reference page                                                                                                                                                                                                                                 |
|--------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W3F000       | Forced parity correction LU is detected by HDU alarm                | Drive detachment occurred in a RAID group whose RAID level was 6 and an LU, which was in the forced parity correction status of Unrestored 1, was detected.                                       |                   | <p>① Refer to <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a>.</p> <p>② Select whether to execute the forced parity correction or skip it after any of the following messages was displayed.</p> <ul style="list-style-type: none"> <li>• I007ab HDU recovered</li> <li>• I009ab Spare HDU recovered</li> </ul> | <p><a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 06-0110)</a></p> <p><a href="#">Troubleshooting "6.1.3 &lt; Procedure given in windows &gt;" (TRBL 06-0320)</a></p> |
| W3G000       | PIN is over directory threshold [write through] (DIR-x)             | The number of pinned sub-segments in the directory (that is, unit of cache domain management) exceeded the threshold value of performing the write through operation.<br>x : Directory # (0 or 1) | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)"</a> .                                                                                                                                                                                                                                                                         | <p><a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 06-0690)</a></p>                                                                                                                         |
| W3H000       | PIN is over directory threshold [write will not run] (DIR-x)        | The number of PIN sub-segments in the directory (unit of the Cache area management) exceeded the threshold for the check condition to respond to the write command.<br>x : Directory # (0 or 1)   | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
| W3J000       | PIN is over partition threshold [write through] (DIR-x, PTT-y)      | The number of pinned sub-segments in the partition exceeded the threshold value of performing the write through operation.<br>x : Directory # (0 or 1)<br>y : Partition # (0-31)                  | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
| W3K000       | PIN is over partition threshold [write will not run] (DIR-x, PTT-y) | The number of PIN sub-segments in the partition exceeded the threshold for the check condition to respond to the write command.<br>x : Directory # (0 or 1)<br>y : Partition # (0-31)             | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
| W3L000       | PIN is over RAID group threshold [write through] (DIR-x, RG-y)      | The number of pinned sub-segments in the RAID group exceeded the threshold value of performing the write through operation.<br>x : Directory # (0 or 1)<br>y : RAID group # (0-99)                | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |

| Message code | Message text                                                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                       |
|--------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| W3M000       | PIN is over RAID group threshold [write will not run] (DIR-x, RG-y) | The number of PIN sub-segments in the RAID group exceeded the threshold to execute the write command.<br>x : Directory # (0 or 1)<br>y : RAID group # (0-99)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)"</a> .                                                                                                                                                                                                                                                                             | <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)"</a> (TRBL 06-0690)                      |
| W3N000       | DM-LU write disable (LU-x)                                          | Write to DM-LU disabled was detected.<br>x : LU # (0-4095)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Simple Trace      | ① 1. Replace the detached Disk Drive pointed out in the message, "HDU alarm" referring to <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> (TRBL 06-0110)                                                                                                                                                            | <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a> (TRBL 06-0110) |
| W3P000       | All DM-LU write disabled                                            | The planned shutdown became unable to be executed because it was detected that the write to all the DM-LUs was impossible and the following one or more conditions were satisfied. <ul style="list-style-type: none"> <li>• A pair that the pair status of ShadowImage in-system replication is COPY or PSUS exists.</li> <li>• A pair that the pair status of TrueCopy remote replication is COPY, PSUS or PSUE exists.</li> <li>• The key of Copy-on-write SnapShot is enabled.</li> <li>• The key of TrueCopy Extended Distance is enabled.</li> <li>• A pair that the pair status of Modular Volume Migration is COPY or PSUS exists.</li> </ul> | Simple Trace      | 2. Format DM-LU.                                                                                                                                                                                                                                                                                                                                                                          | Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)                                                                               |
| W3Q00x       | SNMP error occurred in the SNMP function (CTL-x)                    | The SNMP function detected an error.<br>x : Control Unit # (0-1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Simple Trace      | ① Do maintenance work following the message displayed after this message. <ul style="list-style-type: none"> <li>• IB1200 SNMP Task error</li> <li>• IB1300 SNMP configuration</li> <li>• IB1400 SNMP agent detected the error</li> <li>• IB1500 SNMP IP address error</li> <li>• IB1600 SNMP Initialization error</li> <li>• IB1700 SNMP RAM Device allocation error for SNMP</li> </ul> | —                                                                                                                                    |

| Message code | Message text                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                       | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                    | Reference page                                                                                                                                                                                                                                                                                           |
|--------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W3Rxyz       | Interface Board alarm (CTL-w, I/F-z)                       | A hardware failure of the Interface Board was detected.<br>x : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)<br>y : Type of Interface Board (Fibre (4G-2Port) : 0, Fibre (4G-4Port) : 1, iSCSI (1G-2Port) : 2, Fibre (8G-4Port) : 3, Unmount : F)<br>z : Slot of Interface Board # (0-1)<br>w : Control Unit # (0-1)                                                                       | CTL Alarm Trace   | <p>① Check if the type of the Interface Board displayed in the message is unsupported.</p> <p>② If it is unsupported, upgrade the version of the firmware to 0843/C or 0846/A or more.</p> <p>③ Replace the Interface Board displayed in the message.</p> <p>④ If not recovered, replace the Control Unit displayed in the message code "W01z0x CTL alarm" which was output at the same time with this message.</p> | <p>—</p> <p><a href="#">WEB "3.3.4 Installation Procedure" (WEB 03-0350)</a><br/>However, be careful about the offline procedure.</p> <p><a href="#">Replacement "2.2.7 Replacing Interface Board" (REP 02-0800)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> |
| W3S0xy       | LA error [errcode:LUN] (D_PT-04, CTL-x, TRNS-y)            | [D-DMA Transfer Failure] An LUN error was detected in D-PORT #04 of D-CTL LSI.<br>x : Control Unit # (0-1)<br>y : Transfer direction<br>R : Read direction<br>W : Write direction                                                                                                                                                                                                                                 | Simple Trace      | ① Refer to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)"</a> .                                                                                                                                                                                                                                                                                                   | <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 06-0720)</a>                                                                                                                                                                                      |
| W3Tzxy       | Battery alarm (Additional Battery-y)                       | An error occurred in the Additional Backup Box.<br>x : Additional Battery type (0 = AC, 1 = DC)<br>y : Additional Backup Box # (0-1)<br>z : Chassis type (Refer to <a href="#">(MSG 06-0000)</a> for the detail)                                                                                                                                                                                                  | Simple Trace      | ① Perform the maintenance according to the recovery procedure of the message text "Battery error inf." displayed at the same time with the message.                                                                                                                                                                                                                                                                 | —                                                                                                                                                                                                                                                                                                        |
| W3V000       | PIN is over pool threshold [write through] (DIR-x, Pool-y) | The number of PINs of the DP pool exceeded the threshold value of the write through. The write command for the LUs belonging to the DP pool displayed in the message is processed by the write through mode until the number of PINs recovers in less than the threshold value of the subsystem. Therefore, the write performance for these LUs is deteriorated.<br>x : Directory # (0 or 1)<br>y : Pool # (0-63) | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)"</a> .                                                                                                                                                                                                                                                                           | <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 06-0690)</a>                                                                                                                                                                                          |

| Message code                      | Message text                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page                                                                                                                                                         |
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| W3W000                            | PIN is over pool threshold [write will not run] (DIR-x, Pool-y)                      | <p>The number of PINs of the DP pool exceeded the threshold value of the check response to the host.</p> <p>For all the write commands for the LUs belonging to the DP pool displayed in the message, the check condition status is returned to the host computer until the number of PINs recovers in less than the threshold value of the subsystem. Therefore, the write commands for these LUs are not executed.</p> <p>x : Directory # (0 or 1)<br/>y : Pool # (0-63)</p> | Simple Trace      | ① Perform the maintenance according to <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 06-0690)</a>                                                        |
| W3X000                            | Please replace cache memory to recover from cache correctable error (CTL-x, CACHE-y) | <p>The number of detected correctable errors of the Cache memory exceeded the threshold value by the automatic diagnosis of the Cache memory online.</p> <p>x : Control Unit # (0-1)<br/>y : Cache Unit # (0-3)</p>                                                                                                                                                                                                                                                            | Simple Trace      | <p>① When the ALM LED on the Control Unit displayed in the message lights up, replace the Cache Unit displayed in the message.</p> <p>② When the ALM LED on the Control Unit displayed in the message goes out and the ALM LED on the other Control Unit lights up in the dual controller system</p> <p>1. Perform the maintenance of the Control Unit whose ALM LED lights up referring to the Information Message on WEB.</p> <p>2. Ask the customer/SE to allow the preventive replacement of the Cache Unit because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, tell the customer/SE about stopping the host I/O in advance due to blocking the Control Unit in which the Cache Unit is installed, and request him/her to consider the replacement date.</p> | <p><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a></p> <p><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a></p> <p>—</p> |
| To be continued to the next page. |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                        |



| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                            | Reference page                                                         |
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|              |              |             |                   | 3. Replace the Cache Unit displayed in the message according to "(1) Procedure for replacement with the power turned on".                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
|              |              |             |                   | ③ When the ALM LEDs on both Control Units go out, but the message is only displayed for one Control Unit in the dual controller system                                                                                                                                                                                                                                      |                                                                        |
|              |              |             |                   | 1. Ask the customer/SE to allow the preventive replacement of the Cache Unit because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, tell the customer/SE about stopping the host I/O in advance due to blocking the Control Unit in which the Cache Unit is installed, and request him/her to consider the replacement date. | —                                                                      |
|              |              |             |                   | 2. Replace the Cache Unit displayed in the message according to "(1) Procedure for replacement with the power turned on".                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a> |
|              |              |             |                   | To be continued to the next page.                                                                                                                                                                                                                                                                                                                                           |                                                                        |

| Message code                      | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference page                                                                                  |
|-----------------------------------|--------------|-------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                   |              |             |                   | <p>④ When the ALM LEDs on both Control Units go out and the message is displayed for both Control Unit #0 and Control Unit #1 in the dual controller system</p> <p>1. Ask the customer/SE to allow the preventive replacement of the Cache Unit because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, tell the customer/SE about stopping the host I/O in advance due to blocking the Control Unit in which the Cache Unit is installed, and request him/her to consider the replacement date.</p> <p>2. Confirm the customer/SE from which Control Unit of Control Unit #0 and Control Unit #1 he/she replaces the Cache Unit.</p> <p>3. Replace the Cache Unit displayed in the message for the Control Unit confirmed in the procedure ④-2 according to "(1) Procedure for replacement with the power turned on".</p> <p>4. Replace the Cache Unit displayed in the message for the other Control Unit according to "(1) Procedure for replacement with the power turned on".</p> | <p>—</p> <p>—</p> <p><a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a></p> |
| To be continued to the next page. |              |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                         |
|--------------|--------------|-------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
|              |              |             |                   | <p>⑤ In case of the single controller system</p> <p>1. Ask the customer/SE to allow the preventive replacement of the Cache Unit because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, since the subsystem needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date.</p> <p>2. Replace the Cache Unit displayed in the message for the other Control Unit according to “(2) Procedure for replacement with the power turned off”.</p> | <p>—</p> <p><a href="#">Replacement “2.2.6 Replacing Cache Unit” (REP 02-0640)</a></p> |

| Message code                      | Message text                                                                           | Description                                                                                                                                                          | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                             | Reference page                                                           |
|-----------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| W3Y000                            | Please replace cache memory to recover from cache uncorrectable error (CTL-x, CACHE-y) | An uncorrectable error of the Cache memory was detected by the automatic diagnosis of the Cache memory online.<br>x : Control Unit # (0-1)<br>y : Cache Unit # (0-3) | Simple Trace      | ① When the ALM LED on the Control Unit displayed in the message lights up, replace the Cache Unit displayed in the message.                                                                                                                                                                                                  | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
|                                   |                                                                                        |                                                                                                                                                                      |                   | ② When the ALM LED on the Control Unit displayed in the message goes out and the ALM LED on the other Control Unit lights up in the dual controller system                                                                                                                                                                   |                                                                          |
|                                   |                                                                                        |                                                                                                                                                                      |                   | 1. Perform the maintenance of the Control Unit whose ALM LED lights up referring to the Information Message on WEB.                                                                                                                                                                                                          | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
|                                   |                                                                                        |                                                                                                                                                                      |                   | 2. Ask the customer/SE to allow the preventive replacement of the Cache Unit because uncorrectable errors of the Cache memory have occurred.<br>Moreover, since the subsystem needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date. | —                                                                        |
|                                   |                                                                                        |                                                                                                                                                                      |                   | 3. Replace the Cache Unit displayed in the message according to "(1) Procedure for replacement with the power turned on".                                                                                                                                                                                                    | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>   |
| To be continued to the next page. |                                                                                        |                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                              |                                                                          |

| Message code | Message text | Description | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference page                                                                                                              |
|--------------|--------------|-------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|              |              |             |                   | <p>③ When the message is displayed for both Control Unit #0 and Control Unit #1 in the dual controller system</p> <p>1. Ask the customer/SE to allow the preventive replacement of the Cache Unit because uncorrectable errors of the Cache memory have occurred. Moreover, since the subsystem needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date.</p> <p>2. Replace the Cache Unit displayed in the message for the other Control Unit according to "(2) Procedure for replacement with the power turned off".</p> | —                                                                                                                           |
|              |              |             |                   | <p>④ In case of the single controller system</p> <p>1. Ask the customer/SE to allow the preventive replacement of the Cache Unit because uncorrectable errors of the Cache memory have occurred. Moreover, since the subsystem needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date.</p> <p>2. Replace the Cache Unit displayed in the message for the other Control Unit according to "(2) Procedure for replacement with the power turned off".</p>                                                                  | <p>Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</p> <p>Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</p> |

| Message code | Message text                                                                          | Description                                                                                               | Collect the error | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                                               |
|--------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W3Z000       | The count of search for failure part in backend route was over the threshold (Path-x) | The search count of the failed part in the backend path exceeded the threshold value.<br>x : Path # (0-7) | Simple Trace      | ① 1. Collect a simple trace.<br>2. Contact the Technical Support Center, and send the collected simple trace.<br>3. The Technical Support Center is required to specify the failed part by analyzing the simple trace.<br>4. Replace the alleged failed part reported by the Technical Support Center.<br>5. Collect the simple trace at the time 30 minutes passed after replacing the part, and send to the Technical Support Center.<br>6. The Technical Support Center needs to check that no failure has occurred and the device is normal by analyzing the simple trace. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a><br>—<br>—<br><a href="#">Replacement "Chapter 2. Parts Replacement" (REP 02-0000)</a><br>—<br>— |
| W43000       | SNMP invalid [RAM Device MAKE ERR]                                                    | When SNMP was initialized, making of a RAM device failed.                                                 | Simple Trace      | ① Control Unit of the No. indicated by "Cx" (x: Control Unit #) in the log message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                     |
| W43100       | SNMP invalid [RAM Device INIT ERR]                                                    | When SNMP was initialized, initialization of a RAM device failed.                                         | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                              |
| W43200       | SNMP invalid [RAM Device CREATE ERR]                                                  | When SNMP was initialized, generation of a RAM device failed.                                             | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                              |
| W43300       | SNMP invalid [RAM Device WRITE ERR]                                                   | When SNMP was initialized, writing in a RAM device failed.                                                | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                              |
| W43400       | SNMP failure [APL ERR]                                                                | An application error of SNMP was detected.                                                                | Simple Trace      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                              |

## Chapter 7. Web Error Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

### 7.1 Web Error Messages (Uploading Function)

| Message code | Message text                                                                                                                                                              | Description                                                                                                                                      | Recovery methods                                                                                                                                                                                     | Reference page                                                         |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| -            | Abnormal End<br>AT xxxx *****<br>Upload System Error                                                                                                                      | The number of areas is other than either of one and two.                                                                                         | ① Make sure of the system to be installed and execute the installation again. (The START800.DAT is illegal.)                                                                                         | Firmware “Chapter 1. Installation of Firmware” (FIRM 01-0000)          |
| -            | Abnormal End<br>Bad Block ID                                                                                                                                              | The block ID is illegal.                                                                                                                         | ① Make sure of the system to be installed and execute the installation again.                                                                                                                        |                                                                        |
| -            | Abnormal End<br>Bad LBA In START80A.DAT<br>0x***** xxxx                                                                                                                   | LBA is abnormal at the storage destination by the illegal content of “START80A.DAT”.                                                             | ① Check the upload system, and install it again. (START80A.DAT may have been broken).                                                                                                                |                                                                        |
| -            | Abnormal End<br>Bad LBA In START80H.DAT<br>0x***** xxxx                                                                                                                   | LBA is abnormal at the storage destination by the illegal content of “START80H.DAT”.                                                             | ① Check the upload system, and install it again. (START80H.DAT may have been broken).                                                                                                                |                                                                        |
| -            | Abnormal End<br>Bad LBA In START80M.DAT<br>0x***** xxxx                                                                                                                   | LBA is abnormal at the storage destination by the illegal content of “START80M.DAT”.                                                             | ① Check the upload system, and install it again. (START80M.DAT may have been broken).                                                                                                                |                                                                        |
| -            | Abnormal End<br>Bad LBA In START80S.DAT<br>0x***** xxxx                                                                                                                   | LBA is abnormal at the storage destination by the illegal content of “START80S.DAT”.                                                             | ① Check the upload system, and install it again. (START80S.DAT may have been broken).                                                                                                                |                                                                        |
| -            | Abnormal End<br>Bad LBA In START80X.DAT<br>0x***** xxxx                                                                                                                   | LBA is abnormal at the storage destination by the illegal content of “START80X.DAT”.                                                             | ① Check the upload system, and install it again. (START80X.DAT may have been broken).                                                                                                                |                                                                        |
| -            | Abnormal End<br>Config Clear Restart Error<br>by LU Access Restriction                                                                                                    | Config clear restart failed due to the LU access restriction.                                                                                    | ① Config clear restart cannot be done. Select Take Over from Configuration Clear Mode and restart.                                                                                                   | —                                                                      |
| -            | Abnormal End<br>Downgrade Failed (The<br>Installed Microprogram is<br>Incorrect)<br>Uploaded Microprogram<br>Revision:XXXX/X<br>Installed Microprogram<br>Revision:XXXX/X | The downgrade in the DF800M/H chassis failed.                                                                                                    | ① Install the DF800S/M firmware whose system revision is the same as that of the firmware in the Disk Drive.                                                                                         | Firmware “Chapter 1. Installation of Firmware” (FIRM 01-0000)          |
| -            | Abnormal End<br>Down Grade Check NG                                                                                                                                       | Although the version down of the firmware was attempted, the update installation terminated abnormally because Down Grade Check was not Disable. | ① Change the setting of the downgrade check to Disable, and then updating installation of the firmware again.                                                                                        | WEB “3.3 Setup” (WEB 03-0270)                                          |
| -            | Abnormal End<br>Down Grade Install NG<br>(FLASH Program Revision<br>Mismatch)                                                                                             | The downgrade installation of the firmware cannot be performed because the FLASH firmware versions are not matched between the Control Units.    | ① Click [Go to Normal Mode] of the menu frame in the WEB window, and start the subsystem.<br>② Check that the subsystem becomes Ready, and execute the downgrade installation of the firmware again. | —<br><br>Firmware “Chapter 1. Installation of Firmware” (FIRM 01-0000) |

| Message code | Message text                                                                                   | Description                                                                                                                                                                                                                                  | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -            | Abnormal End<br>Down Grade Install NG<br>(Going to Maintenance Mode<br>Procedure is Abnormal.) | The downgrade installation of the<br>firmware cannot be performed<br>because it is changed to the<br>maintenance mode while the<br>subsystem is starting.                                                                                    | ① Click [Go to Normal Mode] of the<br>menu frame in the WEB window, and<br>start the subsystem.<br>② Check that the subsystem becomes<br>Ready, and execute the downgrade<br>installation of the firmware again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —<br><a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a>                                                                                                                                                                                                                                                                                                                                                                                  |
| -            | Abnormal End<br>Down grade install NG<br>[Modular Volume Migration<br>feature is installed]    | The update installation cannot be<br>performed for the firmware of the<br>revision which is not supporting the<br>Modular Volume Migration function<br>because the priced option of the<br>Modular Volume Migration function<br>is unlocked. | ① 1. Return the subsystem to the<br>normal mode by clicking the [Go to<br>Normal Mode] button in the menu<br>frame of the maintenance mode<br>window on WEB.<br>2. Check that the "I10000 Subsystem<br>is ready" is displayed in the<br>Information Message of the<br>normal mode window on WEB.<br>3. Lock the priced option of the<br>Modular Volume Migration function<br>referring to <a href="#">Modular Volume Migration User's Guide "3.1.2 Uninstalling Volume Migration"</a> .<br>4. Change it to the maintenance<br>mode.<br>5. Click [Others] in the menu frame<br>of the maintenance mode window<br>on WEB.<br>6. Set [Down Grade Check] of the<br>[Others] window to "Disable".<br>7. Execute the upgrade installation<br>(version downgrade) of the<br>firmware again.<br>8. Click "To Maintenance Mode Top"<br>of the "Microprogram Setup"<br>window on WEB.<br>9. Return the subsystem to the<br>normal mode by clicking the [Go to<br>Normal Mode] button in the menu<br>frame of the maintenance mode<br>window on WEB.<br>10. Check that the "I10000 Subsystem<br>is ready" is displayed in the<br>Information Message of the<br>normal mode window on WEB. | <a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a><br>—<br><a href="#">Modular Volume Migration User's Guide "3.1.2 Uninstalling Volume Migration"</a><br><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a><br><a href="#">WEB "3.6 Other" (WEB 03-0530)</a><br><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a><br><a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a><br>— |



| Message code                     | Message text                                                                                   | Description                                                                                                                                                                                                                                                                 | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -                                | Abnormal End<br>Down grade install NG<br>[Modular Volume Migration<br>has already taken place] | The update installation cannot be performed for the firmware of the revision which is not supporting the Modular Volume Migration function because the LU that the Modular Volume Migration is executed exists in the subsystem with the Modular Volume Migration function. | <p>① 1. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB.</p> <p>2. Check that the "110000 Subsystem is ready" is displayed in the Information Message of the normal mode window on WEB.</p> <p>3. When the Modular Volume Migration function of the priced option is locked, unlock the Modular Volume Migration function referring to <a href="#">Modular Volume Migration User's Guide "3.1.1 Installing Volume Migration"</a>. However, when the Modular Volume Migration function of the priced option is expired, unlock it with the Emergency Key, etc.</p> <p>4. When the Modular Volume Migration function is disabled, enable the Modular Volume Migration function referring to <a href="#">Modular Volume Migration User's Guide "3.1.3 Enabling or Disabling Volume Migration"</a>.</p> <p>5. Check if the LU whose intermediate LU number and the internal LU number do not match exists by the maintenance mode of the Hitachi Storage Navigator Modular 2.</p> <p>6. When there is the LU whose intermediate LU number and the internal LU number do not match, perform the Modular Volume Migration so that the intermediate LU number and the internal LU number match referring to the <a href="#">"Modular Volume Migration User's Guide"</a>. In that case, the data of the LUs may have to be backed up as needed.</p> <p>7. Lock the priced option of the Modular Volume Migration function referring to <a href="#">Modular Volume Migration User's Guide "3.1.2 Uninstalling Volume Migration"</a>.</p> | <p><a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a></p> <p>—</p> <p><a href="#">Modular Volume Migration User's Guide "3.1.1 Installing Volume Migration"</a></p> <p><a href="#">Modular Volume Migration User's Guide "3.1.3 Enabling or Disabling Volume Migration"</a></p> <p>—</p> <p><a href="#">"Modular Volume Migration User's Guide"</a></p> <p><a href="#">Modular Volume Migration User's Guide "3.1.2 Uninstalling Volume Migration"</a></p> |
| To be continued to the next page |                                                                                                |                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Message code | Message text                                         | Description                                   | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                                                                                                                                                             |
|--------------|------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                                      |                                               | <p>8. Change it to the maintenance mode.</p> <p>9. Click [Others] in the menu frame of the maintenance mode window on WEB.</p> <p>10. Set [Down Grade Check] of the [Others] window to "Disable".</p> <p>11. Execute the upgrade installation (version downgrade) of the firmware again.</p> <p>12. Click "To Maintenance Mode Top" of the "Microprogram Setup" window on WEB.</p> <p>13. Return the subsystem to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB.</p> <p>14. Check that the "I10000 Subsystem is ready" is displayed in the Information Message of the normal mode window on WEB.</p> | <p><a href="#">WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000)</a></p> <p><a href="#">WEB "3.6 Other" (WEB 03-0530)</a></p> <p><a href="#">WEB "3.3.1 Microprogram" (WEB 03-0270)</a></p> <p><a href="#">WEB "3.7 Return Method to the Normal Mode" (WEB 03-0540)</a></p> <p>—</p> |
| -            | Abnormal End<br>Drive Block Size Error<br>AT CDEV ** | The drive block size is other than 520 bytes. | ① Replace a Disk Drive whose unit ID number is 0 and Disk Drive number is **.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                                                                                                                                                                                                     |

| Message code | Message text                                                    | Description                                                                                                | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference page                                                |
|--------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| -            | Abnormal End<br>Empty System Retry Full<br>Install              | The updating installation cannot be done because the old firmware does not exist in the system Disk Drive. | <p>① When it is evident that the old firmware does not exist in the system Disk Drive, install the firmware newly.</p> <p>② Execute the updating installation again after making sure that the system copy has been completed through the Information Message of the Web.</p> <ul style="list-style-type: none"> <li>• "I14000 System copy started" is not displayed.</li> <li>• "I14000 System copy started" and "I14100 System copy completed" are displayed consecutively.</li> </ul> <p>When the system copy is being made, turn off the main switch and then turn it on again later than 20 seconds.</p> <p>In the following case, the system copy is being made.</p> <ul style="list-style-type: none"> <li>• While "I14000 System copy started" or "I14100 System copy completed" is not displayed successively.</li> </ul> <p>Execute the updating installation again after making sure that the READY LED (green) comes on and then the system copy is completed.</p> | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| -            | Abnormal End<br>File Open Error                                 | File open error                                                                                            | ① Make sure of the system to be installed and execute the installation again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| -            | Abnormal End<br>File Read Error                                 | File read error                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                               |
| -            | Abnormal End<br>File Remove Failed                              | File elimination error                                                                                     | ① Execute the utility program load after restarting the subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                             |
| -            | Abnormal End<br>Install Failed                                  | All the drives became abnormal after the installation had been completed.                                  | ① Make sure of the system to be installed and the system drive, and then execute the installation again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| -            | Abnormal End<br>Initial Setup Error<br>by LU Access Restriction | Initial Setup failed due to the LU access restriction.                                                     | ① Initial Setup cannot be done. Execute update installation for updating the firmware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| -            | Abnormal End<br>Initial Setup of Microprogram<br>Failed         | Initial Setup was done when the installation check on the firmware for DF800S/M was "Disable".             | ① Execute installation after changing the installation classification to "Update".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                             |
| -            | Abnormal End<br>No Drives Available                             | No normal drive is available.                                                                              | ① Replace the system drive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)        |

| Message code | Message text                                                                                                                                                | Description                                                                                                                                                   | Recovery methods                                                                                                                                                                                                                                 | Reference page                                                                |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| -            | Abnormal End<br>PGMS ****<br>Too Large                                                                                                                      | The program size is larger than the allowable limit.                                                                                                          | ① Make sure of the system to be installed and execute the installation again.                                                                                                                                                                    | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| -            | Abnormal End<br>Upgrade Failed (The Installed Microprogram is Incorrect)<br>Uploaded Microprogram Revision:XXXX/X<br>Installed Microprogram Revision:XXXX/X | The upgrade from DF800S to DF800M failed.<br>Or the upgrade from DF800S/M to DF800H failed.                                                                   | ① Install the DF800M/H firmware whose system revision is the same as that of the DF800S/M firmware.                                                                                                                                              | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| -            | Abnormal End<br>Upload File SUM Check Error                                                                                                                 | Read file sum check error                                                                                                                                     | ① Make sure of the system to be installed and execute the installation again.                                                                                                                                                                    | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| -            | Abnormal End<br>Upload System Error                                                                                                                         | The "PRGMAG. DAT" file does not exist.<br>The "START80*. DAT" file does not exist.<br>The "END DAT" file does not exist.<br>The file required does not exist. |                                                                                                                                                                                                                                                  |                                                                               |
| -            | Cannot Execute Upload                                                                                                                                       | Java Applet cannot be activated.                                                                                                                              | ① Check if the Java Plug-in is installed.<br>② Check if it is validated through the setting of Java Plug-in on the operator panel.<br>③ (IE) Check if the setting of ActiveX is validated.<br>④ Check if the (NN) Java plug-in setting is valid. | —                                                                             |
| -            | Complete BIOS Install                                                                                                                                       | The BIOS installation was completed normally.                                                                                                                 | —                                                                                                                                                                                                                                                | —                                                                             |
| -            | Complete<br>MICRO REV:*****                                                                                                                                 | The installation was completed normally.                                                                                                                      | —                                                                                                                                                                                                                                                | —                                                                             |
| -            | Drive firmware download start                                                                                                                               | The drive firmware downloading of the firmware was started.                                                                                                   | —                                                                                                                                                                                                                                                | —                                                                             |
| -            | ENC microprogram download start                                                                                                                             | A firmware downloading for replacing the firmware was started.                                                                                                | —                                                                                                                                                                                                                                                | —                                                                             |
| -            | File open error [file name]                                                                                                                                 | File open error                                                                                                                                               | ① Make sure of the system to be installed.                                                                                                                                                                                                       | —                                                                             |
| -            | File read data err [file name]                                                                                                                              | File read data error                                                                                                                                          |                                                                                                                                                                                                                                                  |                                                                               |
| -            | File read err [file name]                                                                                                                                   | File read error                                                                                                                                               |                                                                                                                                                                                                                                                  |                                                                               |
| -            | File size mismatch [file name]                                                                                                                              | File size inconsistency                                                                                                                                       |                                                                                                                                                                                                                                                  |                                                                               |
| -            | File size over [file name]                                                                                                                                  | File size error                                                                                                                                               |                                                                                                                                                                                                                                                  |                                                                               |

| Message code | Message text                                                                                                                                                                                                              | Description                                                                                            | Recovery methods                                                                                                                         | Reference page                                                                                                             |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| -            | If you execute "Initial Setup", the subsystem erase all user data.<br>Are you sure you want to execute this operation?<br>If you wish to execute this operation, please mark the "OK to execute" checkbox and press OK.   | The confirmation and the agreement demand of all user data being erased when Initial Setup is executed | —                                                                                                                                        | —                                                                                                                          |
| -            | If you execute "System Reboot with Configuration Clear", the subsystem erase all user data.<br>Are you sure you want to execute this operation?<br>If you wish to execute this operation, please mark the "OK to execute" | Confirmation dialog message at the time of starting configuration clear                                | —                                                                                                                                        | —                                                                                                                          |
| -            | Install revision                                                                                                                                                                                                          | Display of a revision of the installed program                                                         | —                                                                                                                                        | —                                                                                                                          |
| -            | Initial Setup<br>(Config and System Parameter Clear)<br>Install Microprogram Rev.*****                                                                                                                                    | Make sure that the initial setting up has been done.                                                   | —                                                                                                                                        | —                                                                                                                          |
| -            | Microprogram download ENC#                                                                                                                                                                                                | Firmware replacement was started.<br>[ENC number]                                                      | —                                                                                                                                        | —                                                                                                                          |
| -            | Microprogram download of ENC# in update mode                                                                                                                                                                              | The start of the update mode of the ENC firmware download is checked.                                  | —                                                                                                                                        | —                                                                                                                          |
| -            | Microprogram download of ENC# in overwrite mode<br>This download may cause a downgrade of ENC microprogram for any ENCs.                                                                                                  | The start of the overwrite mode of the ECN firmware download is checked.                               | —                                                                                                                                        | —                                                                                                                          |
| -            | Micro Update<br>Install Microprogram Rev.*****                                                                                                                                                                            | Make sure that the update installation of the firmware has been done.                                  | —                                                                                                                                        | —                                                                                                                          |
| -            | Old System Exists                                                                                                                                                                                                         | There is an existing system when the LAN is installed.                                                 | —                                                                                                                                        | —                                                                                                                          |
| -            | Partially Completed MICRO REV:*****                                                                                                                                                                                       | The installation was terminated abnormally.                                                            | ① Refer to the procedure for finding a cause of a Disk Drive failure to be used when a message, "Install partially complete", is output. | —                                                                                                                          |
| -            | System parameter update failed                                                                                                                                                                                            | All the drives do not accept a read instruction.                                                       | ① Reset the system parameters.<br>② If the trouble recurs, replace the system drive.                                                     | <a href="#">System Parameter (SYSPR 00-0000)</a><br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |
| -            | System Restart With Config Clear                                                                                                                                                                                          | Confirmation dialog message at the time of rebooting the utility mode.                                 | —                                                                                                                                        | —                                                                                                                          |

| Message code | Message text                                                                                                                | Description                                                                                                                                                          | Recovery methods                                                                                                                          | Reference page                                                                |
|--------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| -            | Target HDU not found                                                                                                        | The target HDU is not found.                                                                                                                                         | ① Make sure of the drive to be rewritten.                                                                                                 | —                                                                             |
| -            | Utility start                                                                                                               | The processing of the utility function was started.                                                                                                                  | —                                                                                                                                         | —                                                                             |
| 1004         | System is Other Boot Up Mode.                                                                                               | Inconsistency of statuses of Applet and the subsystem (Example: The subsystem has started an installation of drive firmware, whereas Applet is loading the utility.) | ① Reload the page.<br>② If the correct page is not displayed, perform the operation over again from the software reset.                   | —                                                                             |
| 1005         | Bootting. Please Retry Again.                                                                                               | The subsystem is being started up.                                                                                                                                   | ① Operate over again after waiting for a while.                                                                                           | —                                                                             |
| 1006         | System is Executing Other Event.                                                                                            | The subsystem is already executing the process.                                                                                                                      | ① Make sure of the information message or reload the page.                                                                                | —                                                                             |
| 1007         | System is Executing Main Process.                                                                                           | The utility is being processed.<br>The drive firmware is being replaced.                                                                                             | ① Reload the page.                                                                                                                        | —                                                                             |
| 1008         | System is Down.                                                                                                             | The subsystem cannot execute the process (it has gone down).                                                                                                         | ① Perform the operation over again from the software reset.                                                                               | —                                                                             |
| 1009         | Please. Retry Again.                                                                                                        | The subsystem stands ready to start the firmware installation.                                                                                                       | ① Install the firmware over again.                                                                                                        | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| 1010         | Please. Retry Again on Other CTL.                                                                                           | Have the controller in another system re-execute the process.                                                                                                        | ① Have the controller in another system re-execute the process.                                                                           | —                                                                             |
| 1011         | Please Confirm Information Message.                                                                                         | Make sure of the information message.                                                                                                                                | ① Make sure of the information message.                                                                                                   | —                                                                             |
| 1012         | The download request was rejected. Confirm that other download is not in process. Otherwise, please retry after one minute. | A trace start instruction was issued during the host command trace download.                                                                                         | ① Check if other user or you are not downloading the trace from other window.<br>② Execute it again after waiting for one minute or more. | —<br>—                                                                        |
| 1013         | The request was rejected. Please restart again.                                                                             | The communication other than the trace start instruction was issued while the host command trace is not being downloaded.                                            | ① Execute it again after checking the status of the subsystem and the connection environment.                                             | —                                                                             |
| 1200         | The Java Plug-in version in use is not supported. Confirm the Java Plug-in version.                                         | Java Applet was activated with Java Plug-in of a version not supported.                                                                                              | ① Activate Java Applet again after making sure of the version of Java Plug-in currently used.                                             | —                                                                             |
| 1202         | A path to the Microprogram isn't being input. Specify a path.                                                               | The path to the firmware to be installed is not specified.                                                                                                           | ① Specify the path to the firmware.                                                                                                       | —                                                                             |
| 1204         | A specified file doesn't exist. Confirm elements of designation.                                                            | The specified file does not exist.                                                                                                                                   | ① Make sure that the path to the directory of the firmware to be installed is specified correctly.                                        | —                                                                             |
| 1205         | A specified directory doesn't exist. Confirm elements of designation.                                                       | The specified directory does not exist.                                                                                                                              | ① Check the specified contents and the existence of the directory.                                                                        | —                                                                             |

| Message code | Message text                                                                                                                   | Description                                                                                   | Recovery methods                                                                                         | Reference page |
|--------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------|
| 1206         | A specified path is not a normal file. Specify a file.                                                                         | A file other than the normal file was specified when the normal file must be specified.       | ① Check if the specification is correct.                                                                 | —              |
| 1207         | A specified path is not a directory. Specify a directory.                                                                      | A file other than the directory file was specified when the directory file must be specified. |                                                                                                          |                |
| 1210         | A specified file is not possible to read. Confirm the condition of the file.                                                   | The specified file cannot be read.                                                            | ① Make sure of a status of the specified file.                                                           | —              |
| 1212         | Access to the specified file was rejected. Confirm the setup of the security policy.                                           | Access to the specified file was rejected according to the security policy.                   | ① Set up the service PC again.                                                                           | —              |
| 1213         | Access to the specified directory was rejected. Confirm the setup of the security policy.                                      | Access to the specified directory was rejected according to the security policy.              |                                                                                                          |                |
| 1214         | An error occurred during the file I/O. Confirm the status of the specified file.                                               | An error occurred during an I/O operation to/from the specified file.                         | ① Make sure of a status of the specified file.                                                           | —              |
| 1215         | A runtime permission wrong matter occurred. Confirm the setup of the security policy.                                          | A request for access to the java.lang.RuntimePermission object was rejected.                  | ① Set up the service PC again.                                                                           | —              |
| 1216         | Access to the property information was rejected. Confirm the setup of the security policy.                                     | A request for access to the java.util.OropercyPermission object was rejected.                 |                                                                                                          |                |
| 1217         | A security wrong matter occurred. Confirm the setup of the security policy.                                                    | A security trouble occurred.                                                                  | ① Set up the service PC again.                                                                           | —              |
| 1218         | An invalid response was received from the subsystem. Confirm the subsystem status and the LAN environment, and then try again. | Communication with the subsystem failed.                                                      | ① Make sure of the subsystem status and the LAN environment, and then retry.                             | —              |
| 1219         | An error occurred during the communication with the subsystem. Confirm the subsystem status and the LAN environment.           | An error occurred during the communication with the subsystem.                                | ① Make sure of the subsystem status and the LAN environment, press the Software Reset button, and retry. | —              |
| 1220         | A path to the Utility Program isn't being input. Specify a path.                                                               | The path to the utility program to be installed is not specified.                             | ① Specify the path to the utility program.                                                               | —              |
| 1221         | A path to the Utility Parameter Files isn't being input. Specify a path.                                                       | The path to the parameter file to be installed is not specified.                              | ① Specify the path to the utility parameter file.                                                        | —              |
| 1222         | A path to the Drive Firmware Program isn't being input. Specify a path.                                                        | The path to the drive firmware program to be installed is not specified.                      | ① Specify the path to the drive firmware program.                                                        | —              |

| Message code | Message text                                                         | Description                                                      | Recovery methods                                                                                               | Reference page                                                                |
|--------------|----------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 1223         | A HTTPClient library isn't found. Confirm the execution environment. | The HTTPClient library is not found.                             | ① Activate the browser again after setting up the service PC, and then re-execute the firmware installation.   | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |
| 1224         | A path to the ENC Microprogram isn't being input. Specify a path.    | The path to the ENC firmware to be installed is not specified.   | ① Specify the path to the ENC firmware.                                                                        | —                                                                             |
| 1225         | Invalid value was specified. Confirm the value.                      | The input column is empty or an illegal value was entered.       | ① Check the entered contents, and enter a correct value.                                                       | —                                                                             |
| 1226         | Cannot write the file. Check the download directory and the file.    | It cannot be output in a file.                                   | ① Check the output destination directory of the host command trace download and the status of the output file. | —                                                                             |
|              |                                                                      |                                                                  | ② Check if there is enough HDD free space of the service PC.                                                   | —                                                                             |
| 1401         | An exception occurred in a module.                                   | An exemption occurred in the module.                             | ① Check the specified contents.                                                                                | —                                                                             |
| 2000         | File upload was cancelled.                                           | The installation of the file was interrupted (artificially).     | ① Re-execute the installation after activating the browser again.                                              | —                                                                             |
| 2001         | Microprogram installation was cancelled.                             | The installation of the firmware was interrupted (artificially). | ① Re-execute the firmware installation after activating the browser again.                                     | —                                                                             |



## 7.2 Web Error Messages (Simple Trace)

| Message code | Message text             | Description                                                                           | Recovery methods                                                 | Reference page |
|--------------|--------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------|
| -            | Executing [Simple Trace] | The simple trace is already being executed.                                           | ① Perform maintenance after making sure of the subsystem status. | —              |
| -            | Not Ready                | When the result of a check done at the time of the simple trace execution was illegal | ① Retry after making sure of the subsystem status.               | —              |
| -            | Simple trace failed      | The simple trace could not be executed because the subsystem status was abnormal.     | ① Make sure of the subsystem status.                             | —              |
| -            | Simple trace interrupt   | The simple trace was interrupted (because the automatic dump operation was done).     | ① Perform maintenance after making sure of the subsystem status. | —              |

### 7.3 Web Error Messages (Web Control Management)

| Message code | Message text                                                                   | Description                                                                                                                                                                             | Recovery methods                                              | Reference page |
|--------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------|
| -            | Address is not filled. Please fill in the address.                             | An illegal address value is not entered.                                                                                                                                                | ① Reset each parameter.                                       | —              |
| -            | Executing [Simple Trace]                                                       | The simple trace is being executed.                                                                                                                                                     | ① Execute it again after waiting for a while.                 | —              |
| -            | "Invalid machine status."                                                      | Illegal status                                                                                                                                                                          | ① Restart the subsystem.                                      | —              |
| -            | Invalid Address/Data. Address and Data should be filled with [0-9][a-f][A-F].  | The input conditions of the value of the address/data are not met.                                                                                                                      | ① Reset each parameter.                                       | —              |
| -            | Invalid address. Please input the address using [0-9] [a-f] [A-F].             | Input of an illegal address value (range of input characters)                                                                                                                           |                                                               |                |
| -            | Invalid address. Please input the address with in the range of [0H-3FFFFFFFH]. | Input of an illegal address value (range of address)                                                                                                                                    |                                                               |                |
| -            | Invalid address. Please input the address with in the range of [0H-7FFFFFFFH]. | Input of an illegal address value (range of address)                                                                                                                                    |                                                               |                |
| -            | Invalid data! Reenter.                                                         | The serial number, IP address, subnet mask, gateway, Vendor ID, Product ID and Web Title value are illegal or the result of the input check of ROM/RAM Microprogram Version is illegal. |                                                               |                |
| -            | Invalid File. Please select again.                                             | Select a file again because it is an invalid file.                                                                                                                                      | ① Select a file again.                                        | —              |
| -            | Invalid length. Please input the length using [0-9] [a-f] [A-F].               | Input of an illegal address value (range of length)                                                                                                                                     | ① Reset each parameter.                                       | —              |
| -            | Invalid length. Please input the length with in the range of [4H-4000H].       | Input of an illegal address value (range of input characters)                                                                                                                           |                                                               |                |
| -            | Length is not filled. Please fill in the length.                               | An illegal address value is not entered.                                                                                                                                                |                                                               |                |
| -            | No Address. Please input the Address.                                          | Address is not entered.                                                                                                                                                                 |                                                               |                |
| -            | No Data. Please input the Data.                                                | Data is not entered.                                                                                                                                                                    |                                                               |                |
| -            | Not Ready                                                                      | When the drive separating function exclusive check and the trace collection check are abnormal.                                                                                         | ① Execute it again after waiting for a while.                 | —              |
| -            | "Other Event" [*****] Executing!                                               | Other event is being executed.                                                                                                                                                          |                                                               |                |
| -            | Subsystem is down!                                                             | Web task cannot be executed.                                                                                                                                                            | ① Restart the subsystem.                                      | —              |
| -            | 'Syntax error was detected in test pattern file. Line Number : ' + cgi_dt      | An error exists in the definition statement of the test pattern.                                                                                                                        | ① Specify the definition statement of the test pattern again. | —              |

| Message code | Message text                                                                                                                | Description                                                                                                                                                          | Recovery methods                                                                                                                          | Reference page                                                |
|--------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| -            | "The error which cannot be continued occurred. Error code : -1                                                              | Heat run cannot be executed because an error that cannot be continued occurred (Error Code: -1)                                                                      | ① Define the LU again.                                                                                                                    | —                                                             |
| -            | The model type is not selected. Please select the lower grade model type.                                                   | An error that a model type is not selected                                                                                                                           | ① Select a model type again.                                                                                                              | —                                                             |
| -            | The password is incorrect.                                                                                                  | The password is incorrect.                                                                                                                                           | ① Set a password again.                                                                                                                   | —                                                             |
| -            | This menu cannot be executed after "Logging Data"                                                                           | A dump is being executed.                                                                                                                                            | ① Execute it again after waiting for a while.                                                                                             | —                                                             |
| -            | "Unknown Event."                                                                                                            | An unknown event occurred.                                                                                                                                           |                                                                                                                                           | —                                                             |
| -            | "Web Task" is executing other request.                                                                                      | The Web task is executing another request.                                                                                                                           |                                                                                                                                           | —                                                             |
| -            | Web Task Booting..                                                                                                          | The Web task is being booted.                                                                                                                                        |                                                                                                                                           | —                                                             |
| 1004         | System is Other Boot Up Mode.                                                                                               | Inconsistency of statuses of Applet and the subsystem (Example: The subsystem has started an installation of drive firmware, whereas Applet is loading the utility.) | ① Reload the page.<br>② If the correct page is not displayed, perform the operation over again from the software reset.                   | —<br>—                                                        |
| 1005         | Bootting. Please Retry Again.                                                                                               | The subsystem is being started up.                                                                                                                                   | ① Execute it again after waiting for a while.                                                                                             | —                                                             |
| 1006         | System is Executing Other Event.                                                                                            | The subsystem is already executing the process.                                                                                                                      | ① Make sure of the information message or reload the page.                                                                                | —                                                             |
| 1007         | System is Executing Main Process.                                                                                           | The utility is being processed.<br>The drive firmware is being replaced.                                                                                             | ① Reload the page.                                                                                                                        | —                                                             |
| 1008         | System is Down.                                                                                                             | The subsystem cannot execute the process (it has gone down).                                                                                                         | ① Perform the operation over again from the software reset.                                                                               | —                                                             |
| 1009         | Please. Retry Again.                                                                                                        | The subsystem stands ready to start the firmware installation.                                                                                                       | ① Install the firmware over again.                                                                                                        | Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) |
| 1010         | Please. Retry Again on Other CTL.                                                                                           | Have the CTL in another system re-execute the process.                                                                                                               | ① Have the controller in another system re-execute the process.                                                                           | —                                                             |
| 1011         | Please Confirm Information Message.                                                                                         | Make sure of the information message.                                                                                                                                | ① Make sure of the information message.                                                                                                   | —                                                             |
| 1012         | The download request was rejected. Confirm that other download is not in process. Otherwise, please retry after one minute. | A trace start instruction was issued during the host command trace download.                                                                                         | ① Check if other user or you are not downloading the trace from other window.<br>② Execute it again after waiting for one minute or more. | —<br>—                                                        |
| 1013         | The request was rejected. Please restart again.                                                                             | The communication other than the trace start instruction was issued while the host command trace is not being downloaded.                                            | ① Execute it again after checking the status of the subsystem and the connection environment.                                             | —                                                             |

This page is for editorial purpose only.

## Chapter 8. Hitachi Storage Navigator Modular 2 Error Messages

**Table 8.1 Hitachi Storage Navigator Modular 2 Error Messages**

| Message code | Error code | Message text/Recovery methods                                                                                                                |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA000001   | 0x00010000 | Busy status was reported from the subsystem. Please retry after waiting for a while.                                                         |
| DMEA000002   | 0x00020000 | The Queue Full status was reported from the subsystem. Please retry after waiting for a while.                                               |
| DMEA000003   | 0x00030000 | LU0 is reserved by another host. Please retry after the reservation is canceled.                                                             |
| DMEA000004   | 0x00040000 | An error was detected in the data received from the subsystem. Confirm the subsystem status and the LAN environment, and then try again.     |
| DMEA000005   | 0x00050000 | An error occurred while communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.          |
| DMEA000006   | 0x00060000 | Failed to connect with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.                              |
| DMEA000007   | 0x00070000 | An invalid response was received from the subsystem. Confirm the subsystem status and the LAN environment, and then try again.               |
| DMEA000008   | 0x00080000 | An unexpected error was reported from the subsystem. Please retry after waiting for a while.                                                 |
| DMEA00000A   | 0x00090000 | The CHECK CONDITION status was reported from the subsystem, but the details could not be acquired. Please retry after waiting for a while.   |
| DMEA00000B   | 0x00001002 | Failed to transfer data. Confirm the subsystem status and the LAN environment, and then try again.                                           |
| DMEA00000C   | 0x00001003 | Failed to issue the SCSI command. Confirm the subsystem status and the LAN environment, and then try again.                                  |
| DMEA00000D   | 0x0000FFFF | Insufficient memory. Terminate other programs and then try again.                                                                            |
| DMEA00000E   | 0x0000FFFE | An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel. |
| DMEA000010   | 0x00000010 | An error occurred while communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.          |
| DMEA000011   | 0x00000011 | An error occurred while communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.          |
| DMEA000012   | 0x00000012 | An error occurred while secure communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.   |
| DMEA000201   | 0x00000201 | The specified user ID or password is incorrect.                                                                                              |
| DMEA001000   | 0x00000001 | The information file for the subsystem cannot be opened. Confirm the execution environment.                                                  |
| DMEA001001   | 0x00000002 | The information file for the subsystem is invalid. Confirm the execution environment.                                                        |
| DMEA001002   | 0x00000003 | The specified subsystem name is already registered. Specify another name.                                                                    |
| DMEA001003   | 0x00000004 | The specified subsystem name is not registered.                                                                                              |
| DMEA001004   | 0x00000005 | The registered information does not match the status of the subsystem. Correct the information and then try again.                           |
| DMEA001005   | 0x00000006 | The number of registered subsystems has reached the maximum. Delete unnecessary information and then try again.                              |
| DMEA001006   | 0x00000102 | Invalid parameter.                                                                                                                           |
| DMEA001007   | 0x00000103 | The specified controller is incorrect.                                                                                                       |
| DMEA001008   | 0x00000104 | Failed to open the specified file. Confirm the file name and then try again.                                                                 |
| DMEA001009   | 0x00000105 | The contents of the file are invalid. Confirm the file and then try again.                                                                   |
| DMEA00100A   | 0x00000106 | Failed to connect with the server. Confirm the registered information and the LAN environment, and then try again.                           |
| DMEA00100B   | 0x00000107 | The password is not specified.                                                                                                               |
| DMEA00100C   | 0x00000108 | The password is corrupted. Delete the password file and then try again.                                                                      |
| DMEA00100D   | 0x00000301 | The specified logical unit is not defined. Specify a defined logical unit.                                                                   |
| DMEA00100E   | 0x00000302 | Formatting failed. Confirm the subsystem status and the LAN environment, and then try again.                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                            |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA00100F   | 0x00000A01 | The file for e-mail setting contains an error.                                                                                                           |
| DMEA001010   | 0x00000A02 | The e-mail information is not set up.                                                                                                                    |
| DMEA001011   | 0x00000A03 | The parameter for e-mail setting is invalid.                                                                                                             |
| DMEA001012   | 0x00000A04 | An error was detected while connecting to the mail server. Confirm the mail server and then try again.                                                   |
| DMEA001013   | 0x00000B01 | An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.             |
| DMEA001014   | 0x00000B02 | The connection type is invalid.                                                                                                                          |
| DMEA001015   | 0x00001004 | The firmware revision is not supported. Confirm the subsystem status.                                                                                    |
| DMEA001016   | 0x00000A05 | Failed to start the specified application program. Confirm the path to the specified application and the operational environment.                        |
| DMEA001017   | 0x00000109 | An error occurred during the file I/O. Please check the permission and available capacity.                                                               |
| DMEA001018   | 0x00001005 | The specified directory path is invalid. Please specify a right directory path.                                                                          |
| DMEA001019   | 0x00000101 | The process cannot be performed because the firmware on the subsystem does not support the function.                                                     |
| DMEA001020   | 0x00001006 | Could not finish replacing the firmware. Please see if there are any alarms or warnings in the subsystem.                                                |
| DMEA001021   | 0x00000007 | The number of groups reached the maximum. Specify an already registered group or delete an unnecessary group and try again.                              |
| DMEA001022   | 0x0000010A | Hardware error occurred. Confirm the subsystem.                                                                                                          |
| DMEA001023   | 0x0000010B | The process cannot be performed because the current subsystem does not support the function.                                                             |
| DMEA001024   | 0x0000010C | Environment variable: STONAVM_HOME is not defined. Specify STONAVM_HOME.                                                                                 |
| DMEA001025   | 0x0000010D | The controller in charge of the LU is not registered. Register the controller and then try again.                                                        |
| DMEA001026   | 0x00000008 | The specified information does not match the configuration of the subsystem. Confirm the configuration information.                                      |
| DMEA001027   | 0x0000010E | The JRE ( Java Runtime Environment ) version in use is not supported. Confirm the JRE version.                                                           |
| DMEA001028   | 0x00001007 | Failed to restart the subsystem.                                                                                                                         |
| DMEA001029   | 0x0000010F | Environment variable: STONAVM_HOME does not match. Confirm STONAVM_HOME.                                                                                 |
| DMEA00102A   | 0x0000011E | The JRE ( Java Runtime Environment ) version in use is not supported. Confirm the JRE version.                                                           |
| DMEA00102B   | 0x0000011F | The process cannot be performed because the current controller in charge of the specified LU is different. Retry from the current controller for the LU. |
| DMEA001030   | 0x00000400 | The parameter for System Startup Attribute or the item name is invalid.                                                                                  |
| DMEA001031   | 0x00000401 | The parameter for Spare Disk or the item name is invalid.                                                                                                |
| DMEA001032   | 0x00000402 | The parameter for Host Connection Mode or the item name is invalid.                                                                                      |
| DMEA001033   | 0x00000403 | The parameter for Serial Number or the item name is invalid.                                                                                             |
| DMEA001034   | 0x00000404 | The parameter for Drive Capacity or the item name is invalid.                                                                                            |
| DMEA001035   | 0x00000405 | The parameter for Option 1 or the item name is invalid.                                                                                                  |
| DMEA001036   | 0x00000406 | The parameter for Option 2 or the item name is invalid.                                                                                                  |
| DMEA001037   | 0x00000407 | The parameter for Data Striping Size or the item name is invalid.                                                                                        |
| DMEA001038   | 0x00000408 | The parameter for Buzzer or the item name is invalid.                                                                                                    |
| DMEA001039   | 0x00000409 | The parameter for LU Size Report to the Host or the item name is invalid.                                                                                |
| DMEA00103A   | 0x0000040A | The parameter for SCSI Reset/LIP Mode for all Ports or the item name is invalid.                                                                         |
| DMEA00103B   | 0x0000040B | The parameter for Operation if the Processor failures Occurs or the item name is invalid.                                                                |
| DMEA00103C   | 0x0000040C | The parameter for INQUIRY Information or the item name is invalid.                                                                                       |
| DMEA00103D   | 0x0000040D | The parameter for Cache Mode or the item name is invalid.                                                                                                |
| DMEA00103E   | 0x0000040E | The parameter for Target ID or the item name is invalid.                                                                                                 |
| DMEA00103F   | 0x0000040F | The parameter for Port Type or the item name is invalid.                                                                                                 |
| DMEA001040   | 0x00000410 | The parameter for ROM Pseudo-response command processing or the item name is invalid.                                                                    |
| DMEA001041   | 0x00000411 | The parameter for Save Data Pointer response or the item name is invalid.                                                                                |
| DMEA001042   | 0x00000412 | The parameter for Controller Identifier or the item name is invalid.                                                                                     |
| DMEA001044   | 0x00000414 | The parameter for Write & Verify Execution Mode or the item name is invalid.                                                                             |
| DMEA001045   | 0x00000415 | The parameter for LAN CONST or the item name is invalid.                                                                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA001046   | 0x00000416 | The parameter for SYNC CONTROL or the item name is invalid.                                                                                  |
| DMEA001047   | 0x00000417 | There is no file header.                                                                                                                     |
| DMEA001048   | 0x00000418 | The present drive configuration for the subsystem cannot support the drive configuration information of the specified file.                  |
| DMEA001049   | 0x00000419 | The RAID configuration data is invalid.                                                                                                      |
| DMEA00104A   | 0x0000041A | The LU configuration data is invalid.                                                                                                        |
| DMEA00104B   | 0x0000041B | The drive configuration data is invalid.                                                                                                     |
| DMEA00104D   | 0x00000111 | The password length is invalid. Use 12 or fewer characters.                                                                                  |
| DMEA00104E   | 0x00000110 | The process failed because the function is disabled.                                                                                         |
| DMEA00104F   | 0x00000112 | Failed to obtain the controller failure dump information. Retry after 10 minutes.                                                            |
| DMEA001050   | 0x0000041D | The parameter for Web Title or the item name is invalid.                                                                                     |
| DMEA001051   | 0x0000041E | The parameter for Delay Planned Shutdown or the item name is invalid.                                                                        |
| DMEA001052   | 0x00000A06 | The additional information file cannot be opened. Confirm the execution environment.                                                         |
| DMEA001053   | 0x00000A07 | The additional information file is invalid. Confirm the execution environment.                                                               |
| DMEA001054   | 0x00000A08 | The mail additional information length is invalid.                                                                                           |
| DMEA001055   | 0x00000A09 | The number of registered mail additional information reached the maximum. Delete unnecessary information and then try again.                 |
| DMEA001056   | 0x00000A0A | An e-mail information cannot be saved. Please check the permission and available capacity of the install directory.                          |
| DMEA001070   | 0x00000113 | This program is not installed correctly.                                                                                                     |
| DMEA001071   | 0x00000018 | The function cannot be executed because the LU has already been reserved.                                                                    |
| DMEA001072   | 0x00001008 | The specified path name is over 250 characters.                                                                                              |
| DMEA001073   | 0x00000115 | Failed to create a log directory. Confirm the execution environment.                                                                         |
| DMEA001074   | 0x00001009 | The specified path name is incorrect.                                                                                                        |
| DMEA001075   | 0x0000100A | The specified path does not exist, or no effective files exist under the specified path.                                                     |
| DMEA001076   | 0x0000100B | The firmware in the specified path does not exist. Please confirm whether the firmware is stored in the path or the specified path is right. |
| DMEA001077   | 0x0000100C | Failed to create a firmware file directory. Confirm the execution environment.                                                               |
| DMEA001078   | 0x00000116 | The specified key was not found. Confirm the file and then try again.                                                                        |
| DMEA001079   | 0x00000117 | Cannot use this function for the specified device.                                                                                           |
| DMEA00107A   | 0x0000100D | The firmware replacement of the specified controller cannot be performed. Please replace the firmware of the other controller first.         |
| DMEA00107B   | 0x0000100E | The firmware cannot be read. Please check the permission and available capacity of the install directory.                                    |
| DMEA00107C   | 0x0000100F | The firmware is not read.                                                                                                                    |
| DMEA001080   | 0x00000118 | Cannot set the LU mapping in case of mapping mode is off.                                                                                    |
| DMEA001081   | 0x00000119 | Failed to get drive information.                                                                                                             |
| DMEA001082   | 0x00000429 | The parameter for Additional Battery Unit Mode or the item name is invalid.                                                                  |
| DMEA001083   | 0x00000420 | The parameter for PortOption or the item name is invalid.                                                                                    |
| DMEA001084   | 0x00000421 | The parameter for HostGroupInformation or the item name is invalid.                                                                          |
| DMEA001085   | 0x00000422 | The parameter for HostGroupOption or the item name is invalid.                                                                               |
| DMEA001086   | 0x00000423 | The parameter for LuMapping or the item name is invalid.                                                                                     |
| DMEA001087   | 0x00000424 | The parameter for FibreSecurityInformation or the item name is invalid.                                                                      |
| DMEA001088   | 0x00000425 | The parameter for Common Information or the item name is invalid.                                                                            |
| DMEA001089   | 0x00000426 | Failed to set up a Mapping Mode. Confirm the setting file and then try again.                                                                |
| DMEA001090   | 0x00000427 | The CTL Header is invalid.                                                                                                                   |
| DMEA001091   | 0x00000428 | The PORT Header is invalid.                                                                                                                  |
| DMEA001092   | 0x0000011A | Illegal option set.                                                                                                                          |
| DMEA001093   | 0x0000011B | The function cannot be used because it is not installed, locked, or disabled.                                                                |
| DMEA001094   | 0x00000501 | The specified host group is already defined. Confirm the name or number, and specify a new host group.                                       |
| DMEA001095   | 0x00000502 | The specified host group is not defined. Confirm the name or number, and specify a defined host group.                                       |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                         |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA001096   | 0x00000503 | The host group security on the specified port is set on disable. Set host group security to enable and then try again.                                                                |
| DMEA001097   | 0x00000504 | The function cannot be executed because host group 0 is specified. Specify other than host group 0 and try again.                                                                     |
| DMEA001098   | 0x00000505 | The specified host group name or WWN name is invalid. Confirm the name and try again.                                                                                                 |
| DMEA001099   | 0x00000506 | The specified host group number is invalid. Confirm the number and try again.                                                                                                         |
| DMEA001100   | 0x00000507 | The specified node name is invalid. Confirm the name and try again.                                                                                                                   |
| DMEA001101   | 0x00000508 | The specified port name is invalid. Confirm the name and try again.                                                                                                                   |
| DMEA001102   | 0x00000509 | The parameter for LUN Manager Information or the item name is invalid.                                                                                                                |
| DMEA001103   | 0x0000050A | The same host group name exists in a port. Confirm the setting file and then try again.                                                                                               |
| DMEA001104   | 0x0000050B | The same WWN name exists in a port. Confirm the setting file and then try again.                                                                                                      |
| DMEA001105   | 0x0000050C | The same port name exists in a port. Confirm the setting file and then try again.                                                                                                     |
| DMEA001106   | 0x0000050D | The same host group number exists in a port. Confirm the setting file and then try again.                                                                                             |
| DMEA001107   | 0x0000050E | The information of the host group number 0 is not in a setting file. Confirm the information on the host group number 0 for every port and then try again.                            |
| DMEA001108   | 0x00000520 | The specified Web Title is invalid. Confirm the Web Title and try again.                                                                                                              |
| DMEA001109   | 0x00000510 | In the installed firmware revision, a setup of the Read Frame Min 128 Byte Mode cannot be performed. Please update to the firmware which can set up the Read Frame Min 128 Byte Mode. |
| DMEA00110A   | 0x00000521 | The process cannot be performed because the firmware on the subsystem does not support the function.                                                                                  |
| DMEA00110B   | 0x00000522 | There is no parameter to change the data pool information.                                                                                                                            |
| DMEA00110C   | 0x00000531 | The specified RAID groups and logical units cannot be created because the drive type is different.                                                                                    |
| DMEA00110D   | 0x00000511 | The parameter for Options or the item name is invalid.                                                                                                                                |
| DMEA00110E   | 0x00000512 | The process cannot be performed because the specified RAID level is not supported.                                                                                                    |
| DMEA00110F   | 0x00000513 | The system LU configuration data is invalid.                                                                                                                                          |
| DMEA001110   | 0x00000514 | The user LU configuration data is invalid.                                                                                                                                            |
| DMEA00112A   | 0x00000530 | The hardware configuration of the subsystem differs from the configuration in the input file. Confirm the subsystem status and try again.                                             |
| DMEA00112B   | 0x00000130 | The specified port is not available because it is physically unequipped. Confirm the port status and try again.                                                                       |
| DMEA00112C   | 0x00000540 | In the installed firmware revision, a setup of the HostSystemConfiguration cannot be performed. Please update to the firmware which can set up the HostSystemConfiguration.           |
| DMEA00112D   | 0x00000541 | The parameter for HostSystemConfiguration or the item name is invalid.                                                                                                                |
| DMEA00112E   | 0x00000542 | The process cannot be performed because the attribute is not Read/Write. Please change the attribute to Read/Write and then try again.                                                |
| DMEA00112F   | 0x00000543 | The specified LU is not set retention term. Confirm the LU status.                                                                                                                    |
| DMEA001130   | 0x00000303 | The specified RAID group is already defined. Specify a new RAID group.                                                                                                                |
| DMEA001131   | 0x00000304 | The specified RAID group is not defined. Specify a defined RAID group.                                                                                                                |
| DMEA001132   | 0x0000011C | Failed to create a file. Confirm the execution environment.                                                                                                                           |
| DMEA001133   | 0x0000011D | The file cannot be outputted. Because the performance statistics acquisition failed.                                                                                                  |
| DMEA001134   | 0x00000544 | The retention term cannot be shortened. Specify the retention term is equal to or more than current value and try again.                                                              |
| DMEA001135   | 0x00001010 | The ENC firmware download and replacement cannot be performed in the single-controller system.                                                                                        |
| DMEA001136   | 0x00001011 | The directory for storing the ENC firmware cannot be created. Please check the permission of the install directory.                                                                   |
| DMEA001137   | 0x00001012 | The ENC firmware cannot be read. Please check the permission and available capacity of the install directory.                                                                         |
| DMEA001138   | 0x00001013 | The ENC firmware is not read.                                                                                                                                                         |
| DMEA001139   | 0x00001014 | The ENC firmware of the specified subsystem is not read.                                                                                                                              |
| DMEA001140   | 0x00001015 | The ENC firmware in the specified path does not exist. Please confirm whether the ENC firmware is stored in the path or the specified path is right.                                  |
| DMEA001141   | 0x00001016 | The ENC firmware cannot be read. Please confirm the file and then try again.                                                                                                          |
| DMEA001142   | 0x00001017 | The contents of the ENC firmware are invalid. Please confirm the file and then try again.                                                                                             |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                               |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA001143   | 0x00001018 | Incorrect character in the group name.                                                                                                                                                                                                      |
| DMEA001144   | 0x00001019 | Incorrect character in the array unit name.                                                                                                                                                                                                 |
| DMEA001145   | 0x0000101A | The character length of the array unit name or group name is incorrect.                                                                                                                                                                     |
| DMEA001146   | 0x00000551 | The specified path name of the directory for storing the management file is over 250 characters, or there is not sufficient memory. Please specify the pass name of 250 or less characters, or terminate other programs and then try again. |
| DMEA001147   | 0x00000552 | The directory for storing the management file cannot be created. Please check the permission and available capacity of the directory.                                                                                                       |
| DMEA001148   | 0x00000554 | The specified path name for storing the management file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.                                                                                  |
| DMEA001149   | 0x00000555 | Failed to write the management file. Please check the permission and available capacity of the directory.                                                                                                                                   |
| DMEA00114A   | 0x00000556 | Failed to open the management file. Confirm the file name and then try again.                                                                                                                                                               |
| DMEA00114B   | 0x00000557 | The contents of the management file are invalid. Confirm the file and then try again.                                                                                                                                                       |
| DMEA00114C   | 0x00000558 | The specified path name for the file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.                                                                                                     |
| DMEA00114D   | 0x00000559 | Failed to write the file. Please check the permission and available capacity of the directory.                                                                                                                                              |
| DMEA00114E   | 0x0000055A | Failed to open the file. Confirm the file name and then try again.                                                                                                                                                                          |
| DMEA001150   | 0x0000055C | The specified time of output CSV file is incorrect.                                                                                                                                                                                         |
| DMEA001151   | 0x0000055D | The specified path name for storing the CSV file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.                                                                                         |
| DMEA001152   | 0x0000055E | Failed to write the CSV file. Please check the permission and available capacity of the directory.                                                                                                                                          |
| DMEA001153   | 0x0000055F | Failed to open the CSV file. Confirm the file name and then try again.                                                                                                                                                                      |
| DMEA001154   | 0x00000560 | The specified path name of the directory for storing the CSV file is over 250 characters, or there is not sufficient memory. Please specify the pass name of 250 or less characters, or terminate other programs and then try again.        |
| DMEA001155   | 0x00000561 | The specified path name for the management file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.                                                                                          |
| DMEA001156   | 0x00000562 | The specified path name of the deletion file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.                                                                                             |
| DMEA001157   | 0x00000563 | The monitoring data cannot be read because the data version is new. Confirm the version of this program and then try again.                                                                                                                 |
| DMEA001158   | 0x00000564 | The specified number of output CSV file is incorrect.                                                                                                                                                                                       |
| DMEA001159   | 0x00000600 | The process cannot be performed because the mapping guard LU exists.                                                                                                                                                                        |
| DMEA00115A   | 0x00000565 | Failed to open the management file. Confirm the file name and then try again.                                                                                                                                                               |
| DMEA00115B   | 0x00000567 | The contents of the management file are invalid. Confirm the file and then try again.                                                                                                                                                       |
| DMEA00115C   | 0x00000570 | Failed to connection. Confirm the connection and then try again.                                                                                                                                                                            |
| DMEA00115D   | 0x00000571 | A response without subsystem was received. Confirm the connection and then try again.                                                                                                                                                       |
| DMEA00115E   | 0x00000305 | The process cannot be performed because there is not free area in the specified RAID group.                                                                                                                                                 |
| DMEA001160   | 0x00000306 | The logical unit cannot be defined in the specified area.                                                                                                                                                                                   |
| DMEA001161   | 0x00000307 | The process cannot be performed because the logical unit is already defined in the first area of the specified RAID group.                                                                                                                  |
| DMEA001162   | 0x00000308 | The process cannot be performed because there is not free area in the specified area.                                                                                                                                                       |
| DMEA001163   | 0x00000572 | The value received from the subsystem is invalid.                                                                                                                                                                                           |
| DMEA001164   | 0x00000580 | The specified IP address is incorrect. Please specify a right IP address.                                                                                                                                                                   |
| DMEA001165   | 0x00000581 | The specified subnet mask is incorrect. Please specify a right subnet mask.                                                                                                                                                                 |
| DMEA001166   | 0x00000582 | The specified default gateway address is incorrect. Please specify a right default gateway address.                                                                                                                                         |
| DMEA001167   | 0x00001020 | The information can not be set because the Environment Setting File is over 4096 Bytes. Please confirm the specified file.                                                                                                                  |
| DMEA001168   | 0x00001021 | The information can not be set because the Array Unit Name Setting File is over 255 Bytes. Please confirm the specified file.                                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                       |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA001169   | 0x00001030 | The process cannot be performed because the term of the temporary key or emergency key is expired.                                                                  |
| DMEA001170   | 0x0000101B | The character length of the serial number is incorrect.                                                                                                             |
| DMEA001171   | 0x00001040 | The contents of the license key file are invalid. Please confirm the file and then try again.                                                                       |
| DMEA001172   | 0x00001041 | The contents of the license key file are invalid. Please confirm the file and then try again.                                                                       |
| DMEA001173   | 0x00001042 | The process cannot be performed because the number of license key is over 50. Please confirm the file and then try again.                                           |
| DMEA001175   | 0x00001043 | Could not finish replacing the firmware. Please see if there are any alarms or warnings in the subsystem.                                                           |
| DMEA001176   | 0x00001044 | The process cannot be performed because NNC is physically unequipped. Confirm the NNC status and try again.                                                         |
| DMEA001177   | 0x00001045 | The specified NNC cannot be performed because it is physically unequipped or unconnectable. Please confirm the NNC status and try again.                            |
| DMEA001178   | 0x00001060 | The specified application program does not exist. Please confirm whether the specified application program is stored.                                               |
| DMEA001179   | 0x00001061 | Failed to start the specified application program. Confirm the path to the specified application and the operational environment.                                   |
| DMEA00117A   | 0x0000105A | The contents of the NNC BIOS firmware are invalid. Please confirm the file and then try again.                                                                      |
| DMEA00117B   | 0x00001059 | The NNC BIOS firmware is not read.                                                                                                                                  |
| DMEA00117C   | 0x00001058 | The directory for storing the NNC BIOS firmware cannot be created. Please check the permission of the install directory.                                            |
| DMEA00117D   | 0x00001057 | The NNC BIOS firmware in the specified path does not exist. Please confirm whether the NNC BIOS firmware is stored in the path or the specified path is right.      |
| DMEA00117E   | 0x00001056 | The NNC BIOS firmware cannot be read. Please check the permission and available capacity of the install directory.                                                  |
| DMEA00117F   | 0x00001046 | The process cannot be performed because Fibre Channel Port is physically unequipped. Confirm the subsystem status and try again.                                    |
| DMEA001180   | 0x00001047 | The process cannot be performed because the same address is specified as the NTP server 1 and the NTP server 2. Specify the different address and try again.        |
| DMEA001181   | 0x0000105B | The process cannot be performed because the controller of the NNC is not registered. Register the controller of the NNC and then try again.                         |
| DMEA001182   | 0x0000105C | The process cannot be performed because the connection with controller of the NNC failed. Confirm the subsystem status and the LAN environment, and then try again. |
| DMEA001183   | 0x00001065 | The function cannot be executed because some port is invalid or unequipped. Please confirm the subsystem.                                                           |
| DMEA001184   | 0x00001070 | The process cannot be performed because the port is not connected to the maintenance port. Please confirm the port of connection and try again.                     |
| DMEA001185   | 0x00001071 | The process cannot be performed because the port is not connected to the management LAN. Please confirm the port of connection and try again.                       |
| DMEA001186   | 0x00001075 | The process cannot be performed because iSCSI port is physically unequipped. Please confirm the subsystem status and try again.                                     |
| DMEA001187   | 0x00001076 | The specified target is already defined. Please confirm the name or number and specify a new target.                                                                |
| DMEA001188   | 0x00001077 | The specified target is not defined. Please confirm the name or number and specify a defined target.                                                                |
| DMEA001189   | 0x00001078 | The function cannot be executed because Target 0 is specified. Please specify other than target 0 and try again.                                                    |
| DMEA001190   | 0x00001079 | The specified alias is invalid. Please confirm alias and try again.                                                                                                 |
| DMEA001191   | 0x00001080 | The specified initiator name is invalid. Please confirm initiator name and try again.                                                                               |
| DMEA001192   | 0x00001081 | The specified iSCSI name is invalid. Please confirm iSCSI name and try again.                                                                                       |
| DMEA001193   | 0x00001082 | The specified user name is invalid. Please confirm user name and try again.                                                                                         |
| DMEA001194   | 0x00001083 | The specified secret is invalid. Please confirm secret and try again.                                                                                               |
| DMEA001195   | 0x00000515 | The parameter for Port or the item name is invalid.                                                                                                                 |
| DMEA001196   | 0x00000517 | The specified KeepAliveTimer value is invalid. Confirm the value and try again.                                                                                     |
| DMEA001197   | 0x00000516 | The parameter for iSCSI Port Information or the item name is invalid.                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA001198   | 0x00000518 | The parameter for iSNS Information or the item name is invalid.                                                                                                                                                                                                                              |
| DMEA001199   | 0x00000519 | The specified Port number is invalid. Confirm the number and try again.                                                                                                                                                                                                                      |
| DMEA00119A   | 0x0000051B | The specified Target number is invalid. Confirm the number and try again.                                                                                                                                                                                                                    |
| DMEA00119B   | 0x0000051A | The parameter for TargetInformation or the item name is invalid.                                                                                                                                                                                                                             |
| DMEA00119C   | 0x0000051C | The same Target number exists in a port. Confirm the setting file and then try again.                                                                                                                                                                                                        |
| DMEA00119D   | 0x0000051D | The parameter for Target Security or the item name is invalid.                                                                                                                                                                                                                               |
| DMEA00119E   | 0x0000051E | The parameter for Initiator or the item name is invalid.                                                                                                                                                                                                                                     |
| DMEA00119F   | 0x00000440 | There is no file version.                                                                                                                                                                                                                                                                    |
| DMEA0011A0   | 0x00000441 | There is no start separator.                                                                                                                                                                                                                                                                 |
| DMEA0011A1   | 0x00000442 | The user name is invalid.                                                                                                                                                                                                                                                                    |
| DMEA0011A2   | 0x00000443 | The secret is invalid.                                                                                                                                                                                                                                                                       |
| DMEA0011A3   | 0x00000444 | The alias is invalid.                                                                                                                                                                                                                                                                        |
| DMEA0011A4   | 0x00000445 | The number of target is invalid.                                                                                                                                                                                                                                                             |
| DMEA0011A5   | 0x00000446 | There is no end separator.                                                                                                                                                                                                                                                                   |
| DMEA0011A6   | 0x00000447 | There is no port separator.                                                                                                                                                                                                                                                                  |
| DMEA0011A7   | 0x0000051F | The information of the target number 0 is not in a setting file. Confirm the information on the target number 0 for every port and then try again.                                                                                                                                           |
| DMEA0011A8   | 0x00000532 | The same alias exists in a port. Confirm the setting file and then try again.                                                                                                                                                                                                                |
| DMEA0011A9   | 0x00000533 | The same iSCSI Name exists in a port. Confirm the setting file and then try again.                                                                                                                                                                                                           |
| DMEA0011AA   | 0x00000534 | The same Initiator Name exists in a port. Confirm the setting file and then try again.                                                                                                                                                                                                       |
| DMEA0011AB   | 0x00000535 | The specified MTU value is invalid. Confirm the value and try again.                                                                                                                                                                                                                         |
| DMEA0011AC   | 0x00000448 | The file version is invalid.                                                                                                                                                                                                                                                                 |
| DMEA0011AD   | 0x00000449 | The user name reach the maximum.                                                                                                                                                                                                                                                             |
| DMEA0011AE   | 0x0000044A | The target is not defined.                                                                                                                                                                                                                                                                   |
| DMEA0011AF   | 0x00000536 | The parameter for TargetOption or the item name is invalid.                                                                                                                                                                                                                                  |
| DMEA0011B0   | 0x00001072 | The process cannot be performed because fibre channel port and iSCSI port are physically unequipped. Please confirm the port type and the subsystem status, and try again.                                                                                                                   |
| DMEA0011B1   | 0x00000590 | The specified path name for storing the log file is over 255 characters. Please specify the pass name of 255 or less characters and then try again.                                                                                                                                          |
| DMEA0011B2   | 0x00000591 | The path name for storing the log file is over 255 characters. Please specify the pass name and then try again.                                                                                                                                                                              |
| DMEA0011B3   | 0x00000593 | Failed to write the log file. Please check the permission and available capacity of the directory.                                                                                                                                                                                           |
| DMEA0011B4   | 0x00000594 | The internal log is empty.                                                                                                                                                                                                                                                                   |
| DMEA0011B5   | 0x00000583 | The User LAN Parameter Header is invalid.                                                                                                                                                                                                                                                    |
| DMEA0011B6   | 0x00000584 | The CTL Parameter Header is invalid.                                                                                                                                                                                                                                                         |
| DMEA0011B7   | 0x00000585 | The parameter for User LAN Parameter or the item name is invalid.                                                                                                                                                                                                                            |
| DMEA0011B8   | 0x00000586 | The Maintenance LAN Parameter Header is invalid.                                                                                                                                                                                                                                             |
| DMEA0011B9   | 0x00000587 | The parameter for Maintenance LAN Parameter or the item name is invalid.                                                                                                                                                                                                                     |
| DMEA0011BA   | 0x00000588 | The process cannot be performed because NNC is equipped. Please confirm the port type and try again.                                                                                                                                                                                         |
| DMEA0011BB   | 0x00000589 | The process cannot be performed because the DHCP setting is different between the subsystem and input file. Please confirm the DHCP setting and try again.                                                                                                                                   |
| DMEA0011BC   | 0x0000058A | The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.                                                                                                                                                                                   |
| DMEA0011BD   | 0x0000058B | The process cannot be performed because the User LAN port of subsystem is being used by other applications. Refer to [netstat.X.Y.inf](X:Serial Number, Y:Date) file in the directory where Navigator is installed, close applications using User LAN port of subsystem, and then try again. |
| DMEA0011BE   | 0x00001084 | The process cannot be performed because the owner ID is different. Please split the pair using the application that created the pair.                                                                                                                                                        |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA002000   | 0x00002000 | Rebooting might have failed, because an error occurred while communicating with the subsystem. Please reboot once again.                                                                                                                                                                                                                                     |
| DMEA002001   | 0x00002001 | The specified password is invalid. Please confirm the password and try again.                                                                                                                                                                                                                                                                                |
| DMEA002002   | 0x00002002 | The process cannot be performed because account is disabled. Please confirm the account status and try again.                                                                                                                                                                                                                                                |
| DMEA002003   | 0x00002003 | The process cannot be performed because the number of mapping for this port will reach the maximum. Please delete unnecessary mapping and try again.                                                                                                                                                                                                         |
| DMEA002004   | 0x00002004 | The specified group does not exist. Please specify a exist group.                                                                                                                                                                                                                                                                                            |
| DMEA002005   | 0x00002005 | The specified pair is not defined. Please specify a defined pair.                                                                                                                                                                                                                                                                                            |
| DMEA002006   | 0x00002006 | The specified pair is not defined in the specified group. Please confirm the pair definition and try again.                                                                                                                                                                                                                                                  |
| DMEA002007   | 0x00002007 | The specified pair is not defined or is not P-VOL in the self subsystem. When a pair is defined, please try again by connected subsystem.                                                                                                                                                                                                                    |
| DMEA002008   | 0x00002008 | The invalid character is specified in group name. Please confirm the group name.                                                                                                                                                                                                                                                                             |
| DMEA002009   | 0x00002009 | The invalid character is specified in pair name. Please confirm the pair name.                                                                                                                                                                                                                                                                               |
| DMEA00200A   | 0x0000200A | The invalid character is specified in split string. Please confirm the split string.                                                                                                                                                                                                                                                                         |
| DMEA00200B   | 0x0000200B | The specified group does not have the pair. Please specify a exist group.                                                                                                                                                                                                                                                                                    |
| DMEA00200C   | 0x0000200C | The requested operation cannot not be finished. Confirm the subsystem status and the LAN environment, and then try again.                                                                                                                                                                                                                                    |
| DMEA00200D   | 0x0000200D | The specified pair is not defined or is not S-VOL in the self subsystem. When a pair is defined, please try again by connected subsystem.                                                                                                                                                                                                                    |
| DMEA00200E   | 0x0000200E | Hitachi Storage Navigator Modular 2 is less than Ver.6.50.<br>Could not finish replacing the firmware. To complete replacing the firmware, power OFF and then power ON the subsystem.                                                                                                                                                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.50 or more.<br>Could not finish replacing the firmware. Confirm the subsystem status and the LAN environment, and then try again only the updating. Please try it again at least three times until complete it normally. If you cannot totally complete it normally, power OFF and then power ON the subsystem. |
| DMEA00200F   | 0x0000200F | The process cannot be performed because the pair attribute that cannot operate. Please confirm the pair definition and try again.                                                                                                                                                                                                                            |
| DMEA002010   | 0x00002010 | The process cannot be performed because the pair attribute that cannot operate. Please confirm the pair definition and try again.                                                                                                                                                                                                                            |
| DMEA002011   | 0x00002011 | The process cannot be performed because the certificate file size is invalid. Please confirm the certificate file size and try again.                                                                                                                                                                                                                        |
| DMEA002012   | 0x00002012 | The process cannot be performed because the specified battery count is outside the effective range. Please confirm the battery count.                                                                                                                                                                                                                        |
| DMEA002013   | 0x00002013 | The initialization of configuration information might have failed, because an error occurred in the communication with the subsystem. Please initialize configuration information once again.                                                                                                                                                                |
| DMEA002014   | 0x00002014 | Failed to initialization of configuration information.                                                                                                                                                                                                                                                                                                       |
| DMEA002015   | 0x00002015 | The subsystem cannot initialize configuration information.                                                                                                                                                                                                                                                                                                   |
| DMEA002016   | 0x00002016 | The process cannot be performed because the connection with controller 0 failed. Confirm the subsystem status and the LAN environment, and then try again.                                                                                                                                                                                                   |
| DMEA002017   | 0x00002017 | The process cannot be performed because the connection with controller 1 failed. Confirm the subsystem status and the LAN environment, and then try again.                                                                                                                                                                                                   |
| DMEA002018   | 0x00002018 | The registered information does not match the status of the subsystem. Correct the information to match the status of the subsystem and then try again.                                                                                                                                                                                                      |
| DMEA002019   | 0x00002019 | The specified IP address is incorrect, or it failed in the name resolution of the host name. Please confirm the connection and then try again.                                                                                                                                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEA00201A   | 0x0000201A | The protocol version of IP address or the host name specified for controller 0 and controller 1 do not match. Please confirm the connection and then try again.                                                                                                                                                                                                                                                                                                                   |
| DMEA00201B   | 0x0000201B | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>The process cannot be performed because the split without executing the copy. Please make a pair, and please split after a copy is completed.<br>Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>The automatic split immediately after the pair creation and the copying from the S-VOL to the P-VOL after the pair creation cannot be specified at a time. Please confirm the operation and try again. |
| DMEA00201C   | 0x0000201C | The specified IP address is incorrect. Please specify a right IP address.                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEA00201D   | 0x0000201D | The specified default gateway address is incorrect. Please specify a right default gateway address.                                                                                                                                                                                                                                                                                                                                                                               |
| DMEA00201E   | 0x0000201E | The automatic split immediately after the pair creation cannot be specified to the pair which belongs to the group. Please confirm the operation and try again.                                                                                                                                                                                                                                                                                                                   |
| DMEA00201F   | 0x0000201F | Two or more remote array ID cannot be changed. Please confirm the operation and try again.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEA002020   | 0x00002020 | The specified remote path name is not defined. Please specify a defined remote path name.                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEA002021   | 0x00002021 | The invalid character is specified in remote path name. Please confirm the remote path name.                                                                                                                                                                                                                                                                                                                                                                                      |
| DMEA002022   | 0x00002022 | The specified serial number or array ID does not exist. Please specify a right serial number or array ID.                                                                                                                                                                                                                                                                                                                                                                         |
| DMEA002023   | 0x00002023 | There is no remote array ID for change. Please confirm the operation and try again.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEA002024   | 0x00002024 | The process cannot be performed because DC power supply is physically unequipped. Please confirm the subsystem status and try again.                                                                                                                                                                                                                                                                                                                                              |
| DMEA002025   | 0x00002025 | The process cannot be performed because the number of registered subsystems is over the maximum. Please delete unnecessary information and then try again.                                                                                                                                                                                                                                                                                                                        |
| DMEA002026   | 0x00002026 | The process cannot be performed because the specified parameter is not supported. Please confirm the operation and try again.                                                                                                                                                                                                                                                                                                                                                     |
| DMEA002027   | 0x00002027 | The specified file name for storing the CSV file is over 50 characters. Please specify the file name of 50 or less characters and then try again.                                                                                                                                                                                                                                                                                                                                 |
| DMEA002028   | 0x00002028 | The specified RAID group is already defined or used by DP pool. Please specify a new RAID group.                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEA002029   | 0x00002029 | Built-in account could not be set as an account for error monitoring. Please specify another user ID.                                                                                                                                                                                                                                                                                                                                                                             |
| DMEA00202A   | 0x0000202A | The specified Shared Secret is incorrect. Please confirm the Shared Secret and try again.                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEA00202B   | 0x0000202B | The DM-LU cannot be mapped. Confirm the setting file and then try again.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEA00202C   | 0x0000202C | The directory does not exist. Please confirm the directory and then try again.                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEA00202D   | 0x0000202D | The shutdown might have failed, because an error occurred while communicating with the subsystem. Please try again.                                                                                                                                                                                                                                                                                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                  |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------|
| DMEC002000   | —          | Cannot write the directory specified STONAVM_HOME.                                                                             |
| DMEC002003   | 0x0000A004 | Essential option/parameter not enough.                                                                                         |
| DMEC002006   | 0x0000A010 | No entry.                                                                                                                      |
| DMEC002015   | 0x0000A011 | No information displayed.                                                                                                      |
| DMEC002016   | 0x0000A00F | Illegal option set.                                                                                                            |
| DMEC002017   | 0x0000A012 | Cannot execute the command for the array unit of current firmware revision.                                                    |
| DMEC002018   | 0x0000A01C | Could not execute the function, because the array unit does not support the password protection function.                      |
| DMEC002019   | 0x0000A013 | No array units registered for error alert.                                                                                     |
| DMEC002020   | 0x0000A014 | Cannot add Send to address, because 20 addresses are already defined.                                                          |
| DMEC002021   | 0x0000A015 | The function cannot be executed because option is locked, or disabled.                                                         |
| DMEC002022   | 0x0000A016 | The function cannot be executed because the target mode of connected controller is not M-TID,M-LUN.                            |
| DMEC002023   | 0x0000A017 | The additional information was not registered to the specified subsystem.                                                      |
| DMEC002024   | 0x0000A018 | The specified RAID group cannot be deleted because it contains an already defined LU.                                          |
| DMEC002025   | 0x0000A019 | Cannot delete the logical unit, because no logical units defined.                                                              |
| DMEC002026   | 0x0000A01A | Failed to open the manual file.                                                                                                |
| DMEC002027   | 0x0000A01B | The specified drive is not defined.                                                                                            |
| DMEC002028   | 0x0000A01C | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.                                                                     |
|              |            | Cannot use this command for the specified device.                                                                              |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.                                                                       |
|              |            | This command is not available for the product type specified.                                                                  |
| DMEC002029   | 0x0000A01D | Cannot use this function for the specified device of this configuration.                                                       |
| DMEC002030   | 0x0000A01E | The function cannot be executed because mapping mode is off.                                                                   |
| DMEC002031   | 0x0000A01F | Insufficient memory. Terminate other programs and then try again.                                                              |
| DMEC002032   | 0x0000A020 | The specified port is not available because its host group security is disabled. Enable the host group security and try again. |
| DMEC002033   | 0x0000A021 | The specified host group is already defined. Try with another name or number.                                                  |
| DMEC002034   | 0x0000A022 | The specified host group is not defined. Confirm the name or number, and specify a defined host group.                         |
| DMEC002035   | 0x0000A023 | The specified WWN name is already defined. Specify a new WWN name.                                                             |
| DMEC002036   | 0x0000A024 | The specified WWN is not defined. Specify a defined WWN.                                                                       |
| DMEC002037   | 0x0000A026 | The specified WWN is already assigned to a host group. Specify a WWN that is not assigned to any of the host groups.           |
| DMEC002038   | 0x0000A027 | The specified WWN is not assigned to any of the host groups. Specify a WWN that is already assigned to a host group.           |
| DMEC002039   | 0x0000A029 | The number of registered WWNs reached the maximum. Delete unnecessary information and then try again.                          |
| DMEC002040   | 0x0000A028 | The number of registered host group reached the maximum. Delete unnecessary information and then try again.                    |
| DMEC002041   | 0x0000A030 | The specified WWN has not been logged in. Specify a WWN that is logged in.                                                     |
| DMEC002042   | 0x0000A031 | The function cannot be executed because host group 0 is specified. Specify except host group 0 and try again.                  |
| DMEC002043   | 0x0000A032 | The specified port name is already defined. Specify a new port name.                                                           |
| DMEC002044   | 0x0000A033 | No option entry.                                                                                                               |
| DMEC002045   | 0x0000A034 | The number of defined logical unit reached the maximum. Delete unnecessary logical units and then try again.                   |
| DMEC002046   | 0x0000A035 | The specified logical unit capacity is not reallocated.                                                                        |
| DMEC002047   | 0x0000A036 | The specified logical unit number is already defined. Specify a new logical unit.                                              |
| DMEC002048   | 0x0000A037 | The specified logical unit is not defined. Specify a defined logical unit.                                                     |
| DMEC002049   | 0x0000A038 | The function cannot be executed because the password protection function is enabled.                                           |
| DMEC002050   | 0x0000A039 | The function cannot be executed because the format mode is not queue.                                                          |
| DMEC002051   | 0x0000A040 | The specified logical unit(s) contain sub logical unit. Confirm the logical unit status and try again.                         |
| DMEC002052   | 0x0000A041 | The specified logical unit(s) contain invalid logical unit. Confirm the logical unit status and try again.                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                   |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEC002053   | 0x0000A042 | The information on the specified logical unit cannot be displayed.                                                                                              |
| DMEC002054   | 0x0000A043 | The number of logical units have reached the maximum. Delete unnecessary logical units and then try again.                                                      |
| DMEC002055   | 0x0000A044 | The specified logical unit is not a Snapshot image. Specify a Snapshot image.                                                                                   |
| DMEC002056   | 0x0000A045 | The process cannot be performed because the number of logical units in the data pool reached the maximum. Delete unnecessary logical units and then try again.  |
| DMEC002057   | 0x0000A046 | The data pool cannot be used. Please restart the subsystem.                                                                                                     |
| DMEC002058   | 0x0000A047 | The process cannot be performed because no logical units is in the data pool. Add a logical unit to the data pool and try again.                                |
| DMEC002059   | 0x0000A048 | When changing the attribute to Read/Write, the retention term cannot be specified.                                                                              |
| DMEC002060   | 0x0000A049 | The process cannot be performed because there are some uncorrected logical units. Start or skip parity correction and try again.                                |
| DMEC002061   | 0x0000A04A | Cannot execute the option for the array unit of current firmware revision.                                                                                      |
| DMEC002062   | 0x0000A04B | The specified logical unit number is already defined as a command device. Specify another logical unit number.                                                  |
| DMEC002063   | 0x0000A04C | The command device is not registered. Register the command device and try again.                                                                                |
| DMEC002064   | 0x0000A04D | The process cannot be performed because the Multiple Stream Mode of system parameter is disabled. Please set the Multiple Stream Mode to enable then try again. |
| DMEC002065   | 0x0000A04E | The specified logical unit number is not defined as a command device. Specify a logical unit that is already defined to a command device.                       |
| DMEC002066   | 0x0000A04F | The Cache Residency function cannot be used because it is not installed, locked, or disabled.                                                                   |
| DMEC002067   | 0x0000A050 | The specified RAID group is not defined. Specify a defined RAID group.                                                                                          |
| DMEC002068   | 0x0000A051 | The logical unit cannot be created because there is not free area in the specified RAID group.                                                                  |
| DMEC002069   | 0x0000A052 | The logical unit cannot be created because the specified area does not exist. Confirm the free area of the RAID group, and try again.                           |
| DMEC002070   | 0x0000A053 | The number of registered subsystems has reached the maximum. Delete unnecessary information and then try again.                                                 |
| DMEC002071   | 0x0000A054 | The number of spare drives reach the maximum. Confirm the specified spare drives, and try again.                                                                |
| DMEC002072   | 0x0000A055 | The number of DM-LU have reached the maximum. Release unnecessary DM-LU and then try again.                                                                     |
| DMEC002073   | 0x0000A056 | The specified logical unit number is not defined as a DM-LU. Specify a logical unit that is already defined to a DM-LU.                                         |
| DMEC002074   | 0x0000A057 | The specified logical unit is not Main logical unit. Specify a Main logical unit.                                                                               |
| DMEC002075   | 0x0000A058 | The manual file of specified command is not found.                                                                                                              |
| DMEC002076   | 0x0000A059 | The number of spare drives have reached the maximum. Delete unnecessary spare drives and then try again.                                                        |
| DMEC002077   | 0x0000A05A | The logical units are undefined. Please confirm logical units definition and try again.                                                                         |
| DMEC002078   | 0x0000A05B | The RAID groups are undefined. Please confirm RAID groups definition and try again.                                                                             |
| DMEC002079   | 0x0000A104 | The number of cache partition have reached the maximum. Delete unnecessary cache partition and then try again.                                                  |
| DMEC002080   | 0x0000A105 | The CTL0 cannot be specified because the cache partition to set up is not deleted. When specifying the CTL0, please restart and then try again.                 |
| DMEC002081   | 0x0000A106 | The CTL1 cannot be specified because the cache partition to set up is not deleted. When specifying the CTL1, please restart and then try again.                 |
| DMEC002082   | 0x0000A05C | No unlockable option is exists in license key file. Please specify the valid file and try again.                                                                |
| DMEC002083   | 0x0000A05D | Specify the option is equal to or more than 1.                                                                                                                  |
| DMEC002084   | 0x0000A05E | Cannot execute the command for the array unit of current firmware revision.                                                                                     |
| DMEC002086   | 0x0000A060 | The process cannot be performed because the time zone does not have daylight saving time. Please confirm the time zone.                                         |
| DMEC002087   | 0x0000A061 | The process cannot be performed because NNC is unequipped. Please confirm the port status and try again.                                                        |
| DMEC002088   | 0x0000A062 | The process cannot be performed because all ports are used for NAS. Please confirm the port type and try again.                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                               |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEC002089   | 0x0000A063 | The process cannot be performed because fibre channel port is unequipped. Please confirm the port status and try again.                                                                     |
| DMEC002090   | 0x0000A064 | The specified port is NAS port. Please confirm the port type and try again.                                                                                                                 |
| DMEC002091   | 0x0000A065 | The specified port is not fibre channel port. Please confirm the port type and try again.                                                                                                   |
| DMEC002092   | 0x0000A066 | The host address cannot be changed. Please specify the same host address as a setting value.                                                                                                |
| DMEC002093   | 0x0000A067 | The process cannot be performed because the port is not connected the user port. Please confirm the port of connection and try again.                                                       |
| DMEC002094   | 0x0000A068 | The process cannot be performed because the specified H-LUN or LUN is already setted the user LU. Please confirm the setting of user LU and try again.                                      |
| DMEC002095   | 0x0000A069 | The process cannot be performed because the specified H-LUN or LUN is not setted the user LU or is already setted the another user LU. Please confirm the setting of user LU and try again. |
| DMEC002096   | 0x0000A06A | The port is unequipped. Confirm the port status and try again.                                                                                                                              |
| DMEC002097   | 0x0000A06B | Cannot specify the parameter for this array unit.                                                                                                                                           |
| DMEC002098   | 0x0000A06C | Cannot execute the option for the array unit of current firmware revision.                                                                                                                  |
| DMEC002099   | 0x0000A06D | The function cannot be executed because some port is invalid or unequipped. Please confirm the subsystem.                                                                                   |
| DMEC002100   | 0x0000A100 | The specified port is not available because it is physically unequipped. Confirm the port status and try again.                                                                             |
| DMEC002101   | 0x0000A101 | The specified LU is not invalid. Specify the invalid LU and try again.                                                                                                                      |
| DMEC002102   | 0x0000A102 | The collection of performance statistics information is not started. Please start it.                                                                                                       |
| DMEC002103   | 0x0000A103 | The directory does not exit.                                                                                                                                                                |
| DMEC002104   | 0x0000A072 | The specified target is already defined. Try with another alias or number.                                                                                                                  |
| DMEC002105   | 0x0000A073 | The specified iSCSI name is already defined. Specify a new iSCSI name.                                                                                                                      |
| DMEC002106   | 0x0000A074 | The specified target is not defined. Confirm the name or numbers, and specify a defined target.                                                                                             |
| DMEC002107   | 0x0000A075 | The function cannot be executed because target 000 is specified. Specify except target 000 and try again.                                                                                   |
| DMEC002108   | 0x0000A076 | The specified iSCSI name is not defined. Specify a defined iSCSI name.                                                                                                                      |
| DMEC002109   | 0x0000A077 | The specified initiator name is not defined. Specify a defined initiator name.                                                                                                              |
| DMEC002110   | 0x0000A078 | The specified initiator is not defined. Specify a defined initiator.                                                                                                                        |
| DMEC002112   | 0x0000A07A | The specified initiator is not assigned to the target. Please specify already assigned initiator.                                                                                           |
| DMEC002114   | 0x0000A07C | The specified initiator name is already defined. Specify a new initiator name.                                                                                                              |
| DMEC002115   | 0x0000A07D | The number of registered initiators reached the maximum. Delete unnecessary initiator and then try again.                                                                                   |
| DMEC002116   | 0x0000A07E | The specified user name is not defined. Specify a defined user name.                                                                                                                        |
| DMEC002117   | 0x0000A07F | The number of registered CHAP users reached the maximum. Delete unnecessary CHAP user and then try again.                                                                                   |
| DMEC002118   | 0x0000A080 | The specified user name is already defined. Specify a new user name.                                                                                                                        |
| DMEC002119   | 0x0000A081 | The specified user name is not defined. Specify a defined user name.                                                                                                                        |
| DMEC002120   | 0x0000A082 | The specified target is not assigned to any of the CHAP user. Specify a target that is already assigned to a CHAP user.                                                                     |
| DMEC002121   | 0x0000A083 | The process cannot be performed because the specified H-LUN or LUN is not map or is already map to the another H-LUN or LUN. Please confirm the mapping and try again.                      |
| DMEC002122   | 0x0000A084 | The process cannot be performed because the specified H-LUN or LUN is already map. Please confirm the mapping and try again.                                                                |
| DMEC002123   | 0x0000A085 | The specified user name is already defined. Specify a new user name.                                                                                                                        |
| DMEC002124   | 0x0000A086 | The specified initiator is already assigned. Please specify an initiator that is not assigned.                                                                                              |
| DMEC002125   | 0x0000A087 | The process cannot be performed because the iSNS server is not used.                                                                                                                        |
| DMEC002126   | 0x0000A088 | The process cannot be performed because iSCSI port is unequipped. Please confirm the port type and try again.                                                                               |
| DMEC002127   | 0x0000A089 | The specified port is not iSCSI port. Please confirm the port type and try again.                                                                                                           |
| DMEC002128   | 0x0000A08A | The specified port is not available because its target security is disabled. Enable the target security and try again.                                                                      |
| DMEC002129   | 0x0000A08B | The number of registered target reached the maximum. Delete unnecessary information and then try again.                                                                                     |



| Message code | Error code | Message text/Recovery methods                                                                                                                   |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEC002130   | 0x0000A08C | The process cannot be performed because the Read Mode is disabled. Please set the Read Mode to enable then try again.                           |
| DMEC002131   | 0x0000A08D | The specified parameter cannot be set because the Read Mode is enabled. Please set the Read Mode to disable then try again.                     |
| DMEC002132   | 0x0000A08E | The process cannot be performed because fibre channel port and iSCSI port are unequipped. Please confirm the port type and try again.           |
| DMEC002133   | 0x0000A08F | The process cannot be performed because the scope is not the LU.                                                                                |
| DMEC002134   | 0x0000A090 | The process cannot be performed because the DHCP is enabled.                                                                                    |
| DMEC002135   | 0x0000A091 | Failed to open the file. Confirm the file name and then try again.                                                                              |
| DMEC002136   | 0x0000A092 | The process cannot be performed because the IP address of syslog server1 is not defined. Please define the IP address and then try again.       |
| DMEC002137   | 0x0000A093 | The process cannot be performed because the syslog server transfer is disabled. Please set the syslog server transfer to enable then try again. |
| DMEC002138   | 0x0000A094 | The process cannot be performed because the syslog server2 is not used. Please set the syslog server2 to used then try again.                   |
| DMEC002139   | 0x0000A095 | The process cannot be performed because the IP address of syslog server2 is not defined. Please define the IP address and then try again.       |
| DMEC002140   | 0x0000A096 | The process cannot be performed because the option of '-syslogsrv' is disabled.                                                                 |
| DMEC002141   | 0x0000A097 | The process cannot be performed because the option of '-srv2' is disabled.                                                                      |
| DMEC002142   | 0x0000A098 | The specified logical unit cannot be set as the P-VOL of the Volume Migration Pair. Confirm the logical unit status and try again.              |
| DMEC002147   | 0x0000A09D | You cannot login. Please specify the user ID and password.                                                                                      |
| DMEC002148   | 0x0000A09E | The specified user ID is not registered. Please confirm the user ID.                                                                            |
| DMEC002149   | 0x0000A0A0 | The user ID is not set.                                                                                                                         |
| DMEC002150   | 0x0000A0A1 | Failed to delete the password file.                                                                                                             |
| DMEC002151   | 0x0000A0A2 | The password is too long.                                                                                                                       |
| DMEC002152   | 0x0000A0A3 | Failed to get the account information. Please set the account information using auaccountenv command.                                           |
| DMEC002153   | 0x0000A0A4 | The test cannot be specified because the monitoring account is disabled. Please set the monitoring account to enable.                           |
| DMEC002154   | 0x0000A0A5 | The specified unit name is not registered or is not monitoring.                                                                                 |
| DMEC002155   | 0x0000A0A6 | The user ID is too long.                                                                                                                        |
| DMEC002156   | 0x0000A0A7 | The user ID is not registered. Please specify the user ID.                                                                                      |
| DMEC002157   | 0x0000A0A8 | You have no permission. Please contact the Account Administrator and confirm your permission.                                                   |
| DMEC002158   | 0x0000A0A9 | The user name is too long.                                                                                                                      |
| DMEC002159   | 0x0000A0AA | The iSCSI name is too long.                                                                                                                     |
| DMEC002160   | 0x00002160 | The specified NNC configuration is different from the subsystem. Please specify equipped NNC configuration.                                     |
| DMEC002161   | 0x00002161 | The firmware replacement cannot be performed in the single-controller system. Please retry by dual-controller system.                           |
| DMEC002162   | 0x00002162 | The value received from the subsystem is invalid.                                                                                               |
| DMEC002163   | 0x00002163 | The specified pair does not exist.                                                                                                              |
| DMEC002164   | 0x00002164 | The specified group has no pair.                                                                                                                |
| DMEC002165   | 0x00002165 | The specified group number and group name do not match.                                                                                         |
| DMEC002166   | 0x0000A0B1 | The destination address can be added because the address reached the maximum. Please remove the unnecessary destination address. And try again. |
| DMEC002167   | 0x0000A0B2 | The specified destination address is already set.                                                                                               |
| DMEC002168   | 0x0000A0B3 | The specified destination address is not set.                                                                                                   |
| DMEC002169   | 0x0000A0B4 | The destination address can be removed because the address reached the minimum.                                                                 |
| DMEC002170   | 0x0000A0B5 | The option is required for the array unit of current firmware revision.                                                                         |
| DMEC002171   | 0x0000A0B6 | The specified group does not exist.                                                                                                             |
| DMEC002172   | 0x0000A0B7 | The specified banner is too long.                                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| DMEC002173   | 0x0000A0B8 | Cannot specify the option for this array unit.                                                                                               |
| DMEC002174   | 0x0000A0B9 | The specified drive is already defined as a spare drive, or is already being used in the RAID group.                                         |
| DMEC002175   | 0x0000A0BA | The specified pair of S-VOL is not defined or is not S-VOL in the self subsystem. Please confirm the S-VOL.                                  |
| DMEC002176   | 0x0000A0BB | The specified array ID does not exist. Please confirm whether the remote path is set.                                                        |
| DMEC002177   | 0x0000A0BD | The specified logical unit capacity is the same as current capacity. Please confirm the logical unit capacity.                               |
| DMEC002178   | 0x0000A0BE | The specified RAID level of RAID group is not supported. Please confirm the RAID level.                                                      |
| DMEC002179   | 0x0000A0BF | The number of drives is invalid. Please specify in multiples of 2, when RAID level is RAID1 or RAID1+0.                                      |
| DMEC002180   | 0x0000A0C0 | The number of drives reach the maximum. Please confirm the number of drives.                                                                 |
| DMEC002181   | 0x0000A0C1 | Two or more parameters cannot be specified for the array unit of current firmware revision.                                                  |
| DMEC002182   | 0x0000A0C2 | When shrinking the logical unit, this option cannot specify.                                                                                 |
| DMEC002183   | 0x0000A0C3 | The process cannot be specified because the IPv6 Setting Mode is auto.                                                                       |
| DMEC002184   | 0x0000A0C4 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                   |
|              |            | The IP address format is invalid. Please confirm the IP address format.                                                                      |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                     |
|              |            | The specified IP address is incorrect. Please specify a right IP address.                                                                    |
| DMEC002185   | 0x0000A0C5 | The logical unit cannot be grown because the specified area does not exist. Confirm the free area of the RAID group, and try again.          |
| DMEC002186   | 0x0000A0C6 | The IPv4 and IPv6 cannot be specified at the same time.                                                                                      |
| DMEC002187   | 0x0000A0C7 | The address other than 2 figures of low order in host address. Please specify the same address as a setting value.                           |
| DMEC002188   | 0x0000A0C8 | The parameter cannot be specified for the array unit of current firmware revision.                                                           |
| DMEC002189   | 0x0000A0C9 | The RAID Group cannot be expanded because the drive configuration of RAID level is maximum.                                                  |
| DMEC002190   | 0x0000A0CA | The specified remote path name cannot be used. Please confirm the remote path name.                                                          |
| DMEC002191   | 0x0000A0CB | The version of CLI and API is mismatch. Please install the navigator again.                                                                  |
| DMEC002192   | 0x0000A0CC | The specified DP pool is not defined. Please specify a defined DP pool.                                                                      |
| DMEC002193   | 0x0000A0CD | When growing or shrinking the logical unit in DP pool, this option cannot be specified.                                                      |
| DMEC002194   | 0x0000A0CE | The process cannot be performed because external authentication server1 is already set.                                                      |
| DMEC002195   | 0x0000A0CF | The process cannot be performed because external authentication server2 is already set.                                                      |
| DMEC002196   | 0x0000A0D0 | The process cannot be performed because external authentication server1 is not set.                                                          |
| DMEC002197   | 0x0000A0D1 | The process cannot be performed because external authentication server2 is not set.                                                          |
| DMEC002198   | 0x0000A0D2 | The process cannot be performed because external authentication server1 is not set. Please set server1 and try again.                        |
| DMEC002199   | 0x0000A0D3 | The process cannot be performed because external authentication server2 is set. Please confirm external authentication server and try again. |
| DMEC002200   | 0x0000A0D4 | When the user authentication is Internal, this option cannot be specified.                                                                   |
| DMEC002201   | 0x0000A0D5 | When the user authentication is RADIUS, this option cannot be specified.                                                                     |
| DMEC002202   | 0x0000A0D6 | The DP pools are undefined. Please confirm DP pools definition and try again.                                                                |
| DMEC002203   | 0x0000A0D7 | The logical unit which does not belong to DP pool cannot be specified.                                                                       |
| DMEC002204   | 0x0000A0D8 | When growing the logical unit, this option cannot be specified.                                                                              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                     |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED010001   | 0x03010001 | The same host group name exists in a port. Confirm the host group name and then try again.                                                                        |
| DMED010002   | 0x03010002 | The same WWN name exists in a port. Confirm the WWN name and then try again.                                                                                      |
| DMED010003   | 0x03010003 | WWN cannot be assigned to an undefined host group. Specify a defined host group and try again.                                                                    |
| DMED010004   | 0x03010004 | The function cannot be executed because host group security on some port is set to enabled. Set host group security to disable on all ports and try again.        |
| DMED010005   | 0x03010005 | The process cannot be performed because the target security on some port is set to enabled. Please set the target security to disable on all ports and try again. |
| DMED010006   | 0x03010006 | The process cannot be performed because the specified name is default name of host group 0. Please confirm the name and try again.                                |
| DMED020001   | 0x03020001 | The value of Dirty Data Opportunity is outside the effective range. Specify the value in the effective range and try again.                                       |
| DMED020002   | 0x03020002 | The value of Dirty Data Stop Opportunity is outside the effective range. Specify the value in the effective range and try again.                                  |
| DMED020003   | 0x03020003 | The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.                               |
| DMED020004   | 0x03020004 | Prefetch Starting Opportunity is outside the effective range. Specify the value of effective range and try again.                                                 |
| DMED020005   | 0x03020005 | LU number is outside the effective range. Specify the LU number of effective range and try again.                                                                 |
| DMED020006   | 0x03020006 | Reserved Random Simple Buffer Size is outside the effective range. Specify the value of effective range and try again.                                            |
| DMED020007   | 0x03020007 | The process failed due to an invalid parameter of Random Simple Buffer Size 0% Mode. Confirm the specified parameter.                                             |
| DMED020008   | 0x03020008 | Prefetch Count is outside the effective range. Specify the value in the effective range and try again.                                                            |
| DMED020009   | 0x03020009 | Prefetch Size is outside the effective range. Specify the value in the effective range and try again.                                                             |
| DMED02000A   | 0x0302000A | The process failed due to an invalid parameter of Next Prefetch Opportunity Mode. Confirm the specified parameter.                                                |
| DMED02000B   | 0x0302000B | The process cannot be performed because the Multiple Stream Mode of system parameter is disabled. Please set the Multiple Stream Mode to enable then try again.   |
| DMED020010   | 0x03020010 | Count of Judgment Sequential is outside the effective range. Specify the value in the effective range and try again.                                              |
| DMED020011   | 0x03020011 | Prefetch Size of Base is outside the effective range. Specify the value in the effective range and try again.                                                     |
| DMED020012   | 0x03020012 | Prefetch Size of Fixed is outside the effective range. Specify the value in the effective range and try again.                                                    |
| DMED020013   | 0x03020013 | The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.                               |
| DMED020014   | 0x03020014 | The process cannot be performed because the specified Load Balancing value is outside the effective range. Please set up an effective value.                      |
| DMED020015   | 0x03020015 | The process cannot be performed because the specified Load Balancing Monitoring Time is outside the effective range. Please set up an effective value.            |
| DMED030001   | 0x03030001 | The specified LU is already invalid. Confirm the LU status and try again.                                                                                         |
| DMED030002   | 0x03030002 | The number of LU reached the maximum. Delete unnecessary LUs and try again.                                                                                       |
| DMED030003   | 0x03030003 | The specified LU is not invalid. Specify the invalid LU and try again.                                                                                            |
| DMED030004   | 0x03030004 | The specified LU capacity is equal to or more than the capacity of original LU. Confirm the LU capacity and try again.                                            |
| DMED030006   | 0x03030006 | The specified LU is not invalid. Specify the invalid LU and try again.                                                                                            |
| DMED030007   | 0x03030007 | The specified LU is unformatted. Specify a formatted LU and try again.                                                                                            |
| DMED030008   | 0x03030008 | The number of LU reached the maximum. Delete unnecessary LUs and try again.                                                                                       |
| DMED030009   | 0x03030009 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                           |
| DMED03000A   | 0x0303000A | The specified LU capacity is equal to or less than the minimum capacity of an LU. Specify a larger capacity than the minimum capacity and try again.              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED03000B   | 0x0303000B | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMED040001   | 0x03040001 | The specified LUs contain Sub LU. Confirm the LU status and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMED040003   | 0x03040003 | The specified LUs contain regressed or detached LU. Confirm the LU status and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMED040004   | 0x03040004 | The specified LUs contain an un-mounted drive. Confirm the drive status and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMED040005   | 0x03040005 | The specified LUs contains an invalid LU. Confirm the LU status and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMED040006   | 0x03040006 | Someone already logged in. Set password protection function to disabled and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMED040007   | 0x03040007 | There is no LU entered to format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMED040008   | 0x03040008 | Format of the logical unit cannot be performed under drive blockade mode. Please turn off the drive blockade mode system parameter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMED040009   | 0x03040009 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMED050001   | 0x03050001 | The process cannot be performed, because the specified LU is having PIN data or is in a PIN exceeded state. Restore PIN data and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMED050002   | 0x03050002 | The process cannot be performed because cache segment is insufficient. Wait for a while and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMED050003   | 0x03050003 | The process cannot be performed because the specified LU is receiving the Write command continuously from the host. Wait for a while and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMED050004   | 0x03050004 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMED050005   | 0x03050005 | The process cannot be performed because the partition of necessary conditions for LU changing does not exist. Please confirm the partition definition and try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMED050006   | 0x03050006 | The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please retry after changing the cache partition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMED050007   | 0x03050007 | The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMED050008   | 0x03050008 | The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMED050009   | 0x03050009 | The LU change could not be performed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMED05000A   | 0x0305000A | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMED05000B   | 0x0305000b | The process cannot be performed because the controller of logical unit partition does not match or the partition number of logical unit is not same. Please specify the logical unit which uses the same controller's partition, or the same partition. When the partition of a logical unit is set as 0 or 1, please set a pair partition as auto.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMED05000C   | 0x0305000c | An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMED05000D   | 0x0305000D | The time out occurred by the LU changing during controller recovery. Please wait for a while and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMED05000E   | 0x0305000E | The process cannot be performed because Remote Replication is in progress. Please retry after replacement completes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMED05000F   | 0x0305000F | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>The operation to change the controllers that controls LU cannot be performed because the specified LU is a part of a ShadowImage pair and its pair status is Synchronizing or Reverse Synchronizing. Execute the operation when the pair status is neither Synchronizing nor Reverse Synchronizing.<br>Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>The operation to change the controllers that control logical unit cannot be performed because the status of the ShadowImage pair that the specified logical unit is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing or Reverse Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure. |
| DMED050010   | 0x03050010 | The operation to change the controllers that controls LU cannot be performed because the specified LU is a part of a Volume Migration pair and its pair status is COPY. Execute the operation when the pair status is not COPY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED050011   | 0x03050011 | The operation to change the controllers that controls LU cannot be performed because Auto Migration is in progress. Execute the operation after Auto Migration is completed.                                                                                                                                                                                                                                                                                                                          |
| DMED050012   | 0x03050012 | The operation to change the controllers that control logical unit cannot be performed because the status of the ShadowImage pair that the specified logical unit is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing, Reverse Synchronizing, Split Pending or Paired Internally Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.                                                                     |
| DMED070001   | 0x03070001 | Cannot set dual ID success because either mounted numbers or types of the host interface boards are different between controllers. Confirm the interface boards status and try again.                                                                                                                                                                                                                                                                                                                 |
| DMED070002   | 0x03070002 | The specified IP address is incorrect. Please specify a right IP address.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMED070004   | 0x03070004 | The High-speed Sequential Write Mode cannot be disabled because process of Write command from the hosts is not completed. Please wait for a while and then try again, or use the system parameter setting with reboot.                                                                                                                                                                                                                                                                                |
| DMED070005   | 0x03070005 | The Multiple Stream Mode and the High-speed Sequential Write Mode cannot be specified at the same time.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMED070006   | 0x03070006 | When the ShadowImage pair of a S-VOL Switch status exists the ShadowImage I/O Switch Mode cannot be disabled. Please retry after solving the error.                                                                                                                                                                                                                                                                                                                                                   |
| DMED070007   | 0x03070007 | The configuration of single or dual controller system cannot be changed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.                                                                                                                                                                                                                                                                                                  |
| DMED070008   | 0x03070008 | The process cannot be performed because the specified port number is outside the effective range. Please confirm the port number.                                                                                                                                                                                                                                                                                                                                                                     |
| DMED070009   | 0x03070009 | The port number of other controller cannot be set up. Please confirm the controller number.                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMED070010   | 0x03070010 | The process cannot be performed because the specified secure port number is outside the effective range. Please confirm the secure port number.                                                                                                                                                                                                                                                                                                                                                       |
| DMED070011   | 0x03070011 | The secure port number of other controller cannot be set up. Please confirm the controller number.                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMED070012   | 0x03070012 | The process cannot be performed because the non-secure port and secure port are same port number. Please set the different port number.                                                                                                                                                                                                                                                                                                                                                               |
| DMED070013   | 0x03070013 | The process cannot be performed because the non-secure port status is changed by the non-secure port. Please retry by the secure port.                                                                                                                                                                                                                                                                                                                                                                |
| DMED070014   | 0x03070014 | The process cannot be performed because the port number and the non-secure port status are changed at the same time. Please confirm the operation and try again.                                                                                                                                                                                                                                                                                                                                      |
| DMED070015   | 0x03070015 | The process cannot be performed because the non-secure port status of other controller is changed. Please confirm the controller number.                                                                                                                                                                                                                                                                                                                                                              |
| DMED070016   | 0x03070016 | The process cannot be performed because the specified port number is reserved. Please set the unreserved port number.                                                                                                                                                                                                                                                                                                                                                                                 |
| DMED080001   | 0x03080001 | The data pool cannot be used. Please restart the subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMED080002   | 0x03080002 | The process cannot be performed because the logical unit under restoration. Wait for a while and try again.                                                                                                                                                                                                                                                                                                                                                                                           |
| DMED080003   | 0x03080003 | The process cannot be performed because the logical unit added to the data pool is not specified.                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMED080004   | 0x03080004 | The process cannot be performed because the same logical unit number has been specified more than twice. Confirm the logical unit number and try again.                                                                                                                                                                                                                                                                                                                                               |
| DMED080005   | 0x03080005 | The specified logical unit number is outside of the effective range. Specify the logical unit number within the range and try again.                                                                                                                                                                                                                                                                                                                                                                  |
| DMED080006   | 0x03080006 | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.<br>The process cannot be performed because the specified logical unit is neither in normal nor in regressed state. Specify the logical unit of normal or regressed state and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.<br>This process cannot be performed. The status of the specified logical unit must be in either normal or regressed state. Please verify the status of the logical unit and try again. |
| DMED080007   | 0x03080007 | The process cannot be performed because the RAID level or HDU combination of the specified logical unit is not supported. Confirm the RAID level and the HDU combination currently supported and try again.                                                                                                                                                                                                                                                                                           |
| DMED080008   | 0x03080008 | The process cannot be performed because the number of logical units in the data pool reached the maximum. Delete the logical units in the data pool and then try again.                                                                                                                                                                                                                                                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                     |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED080009   | 0x03080009 | The process cannot be performed because the specified logical unit is a unified LU. Separate the unified LU and try again.                                                                        |
| DMED08000A   | 0x0308000A | The process cannot be performed because the specified logical unit is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.                                                      |
| DMED08000B   | 0x0308000B | The process cannot be performed because the specified logical unit is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.                                        |
| DMED08000C   | 0x0308000C | The process cannot be performed because the specified logical unit is a command device. Cancel the command device and try again.                                                                  |
| DMED08000D   | 0x0308000D | The process cannot be performed because the specified logical unit has been invalidated. Restore the logical unit and try again.                                                                  |
| DMED08000E   | 0x0308000E | The process cannot be performed because the specified logical unit is a part of SnapShot pair or a SnapShot logical unit. Cancel the SnapShot pair or specify another logical unit and try again. |
| DMED08000F   | 0x0308000F | The process cannot be performed because the specified logical unit is defined as a SnapShot logical unit. Specify another logical unit and try again.                                             |
| DMED080010   | 0x03080010 | The process cannot be performed because the specified logical unit is added to a data pool. Specify another logical unit and try again.                                                           |
| DMED080012   | 0x03080012 | The process cannot be performed because the owner controller is different between the specified logical unit and the data pool. Confirm the logical unit owner controller and try again.          |
| DMED080013   | 0x03080013 | The process cannot be performed because the specified logical unit has been receiving the Write command continuously from the hosts. Wait for a while and then try again.                         |
| DMED080014   | 0x03080014 | The process cannot be performed because there is other logical unit changing the Default Controller. Wait for a while and then try again.                                                         |
| DMED080015   | 0x03080015 | The process cannot be performed because the specified logical unit is in the PIN exceeded state. Restore PIN data and try again.                                                                  |
| DMED080016   | 0x03080016 | The process cannot be performed because the specified logical unit is not enough for sufficient cache blocks. Specify another logical unit and try again.                                         |
| DMED080017   | 0x03080017 | The process cannot be performed because no logical units in data pool.                                                                                                                            |
| DMED080018   | 0x03080018 | The process cannot be performed because the Snapshot pair exists in the specified data pool. Cancel the Snapshot pair and try again.                                                              |
| DMED080019   | 0x03080019 | The process cannot be performed because data pool deleted is not specified.                                                                                                                       |
| DMED08001A   | 0x0308001A | The process cannot be performed because the threshold of usage rate in the data pool is not specified.                                                                                            |
| DMED08001B   | 0x0308001B | The specified threshold is outside of the effective range. Specify the value of effective range and try again.                                                                                    |
| DMED08001C   | 0x0308001C | The process cannot be performed because the specified logical unit is capacity equal to or less than 2GB. Specify the logical unit of bigger capacity than 2GB and try again.                     |
| DMED08001D   | 0x0308001D | The process cannot be performed because S-VOL mode of the specified logical unit is disabled. Set S-VOL mode to enable then try again.                                                            |
| DMED08001F   | 0x0308001F | The number of specified logical units is over 64. Please specify the logical units in 64 or less.                                                                                                 |
| DMED080020   | 0x03080020 | The process cannot be performed because the drive type of specified logical unit is different from the data pool. Please confirm the drive type and try again.                                    |
| DMED080021   | 0x03080021 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                           |
| DMED080022   | 0x03080022 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                           |
| DMED080023   | 0x03080023 | The logical units in the data pool cannot be mixed with ones in Unit0 or in the latter units.                                                                                                     |
| DMED080024   | 0x03080024 | The process cannot be performed because DM-LU is not defined. Please define DM-LU and then try again.                                                                                             |
| DMED080025   | 0x03080025 | The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please specify another logical unit and try again.                               |
| DMED080026   | 0x03080026 | The process cannot be performed because the number of logical units reached the system maximum. Please delete logical units in the data pool and try again.                                       |
| DMED080027   | 0x03080027 | The process cannot be performed because the number of logical units will reach the system maximum. Please delete logical units in the data pool and try again.                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                             |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED090001   | 0x03090001 | The logical unit number of specified P-VOL is outside of the effective range. Specify the logical unit number of effective range and try again.                                                                                           |
| DMED090003   | 0x03090003 | The logical unit number of specified SnapShot logical unit is outside of the effective range. Specify the logical unit number of effective range and try again.                                                                           |
| DMED090004   | 0x03090004 | The process cannot be performed because the logical unit number of the SnapShot logical unit created or deleted is not specified.                                                                                                         |
| DMED090005   | 0x03090005 | The process cannot be performed because the same logical unit number has been specified as a SnapShot logical unit more than twice. Confirm the logical unit number and try again.                                                        |
| DMED090006   | 0x03090006 | The process cannot be performed because the specified logical unit of the P-VOL is neither in normal nor in regressed state. Specify the logical unit of normal or regressed state and try again.                                         |
| DMED090007   | 0x03090007 | The process cannot be performed because no logical unit exists in the data pool by the side of the controller of specified P-VOL. Add the logical unit to the data pool and try again.                                                    |
| DMED090008   | 0x03090008 | The process cannot be performed because the RAID level or HDU combination of the specified logical unit differs from the logical unit is not supported. Confirm the RAID level and the HDU combination currently supported and try again. |
| DMED090009   | 0x03090009 | The process cannot be performed because the number of created SnapShot logical unit for the specified P-VOL has reached its maximum. Delete unnecessary SnapShot logical unit and try again.                                              |
| DMED09000A   | 0x0309000A | The logical unit number has already been defined. Specify a new number.                                                                                                                                                                   |
| DMED09000B   | 0x0309000B | The process cannot be performed because the specified P-VOL is a unified LU. Separate the unified LU and try again.                                                                                                                       |
| DMED09000C   | 0x0309000C | The process cannot be performed because the specified P-VOL is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.                                                                                                     |
| DMED09000D   | 0x0309000D | The process cannot be performed because the specified P-VOL is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.                                                                                       |
| DMED09000E   | 0x0309000E | The process cannot be performed because the specified P-VOL is a part of Snapshot pair. Cancel the Snapshot pair and try again.                                                                                                           |
| DMED09000F   | 0x0309000F | The process cannot be performed because the specified P-VOL is a command device. Cancel the command device and try again.                                                                                                                 |
| DMED090010   | 0x03090010 | The process cannot be performed because the specified P-VOL is invalid. Restore the LU and try again.                                                                                                                                     |
| DMED090011   | 0x03090011 | The process cannot be performed because the specified P-VOL has already been added to a data pool. Specify another LU number and try again.                                                                                               |
| DMED090012   | 0x03090012 | The process cannot be performed because the specified P-VOL is not enough for sufficient cache capacity. Check cache capacity and try again.                                                                                              |
| DMED090013   | 0x03090013 | The process cannot be performed because the HDU combination of the specified P-VOL differs from registered logical units to the data pool. Confirm the HDU combination and try again.                                                     |
| DMED090014   | 0x03090014 | The process cannot be performed because the specified P-VOL has been receiving the Write command continuously from the hosts. Wait for a while and then try again.                                                                        |
| DMED090015   | 0x03090015 | The process cannot be performed because there is other logical unit changing the Default Controller. Wait for a while and then try again.                                                                                                 |
| DMED090016   | 0x03090016 | The process cannot be performed because the specified P-VOL is in the PIN exceeded state. Restore PIN data and try again.                                                                                                                 |
| DMED090017   | 0x03090017 | The process cannot be performed because the specified P-VOL is not defined. Specify a defined logical unit and try again.                                                                                                                 |
| DMED090018   | 0x03090018 | The process cannot be performed because the specified SnapShot logical unit has been creating the pair. Cancel the SnapShot pair and try again.                                                                                           |
| DMED090019   | 0x03090019 | The process cannot be performed because P-VOL is under deletion. Wait for a while and then try again.                                                                                                                                     |
| DMED09001A   | 0x0309001A | The process cannot be performed because the specified set of P-VOL and SnapShot logical unit is not a pair. Confirm the pair status and try again.                                                                                        |
| DMED09001B   | 0x0309001B | The process cannot be performed because the number of SnapShot pair reached the maximum. Delete unnecessary SnapShot pair(s) and try again.                                                                                               |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                  |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED09001C   | 0x0309001C | The process cannot be performed because the unified LU is composed of 17 or more sub logical units. Specify another logical unit and try again.                                                                                |
| DMED09001D   | 0x0309001D | The process cannot be performed because the unified LU contains a sub logical unit whose size is less than 1GB. Specify another logical unit and try again.                                                                    |
| DMED09001E   | 0x0309001E | The process cannot be performed because a management area of Snapshot is shortage. Delete unnecessary Snapshot pair(s) and try again.                                                                                          |
| DMED09001F   | 0x0309001F | The process cannot be performed because the drive type of specified logical unit is different from the V-VOL. Please confirm the drive type and try again.                                                                     |
| DMED090020   | 0x03090020 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                                                        |
| DMED090021   | 0x03090021 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                                                        |
| DMED090022   | 0x03090022 | The process cannot be performed because the specified SnapShot logical unit is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.                                                            |
| DMED090023   | 0x03090023 | The process cannot be performed because the specified SnapShot logical unit is a part of Hi-Copy pair. Cancel the Hi-Copy pair and try again.                                                                                  |
| DMED090024   | 0x03090024 | The process cannot be performed because the P-VOL of specified SnapShot logical unit is reserved for cache partition modification. Please retry after cache partition modification is completed.                               |
| DMED090025   | 0x03090025 | The process cannot be performed because the specified V-VOL size will exceed the maximum of logical unit size. Please confirm the specified V-VOL size.                                                                        |
| DMED090026   | 0x03090026 | The specified logical unit is not V-VOL. Please specify the logical unit number of V-VOL and try again.                                                                                                                        |
| DMED0A0001   | 0x030A0001 | The process cannot be performed because the specified LU is invalid. Restore the LU and try again.                                                                                                                             |
| DMED0A0002   | 0x030A0002 | The process cannot be performed because the specified LU is a Sub LU of the unifying LUs. Separate the unified LU and try again.                                                                                               |
| DMED0A0003   | 0x030A0003 | The process cannot be performed because the specified LU is S-VOL of ShadowImage. Specify another logical unit and try again.                                                                                                  |
| DMED0A0004   | 0x030A0004 | The process cannot be performed because the specified LU is S-VOL of Remote Replication. Specify another logical unit and try again.                                                                                           |
| DMED0A0005   | 0x030A0005 | The process cannot be performed because the specified LU is SnapShot logical unit. Specify another logical unit and try again.                                                                                                 |
| DMED0A0006   | 0x030A0006 | The process cannot be performed in the retention term. The retention term expires and try again.                                                                                                                               |
| DMED0A0007   | 0x030A0007 | The process cannot be performed because ShadowImage is in progress. Please wait a moment and then try again.                                                                                                                   |
| DMED0A0008   | 0x030A0008 | The process cannot be performed because SnapShot is in progress. Please wait a moment and then try again.                                                                                                                      |
| DMED0A0009   | 0x030A0009 | The retention term cannot be shortened. Specify the retention term is equal to or more than current value and try again.                                                                                                       |
| DMED0A000A   | 0x030A000A | The process cannot be performed because expiration lock is enabled. Set expiration lock to disable and try again.                                                                                                              |
| DMED0A000B   | 0x030A000B | The process cannot be performed because the status of ShadowImage pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.                                                                    |
| DMED0A000C   | 0x030A000C | The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.                                                             |
| DMED0A000D   | 0x030A000D | The process cannot be performed because the status of SnapShot pair is not Split(PSUS). Please retry after changing the status of pair.                                                                                        |
| DMED0A000E   | 0x030A000E | The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.                                                             |
| DMED0B0001   | 0x030B0001 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                  |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED0C0001   | 0x030C0001 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. |
| DMED0C0002   | 0x030C0002 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. |
| DMED0C0003   | 0x030C0003 | The unification cannot be performed because the drive type is different. Please confirm the drive type and try again.                                                                                                          |
| DMED0C0004   | 0x030C0004 | The logical unit in Unit0 cannot be unified with the latter units.                                                                                                                                                             |
| DMED0C0005   | 0x030C0005 | The process cannot be performed because the unified LU reached the maximum.                                                                                                                                                    |
| DMED0C0006   | 0x030C0006 | The unification cannot be performed because the cache partition is different. Please confirm the cache partition of the specified logical unit.                                                                                |
| DMED0C0007   | 0x030C0007 | The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please retry after changing the cache partition, or specify another logical unit.                             |
| DMED0C0008   | 0x030C0008 | The total count of Main LU and Sub LU is over the maximum. Please specify 128 or fewer LUs.                                                                                                                                    |
| DMED0D0001   | 0x030D0001 | The process cannot be performed because the access level is set up to ReadOnly or Protect. Please change the attribute to Read/Write, and try again.                                                                           |
| DMED0D0002   | 0x030D0002 | The process cannot be performed because the temporary key cannot be used for the next 180 days after it is locked or expired.                                                                                                  |
| DMED0D0003   | 0x030D0003 | The specified function has already been unlocked.                                                                                                                                                                              |
| DMED0E0001   | 0x030E0001 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. |
| DMED0E0002   | 0x030E0002 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                     |
|              |            | The process cannot be performed because the specified logical unit is a unified LU, and belongs to two or more RAID groups. Please separate the unified LU and try again.                                                      |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                       |
| DMED0E0003   | 0x030E0003 | The process cannot be performed because the unified LU which belongs to two or more RAID groups exists. Please separate the unified LU and try again.                                                                          |
|              |            | The process cannot be performed because the specified logical unit is a Sub LU. Please specify a Main LU and try again.                                                                                                        |
|              |            | The process cannot be performed because the logical units number of the specified RAID group reach the maximum. Please confirm the RAID group and try again.                                                                   |
| DMED0E0004   | 0x030E0004 | The process cannot be performed because the logical units number of the specified RAID group reach the maximum. Please confirm the RAID group and try again.                                                                   |
| DMED0E0005   | 0x030E0005 | The process cannot be performed because the specified logical unit is DM-LU. Please specify another logical unit and try again.                                                                                                |
| DMED0E0006   | 0x030E0006 | The process cannot be performed because the specified logical unit is V-VOL of SnapShot. Please specify the P-VOL and try again.                                                                                               |
| DMED0E0007   | 0x030E0007 | The logical unit number for free area has already been used. Please specify unused logical unit number.                                                                                                                        |
| DMED0E0008   | 0x030E0008 | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.                                                                                                                                                                     |
|              |            | The logical unit number for free area is not assigned. Please confirm the specified logical unit number, or do not specify the logical unit number for free area and then try again.                                           |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.                                                                                                                                                                       |
| DMED0E0009   | 0x030E0009 | The logical unit cannot be created. Please delete unnecessary logical units or specify automatically for free area and then try again.                                                                                         |
|              |            | The logical unit of RAID0 cannot be created by multiple free areas. Please confirm the specified area and then try again.                                                                                                      |
|              |            | The free area does not exist. Please delete unnecessary logical units and then try again.                                                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                   |
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| DMED0E000B   | 0x030E000B | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The capacity of specified area is insufficient. Please confirm the capacity and then try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The capacity of specified area is insufficient or the logical unit number to show the position of the free area is invalid. Please confirm the area and try again. |
| DMED0E000C   | 0x030E000C | The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                                 |
| DMED0E000D   | 0x030E000D | The logical units are over maximum. Please confirm the specified capacity or area number, or delete unnecessary logical units and then try again.                                                                                                                                                                                                                                               |
| DMED0E000E   | 0x030E000E | The logical units of RAID group are over maximum. Please confirm the specified capacity or area number, or delete unnecessary logical units and then try again.                                                                                                                                                                                                                                 |
| DMED0E000F   | 0x030E000F | The specified area number is outside of the effective range. Please specify the area number within the range and try again.                                                                                                                                                                                                                                                                     |
| DMED0E0010   | 0x030E0010 | The specified area does not exist. Please confirm the area number and then try again.                                                                                                                                                                                                                                                                                                           |
| DMED0E0011   | 0x030E0011 | The logical unit number to show the position of the free area is outside of the effective range. Please specify the logical unit number within the range and then try again.                                                                                                                                                                                                                    |
| DMED0E0012   | 0x030E0012 | The logical unit number to show the position of the free area is outside of the effective range. Please specify the logical unit number within the range and then try again.                                                                                                                                                                                                                    |
| DMED0E0013   | 0x030E0013 | The logical unit number to show the position of the free area is not defined. Please specify a defined logical unit and then try again.                                                                                                                                                                                                                                                         |
| DMED0E0014   | 0x030E0014 | The logical unit number to show the position of the free area is not defined. Please specify a defined logical unit and then try again.                                                                                                                                                                                                                                                         |
| DMED0E0015   | 0x030E0015 | The logical unit number to show the position of the free area is not defined in specified RAID group. Please confirm the logical unit of specified RAID group and then try again.                                                                                                                                                                                                               |
| DMED0E0016   | 0x030E0016 | The logical unit number to show the position of the free area is not defined in specified RAID group. Please confirm the logical unit of specified RAID group and then try again.                                                                                                                                                                                                               |
| DMED0E0017   | 0x030E0017 | The logical unit number to show the position of the free area is invalid. Please confirm the logical unit and then try again.                                                                                                                                                                                                                                                                   |
| DMED0E0018   | 0x030E0018 | The specified area is overlapped. Please confirm the area and then try again.                                                                                                                                                                                                                                                                                                                   |
| DMED0E0019   | 0x030E0019 | The unused area is specified. Please confirm the area and then try again.                                                                                                                                                                                                                                                                                                                       |
| DMED0E001A   | 0x030E001A | The unified LU reached the maximum. Please confirm the capacity or area number and then try again.                                                                                                                                                                                                                                                                                              |
| DMED0E001B   | 0x030E001B | The unified LU reached the maximum. Please confirm the capacity or area number and then try again.                                                                                                                                                                                                                                                                                              |
| DMED0E001C   | 0x030E001C | The RAID group is invalid. Please confirm the RAID group and then try again.                                                                                                                                                                                                                                                                                                                    |
| DMED0E001D   | 0x030E001D | The process cannot be performed because RAID level of specified logical unit is RAID0. Please specify another logical unit and then try again.                                                                                                                                                                                                                                                  |
| DMED0E001E   | 0x030E001E | The capacity of logical unit is over maximum. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                                   |
| DMED0E001F   | 0x030E001F | The specified capacity is invalid. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                                              |
| DMED0E0020   | 0x030E0020 | The unified LU reached the maximum. Please confirm the capacity or area number and then try again.                                                                                                                                                                                                                                                                                              |
| DMED0E0021   | 0x030E0021 | The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                                 |
| DMED0E0022   | 0x030E0022 | The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                                 |
| DMED0E0023   | 0x030E0023 | Hitachi Storage Navigator Modular 2 is less than Ver.8.30.<br>The preparations of quick formatting are incomplete. Please retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.8.30 or more.<br>The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.           |
| DMED0E0024   | 0x030E0024 | The logical unit number is not defined. Please specify a defined logical unit and then try again.                                                                                                                                                                                                                                                                                               |
| DMED0E0025   | 0x030E0025 | The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                                 |
| DMED0E0026   | 0x030E0026 | The specified capacity is over the logical unit capacity. Please confirm the capacity and then try again.                                                                                                                                                                                                                                                                                       |
| DMED0E0027   | 0x030E0027 | The process cannot be performed because the specified logical unit is not normal state. Please recover the status and then try again.                                                                                                                                                                                                                                                           |
| DMED0E0028   | 0x030E0028 | The process cannot be performed because the specified logical unit contains an un-mounted drive or a blocked drive. Confirm the drive status and try again.                                                                                                                                                                                                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                         |
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| DMED0E0029   | 0x030E0029 | The process cannot be performed because the over provisioning threshold of the specified DP pool is equal to or more than the limit. Please add DP pool capacity and then try again.                                                                                                                                                                                                  |
| DMED0E002A   | 0x030E002A | The process cannot be performed because the over provisioning threshold of the DP pool that has the specified logical unit is equal to or more than the limit. Please add DP pool capacity and then try again.                                                                                                                                                                        |
| DMED0F0001   | 0x030F0001 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.                                                                                                                                                        |
| DMED0F0002   | 0x030F0002 | The process cannot be performed because the drives of Unit0 and the latter units are contained within the range of the specified RAID group.                                                                                                                                                                                                                                          |
| DMED0F0003   | 0x030F0003 | The process cannot be performed because the non-supported drive on this subsystem are contained within the range of the specified RAID group.                                                                                                                                                                                                                                         |
| DMED0F0005   | 0x030F0005 | The process cannot be performed because the number of drive is incorrect. Please confirm the mounted drive and try again.                                                                                                                                                                                                                                                             |
| DMED0F0007   | 0x030F0007 | The number of defined RAID group reached the maximum. Delete unnecessary RAID groups and then try again.                                                                                                                                                                                                                                                                              |
| DMED100001   | 0x03100001 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.                                                                                                                                                        |
| DMED100002   | 0x03100002 | The process cannot be performed because the RAID level of the specified logical unit is not supported. Confirm the RAID level currently supported and try again.                                                                                                                                                                                                                      |
| DMED100003   | 0x03100003 | The process cannot be performed because the specified logical unit is a unified LU. Separate the unified LU and try again, or please execute online/offline formatting.                                                                                                                                                                                                               |
| DMED100004   | 0x03100004 | The process cannot be performed because the specified logical unit is extended and not formatted. Please execute online/offline formatting.                                                                                                                                                                                                                                           |
| DMED100005   | 0x03100005 | Hitachi Storage Navigator Modular 2 is less than Ver.8.30.<br>The preparations of quick formatting are incomplete. Please retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.8.30 or more.<br>The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished. |
| DMED100006   | 0x03100006 | The process cannot be performed because the specified logical unit contain an un-mounted drive or a blocked drive. Confirm the drive status and try again.                                                                                                                                                                                                                            |
| DMED100007   | 0x03100007 | Format of the logical unit cannot be performed under drive blockage mode. Please turn off the drive blockade mode system parameter.                                                                                                                                                                                                                                                   |
| DMED100008   | 0x03100008 | The process cannot be performed because the specified logical unit is not formatted and set the access level other than S-VOL mode. Please change the attribute to Read/Write and try again.                                                                                                                                                                                          |
| DMED110001   | 0x03110001 | The mapping mode cannot be changed because the mapping guard LU exists.                                                                                                                                                                                                                                                                                                               |
| DMED110002   | 0x03110002 | The mapping information cannot be changed because the mapping guard LU exists.                                                                                                                                                                                                                                                                                                        |
| DMED120001   | 0x03120001 | The specified drive cannot be defined as a spare drive because it is not supported on this subsystem.                                                                                                                                                                                                                                                                                 |
| DMED130001   | 0x03130001 | The process cannot be performed because the specified remote path is not set up.                                                                                                                                                                                                                                                                                                      |
| DMED130002   | 0x03130002 | The process cannot be performed because the specified port is iSCSI port. Please confirm the port type and try again.                                                                                                                                                                                                                                                                 |
| DMED130003   | 0x03130003 | The process cannot be performed because remote ports of path0 and path1 are set to the same controller of the remote subsystem. Please set one of the remote ports to the other controller and try again.                                                                                                                                                                             |
| DMED130004   | 0x03130004 | The process cannot be performed because the specified Timeout Period is outside the effective range. Please confirm the Timeout Period and try again.                                                                                                                                                                                                                                 |
| DMED130005   | 0x03130005 | The process cannot be performed because the specified bandwidth is outside the effective range. Please confirm the bandwidth and try again.                                                                                                                                                                                                                                           |
| DMED130006   | 0x03130006 | The process cannot be performed because the path status is normal. Please confirm the status of path.                                                                                                                                                                                                                                                                                 |
| DMED130007   | 0x03130007 | The process cannot be performed because the path does not exist. Please setting the path and try again.                                                                                                                                                                                                                                                                               |
| DMED130008   | 0x03130008 | The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.                                                                                                                                                                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                 |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED130009   | 0x03130009 | The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.                                                                                                                              |
| DMED130010   | 0x03130010 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                                                                  |
| DMED130011   | 0x03130011 | The process cannot be performed because the path does not exist. Please setting the path and try again.                                                                                                                                                       |
| DMED130012   | 0x03130012 | The process cannot be performed because the path does not exist. Please setting the path and try again.                                                                                                                                                       |
| DMED130013   | 0x03130013 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                                                                  |
| DMED130014   | 0x03130014 | The process cannot be performed because port are physically unequipped. Please confirm the port type and the subsystem status and try again.                                                                                                                  |
| DMED130015   | 0x03130015 | The process cannot be performed because the specified path is already defined. Please confirm the status of path and try again.                                                                                                                               |
| DMED130016   | 0x03130016 | The process cannot be performed because the Hosts is logging out. Please wait a moment and try again.                                                                                                                                                         |
| DMED130017   | 0x03130017 | The same array ID as a self subsystem is specified. Please specify the array ID of connected subsystem.                                                                                                                                                       |
| DMED130018   | 0x03130018 | The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.                                                                                                                                   |
| DMED130019   | 0x03130019 | The process cannot be performed because Remote Replication pair of Synchronizing or Paired exists. Please confirm the status of pair and try again.                                                                                                           |
| DMED13001A   | 0x0313001A | The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.                                                                                                                                      |
| DMED13001B   | 0x0313001B | The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.                                                                                                                                        |
| DMED13001C   | 0x0313001C | The process cannot be performed because the remote path or remote port CHAP information (Target information) is defined. Please change Distributed Mode to Hub and try again.                                                                                 |
| DMED13001D   | 0x0313001D | The specified array ID is already registered. Please specify another array ID and then try again.                                                                                                                                                             |
| DMED13001E   | 0x0313001E | The process cannot be performed because the remote path or remote port CHAP information (Target information) is specified. Please change Hub array unit and then try again.                                                                                   |
| DMED13001F   | 0x0313001F | The number of defined remote path reached the maximum. Please delete unnecessary remote path and try again.                                                                                                                                                   |
| DMED130020   | 0x03130020 | The specified remote path name is already registered. Please specify another remote path name and then try again.                                                                                                                                             |
| DMED130021   | 0x03130021 | The specified remote array ID cannot be set because Distributed Mode is Hub. Please change Distributed Mode to Edge, or specify array ID of remote subsystem that Distributed mode is Edge and try again.                                                     |
| DMED130022   | 0x03130022 | The specified array ID does not exist. Please specify a right array ID.                                                                                                                                                                                       |
| DMED130023   | 0x03130023 | The process cannot be performed because Distributed Mode is not supported. Please confirm the subsystem and try again.                                                                                                                                        |
| DMED130024   | 0x03130024 | The process cannot be performed because the remote path to two or more are defined. Please delete unnecessary remote path and try again.                                                                                                                      |
| DMED130025   | 0x03130025 | The process cannot be performed because the remote port CHAP information (Target information) to two or more is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.                                           |
| DMED130026   | 0x03130026 | The process cannot be performed because the Remote Replication pair exists to two or more subsystems. Please cancel the Remote Replication pair and try again.                                                                                                |
| DMED130027   | 0x03130027 | The process cannot be performed because the remote path is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote path and try again.                                                                             |
| DMED130028   | 0x03130028 | The process cannot be performed because the remote port CHAP information (Target information) is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote port CHAP information (Target information) and try again. |
| DMED130029   | 0x03130029 | The process cannot be performed because Remote Replication pair exists on the subsystem whose Distributed Mode is not supported. Please cancel unnecessary Remote Replication pair and try again.                                                             |
| DMED13002A   | 0x0313002A | The process cannot be performed because the remote path is defined. Please delete remote path and try again.                                                                                                                                                  |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                        |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED13002B   | 0x0313002B | The process cannot be performed because the remote port CHAP information (Target information) is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.                 |
| DMED13002C   | 0x0313002C | The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.                                                                                               |
| DMED140001   | 0x03140001 | The process cannot be performed because the term of the temporary key or emergency key is expired.                                                                                                                   |
| DMED140002   | 0x03140002 | The process cannot be performed because the DM-LU has already been set. Please cancel the DM-LU and try again.                                                                                                       |
| DMED140003   | 0x03140003 | The process cannot be performed because the specified operation mode is outside the effective range or two or more operation is specified at the same time. Please confirm the operation mode and try again.         |
| DMED140004   | 0x03140004 | The process cannot be performed because DC power supply is physically unequipped. Please confirm the subsystem status and try again.                                                                                 |
| DMED140005   | 0x03140005 | The function cannot be executed for this subsystem. Please confirm the subsystem.                                                                                                                                    |
| DMED140006   | 0x03140006 | The process cannot be performed because cache memory size is insufficient. Please increase a larger cache memory and then try again.                                                                                 |
| DMED140007   | 0x03140007 | The specified value is outside the effective range. Please specify the value in the effective range and try again.                                                                                                   |
| DMED150001   | 0x03150001 | The process cannot be performed because the cache partition is not initial status. Please change the cache partition to initial status and try again.                                                                |
| DMED150004   | 0x03150004 | The process cannot be performed because the cache partition is less than minimum size. Please confirm the cache partition size and try again.                                                                        |
| DMED150005   | 0x03150005 | The process cannot be performed because the PIN is exceeded state. Please restore PIN data and try again.                                                                                                            |
| DMED150006   | 0x03150006 | The segment size of cache partition (0 or 1) cannot be changed.                                                                                                                                                      |
| DMED150007   | 0x03150007 | The process cannot be performed because ShadowImage is in use. Please cancel the ShadowImage pair and try again. (*1)                                                                                                |
| DMED150009   | 0x03150009 | The process cannot be performed because SnapShot is in use. Please cancel the SnapShot pair and try again.                                                                                                           |
| DMED15000B   | 0x0315000B | The process cannot be performed because process of Write command from the hosts is not completed. Please wait for a while and then try again, or delete the logical unit.                                            |
| DMED15000C   | 0x0315000C | The function cannot be executed because a Cache Residency LU or a reserved one exists. Disable the LU, and then try again.                                                                                           |
| DMED15000D   | 0x0315000D | The specified segment size is incorrect. Please confirm the segment size and try again.                                                                                                                              |
| DMED15000E   | 0x0315000E | The process cannot be performed because the LU change is in progress. Please wait a moment and try again.                                                                                                            |
| DMED15000F   | 0x0315000F | The specified cache partition number is incorrect. Please confirm the cache partition number and try again.                                                                                                          |
| DMED150010   | 0x03150010 | The controller of current cache partition cannot be changed. Please delete the cache partition, and set up again.                                                                                                    |
| DMED150011   | 0x03150011 | The process cannot be performed because the total size of cache partition is over the cache capacity. Please confirm the cache partition size and try again.                                                         |
| DMED150012   | 0x03150012 | The cache partition with which the logical unit is set up, or the cache partition of 0 or 1 cannot be deleted. Please confirm the cache partition number.                                                            |
| DMED150013   | 0x03150013 | The process cannot be performed because the specified cache partition is not defined. Please specify a defined cache partition and try again.                                                                        |
| DMED150014   | 0x03150014 | The process cannot be performed because the stripe size of logical unit is not 64KB. Please delete the logical unit and try again.                                                                                   |
| DMED150015   | 0x03150015 | The process cannot be performed because the specified logical unit is a part of Remote Replication pair. Please cancel the Remote Replication pair and try again.                                                    |
| DMED150016   | 0x03150016 | The process cannot be performed because the total cache partition capacity using the segment size of 4KB or 8KB is over the system limit. Please confirm the cache partition size or the segment size and try again. |

\*1 : When this is displayed at the time of the firmware download, the factor of "Since both P-Vol and S-Vol of one ShadowImage pair are P-Vol or S-Vol of TrueCopy, the downgrade cannot be performed" is considered.  
In this case, release the target Shadow Image pair or True Copy pair, and execute it again.

| Message code | Error code | Message text/Recovery methods                                                                                                                                                              |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED160002   | 0x03160002 | The process cannot be performed because the specified logical unit is a Sub LU of the unifying LUs. Please separate the unified LU and try again.                                          |
| DMED160011   | 0x03160011 | The logical unit cannot be allocated the specified cache partition. Please specify another cache partition number and try again.                                                           |
| DMED160012   | 0x03160012 | The process cannot be performed because the Cache Partition Manager is not installed, locked, or disabled.                                                                                 |
| DMED160013   | 0x03160013 | The process cannot be performed because the specified logical unit is SnapShot logical unit. Please specify another logical unit number and try again.                                     |
| DMED160014   | 0x03160014 | The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.                                                    |
| DMED160015   | 0x03160015 | The process cannot be performed because Cache Partition Manager is not installed, locked, or disabled. Please install Cache Partition Manager and try again.                               |
| DMED160016   | 0x03160016 | The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.                                                    |
| DMED160017   | 0x03160017 | The process cannot be performed because the specified cache partition is set to the different controller. Please confirm the cache partition and try again.                                |
| DMED160018   | 0x03160018 | The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition, and try again.              |
| DMED160019   | 0x03160019 | The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.                                              |
| DMED16001E   | 0x0316001E | The process cannot be performed because the pair cache partition and the cache partition are set to the same controller. Please confirm the cache partition and try again.                 |
| DMED16001F   | 0x0316001F | The process cannot be performed because the segment size does not match. Please confirm the segment size of cache partition and try again.                                                 |
| DMED160020   | 0x03160020 | The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.                                              |
| DMED160021   | 0x03160021 | The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                          |
| DMED160022   | 0x03160022 | The process cannot be performed because PIN data exists. Please restore PIN data and try again.                                                                                            |
| DMED170001   | 0x03170001 | The process cannot be performed because the specified logical unit is capacity less than 5GB. Specify the logical unit is equal to or more than 5GB and try again.                         |
| DMED170002   | 0x03170002 | The process cannot be performed because the specified logical unit is RAID level 0. Specify another logical unit and try again.                                                            |
| DMED170003   | 0x03170003 | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.                                                                                                                                 |
|              |            | The process cannot be performed because the specified logical unit is neither in normal nor in regressed state. Specify the logical unit of normal or regressed state and try again.       |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.                                                                                                                                   |
|              |            | This process cannot be performed. The status of the specified logical unit must be in either normal or regressed state. Please verify the status of the logical unit and try again.        |
| DMED170004   | 0x03170004 | The process cannot be performed because the specified logical unit is a unified LU. Separate the unified LU and try again.                                                                 |
| DMED170005   | 0x03170005 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                    |
| DMED170006   | 0x03170006 | The process cannot be performed because the specified logical unit is a command device. Cancel the command device and try again.                                                           |
| DMED170007   | 0x03170007 | The process cannot be performed because the specified logical unit is capacity less than 10GB. Specify the logical unit is equal to or more than 10GB and try again.                       |
| DMED170008   | 0x03170008 | The process cannot be performed because the capacity of DP pool is insufficient. Please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool. |
| DMED170009   | 0x03170009 | The process cannot be set to DM-LU because specified logical unit is mapped. Please delete mapping and then try again.                                                                     |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                       |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED180001   | 0x03180001 | The specified logical unit cannot be set as Cache Residency LU because its cache partition is not 0 or 1. Please try again after changing a cache partition into 0 or 1, or specify the logical unit of the cache partition 0 or 1. |
| DMED190001   | 0x03190001 | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                         |
| DMED190002   | 0x03190002 | The same IP address as the management LAN cannot be set up. Please specify a correct IP address.                                                                                                                                    |
| DMED190003   | 0x03190003 | The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.                                                                                                                   |
| DMED190004   | 0x03190004 | The same IP address as the maintenance LAN cannot be set up. Please specify a correct IP address.                                                                                                                                   |
| DMED190005   | 0x03190005 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                                        |
| DMED190006   | 0x03190006 | The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.                                                                                                                   |
| DMED190007   | 0x03190007 | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                                                          |
| DMED190008   | 0x03190008 | The same IP address as the NNC LAN cannot be set up. Please specify a correct IP address.                                                                                                                                           |
| DMED190009   | 0x03190009 | The maintenance LAN cannot be changed automatically because the same network address is specified as a maintenance LAN when NNC is connected. Please confirm the specified network address and try again.                           |
| DMED19000B   | 0x0319000B | The specified host address of the maintenance LAN is incorrect. Please specify a correct IP address.                                                                                                                                |
| DMED19000C   | 0x0319000C | The process cannot be performed because the subnet mask of the management LAN is incorrect. Please set up the correct subnet mask and try again.                                                                                    |
| DMED19000D   | 0x0319000D | The process cannot be performed because the default gateway of the management LAN is incorrect. Please set up the correct default gateway and try again.                                                                            |
| DMED19000E   | 0x0319000E | The DHCP and the maintenance LAN automatic change cannot be specified at the same time. Please confirm the operation and try again.                                                                                                 |
| DMED19000F   | 0x0319000F | The specified host address of the management LAN is incorrect. Please specify a correct IP address.                                                                                                                                 |
| DMED190010   | 0x03190010 | The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.                                                                               |
| DMED190011   | 0x03190011 | The process cannot be performed because the maintenance LAN automatic change mode is enabled. Please set this mode to disable and try again.                                                                                        |
| DMED190012   | 0x03190012 | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                                                          |
| DMED190013   | 0x03190013 | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                         |
| DMED1A0001   | 0x031A0001 | The process cannot be performed because NNC is not connected. Please connect NNC and try again.                                                                                                                                     |
| DMED1A0002   | 0x031A0002 | The specified logical unit is not defined. Please specify a defined logical unit.                                                                                                                                                   |
| DMED1A0003   | 0x031A0003 | The process cannot be performed because the specified logical unit is less than minimum size of System LU. Please confirm the logical unit size and try again.                                                                      |
| DMED1A0004   | 0x031A0004 | The process cannot be performed because the specified logical unit is already assigned. Please specify a logical unit that is not assigned and try again.                                                                           |
| DMED1A0005   | 0x031A0005 | The process cannot be performed because the specified logical unit is S-VOL of ShadowImage. Please specify another logical unit and try again.                                                                                      |
| DMED1A0006   | 0x031A0006 | The process cannot be performed because the specified logical unit is S-VOL of Remote Replication. Please specify another logical unit and try again.                                                                               |
| DMED1A0007   | 0x031A0007 | The process cannot be performed because the specified logical unit is defined as a SnapShot logical unit. Please specify another logical unit and try again.                                                                        |
| DMED1A0008   | 0x031A0008 | The process cannot be performed because the specified logical unit is added to a data pool. Please specify another logical unit and try again.                                                                                      |
| DMED1A0009   | 0x031A0009 | The process cannot be performed because the specified logical unit is a Sub LU of the unifying LUs. Please specify another logical unit and try again.                                                                              |
| DMED1A000A   | 0x031A000A | The process cannot be performed because the specified logical unit is the mapping guard LU. Please specify another logical unit and try again.",                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                        |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED1A000B   | 0x031A000B | The process cannot be performed because the specified logical unit is a command device. Please specify another logical unit and try again.                                                                                           |
| DMED1A000C   | 0x031A000C | The specified logical unit is not defined as a command device. Please specify a logical unit that is already defined to a command device.                                                                                            |
| DMED1A000D   | 0x031A000D | The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.                                                                                                                      |
| DMED1A000E   | 0x031A000E | The process cannot be performed because the specified logical unit is DM-LU. Please specify another logical unit and try again.                                                                                                      |
| DMED1A000F   | 0x031A000F | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.       |
| DMED1A0010   | 0x031A0010 | The process cannot be performed because all ports are used for NAS. Please confirm the port type.                                                                                                                                    |
| DMED1A0020   | 0x031A0020 | The process cannot be performed because system LU exists.                                                                                                                                                                            |
| DMED1A0021   | 0x031A0021 | The process cannot be performed because user LU exists.                                                                                                                                                                              |
| DMED1A0022   | 0x031A0022 | The process cannot be performed because the specified logical unit is system LU. Please release system LU and try again.                                                                                                             |
| DMED1A0023   | 0x031A0023 | The process cannot be performed because the specified logical unit is user LU. Please specify another logical unit and try again.                                                                                                    |
| DMED1A0024   | 0x031A0024 | The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.                                                                                                                      |
| DMED1A0025   | 0x031A0025 | The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.                                                                                                                      |
| DMED1A0026   | 0x031A0026 | The specified port is used for NAS. Please specify another port.                                                                                                                                                                     |
| DMED1A0027   | 0x031A0027 | The unification cannot be performed because the stripe size does not match. Please confirm the stripe size of logical unit and try again.                                                                                            |
| DMED1A0028   | 0x031A0028 | The process cannot be performed because the specified logical unit is P-VOL or V-VOL of SnapShot. Please specify another logical unit and try again.                                                                                 |
| DMED1A0029   | 0x031A0029 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write. When the mode is set up, please reset the mode using RAID Manager. And try again.                                     |
| DMED1A002A   | 0x031A002A | The process cannot be performed because the specified logical unit is being used as ShadowImage pair with more than 2 S-VOL. Please delete S-VOL and make the pair into one-to-one relation, or cancel the pair, and then try again. |
| DMED1A0030   | 0x031A0030 | The Command Device(secondary) cannot set to the NNtype1.                                                                                                                                                                             |
| DMED1A0031   | 0x031A0031 | The Working Area for Dump cannot set to this NNtype2.                                                                                                                                                                                |
| DMED1A0032   | 0x031A0032 | The process cannot be performed because the Command Device is not set by system LU. Please set the Command Device and try again.                                                                                                     |
| DMED1A0033   | 0x031A0033 | The process cannot be performed because the Command Device(secondary) is set by system LU. Please release the Command Device(secondary) and try again.                                                                               |
| DMED1A0034   | 0x031A0034 | The process cannot be performed because the equipped NNC is unknown or mixture.                                                                                                                                                      |
| DMED1A0070   | 0x031A0070 | The process cannot be performed because the equipped NNC is NNtype2.                                                                                                                                                                 |
| DMED1A0071   | 0x031A0071 | The process cannot be performed because the NAS OS is not installed. Please install the NAS OS and try again.                                                                                                                        |
| DMED1A0072   | 0x031A0072 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                                         |
| DMED1A0073   | 0x031A0073 | The process cannot be performed because the NNC is not stopped. Please stop the NNC and try again.                                                                                                                                   |
| DMED1A0074   | 0x031A0074 | The process cannot be performed because the equipped NNC is NNtype1.                                                                                                                                                                 |
| DMED1A0075   | 0x031A0075 | The process cannot be performed because the system LU is not backed up.                                                                                                                                                              |
| DMED1A0076   | 0x031A0076 | The process cannot be performed because the NNC is not stopped or detached.                                                                                                                                                          |
| DMED1A0077   | 0x031A0077 | The process cannot be performed because the system LU is not backed up.                                                                                                                                                              |
| DMED1B0001   | 0x031B0001 | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                          |
| DMED1B0002   | 0x031B0002 | It is impossible to change to specified IP address. Please specify a correct IP address.                                                                                                                                             |



| Message code | Error code | Message text/Recovery methods                                                                                                                                            |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED1B0003   | 0x031B0003 | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                               |
| DMED1B0004   | 0x031B0004 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                             |
| DMED1B0005   | 0x031B0005 | The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.                                                               |
| DMED1B0006   | 0x031B0006 | The process cannot be performed during the maintenance LAN setting. Please wait a moment and then try again.                                                             |
| DMED1B0008   | 0x031B0008 | The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.                                                               |
| DMED1B0009   | 0x031B0009 | The process cannot be performed because NNC is equipped. Please confirm the port type and try again.                                                                     |
| DMED1B000A   | 0x031B000A | The process cannot be performed because the same address is specified as the maintenance LAN and the management LAN. Please specify the different address and try again. |
| DMED1C0001   | 0x031C0001 | The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.                                                 |
| DMED1C0002   | 0x031C0002 | The process cannot be performed because the authentication method is not specified. Please confirm the authentication method and try again.                              |
| DMED1C0003   | 0x031C0003 | The process cannot be performed because the specified alias format is invalid. Please confirm the alias and try again.                                                   |
| DMED1C0004   | 0x031C0004 | The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.                                                         |
| DMED1C0005   | 0x031C0005 | The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.                                             |
| DMED1C0006   | 0x031C0006 | The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.                                                   |
| DMED1C0007   | 0x031C0007 | The process cannot be performed because the specified target is not defined. Please confirm the target and try again.                                                    |
| DMED1C0008   | 0x031C0008 | The process cannot be performed because the specified name format is invalid. Please confirm the name and try again.                                                     |
| DMED1C0009   | 0x031C0009 | The process cannot be performed because the same name exists in a port. Please confirm the name and try again.                                                           |
| DMED1C000A   | 0x031C000A | The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.                                             |
| DMED1C000B   | 0x031C000B | The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.                                                   |
| DMED1C000C   | 0x031C000C | The process cannot be performed because the term of the temporary key or emergency key is expired.                                                                       |
| DMED1C000D   | 0x031C000D | The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.                                                  |
| DMED1C000E   | 0x031C000E | The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.                                                     |
| DMED1C000F   | 0x031C000F | The process cannot be performed because the character length of user name is outside the effective range. Please confirm the user name and try again.                    |
| DMED1C0010   | 0x031C0010 | The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again.   |
| DMED1C0011   | 0x031C0011 | The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.                                                      |
| DMED1C0012   | 0x031C0012 | The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.                                                    |
| DMED1C0013   | 0x031C0013 | The process cannot be performed because Keep Alive Timer is outside the effective range. Please specify Keep Alive Timer of 30 to 64800 and try again.                   |

| Message code | Error code | Message text/Recovery methods                                                                                                                                          |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED1C0014   | 0x031C0014 | The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.                                                  |
| DMED1C0015   | 0x031C0015 | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                             |
| DMED1C0017   | 0x031C0017 | The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.                    |
| DMED1C0018   | 0x031C0018 | The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.                                                   |
| DMED1C0019   | 0x031C0019 | The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.                    |
| DMED1C001A   | 0x031C001A | The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.                                                   |
| DMED1C001B   | 0x031C001B | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                           |
| DMED1C001C   | 0x031C001C | The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.                                                    |
| DMED1C001D   | 0x031C001D | The process cannot be performed because the ping is executing. Please try again after the ping is completed.                                                           |
| DMED1C001E   | 0x031C001E | The process cannot be performed because the specified CHAP algorithm is incorrect. Please specify a correct CHAP algorithm and try again.                              |
| DMED1C001F   | 0x031C001F | The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again. |
| DMED1C0020   | 0x031C0020 | The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.                                                   |
| DMED1C0021   | 0x031C0021 | The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.                                                |
| DMED1C0022   | 0x031C0022 | The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.                                               |
| DMED1C0023   | 0x031C0023 | The process cannot be performed because the LUN Manager is not installed, locked, or disabled. Please install the LUN Manager and then try again.                      |
| DMED1C0024   | 0x031C0024 | The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.                                       |
| DMED1C0025   | 0x031C0025 | The process cannot be performed because the character length of alias is outside the effective range. Please confirm the alias and try again.                          |
| DMED1C0026   | 0x031C0026 | The process cannot be performed because the invalid character is specified. Please confirm the alias and try again.                                                    |
| DMED1C0027   | 0x031C0027 | The process cannot be performed because the character length of name is outside the effective range. Please confirm the name and try again.                            |
| DMED1C0028   | 0x031C0028 | The process cannot be performed because the invalid character is specified. Please confirm the name and try again.                                                     |
| DMED1C0029   | 0x031C0029 | The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.                                               |
| DMED1C002A   | 0x031C002A | The process cannot be performed because the specified target is not defined. Please confirm the target and try again.                                                  |
| DMED1C002B   | 0x031C002B | The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.                                       |
| DMED1C003A   | 0x031C003A | The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.                                       |
| DMED1C003B   | 0x031C003B | The process cannot be performed because the specified alias is default name of Target 0. Please confirm the alias and try again.                                       |
| DMED1C003C   | 0x031C003C | The process cannot be performed because the specified iSCSI Name is default name of Target 0. Please confirm iSCSI Name and try again.                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                    |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED1C003D   | 0x031C003D | The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.                                                                                 |
| DMED1C003E   | 0x031C003E | The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.                                                                           |
| DMED1C003F   | 0x031C003F | The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.                                                                         |
| DMED1C0040   | 0x031C0040 | The process cannot be performed because the specified host group or target is outside the effective range. Please confirm the host group or target and try again.                                |
| DMED1C0041   | 0x031C0041 | The information cannot be obtained because iSCSI port is physically unequipped. Please confirm the port status and try again.                                                                    |
| DMED1D0001   | 0x031D0001 | The process cannot be performed during the SNMP setting. Please wait a moment and then try again.                                                                                                |
| DMED1E0001   | 0x031E0001 | The process cannot be performed because the cycle time is out of range. Please specify the cycle time of 30 to 3600 and try again.                                                               |
| DMED1E0002   | 0x031E0002 | The process cannot be set because the specified cycle time is less than the minimum value. Please confirm the cycle time and try again.                                                          |
| DMED1E0003   | 0x031E0003 | The process cannot be performed because the specified Queuing Inhibition Time is outside the effective range. Please confirm the Queuing Inhibition Time and try again.                          |
| DMED1E0010   | 0x031E0010 | The process cannot be performed because the Remote Replication pair exists. Please cancel the Remote Replication pair and try again.                                                             |
| DMED1E0011   | 0x031E0011 | The process cannot be performed during the Remote Replication pair deleting. Please wait a moment and then try again.                                                                            |
| DMED1E0012   | 0x031E0012 | The process cannot be performed because the specified logical unit is a part of Remote Replication pair. Please specify another logical unit and try again.                                      |
| DMED1E0013   | 0x031E0013 | The process cannot be performed because the deallocation of cache blocks for SnapShot is in progress. Please wait a moment and then try again.                                                   |
| DMED1E0014   | 0x031E0014 | The process cannot be performed because the subsystem is not restarted after Remote Replication is installed. Please restart the subsystem and then try again.                                   |
| DMED1E0015   | 0x031E0015 | The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is installed. Please restart the subsystem and then try again.                       |
| DMED1E0016   | 0x031E0016 | The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is de-installed. Please restart the subsystem and then try again.                    |
| DMED1E0017   | 0x031E0017 | The process cannot be performed because the status of Remote Replication pair is improper. Please confirm the status of pair and try again.                                                      |
| DMED1F0001   | 0x031F0001 | The Spare Drive Operation Mode is fixed and the Applying No Copy Back Mode on All the Units is enabled. This combination is not possible to specify. Please confirm the operation and try again. |
| DMED1F0010   | 0x031F0010 | The process failed due to an invalid parameter. Please confirm the specified value.                                                                                                              |
| DMED1F0011   | 0x031F0011 | The process cannot be performed because the specified IP address is incorrect. Please confirm the IP address and try again.                                                                      |
| DMED1F0012   | 0x031F0012 | The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.                                    |
| DMED1F0013   | 0x031F0013 | The process failed due to an invalid parameter. Please confirm the specified value.                                                                                                              |
| DMED1F0014   | 0x031F0014 | The process cannot be performed because the internal log is disabled. Please set the internal log to enable and try again.                                                                       |
| DMED1F0015   | 0x031F0015 | The process cannot be performed because the internal log is being exported. Please wait a moment and then try again.                                                                             |
| DMED1F0017   | 0x031F0017 | The process cannot be performed because the log export failed. Please wait a moment and then try again.                                                                                          |
| DMED1F0018   | 0x031F0018 | The process failed due to an invalid parameter. Please confirm the specified value.                                                                                                              |
| DMED1F0019   | 0x031F0019 | The process cannot be performed because the internal log is using. Please confirm the internal log status and try again.                                                                         |
| DMED1F001A   | 0x031F001A | The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                    |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED1F001B   | 0x031F001B | The process cannot be performed because the IPv6 address is specified to Syslog Server. Please confirm the version of the navigator.                             |
| DMED1F0020   | 0x031F0020 | The user ID is too short. Please confirm the user ID.                                                                                                            |
| DMED1F0021   | 0x031F0021 | The invalid character is specified in user ID. Please confirm the user ID.                                                                                       |
| DMED1F0022   | 0x031F0022 | The current login session is expired. Please login again.                                                                                                        |
| DMED1F0023   | 0x031F0023 | You have no permission. Please contact the Account Administrator and confirm your permission.                                                                    |
| DMED1F0024   | 0x031F0024 | The specified user ID has already been registered. Please specify another user ID.                                                                               |
| DMED1F0025   | 0x031F0025 | The specified user ID is not registered. Please confirm the user ID.                                                                                             |
| DMED1F0026   | 0x031F0026 | The role is not assigned. Please assign one or more roles.                                                                                                       |
| DMED1F0027   | 0x031F0027 | The process cannot be performed for logged in user.                                                                                                              |
| DMED1F0028   | 0x031F0028 | The process cannot be performed for Built-in account.                                                                                                            |
| DMED1F0029   | 0x031F0029 | You have no permission to modify. Please contact the Account Administrator and confirm your permission.                                                          |
| DMED1F002A   | 0x031F002A | The logged in user reached the maximum. Please wait a moment and then try again.                                                                                 |
| DMED1F002B   | 0x031F002B | The specified password does not match. Please specify password again.                                                                                            |
| DMED1F002C   | 0x031F002C | You cannot login because account status is disabled. Please contact Account Administrator, and confirm the account status.                                       |
| DMED1F002D   | 0x031F002D | The specified password does not match. Please confirm the password.                                                                                              |
| DMED1F002E   | 0x031F002E | The account reached the maximum. Please delete unnecessary account and try again.                                                                                |
| DMED1F002F   | 0x031F002F | The specified password length is less than minimum. Please confirm the password length.                                                                          |
| DMED1F0030   | 0x031F0030 | Password Protection and Account Authentication cannot be used together.                                                                                          |
| DMED1F0031   | 0x031F0031 | Account Authentication cannot be installed or be enabled, because NNC is equipped. Please change the subsystem into Fibre or iSCSI configuration, and try again. |
| DMED1F0032   | 0x031F0032 | The process cannot be performed because the specified session timeout value is outside the effective range. Please confirm the session timeout value.            |
| DMED1F0033   | 0x031F0033 | The process cannot be performed because TrueCopy Modular Distributed is installed. Please de-install the option and try again.                                   |
| DMED1F0034   | 0x031F0034 | The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the TrueCopy function.   |
| DMED1F0040   | 0x031F0040 | The process cannot be performed because the term of the temporary key or emergency key is expired.                                                               |
| DMED1F0041   | 0x031F0041 | The process cannot be performed because the ShadowImage pair is contained.                                                                                       |
| DMED1F0042   | 0x031F0042 | The process cannot be performed because the Remote Replication pair is contained.                                                                                |
| DMED1F0043   | 0x031F0043 | The process cannot be performed because the Remote Replication pair is contained.                                                                                |
| DMED1F0044   | 0x031F0044 | The process cannot be performed because the SnapShot pair is contained.                                                                                          |
| DMED1F0045   | 0x031F0045 | The process cannot be performed because the Volume Migration pair is contained.                                                                                  |
| DMED1F0048   | 0x031F0048 | The process cannot be performed because formatting is now occurring. Please try again after it is completed.                                                     |
| DMED1F0049   | 0x031F0049 | The process cannot be performed because parity correction is not completed. Please try again after it is completed.                                              |
| DMED1F004A   | 0x031F004A | The process cannot be performed because the data pool is contained. Please delete the data pool and try again.                                                   |
| DMED1F004B   | 0x031F004B | The process cannot be performed because the DM-LU is contained. Please cancel the DM-LU and try again.                                                           |
| DMED1F004C   | 0x031F004C | The process cannot be performed because the command device is contained. Please cancel the command device and try again.                                         |
| DMED1F004D   | 0x031F004D | The process cannot be performed because the system LU is contained. Please cancel the system LU and try again.                                                   |
| DMED1F004E   | 0x031F004E | The process cannot be performed because the LU change is in progress. Please try again after it is completed.                                                    |
| DMED1F0051   | 0x031F0051 | The process cannot be performed because the system drives is contained.                                                                                          |
| DMED1F0052   | 0x031F0052 | The process cannot be performed because the write uncompleted LU is contained. Please recover and then try again.                                                |
| DMED1F0053   | 0x031F0053 | The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                  |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED1F0054   | 0x031F0054 | The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.                                                                                                                                   |
| DMED1F0055   | 0x031F0055 | The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.                                                                                                                                   |
| DMED1F0056   | 0x031F0056 | The process cannot be performed because the RAID groups in state of Power Saving are existing. Please wait for a while and try again.                                                                                                                                          |
| DMED1F0057   | 0x031F0057 | The specified RAID group is not defined. Please specify a defined RAID group.                                                                                                                                                                                                  |
| DMED1F0058   | 0x031F0058 | The process cannot be performed because the drive recovery is in progress. Please try again after it is completed.                                                                                                                                                             |
| DMED1F0059   | 0x031F0059 | The process cannot be performed because the health checking is in progress. Please try again after it is completed.                                                                                                                                                            |
| DMED1F005A   | 0x031F005A | The process cannot be performed because the user LU is contained. Please cancel the user LU and try again.                                                                                                                                                                     |
| DMED1F005B   | 0x031F005B | The process cannot be performed because the SES drives is contained.                                                                                                                                                                                                           |
| DMED1F005C   | 0x031F005C | The process cannot be performed because state of Power Saving is in progress. Please retry after progress is completed.                                                                                                                                                        |
| DMED1F0080   | 0x031F0080 | The process cannot be performed because the external authentication server 1 is not defined. Please confirm the external authentication server 1 and try again.                                                                                                                |
| DMED1F0082   | 0x031F0082 | The process cannot be performed because the external authentication server 1 is not defined and The user whose user authentication is RADIUS exists. Please change the user authentication to Internal and try again.                                                          |
| DMED1F0083   | 0x031F0083 | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                                                                    |
| DMED1F0084   | 0x031F0084 | The authentication classification cannot be RADIUS because the user authentication server 1 is not defined. Please setting the external authentication server 1 as RADIUS and try again.                                                                                       |
| DMED1F0085   | 0x031F0085 | The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the external authentication server 1 setting and the LAN environment, and try again.                                                          |
| DMED1F0086   | 0x031F0086 | The process cannot be performed because the character length of password is outside the effective range. Please confirm password and try again.                                                                                                                                |
| DMED1F0087   | 0x031F0087 | The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the user ID and password, and try again.                                                                                                      |
| DMED1F0088   | 0x031F0088 | The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the external authentication server 2 setting and the LAN environment, and try again.                                                          |
| DMED1F0089   | 0x031F0089 | The password cannot be changed because the user authentication is RADIUS. Please change the password of RADIUS server.                                                                                                                                                         |
| DMED1F008A   | 0x031F008A | Cannot login because the user authentication with an external authentication server was time-out. Please confirm the external authentication server setting and the LAN environment, and try again.                                                                            |
| DMED1F008B   | 0x031F008B | Cannot login because the user authentication with an external authentication server was time-out. Or the process cannot be performed because the authentication test failed. Please confirm the external authentication server setting and the LAN environment, and try again. |
| DMED1F008C   | 0x031F008C | Cannot login because the user authentication with an external authentication server was failed. Please confirm the user ID and password, and try again.                                                                                                                        |
| DMED1F008D   | 0x031F008D | The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the user ID and password, and try again.                                                                                                      |
| DMED1F008E   | 0x031F008E | The process cannot be performed because the character length of user ID is outside the effective range. Please confirm user ID and try again.                                                                                                                                  |
| DMED1F008F   | 0x031F008F | The process cannot be performed because the password is not set. Please specify the password, and try again.                                                                                                                                                                   |
| DMED1F00A0   | 0x031F00A0 | The process cannot be performed because the user is not Built-in account. Please login by Built-in account and try again.                                                                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED200001   | 0x03200001 | The process cannot be performed because cache memory size 1GB or less. Please increase the cache memory and try again.                                                                       |
| DMED200002   | 0x03200002 | This function is unsupported in the single-controller system.                                                                                                                                |
| DMED200003   | 0x03200003 | SnapShot cannot be installed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.                                    |
| DMED200004   | 0x03020004 | Cache Partition Manager cannot be installed because the subsystem is not restarted after SnapShot is installed. Please restart the subsystem, and then try again.                            |
| DMED200005   | 0x03200005 | The option cannot be installed or enabled because cache memory size is 512MB or less. Please increase the cache memory and then try again.                                                   |
| DMED200006   | 0x03200006 | The option cannot be installed or enabled because cache memory size is 2GB or less. Please increase the cache memory and then try again.                                                     |
| DMED200011   | 0x03200011 | The process cannot be performed because the specified logical unit is not the reserve LU. Please specify the reserve LU and try again.                                                       |
| DMED200012   | 0x03200012 | The process cannot be performed because the specified logical unit is the reserve LU. Please delete the reserve LU or specify another logical unit and try again.                            |
| DMED200013   | 0x03200013 | The process cannot be performed because the capacity is different between the specified P-VOL and S-VOL. Please specify the logical unit of the same capacity and try again.                 |
| DMED200014   | 0x03200014 | The process cannot be performed because the owner controller is different between the specified P-VOL and S-VOL. Please specify the logical unit of the same owner controller and try again. |
| DMED200015   | 0x03200015 | The process cannot be performed the specified P-VOL and S-VOL have same logical unit number. Please specify the different logical unit number.                                               |
| DMED200016   | 0x03200016 | The process cannot be performed because the Volume Migration pair reached the maximum. Please cancel or split the unnecessary Volume Migration pair and try again.                           |
| DMED200017   | 0x03200017 | The process cannot be performed because the specified P-VOL and S-VOL belong to the same RAID group. Please specify the logical units of different RAID group.                               |
| DMED200018   | 0x03200018 | The specified pair cannot be canceled because the pair status is not waiting or copying.                                                                                                     |
| DMED200019   | 0x03200019 | The specified pair cannot be split because the pair status is not completed or error.                                                                                                        |
| DMED20001A   | 0x0320001A | The process cannot be performed because the specified P-VOL and S-VOL are not in pairs. Please specify the P-VOL and S-VOL in pairs and try again.                                           |
| DMED20001B   | 0x0320001B | The process cannot be performed because the reserve LU reached the maximum. Please delete the unnecessary reserve LU and try again.                                                          |
| DMED20001C   | 0x0320001C | The process cannot be performed because the specified logical unit is the S-VOL of the Volume Migration pair. Please specify another logical unit and try again.                             |
| DMED20001D   | 0x0320001D | The process cannot be performed because the specified logical unit is not the reserve LU. Please specify the reserve LU and try again.                                                       |
| DMED20001E   | 0x0320001E | The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair is contained. Please split the pair and try again.                                                   |
| DMED20001F   | 0x0320001F | The process cannot be performed because the reserve LU is contained. Please delete the reserve LU and try again.                                                                             |
| DMED200020   | 0x03200020 | The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair or the reserve LU is contained. Please split the pair or delete the reserve LU and try again.        |
| DMED200021   | 0x03200021 | The process cannot be performed because the owner ID is different. Please cancel the pair using the application that created the pair.                                                       |
| DMED200022   | 0x03200022 | The process cannot be performed because the owner ID is different. Please split the pair using the application that created the pair.                                                        |
| DMED200023   | 0x03200023 | The process cannot be performed because the specified owner ID is not supported.                                                                                                             |
| DMED200024   | 0x03200024 | The process cannot be performed because the reserve LU exists. Please delete the reserve LU and try again.                                                                                   |
| DMED200025   | 0x03200025 | The process cannot be performed because the Volume Migration pair exists. Please cancel or split the pair and try again.                                                                     |
| DMED200026   | 0x03200026 | The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please restart the subsystem and then try again.                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                            |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED200027   | 0x03200027 | The process cannot be performed because a management area is shortage. Please delete the unnecessary pair(s) and try again.                                                                              |
| DMED200028   | 0x03200028 | The process cannot be performed because the specified logical unit is not the Volume Migration pair. Please specify another logical unit and try again.                                                  |
| DMED200029   | 0x03200029 | The process cannot be performed because the specified logical unit is Volume Migration pair and is copying. Please retry after copy is completed.                                                        |
| DMED20002A   | 0x0320002A | The copy pace of specified pair cannot be changed because the pair status is not waiting or copying.                                                                                                     |
| DMED20002B   | 0x0320002B | The process cannot be performed because the specified owner ID is not supported.                                                                                                                         |
| DMED20002C   | 0x0320002C | The process cannot be performed because the specified logical unit is not the P-VOL or S-VOL of the Volume Migration pair. Please specify the P-VOL or S-VOL of the Volume Migration pair and try again. |
| DMED20002D   | 0x0320002D | The specified P-VOL and S-VOL belong to same DP pool. Please specify a different DP pool and then try again.                                                                                             |
| DMED20002E   | 0x0320002E | The capacity of DP pool to which the specified S-VOL belongs is insufficient. Please add DP pool capacity and then try again.                                                                            |
| DMED200030   | 0x03200030 | The number of iSCSI connecting hosts exceeds the maximum value that can be unlocked or enabled fee-basis option. Please delete unnecessary hosts and try again.                                          |
| DMED210001   | 0x03210001 | The process cannot be performed because the mapping information is overlapped within the same host group. Please confirm the mapping information.                                                        |
| DMED210010   | 0x03210010 | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                               |
| DMED210011   | 0x03210011 | The process cannot be performed because E-mail Error Report is enabled. Please set E-mail Error Report to disable and try again.                                                                         |
| DMED220001   | 0x03220001 | The process cannot be performed because the specified battery count is outside the effective range. Please confirm the battery count.                                                                    |
| DMED220002   | 0x03220002 | The valid battery count cannot be increased. Please specify the count equal to or less than the current valid battery count.                                                                             |
| DMED220003   | 0x03220003 | The process cannot be performed in the single-controller system. Please confirm the system configuration.                                                                                                |
| DMED220004   | 0x03220004 | The new unit cannot be added because the number of units reached the maximum. Please confirm the system configuration.                                                                                   |
| DMED220005   | 0x03220005 | The process cannot be performed because the controller or ENC is detached. Please recover the status and then try again.                                                                                 |
| DMED220006   | 0x03220006 | The process cannot be performed because the ENC firmware is being replaced. Please retry after the replacement completes.                                                                                |
| DMED220007   | 0x03220007 | The process cannot be performed because the subsystem is under diagnosis process. Please retry after a while.                                                                                            |
| DMED220008   | 0x03220008 | The process cannot be performed because the unit is being added. Please retry after the addition of unit completes.                                                                                      |
| DMED220009   | 0x03220009 | The specified battery count cannot be set. Please specify a right battery count.                                                                                                                         |
| DMED230001   | 0x03230001 | The process cannot be performed because the migration guard is set up. Please clear the migration guard and try again.                                                                                   |
| DMED230002   | 0x03230002 | The process cannot be performed because the Migration Status is Checking. Please confirm the Migration Status and try again.                                                                             |
| DMED230003   | 0x03230003 | The process cannot be performed because the Migration Status is Preparing to Create Copy. Please confirm the Migration Status and try again.                                                             |
| DMED230004   | 0x03230004 | The process cannot be performed because the Migration Status is Creating Copy. Please confirm the Migration Status and try again.                                                                        |
| DMED230005   | 0x03230005 | The process cannot be performed because the Migration Status is Auto Migration Failed. Please confirm the Migration Status and try again.                                                                |
| DMED230006   | 0x03230006 | The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                    |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED230007   | 0x03230007 | The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.                                                            |
| DMED230008   | 0x03230008 | The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.                                                            |
| DMED230009   | 0x03230009 | The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.                                                            |
| DMED230010   | 0x03230010 | The process cannot be performed because the Migration Status is Copy Created. Please confirm the Migration Status and try again.                                                                 |
| DMED230011   | 0x03230011 | The process cannot be performed because the Migration Status is Switching Array. Please confirm the Migration Status and try again.                                                              |
| DMED230012   | 0x03230012 | The process cannot be performed because the Migration Status is Auto Migration Completed. Please confirm the Migration Status and try again.                                                     |
| DMED230013   | 0x03230013 | The process cannot be performed because the Migration Status is Switching Array Failed. Please confirm the Migration Status and try again.                                                       |
| DMED230014   | 0x03230014 | The process cannot be performed because the Migration Status is In Progress. Please confirm the Migration Status and try again.                                                                  |
| DMED230015   | 0x03230015 | The process cannot be performed because the Migration Status is Completed. Please confirm the Migration Status and try again.                                                                    |
| DMED230016   | 0x03230016 | The process cannot be performed because the Migration Status is Failed. Please confirm the Migration Status and try again.                                                                       |
| DMED230017   | 0x03230017 | The process cannot be performed because the Migration Status is Not Started. Please confirm the Migration Status and try again.                                                                  |
| DMED230018   | 0x03230018 | The process cannot be performed because the Migration Status is Creating Copy Failed to Start. Please confirm the Migration Status and try again.                                                |
| DMED230019   | 0x03230019 | The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.                                                                            |
| DMED230020   | 0x03230020 | The process cannot be performed because the Migration Status is Preparing. Please confirm the Migration Status and try again.                                                                    |
| DMED230021   | 0x03230021 | The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again when the pair status is not Split Pending.                                                    |
| DMED231000   | 0x03231000 | The process cannot be performed because the subsystem is executing the Auto Migration. Please confirm the Migration Status and try again.                                                        |
| DMED231001   | 0x03231001 | The process cannot be performed because the subsystem is executing the Auto Migration or the addition of unit. Please confirm the Migration Status while executing Auto Migration and try again. |
| DMED231002   | 0x03231002 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                       |
|              |            | The specified equipment ID is incorrect. Please specify a right equipment ID.                                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                         |
| DMED231003   | 0x03231003 | The specified array ID is incorrect. Please specify a right array ID.                                                                                                                            |
|              |            | The process cannot be performed because formatting is now occurring. Please retry after formatting completes.                                                                                    |
| DMED231004   | 0x03231004 | The process cannot be performed because the specified interface board type is not equipped. Please confirm the interface board type.                                                             |
| DMED231005   | 0x03231005 | The process cannot be performed because the PIN exceeded state. Please restore PIN data and try again.                                                                                           |
| DMED231006   | 0x03231006 | The process cannot be performed because the write uncompleted LU exists. Please recover and then try again.                                                                                      |
| DMED231007   | 0x03231007 | The process cannot be performed because the DM-LU is not defined. Please define DM-LU and try again.                                                                                             |
| DMED231008   | 0x03231008 | The process cannot be performed because the Auto Migration is executing or is failed. Please confirm the Migration Status and try again.                                                         |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                            |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED240001   | 0x03240001 | The certificate and the secret key cannot be checked. Please restart the subsystem and then try again.                                                                                                                                                                                                                   |
| DMED240002   | 0x03240002 | The process cannot be performed because the certificate is invalid. Please confirm the certificate and try again.                                                                                                                                                                                                        |
| DMED240003   | 0x03240003 | The process cannot be performed because the secret key is invalid. Please confirm the certificate and try again.                                                                                                                                                                                                         |
| DMED241001   | 0x03241001 | Hitachi Storage Navigator Modular 2 is less than Ver.6.00.                                                                                                                                                                                                                                                               |
|              |            | The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed.                                                                                                                                                                                            |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.00 or more.                                                                                                                                                                                                                                                                 |
|              |            | The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed. And, the specified operation may not be performed even if the RAID group expansion is completed. When the RAID group expansion is completed, please retry after waiting 2 minutes or more. |
| DMED241002   | 0x03241002 | The 'cancel' operation cannot be performed because the RAID group does not execute the expansion. Please confirm the RAID group and then try again.                                                                                                                                                                      |
| DMED241003   | 0x03241003 | The 'cancel' operation cannot be performed because the RAID group is executing expansion or has been executed the expansion and waiting. Please confirm the RAID group status and try again.                                                                                                                             |
| DMED241004   | 0x03241004 | The 'forcibly cancel' operation cannot be performed because the RAID group does not execute the expansion and waiting. Please specify a 'cancel' operation.                                                                                                                                                              |
| DMED241005   | 0x03241005 | The process cannot be performed because RAID group is RAID0. Please confirm RAID level and then try again.                                                                                                                                                                                                               |
| DMED241006   | 0x03241006 | The process cannot be performed because the number of parity groups is not 1. Please confirm the RAID group and try again.                                                                                                                                                                                               |
| DMED241007   | 0x03241007 | The process cannot be performed because the specified drives contain an un-mounted drive or a blocked drive. Please confirm the drive status and try again.                                                                                                                                                              |
| DMED241008   | 0x03241008 | The specified drive is already defined as a spare drive, or is already being used in the RAID group. Please confirm the drive status and try again.                                                                                                                                                                      |
| DMED241009   | 0x03241009 | The process cannot be performed because the number of drive is incorrect. Please specify it by an even number, when RAID level is RAID1 or RAID1+0.                                                                                                                                                                      |
| DMED24100A   | 0x0324100A | The process cannot be performed because the number of drive is incorrect. Please specify the number of drives within the range of the combination at the RAID level.                                                                                                                                                     |
| DMED24100B   | 0x0324100B | The process cannot be performed because the drive type of the RAID group is different. Please confirm the drive type and try again.                                                                                                                                                                                      |
| DMED24100C   | 0x0324100C | The process cannot be performed because the capacity of specified drive is less than the minimum capacity of the RAID group drives. Please confirm the drive capacity and try again.                                                                                                                                     |
| DMED24100D   | 0x0324100D | The process cannot be performed because ShadowImage pair or Remote Replication pair is not Simplex or Split, or SnapShot pair is not Simplex or Paired. Please retry after copy is completed.                                                                                                                            |
| DMED24100E   | 0x0324100E | The process cannot be performed because SnapShot pair is not Paired or Remote Replication pair is not Split. Please retry after copy is completed.                                                                                                                                                                       |
| DMED24100F   | 0x0324100F | The process cannot be performed because some logical unit are under quick formatting. Please retry after quick formatting is completed.                                                                                                                                                                                  |
| DMED241010   | 0x03241010 | The process cannot be performed because some logical unit is under parity correction. Please retry after parity correction is completed.                                                                                                                                                                                 |
| DMED241011   | 0x03241011 | The process cannot be performed because the write uncompleted LU is contained. Please recover and then try again.                                                                                                                                                                                                        |
| DMED241012   | 0x03241012 | The process cannot be performed because the Volume Migration pair is contained. Please split the pair and try again.                                                                                                                                                                                                     |
| DMED241013   | 0x03241013 | The process cannot be performed because the reserve LU of the Volume Migration is contained. Please delete the reserve LU and try again.                                                                                                                                                                                 |
| DMED241014   | 0x03241014 | The process cannot be performed because the Cache Residency LU or a reserved one exists. Please delete the Cache Residency LU and then try again.                                                                                                                                                                        |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                        |
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| DMED241016   | 0x03241016 | The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                                                    |
| DMED241017   | 0x03241017 | The process cannot be performed because the size of LU is over 120TB or the unified LU exists. Please shrink the LU capacity and try again.                                                                                                                                          |
| DMED241019   | 0x03241019 | The process cannot be performed because the subsystem is not restarted, when Cache Partition Manager and SnapShot or Remote Replication is enabled. Or the process cannot be performed because cache partition modification is reserved. Please restart the subsystem and try again. |
| DMED24101A   | 0x0324101A | The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again after status is changed to Split.                                                                                                                                                 |
| DMED24101B   | 0x0324101B | The process cannot be performed because the logical unit in regressed state is contained. Please change the state to normal and try again.                                                                                                                                           |
| DMED241050   | 0x03241050 | The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed.                                                                                                                                                        |
| DMED241051   | 0x03241051 | The process cannot be performed because the LU changing occurred by the RAID group expansion. Please retry after expansion is completed.                                                                                                                                             |
| DMED250001   | 0x03250001 | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                                                                          |
| DMED250002   | 0x03250002 | The specified default gateway address is incorrect. Please specify a right default gateway address.                                                                                                                                                                                  |
| DMED250003   | 0x03250003 | The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.                                                                                                                                |
| DMED250004   | 0x03250004 | The process cannot be performed because the specified management LAN is same address as the linklocal management LAN. Please specify the different address and try again.                                                                                                            |
| DMED250005   | 0x03250005 | The process cannot be performed because the specified management LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.                                                                                                           |
| DMED250006   | 0x03250006 | The process cannot be performed because the specified management LAN is same address as the maintenance LAN. Please specify the different address and try again.                                                                                                                     |
| DMED250007   | 0x03250007 | The process cannot be performed because the specified maintenance LAN is same address as the management LAN. Please specify the different address and try again.                                                                                                                     |
| DMED250008   | 0x03250008 | The process cannot be performed because the specified maintenance LAN is same address as the linklocal management LAN. Please specify the different address and try again.                                                                                                           |
| DMED250009   | 0x03250009 | The process cannot be performed because the specified maintenance LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.                                                                                                          |
| DMED25000A   | 0x0325000A | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                                                                                                           |
| DMED25000B   | 0x0325000B | The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                                                                                                           |
| DMED25000C   | 0x0325000C | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                                                                          |
| DMED25000D   | 0x0325000D | The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                                                                                          |
| DMED25000E   | 0x0325000E | The protocol version (IPv4/IPv6) is different between IP address of subsystem and the specified IP address of mail server. Please confirm the protocol version of the subsystem and try again.                                                                                       |
| DMED25000F   | 0x0325000F | The protocol version (IPv4/IPv6) is different between IP address of subsystem and the set IP address of mail server. Please confirm the protocol version of the subsystem and try again.                                                                                             |
| DMED260001   | 0x03260001 | The specified drive is already defined as a spare drive, or is already being used in the RAID group or DP pool. Please confirm the drive status and try again.                                                                                                                       |
| DMED260002   | 0x03260002 | The process cannot be performed because the DP pool exists. Please delete the DP pool and try again.                                                                                                                                                                                 |
| DMED260003   | 0x03260003 | The process cannot be performed because the specified logical unit is a logical unit in the DP pool. Please specify another logical unit and try again.                                                                                                                              |
| DMED260004   | 0x03260004 | The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed. Please restart the subsystem and then try again.                                                                  |
| DMED260005   | 0x03260005 | The number of defined logical unit reached the maximum. Please delete unnecessary logical unit and try again.                                                                                                                                                                        |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED260006   | 0x03260006 | The process cannot be performed because the specified RAID group is a RAID group in the DP pool. Please confirm the RAID group and try again.                                                                                                                                                                                                                                                     |
| DMED260007   | 0x03260007 | The process cannot be performed because the logical unit which belongs to the DP pool is not normal state. Please recover the status and then try again.                                                                                                                                                                                                                                          |
| DMED260008   | 0x03260008 | The specified DP pool number has already been defined. Please specify a new number.                                                                                                                                                                                                                                                                                                               |
| DMED260009   | 0x03260009 | The process cannot be performed because the specified RAID level is not supported. Please specify the RAID level currently supported and try again.                                                                                                                                                                                                                                               |
| DMED26000A   | 0x0326000A | The specified RAID group is already defined or used by DP pool. Please specify a new RAID group.                                                                                                                                                                                                                                                                                                  |
| DMED26000B   | 0x0326000B | The process cannot be performed because the specified DP pool is neither in normal nor in regressed state. Please recover the status and then try again.                                                                                                                                                                                                                                          |
| DMED26000C   | 0x0326000C | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>The process cannot be performed because the specified drive type is unknown. Please replace the drive with SAS or SATA drive and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>The process cannot be performed because the non-supported drive is mounted. Please replace the drive and then try again. |
| DMED26000D   | 0x0326000D | The process cannot be performed because the capacity of specified drive is not supported. Please replace the drive currently supported and try again.                                                                                                                                                                                                                                             |
| DMED26000E   | 0x0326000E | The specified DP pool cannot be deleted. Please specify another DP pool.                                                                                                                                                                                                                                                                                                                          |
| DMED26000F   | 0x0326000F | The number of defined RAID group reached the maximum. Please delete unnecessary RAID group and try again.                                                                                                                                                                                                                                                                                         |
| DMED260010   | 0x03260010 | The process cannot be performed because the subsystem is not restarted after Dynamic Provisioning is installed. Please restart the subsystem and then try again.                                                                                                                                                                                                                                  |
| DMED260011   | 0x03260011 | The process cannot be performed because combination of the RAID level and the number of drive does not match. Please confirm combination of the RAID level or the number of drive and try again.                                                                                                                                                                                                  |
| DMED260012   | 0x03260012 | The specified DP pool is not defined. Please specify a defined DP pool and then try again.                                                                                                                                                                                                                                                                                                        |
| DMED260013   | 0x03260013 | The process cannot be performed because the specified DP pool is neither in normal state. Please recover the status and then try again.                                                                                                                                                                                                                                                           |
| DMED260014   | 0x03260014 | The number of drives reach the maximum. Please confirm the number of drives.                                                                                                                                                                                                                                                                                                                      |
| DMED260015   | 0x03260015 | The process cannot be performed because the logical unit exists in the DP pool. Please delete the logical unit in the DP pool and then try again.                                                                                                                                                                                                                                                 |
| DMED260016   | 0x03260016 | The process cannot be performed because the drive recovery is in progress. Please retry after drive recovery completes.                                                                                                                                                                                                                                                                           |
| DMED260017   | 0x03260017 | The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.                                                                                                                                                                                                                                                                           |
| DMED260018   | 0x03260018 | The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again.                                                                                                                                                                                                                                                         |
| DMED260019   | 0x03260019 | The warning of over provisioning threshold is equal to or more than the limit. Please confirm the values and try again.                                                                                                                                                                                                                                                                           |
| DMED26001A   | 0x0326001A | The process cannot be performed because the combination of drive type and drive capacity does not match. Please confirm the drive type or the drive capacity, and try again.                                                                                                                                                                                                                      |
| DMED26001B   | 0x0326001B | There is no drive which can be used. Please confirm the number of drives and try again.                                                                                                                                                                                                                                                                                                           |
| DMED26001C   | 0x0326001C | The process cannot be performed because specified logical unit is not a logical unit in the DP pool. Please specify an logical unit in the DP pool and then try again.                                                                                                                                                                                                                            |
| DMED26001D   | 0x0326001D | The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.                                                                                                                                                                                                                                                      |
| DMED26001E   | 0x0326001E | The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.                                                                                                                                                                                                                                                      |
| DMED26001F   | 0x0326001F | The process cannot be performed because the status of DP pool consumed capacity is depletion alert over or capacity depleted. Please confirm the DP pool consumed capacity and then try again.                                                                                                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                          |
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| DMED260020   | 0x03260020 | The process cannot be performed because the DP pool consumed capacity is not normal state. Please confirm the DP pool consumed capacity and then try again.                                                                                                                                                            |
| DMED260021   | 0x03260021 | The process cannot be performed because the combination of RAID level and number of drives does not match. Please confirm the number of drives and then try again.                                                                                                                                                     |
| DMED260022   | 0x03260022 | The process cannot be performed because different drives are specified. Please confirm the drive type and then try again.                                                                                                                                                                                              |
| DMED260023   | 0x03260023 | The process cannot be performed because there are some logical units that are not normal or skip state of the parity correction. Please retry after changing to normal state.                                                                                                                                          |
| DMED260024   | 0x03260024 | The process cannot be performed because the drive type of the DP pool is different. Please confirm the drive type and then try again.                                                                                                                                                                                  |
| DMED260025   | 0x03260025 | The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition and then try again.                                                                                                                                      |
| DMED260026   | 0x03260026 | The process cannot be performed because the combination of the number of drives and the combination does not match. Please confirm the number of drives and the combination and then try again.",                                                                                                                      |
| DMED260027   | 0x03260027 | The process cannot be performed because the capacity of DP pool will exceed the maximum. Please delete unnecessary DP pools and then try again.                                                                                                                                                                        |
| DMED260028   | 0x03260028 | The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.                                                                                         |
| DMED260029   | 0x03260029 | The process cannot be performed because the DP optimization state of the specified logical unit in DP pool or the logical units in DP pool that has specified logical unit is neither in Normal state nor in Failed state. Please wait for completion of DP optimization or cancel DP optimization and then try again. |
| DMED26002A   | 0x0326002A | The process cannot be performed because the DP optimization state of logical unit in DP pool is not Normal. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.                                                              |
| DMED26002B   | 0x0326002B | The process cannot be performed because the capacity of DP pool for performing DP optimization is insufficient. Please add capacity of DP pool for performing DP optimization and then try again.                                                                                                                      |
| DMED26002C   | 0x0326002C | The process cannot be performed because specified logical unit in DP pool or the logical units in DP pool that has specified logical unit contains the write uncompleted logical unit. Please recover and then try again.                                                                                              |
| DMED26002D   | 0x0326002D | It is not necessary to cancel because DP optimization state of the logical unit in specified DP pool or the logical unit in DP pool containing specified logical unit is already optimizing or canceling.                                                                                                              |
| DMED26002E   | 0x0326002E | The process cannot be performed because DP optimization state of the logical unit in DP pool is not normal. Please confirm DP optimization state of the logical unit in DP pool and then try again.                                                                                                                    |
| DMED26002F   | 0x0326002F | The process cannot be performed because specified logical unit in DP pool contains the write uncompleted logical unit. Please recover and then try again.                                                                                                                                                              |
| DMED260030   | 0x03260030 | The process cannot be performed because status of the logical unit in specified DP pool or the logical unit in DP pool containing specified logical unit is neither in Normal state nor in Regression state. Please recover the logical unit and then try again.                                                       |
| DMED260031   | 0x03260031 | The process cannot be performed because ShadowImage pair of Simplex state exists in specified DP pool. Please release the pair and then try again.                                                                                                                                                                     |
| DMED260032   | 0x03260032 | The process cannot be performed because specified logical unit in DP pool or the logical units in DP pool that has specified logical unit is in the PIN exceeded state. Please recover and then try again.                                                                                                             |
| DMED260033   | 0x03260033 | The process cannot be performed because state of the DP pool which contains the specified logical unit is Detached. Please recover and then try again.                                                                                                                                                                 |
| DMED260034   | 0x03260034 | The process cannot be performed because status the logical unit in the specified DP pool is in Normal state nor in Regression state. Please recover the logical unit and then try again.                                                                                                                               |
| DMED260035   | 0x03260035 | The process cannot be performed because specified logical unit in DP pool is in the PIN exceeded state. Please recover and then try again.                                                                                                                                                                             |
| DMED260036   | 0x03260036 | The process cannot be performed because the updating of DP management information is in progress. Please wait a moment and then try again.                                                                                                                                                                             |
| DMED260037   | 0x03260037 | The capacity of DP pool to which the specified P-VOL belongs is insufficient. Please add DP pool capacity and then try again.                                                                                                                                                                                          |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                             |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED260038   | 0x03260038 | The process cannot be performed because the subsystem is not restarted after DP capacity mode is changed. Please restart the subsystem and then try again.                                                                                                |
| DMED260039   | 0x03260039 | The process cannot be performed because the capacity of DP pool will exceed the maximum. Please restart the subsystem and then try again.                                                                                                                 |
| DMED26003A   | 0x0326003A | The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed, or Advanced Security Mode is changed. Please restart the subsystem and then try again. |
| DMED300001   | 0x03300001 | The serial number or equipment ID cannot be changed because the path and pair information does not exist.                                                                                                                                                 |
| DMED300002   | 0x03300002 | The serial number or equipment ID cannot be changed because the path and pair information does not exist.                                                                                                                                                 |
| DMED300005   | 0x03300005 | The specified serial number or equipment ID is incorrect. Please specify it in 0-9.                                                                                                                                                                       |
| DMED300006   | 0x03300006 | The specified serial number is incorrect. Please specify a right serial number.                                                                                                                                                                           |
| DMED300007   | 0x03300007 | The specified serial number is incorrect. Please specify a right serial number.                                                                                                                                                                           |
| DMED300008   | 0x03300008 | 0 is specified as 6 figures of low order of the serial number. Please specify a right serial number.                                                                                                                                                      |
| DMED300009   | 0x03300009 | The same serial number as a self subsystem is specified. Please specify the serial number of connected subsystem.                                                                                                                                         |
| DMED30000A   | 0x0330000A | The same equipment ID as a self subsystem is specified. Please specify the equipment ID of connected subsystem.                                                                                                                                           |
| DMED30000B   | 0x0330000B | The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.                                                                                                                               |
| DMED30000C   | 0x0330000C | A value differs from current value is specified as 1 figures of high order of the serial number or equipment ID. Please specify a right serial number or equipment ID.                                                                                    |
| DMED30000D   | 0x0330000D | The process cannot be performed because the specified array ID is not set to Remote Replication pair, remote path or remote port CHAP information (Target information). Please confirm the array ID and try again.                                        |
| DMED30000E   | 0x0330000E | The array ID before and behind change is the same. Please specify a right array ID.                                                                                                                                                                       |
| DMED3B0011   | 0x033B0011 | Hitachi Storage Navigator Modular 2 is less than Ver.4.3.<br>The firmware cannot be downgraded because the interface board of iSCSI is equipped. Please change the interface boards to fibre channel and try again.                                       |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.4.3 or more.<br>The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.         |
| DMED3B0012   | 0x033B0012 | The firmware cannot be downgraded because the segment size of 64KB or more is set up. Please confirm the cache partition and try again.                                                                                                                   |
| DMED3B0013   | 0x033B0013 | The firmware cannot be downgraded because the stripe size other than 64KB is set up. Please confirm the stripe size of logical unit and try again.                                                                                                        |
| DMED3B0014   | 0x033B0014 | The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.                                                                                                                |
| DMED3B0015   | 0x033B0015 | The firmware cannot be downgraded because the subsystem is not restarted after the option using data pool is unlocked or enabled. Please restart the subsystem and then try again.                                                                        |
| DMED3B0016   | 0x033B0016 | The firmware cannot be downgraded because the target(s) or CHAP user(s) is not initialized. Please initialize the target(s) and CHAP user(s) and try again.                                                                                               |
| DMED3B0018   | 0x033B0018 | The firmware cannot be downgraded because the pair with MU number other than 0 exists in S-VOL of ShadowImage. Please cancel the pair with MU number other than 0 and try again.                                                                          |
| DMED3B0019   | 0x033B0019 | The firmware cannot be downgraded because the pair with MU number of 14 or more exists in SnapShot logical unit. Please cancel the pair with MU number of 14 or more and try again.                                                                       |
| DMED3B001A   | 0x033B001A | The firmware cannot be downgraded because P-VOL with 15 or more SnapShot logical unit exists. Please delete SnapShot logical unit to 14 or less, and try again.                                                                                           |
| DMED3B001B   | 0x033B001B | The firmware cannot be downgraded because the user LU is being used as the pair of Remote Replication. Please cancel the pair and try again.                                                                                                              |
| DMED3B001C   | 0x033B001C | The firmware cannot be downgraded because the migrated logical unit exists. Please migrate again.                                                                                                                                                         |
| DMED3B001D   | 0x033B001D | The firmware cannot be downgraded because Volume Migration is installed. Please de-install the option and try again.                                                                                                                                      |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                        |
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| DMED3B001E   | 0x033B001E | The firmware cannot be downgraded because Remote Replication is unlocked. Please lock the option and try again.                                                                                                                                                                                                      |
| DMED3B001F   | 0x033B001F | The firmware cannot be downgraded because Account Authentication is installed. Please de-install the option and try again.                                                                                                                                                                                           |
| DMED3B0020   | 0x033B0020 | The firmware cannot be downgraded because Power Saving is installed. Please de-install the option and try again.                                                                                                                                                                                                     |
| DMED3B0021   | 0x033B0021 | The firmware cannot be downgraded because the NNCtype2 is equipped. Please confirm the configuration.                                                                                                                                                                                                                |
| DMED3B0022   | 0x033B0022 | The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.                                                                                                                                                  |
| DMED3B0023   | 0x033B0023 | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.                                                                                                                                                                                                                                                           |
|              |            | The firmware cannot be downgraded because the 8Gbps fibre interface board is equipped. Please retry by using firmware in relation to this interface board.                                                                                                                                                           |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.                                                                                                                                                                                                                                                             |
|              |            | The firmware cannot be downgraded because the 8Gbps fibre interface board is equipped. Please retry by using firmware in relation to this interface board.                                                                                                                                                           |
| DMED3B0100   | 0x033B0100 | The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.                                                                                                                                                                                                     |
| DMED3B0101   | 0x033B0101 | The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.                                                                                                                                                                                                     |
| DMED3B0102   | 0x033B0102 | The process cannot be performed because the system drive type is unknown. Please replace the system drive with SAS or SATA drive and try again.                                                                                                                                                                      |
| DMED3B0103   | 0x033B0103 | The firmware replacement cannot be performed because the controller 1 is specified. Please replace the firmware from the controller 0. Or the subsystem may have been rebooted during the firmware replacement. Please replace the firmware again, if the firmware revision is not matched between both controllers. |
| DMED3B0104   | 0x033B0104 | The firmware replacement cannot be performed because firmware replacement of another controller is not completed and the access from hosts is not received. Please perform firmware replacement of this controller again after performing firmware replacement of another controller and completing.                 |
| DMED3B0201   | 0x033B0201 | The process cannot be performed because Data Retention Utility is installed. Please de-install the option and try again.                                                                                                                                                                                             |
| DMED3C1101   | 0x033C1101 | The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.                                                                                                                                                                           |
| DMED3C1164   | 0x033C1164 | The firmware cannot be downgraded because the non-supported controller is equipped on the downgraded version. Please retry by using firmware in relation to this controller.                                                                                                                                         |
| DMED3C1211   | 0x033C1211 | The firmware cannot be downgraded because the RAID group expansion is now occurring or the RAID group containing unified LU is executed expansion. Please retry after expansion is completed.                                                                                                                        |
| DMED3C1212   | 0x033C1212 | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.                                                                                                                                                                                                                                                           |
|              |            | The firmware cannot be downgraded because ShadowImage pair is undergoing resynchronization with Quick Mode. Please retry after the resynchronization is completed.                                                                                                                                                   |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.                                                                                                                                                                                                                                                             |
|              |            | The firmware cannot be downgraded because ShadowImage pair of Split Pending or Paired Internally Synchronizing exists. Please retry after status is changed to Split or Paired.                                                                                                                                      |
| DMED3C1214   | 0x033C1214 | The firmware cannot be downgraded because the Dense Units are connected. Please retry after removing the Dense units or by using another firmware.                                                                                                                                                                   |
| DMED3C1215   | 0x033C1215 | The firmware cannot be downgraded because S-VOL of ShadowImage pair is under formatting. Please retry after formatting is completed.                                                                                                                                                                                 |
| DMED3C1216   | 0x033C1216 | The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.                                                                                                                                                                           |
| DMED3C1217   | 0x033C1217 | The firmware cannot be downgraded because Distributed Mode is Hub. Please change the Distributed Mode to Edge and try again.                                                                                                                                                                                         |
| DMED3C1218   | 0x033C1218 | The firmware cannot be downgraded because Dynamic Provisioning is installed. Please change Dynamic Provisioning to de-installed and try again.                                                                                                                                                                       |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                       |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED3C1219   | 0x033C1219 | The firmware cannot be downgraded because the user whose user authentication is RADIUS exists. Please delete the user whose user authentication is RADIUS and try again.                                                            |
| DMED3C121A   | 0x033C121A | The firmware cannot be downgraded because the number of registered account exceeded the maximum value that can be supported on the downgraded version. Please confirm the number of registered account and try again.               |
| DMED3C121B   | 0x033C121B | The firmware cannot be downgraded because the command device that uses the logical unit in the DP pool exists. Please release the command device that uses the logical unit in the DP pool and try again.                           |
| DMED3C121C   | 0x033C121C | The firmware cannot be downgraded because the DM-LU that uses the logical unit in the DP pool exists. Please release the DM-LU that uses the logical unit in the DP pool and try again.                                             |
| DMED3C121F   | 0x033C121F | The firmware cannot be downgraded because the number of connected subsystem exceeded the maximum value that can be supported on the downgraded version. Please remove drives or use another firmware and then try again.            |
| DMED3C1220   | 0x033C1220 | The firmware cannot be downgraded because the volume migration pair that uses the logical unit in the DP pool exists. Please release the pair and try again.                                                                        |
| DMED3C1221   | 0x033C1221 | The firmware cannot be downgraded because the state of DP optimization is optimizing. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again. |
| DMED3C1222   | 0x033C1222 | The firmware cannot be downgraded because SSD is mounted. Please remove SSD or use another firmware and then try again.                                                                                                             |
| DMED3C1223   | 0x033C1223 | The firmware cannot be downgraded because the number of connected Dense units exceeded the maximum value that can be supported on the downgraded version. Please remove the Dense units or use another firmware and then try again. |
| DMED3C1224   | 0x033C1224 | The firmware cannot be downgraded because the updating of DP management information is in progress. Please wait a moment and then try again.                                                                                        |
| DMED3C1225   | 0x033C1225 | The firmware cannot be downgraded because Advanced Security Mode is enabled. Please change Advanced Security Mode to disabled and try again.                                                                                        |
| DMED3C1227   | 0x033C1227 | The firmware cannot be downgraded because the SAS drives are mounted in the Dense Units. Please remove the SAS drives or use another firmware and then try again.                                                                   |
| DMED3C1228   | 0x033C1228 | The firmware cannot be downgraded because remote paths are set to an array whose H/W revision is 0200. Please delete remote paths and try again.                                                                                    |
| DMED3C12FF   | 0x033C12FF | The firmware cannot be downgraded because tape group targeted differential backup or backed up differential exists. Please delete tape groups, and try again.                                                                       |
| DMED3D0001   | 0x033D0001 | The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.                                                                                                             |
| DMED400001   | 0x03400001 | The process cannot be performed because the specified logical units contain an unformatted LU. Confirm the logical unit status and try again.                                                                                       |
| DMED400002   | 0x03400002 | The process cannot be performed because the specified logical units contain V-VOL of Snapshot. Confirm the logical unit status and try again.                                                                                       |
| DMED400003   | 0x03400003 | The process cannot be performed because some logical units are under quick formatting. Confirm the logical unit status and try again.                                                                                               |
| DMED400004   | 0x03400004 | The process cannot be performed because the specified logical units contain a Sub LU of the unifying Lus. Confirm the logical unit status and try again.                                                                            |
| DMED400005   | 0x03400005 | The process cannot be performed because the specified logical units contain an invalid LU. Confirm the logical unit status and try again.                                                                                           |
| DMED400006   | 0x03400006 | The specified LUs contain regressed LU. Confirm the LU status and try again.                                                                                                                                                        |
| DMED400007   | 0x03400007 | The process cannot be performed because ShadowImage, Remote Replication, or SnapShot is in progress. Please wait a moment and then try again.                                                                                       |
| DMED400008   | 0x03400008 | The operation of 'start' or 'skip', and 'cancel' is specified at the same time. Confirm the operation and try again.                                                                                                                |
| DMED400009   | 0x03400009 | The process cannot be performed because the specified logical units contain an undefined LU. Confirm the logical unit status and try again.                                                                                         |

| Message code | Error code | Message text/Recovery methods                                                                                                                              |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED400011   | 0x03400011 | The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                                       |
| DMED400012   | 0x03400012 | The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.                          |
| DMED400013   | 0x03400013 | The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                                       |
| DMED400014   | 0x03400014 | The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                                       |
| DMED400015   | 0x03400015 | The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.                          |
| DMED400021   | 0x03400021 | The 'cancel' operation cannot be specified to the uncorrected logical units. Confirm the parity correction status and try again.                           |
| DMED400022   | 0x03400022 | The 'start' operation cannot be specified to the aborted logical units. Confirm the parity correction status and try again.                                |
| DMED400023   | 0x03400023 | The 'cancel' operation cannot be specified to the aborted logical units. Confirm the parity correction status and try again.                               |
| DMED400024   | 0x03400024 | The 'start' operation cannot be specified to the correcting logical units. Confirm the parity correction status and try again.                             |
| DMED400025   | 0x03400025 | The 'skip' operation cannot be specified to the correcting logical units. Confirm the parity correction status and try again.                              |
| DMED400026   | 0x03400026 | The 'start' operation cannot be specified to the waiting logical units. Confirm the parity correction status and try again.                                |
| DMED400027   | 0x03400027 | The 'skip' operation cannot be specified to the waiting logical units. Confirm the parity correction status and try again.                                 |
| DMED400028   | 0x03400028 | The 'cancel' operation cannot be specified to the skipped logical units. Confirm the parity correction status and try again.                               |
| DMED400029   | 0x03400029 | The 'cancel' operation cannot be specified to the corrected logical units. Confirm the parity correction status and try again.                             |
| DMED40002A   | 0x0340002A | The logical units are under quick formatting. Please the parity correction status and try again.                                                           |
| DMED500001   | 0x03500001 | The command device is not registered. Please register the command device and try again.                                                                    |
| DMED600001   | 0x03600001 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                    |
| DMED700001   | 0x03700001 | The specified logical unit is not defined. Specify a defined logical unit.                                                                                 |
| DMED700002   | 0x03700002 | The process cannot be performed because the status of pair is Simplex(SMPL). Confirm the LU status and try again.                                          |
| DMED800002   | 0x03800002 | A parameter error occurred. Please confirm the specified parameter.                                                                                        |
| DMED800004   | 0x03800004 | The specified NNC number is not NAS port. Please confirm the port type.                                                                                    |
| DMED800005   | 0x03800005 | The process cannot be performed because BIOS is being updated. The updating is completed, then try again.                                                  |
| DMED800006   | 0x03800006 | The process cannot be performed because NAS OS is not ready or booting, or it is not in shutdown process. Please confirm NAS OS status and then try again. |
| DMED800007   | 0x03800007 | The process cannot be performed because BIOS is being updated. The updating is completed, then try again.                                                  |
| DMED800008   | 0x03800008 | The process cannot be performed because the install of the NAS OS is not completed. Please try again after install is completed.                           |
| DMED800009   | 0x03800009 | The process cannot be performed because the alternative NNC is not active. Please confirm NNC status and try again.                                        |
| DMED800011   | 0x03800011 | The process cannot be performed because NAS OS is loading. Please stop NAS OS, then try again.                                                             |
| DMED800013   | 0x03800013 | The process cannot be performed because NAS OS is in shutdown process. Shutdown process is completed, then try again.                                      |
| DMED800014   | 0x03800014 | The process cannot be performed because NAS dump is being collected. The collection is completed, then try again.                                          |



| Message code | Error code | Message text/Recovery methods                                                                                                                                             |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED800015   | 0x03800015 | The process cannot be performed because System LU is not defined. Please define System LU and then try again.                                                             |
| DMED800016   | 0x03800016 | The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.                                                                         |
| DMED800017   | 0x03800017 | The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.                                                                         |
| DMED800019   | 0x03800019 | The process cannot be performed because NAS OS is not in stopped state. Please stop NAS OS, then try again.                                                               |
| DMED80001A   | 0x0380001A | The process cannot be performed because BIOS is being updated. The updating is completed, then try again.                                                                 |
| DMED80001B   | 0x0380001B | The process cannot be performed because NAS OS is detached. Please recover NAS OS status and then try again.                                                              |
| DMED800020   | 0x03800020 | The specified IP address is incorrect. Please specify a correct IP address.                                                                                               |
| DMED800021   | 0x03800021 | The specified number is incorrect. Please specify a correct number.                                                                                                       |
| DMED800022   | 0x03800022 | The specified MTU is incorrect. Please specify a correct MTU.                                                                                                             |
| DMED800023   | 0x03800023 | The specified negotiation is incorrect. Please specify a correct negotiation.                                                                                             |
| DMED800024   | 0x03800024 | The process cannot be performed because NAS OS is not ready. Please confirm NAS OS status and then try again.                                                             |
| DMED800025   | 0x03800025 | The process cannot be performed during NNC LAN setting. Please confirm NAS OS status and then try again.                                                                  |
| DMED800026   | 0x03800026 | The same IP address as the management LAN of the subsystem cannot be set up. Please specify a correct IP address.                                                         |
| DMED800027   | 0x03800027 | The specified time zone does not have daylight saving time. Please confirm the time zone.                                                                                 |
| DMED800029   | 0x03800029 | The process cannot be performed because the MTU value of NNC does not match. Please set up the same MTU value.                                                            |
| DMED800030   | 0x03800030 | The process cannot be performed because specified IP address is same as the current IP address of alternative NNC. Please specify another IP address and try again.       |
| DMED800099   | 0x03800099 | The error occurred during install. Please reboot NAS Setup, then try again.                                                                                               |
| DMED901101   | 0x03901101 | The process cannot be performed because the copy or restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.      |
| DMED901102   | 0x03901102 | The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group. |
| DMED909113   | 0x03909113 | The process cannot be performed because the version is unmatched between the micro program and the Storage Navigator Modular. Please match the version.                   |
| DMED909134   | 0x03909134 | The tape group detail information is invalid.                                                                                                                             |
| DMED909135   | 0x03909135 | The tape group detail information is invalid.                                                                                                                             |
| DMED909136   | 0x03909136 | The tape group detail information is invalid.                                                                                                                             |
| DMED909137   | 0x03909137 | The tape group detail information is invalid.                                                                                                                             |
| DMED909138   | 0x03909138 | The tape group detail information is invalid.                                                                                                                             |
| DMED909139   | 0x03909139 | The tape group detail information is invalid.                                                                                                                             |
| DMED90B018   | 0x0390B018 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B02A   | 0x0390B02A | The process cannot be performed because the tape group is not backed up. Please specify tape group which is backed up and try again.                                      |
| DMED90B066   | 0x0390B066 | The process cannot be performed because the TR constitution restoration is in progress. Please try again, after it is completed.                                          |
| DMED90B0C8   | 0x0390B0C8 | The process failed due to an invalid parameter. Confirm the specified value.                                                                                              |
| DMED90B0C9   | 0x0390B0C9 | The process cannot be performed because the logical unit is not targeted differential backup. Please confirm the logical unit.                                            |
| DMED90B0CC   | 0x0390B0CC | The process cannot be performed because the logical unit is not used by this differential backup. Please confirm the logical unit.                                        |

| Message code | Error code | Message text/Recovery methods                                                                                                                                             |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMED90B0D2   | 0x0390B0D2 | The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape group.                         |
| DMED90B0D3   | 0x0390B0D3 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B0D4   | 0x0390B0D4 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B0D5   | 0x0390B0D5 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B0D6   | 0x0390B0D6 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B0D7   | 0x0390B0D7 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B0D8   | 0x0390B0D8 | The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       |
| DMED90B0D9   | 0x0390B0D9 | The process cannot be performed because the number of differential backup to the specified logical unit reached the maximum. Please confirm the backup group.             |
| DMED90B0DA   | 0x0390B0DA | The process failed due to an invalid parameter. Confirm the specified value.                                                                                              |
| DMED90B0DB   | 0x0390B0DB | The process cannot be performed because the logical unit is not used by this differential backup. Please confirm the logical unit.                                        |
| DMED90B0E3   | 0x0390B0E3 | The process cannot be performed because the full backup tape group does not exist. Please confirm the tape group.                                                         |
| DMED90B0E5   | 0x0390B0E5 | The process cannot be performed because the status of the full backup tape group is illegal. Please confirm the status of differential source tape group.                 |
| DMED90B0E7   | 0x0390B0E7 | The process cannot be performed because the restoration of the full backup tape group is in progress. Please try again, after it is completed.                            |
| DMED90B0EC   | 0x0390B0EC | The process failed due to an invalid parameter. Confirm the specified value.                                                                                              |
| DMED90B0ED   | 0x0390B0ED | The process cannot be performed because the cache memory size is insufficient. Please try again, after other restoration is completed.                                    |
| DMED90B0EE   | 0x0390B0EE | The process cannot be performed because the logical unit at restoring destination is not a part of ShadowImage pair. Please confirm the pair status of the logical unit.  |
| DMED90B0F1   | 0x0390B0F1 | The process cannot be performed because the restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.              |
| DMED90B0F4   | 0x0390B0F4 | The process cannot be performed because the copy is in progress in the backup group. Please confirm the status of the tape group in the backup group.                     |
| DMED90B0F5   | 0x0390B0F5 | The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group. |
| DMED90B0F6   | 0x0390B0F6 | The process cannot be performed because the access level is set to the logical unit. Please confirm the logical unit.                                                     |
| DMED910072   | 0x03910072 | The process cannot be performed because the specified tape group is impossible to import. Please confirm the tape group.                                                  |
| DMED91100C   | 0x0391100C | The process cannot be performed because differential bit map is insufficient. Please delete unnecessary pairs or increase the cache memory.                               |
| DMEDC00001   | 0x03C00001 | The process cannot be performed because the specified group number is outside the effective range. Please confirm the group number.                                       |
| DMEDC00002   | 0x03C00002 | The process cannot be performed because the specified logical unit number is outside the effective range. Please confirm the logical unit number.                         |
| DMEDC00003   | 0x03C00003 | The specified group is not used. Please confirm the group number.                                                                                                         |
| DMEDC00004   | 0x03C00004 | The specified logical unit is not pair. Please confirm the logical unit number.                                                                                           |
| DMEDC00005   | 0x03C00005 | The specified logical unit is V-VOL. Please specify another logical unit and try again.                                                                                   |
| DMEDC00006   | 0x03C00006 | The specified logical unit is not V-VOL. Please specify the logical unit number of V-VOL and try again.                                                                   |

| Message code | Error code | Message text/Recovery methods                                                                                          |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------|
| DMEDC00007   | 0x03C00007 | The process cannot be performed because the number of pairs reached the maximum. Please confirm the settings of pairs. |
| DMEDC00008   | 0x03C00008 | The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.         |
| DMEDC00009   | 0x03C00009 | The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.         |
| DMEDC0000A   | 0x03C0000A | The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.         |
| DMEDC0000B   | 0x03C0000B | The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.         |
| DMEDC0000C   | 0x03C0000C | The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again.       |
| DMEDC0000D   | 0x03C0000D | The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again.       |
| DMEDC0000E   | 0x03C0000E | The specified logical unit is Volume Migration pair. Please specify another logical unit and try again.                |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                       |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG000000   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Now rebooting or switching the array by other user. Please wait a moment.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array is being rebooted or switched by another user. Please wait.                                                                                                                        |
| DMEG000001   | —          | Array is currently being refreshed by another user. Please wait and try again.                                                                                                                                                                                                                                                                                                                      |
| DMEG000003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Currently processing by other users request. Please wait a moment and then try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Currently processing an other users request. Please wait a moment and try again.                                                                                                 |
| DMEG000004   | —          | The install path of Navigator cannot be found.                                                                                                                                                                                                                                                                                                                                                      |
| DMEG000005   | —          | The array to monitor does not exist.                                                                                                                                                                                                                                                                                                                                                                |
| DMEG000006   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Error monitoring is in stop progress. Please wait a moment and restart error monitoring.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Error monitoring is currently stopped. Please restart.                                                                                                                        |
| DMEG000007   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The arrays information may have been updated. Please refresh.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array information may have been updated. Please refresh.                                                                                                                                             |
| DMEG000008   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The configuration of array may have been updated. Please refresh.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array configuration may have been updated. Please refresh.                                                                                                                                       |
| DMEG000009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The size of specified file is over the maximum. Please confirm the file.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The size of the specified file is over the maximum. Please confirm the file size.                                                                                                             |
| DMEG000010   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Currently processing by other users request. Please wait a moment and then try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Currently processing an other users request. Please wait a moment and try again.                                                                                                 |
| DMEG000011   | —          | The file or directory cannot be deleted.                                                                                                                                                                                                                                                                                                                                                            |
| DMEG000012   | —          | The firmware cannot be updated because the array is in progress.                                                                                                                                                                                                                                                                                                                                    |
| DMEG000013   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The specified file cannot be accepted because it is not zip file. Please confirm the file.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The specified file is not ZIP file. Please confirm the file type.                                                                                                           |
| DMEG000014   | —          | Failed to transfer the specified file.                                                                                                                                                                                                                                                                                                                                                              |
| DMEG000015   | —          | Currently testing error monitoring for another user. Please wait a moment and then try again.                                                                                                                                                                                                                                                                                                       |
| DMEG000016   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The arrays information may have been updated. Please refresh information in Arrays screen, and retry.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array information may have been updated. Please refresh.                                                                                                     |
| DMEG000017   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot add array, because error monitoring is in progress. Please confirm error monitoring is stopped, and then add array again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array could not be added because error monitoring is in progress. Please confirm that error monitoring has stopped and try again. |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                          |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG000018   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot edit array, because error monitoring is in progress. Please confirm error monitoring is stopped, and then edit array again.       |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array could not be edited because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.     |
| DMEG000019   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot remove arrays, because error monitoring is in progress. Please confirm error monitoring is stopped, and then remove arrays again. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array could not be removed because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.    |
| DMEG00001A   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The specified file cannot extract.                                                                                                       |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The specified file could not be extracted.                                                                                                 |
| DMEG00001B   | —          | Context parameter 'supportedLocales' is not specified in web.xml.                                                                                                                                      |
| DMEG00001C   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Currently processing by other users request. Please wait a moment and then try again.                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Currently processing another user's request. Please try again.                                                                             |
| DMEG00001D   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Currently processing by other users request. Please wait a moment and then try again.                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Currently processing another user's request. Please try again.                                                                             |
| DMEG00001E   | —          | An error was detected in the data received from the subsystem.                                                                                                                                         |
| DMEG00001F   | —          | The file cannot be compressed.                                                                                                                                                                         |
| DMEG000101   | —          | The IP address of syslog server XXX is not specified. Please specify the IP address.                                                                                                                   |
| DMEG000102   | —          | The IP address of the syslog server XXX is too long. Please specify the valid IP address.                                                                                                              |
| DMEG000103   | —          | The multi-byte character is contained in the IP address of syslog server XXX. Please specify the IP address using the ASCII-character code.                                                            |
| DMEG000201   | —          | Please specify the user ID.                                                                                                                                                                            |
| DMEG000203   | —          | The user ID is too long. Please specify the valid user ID.                                                                                                                                             |
| DMEG000204   | —          | The password is too long. Please specify the valid password.                                                                                                                                           |
| DMEG000205   | —          | You cannot login. Please specify the user ID and password.                                                                                                                                             |
| DMEG000206   | —          | The units for testing are not selected. Please select the units.                                                                                                                                       |
| DMEG000207   | —          | The old password is too long. Please specify the valid old password.                                                                                                                                   |
| DMEG000208   | —          | The new password is too long. Please specify the valid new password.                                                                                                                                   |
| DMEG000209   | —          | The new password does not match the confirmed password.                                                                                                                                                |
| DMEG000210   | —          | The role is not assigned. Please assign the role.                                                                                                                                                      |
| DMEG000211   | —          | You have no permission. Please confirm your permission.                                                                                                                                                |
| DMEG000212   | —          | The current login session is expired. If you are displaying the subsystem dialog window, please close the window and login again. Please select the subsystem in the Arrays screen again.              |
| DMEG000220   | —          | Cannot display because JRE is not installed or it is disabled. Please install the JRE or enable it and try again.                                                                                      |
| DMEG000300   | —          | The Array ID before and behind change is the same. Please specify a right Array ID.                                                                                                                    |
| DMEG100001   | —          | Do you want to reboot the array?                                                                                                                                                                       |
| DMEG100002   | —          | The array is not selected.                                                                                                                                                                             |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| DMEG100003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Two or more arrays to reboot are selected.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Only one array can be selected to reboot. Please try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG100004   | —          | Currently rebooting the array.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMEG100005   | —          | Completed the rebooting of the array.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG100006   | —          | Please enter user ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG100007   | —          | The array is not selected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG100008   | —          | You have no permission. Please confirm your permission.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEG100009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Maintenance personnel is connecting now.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Maintenance personnel are now connected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMEG100010   | —          | Failed to log in. XXX is now logged in by someone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMEG100011   | —          | Do you want to connect forcibly?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG100012   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>You cannot login. Please confirm the user ID and password.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Could not login. Invalid user ID and password.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG100013   | —          | Current login session is expired as the time out. Please display the Arrays screen, and select the array. <sup>(*)</sup><br>*1 : When executing the dual login by the built-in account (logging in the same array subsystem from other management PC by the built-in account while logging in the array subsystem by the built-in account), the first login session is discarded and this message is displayed. Be careful that the dual login by the built-in account cannot be executed.<br>The same is true for the case when the regular failure monitoring by Hitachi Storage Navigator Modular 2 is performed by the built-in account. In this case, create a general account that gives Role of Storage Administrator (View Only) for the failure monitoring, and perform the failure monitoring. |
| DMEG100014   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Invalid data. Please enter again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Invalid data. Please re-enter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG100015   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Invalid character is specified. Please try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Invalid character specified. Please re-enter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG100016   | —          | Please wait for a moment. Time required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEG100017   | —          | Host will be unable to access the array while restarting. Host applications that use the array will terminate abnormally.<br>Please stop the host accesses before you restart the array.<br>When using TrueCopy, restarting the remote array will cause both TrueCopy paths to fail. TrueCopy pair status will be changed to "PSUE" when pair status is "PAIR" or "COPY". Please change TrueCopy pair status to "PSUS" before restarting.                                                                                                                                                                                                                                                                                                                                                                |
| DMEG100018   | —          | Specified IP Address or Host Name is invalid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG100019   | —          | The array name will be registered as XXX, but this name is already registered. Specify another name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG100020   | —          | The array(s) has/have been added to the navigator.<br>After closing this wizard, you can refer and configure the array(s) from Arrays screen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG100021   | —          | Currently searching array(s) from XXX to YYY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG100022   | —          | Failed to add the array XXX.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG100023   | —          | Only the objects that complete the operation are displayed as follows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                           |
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| DMEG100024   | —          | Click Finish to close the wizard.                                                                                                                                                                                                                                                                                                                                                                                       |
| DMEG100025   | —          | A failure has occurred. Please read the error information below. Click Finish to close the wizard.                                                                                                                                                                                                                                                                                                                      |
| DMEG100026   | —          | Specified IP Address is invalid.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG100027   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot add array, because error monitoring is in progress. Please confirm error monitoring is stopped, and then add array again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array could not be added because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.                     |
| DMEG100028   | —          | Please select the array to test.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG100029   | —          | Specified user ID is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                             |
| DMEG10002A   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot add array, because the specified array is not supported.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Cannot add array because the specified array is not supported.                                                                                                                                                             |
| DMEG10002B   | —          | Specified Array Name is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                          |
| DMEG10002C   | —          | Neither IPv4 nor IPv6 is specified. Please specify IPv4 or IPv6 or both.                                                                                                                                                                                                                                                                                                                                                |
| DMEG100030   | —          | Specified interval time is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                       |
| DMEG100031   | —          | Specified password is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                            |
| DMEG100032   | —          | Completed the editing of error monitoring options.                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG100033   | —          | Failed to change interval time.                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG100034   | —          | (Not execute to set account)                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG100035   | —          | Failed to set account. (Executed to change interval time)                                                                                                                                                                                                                                                                                                                                                               |
| DMEG100036   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot set error monitoring options, because error monitoring is in progress. Please confirm error monitoring is stopped, and then set options.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Cannot set error monitoring options because error monitoring is in progress.<br>Please confirm error monitoring has stopped and try again. |
| DMEG100040   | —          | Specified Array Name is invalid.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG100041   | —          | Specified Group Name is invalid.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG100044   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Show and configure of the selected array has not supported.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Show and configure of the selected array is not supported.                                                                                                                                                                     |
| DMEG100045   | —          | The function cannot be performed because the array is not supported.                                                                                                                                                                                                                                                                                                                                                    |
| DMEG100046   | —          | Specified IP Address or Array Name is invalid.                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG200001   | —          | The process cannot be performed in the single-controller system.                                                                                                                                                                                                                                                                                                                                                        |
| DMEG200002   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The tray cannot be installed because the number of trays reached the maximum.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The tray cannot be installed because the number of trays has reached the maximum.                                                                                                                            |
| DMEG200003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The process cannot be performed because the failure occurred in the controller or ENC. Please recover the status and then try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The process cannot be performed because a failure has occurred in the controller or ENC. Please fix the error and try again.                          |

| Message code | Error code | Message text/Recovery methods                                                                                                      |
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| DMEG200004   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | The process cannot be performed because the subsystem is under internal process. Please retry after 5 minutes.                     |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | The process cannot be performed because the subsystem is performing an internal operation. Please try again after 5 minutes.       |
| DMEG200005   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | The process cannot be performed because the tray is being installed. Please retry after the installation of tray completes.        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | The process cannot be performed because the tray is being installed. Please try again after the installation of tray is completed. |
| DMEG200006   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | The process cannot be performed because the firmware program is being replaced. Please retry after the replacement completes.      |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | The process cannot be performed because the firmware program is being replaced. Please try again after the firmware is replaced.   |
| DMEG200007   | —          | The process cannot be performed because the tray is not supported in the system.                                                   |
| DMEG200008   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | Failed to install tray. Please detach connected ENC cables and power cables and retry installing tray.                             |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | Failed to install tray. Please detach connected ENC cables and power cables and try again.                                         |
| DMEG200009   | —          | Failed to install tray. Confirm the array status.                                                                                  |
| DMEG210001   | —          | The specified number of batteries is invalid.                                                                                      |
| DMEG310001   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | A new RAID group cannot be created because the number of RAID groups reached the maximum.                                          |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | A new RAID group cannot be created because the number of RAID groups have reached the maximum.                                     |
| DMEG310002   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | Cannot create RAID group, because available drives do not exist. Please confirm the drives, and try again.                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | Cannot create RAID group because drives are not available. Please confirm the drives and try again.                                |
| DMEG310003   | —          | Specified RAID Group is invalid. Please specify correct value.                                                                     |
| DMEG310004   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | Specified Parity Groups is invalid. Please specify correct value.                                                                  |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | Specified Parity Group is invalid. Please specify correct value.                                                                   |
| DMEG310005   | —          | Completed the creation of the RAID group.                                                                                          |
| DMEG310006   | —          | Completed the deletion of the RAID group(s).                                                                                       |
| DMEG310007   | —          | Failed to delete RAID group XXX                                                                                                    |
| DMEG310009   | —          | Please select the RAID group.                                                                                                      |
| DMEG310016   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                         |
|              |            | Number of selected drives is invalid. Please select drives of correct number.                                                      |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                           |
|              |            | Number of selected drives is invalid. Please select the correct number of drives.                                                  |
| DMEG310017   | —          | Confirm the creation of the RAID group.                                                                                            |
|              |            | When drive failure occurs, it is impossible to recover user data from RAID group whose RAID level is 0.                            |
| DMEG310018   | —          | Only the objects that complete the operation are displayed as follows.                                                             |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                       |
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| DMEG310019   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A new logical unit cannot be created because the number of logical units reached the maximum.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A new logical unit cannot be created because the number of logical units have reached the maximum.                                                                                                       |
| DMEG31001A   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified drive types does not match. Please specify the same drive type.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified drive types do not match. Please specify the same drive type.                                                                                                                                                      |
| DMEG31001B   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A new logical unit cannot be created because the number of logical units reached the maximum in RAID Group.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A new logical unit cannot be created because the number of logical units have reached the maximum in RAID Group.                                                                           |
| DMEG31001C   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot create logical unit, because free spaces do not exist in selected RAID group. Please select the RAID group with free spaces and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Cannot create logical unit because free space does not exist in the selected RAID group. Please select the RAID group with free space and try again. |
| DMEG31001D   | —          | There are no available drives to create the RAID group. Please confirm the RAID group configuration.                                                                                                                                                                                                                                                                                                                                |
| DMEG310020   | —          | Specified LUN is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG310021   | —          | Specified space is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                           |
| DMEG310022   | —          | Specified capacity is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG310023   | —          | Completed the creation of the logical unit.                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG310024   | —          | Completed the edit instruction of the cache partition.<br>In order to enable the setting, it is necessary to reboot the array.<br>If you want to enable the setting and reboot the array now, click Reboot Array. Or if you want to reboot later, click Close.                                                                                                                                                                      |
| DMEG310025   | —          | Please select the logical units.                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG310026   | —          | Start the format of logical unit(s).                                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG310027   | —          | Please select the logical units.                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG310028   | —          | Failed to delete logical unit XXX                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG310029   | —          | Only the objects that complete the operation are displayed as follows.                                                                                                                                                                                                                                                                                                                                                              |
| DMEG31002A   | —          | Failed to refresh. Please display the Arrays screen, and confirm the array status.                                                                                                                                                                                                                                                                                                                                                  |
| DMEG31002B   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The logical units are deleted successfully.<br>Failed to refresh. Please display the Arrays screen, and confirm the array status.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Logical units deleted successfully.<br>Failed to refresh. Please display the Arrays screen and confirm the array status.                                             |
| DMEG31002C   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The RAID groups are deleted successfully.<br>Failed to refresh. Please display the Arrays screen, and confirm the array status.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>RAID groups deleted successfully.<br>Failed to refresh. Please display the Arrays screen and confirm the array status.                                                 |
| DMEG31002D   | —          | Completed the edit instruction of the pair cache partition.                                                                                                                                                                                                                                                                                                                                                                         |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                             |
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| DMEG310030   | —          | Completed the deletion of the logical unit(s).                                                                                                                                                                                                                                                            |
| DMEG310031   | —          | Confirm to edit the cache partition.<br>If you edit the cache partition, the status of pair cache partition may be changed into Auto. So please confirm the status of pair cache partition after reboot.                                                                                                  |
| DMEG310032   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The specified logical unit number is already defined. Specify a new logical unit.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified logical unit number is already defined. Specify a different logical unit number. |
| DMEG310034   | —          | Specified used LUN to create logical unit is invalid. Please specify correct value.                                                                                                                                                                                                                       |
| DMEG310035   | —          | Specified used free spaces to create logical unit is invalid. If you select ALL in capacity, please specify an only free space.                                                                                                                                                                           |
| DMEG310036   | —          | Specified space is invalid. If you select RG ALL in capacity, please select Set Automatically.                                                                                                                                                                                                            |
| DMEG310040   | —          | Cannot change the logical unit capacity, because RAID group of selected logical unit is RAID0. Please select another logical unit.                                                                                                                                                                        |
| DMEG310041   | —          | Cannot change the logical unit capacity, because selected logical unit is not unified and there are no available logical units to add the logical unit.                                                                                                                                                   |
| DMEG310042   | —          | Cannot grow the logical unit, because no free spaces exists in the RAID group.                                                                                                                                                                                                                            |
| DMEG310043   | —          | Cannot grow the logical unit, because the number of logical units reached the maximum.                                                                                                                                                                                                                    |
| DMEG310044   | —          | Logical units to add are not specified. Please select the logical units to add.                                                                                                                                                                                                                           |
| DMEG310045   | —          | Cannot change capacity of the logical unit, because selected logical unit is V-VOL. Please select another logical unit.                                                                                                                                                                                   |
| DMEG311001   | —          | Cannot expand the RAID level 0 RAID group. Please select the RAID group except RAID level0, and try again.                                                                                                                                                                                                |
| DMEG311002   | —          | Cannot expand the RAID group, because assignable drives do not exist.                                                                                                                                                                                                                                     |
| DMEG311003   | —          | Number of selected drives is invalid. Please select drives of correct number.                                                                                                                                                                                                                             |
| DMEG311004   | —          | Cannot expand the RAID group, because the number of data drives assigned the RAID Group reached maximum.                                                                                                                                                                                                  |
| DMEG311005   | —          | The process cannot be performed because the number of parity groups is not 1. Please confirm the RAID group and try again.                                                                                                                                                                                |
| DMEG320001   | —          | The deletion cannot be executed because host group 000 is specified.<br>Please execute initialization for host group 000.                                                                                                                                                                                 |
| DMEG320002   | —          | Host group is not selected. Please specify host group and try again.                                                                                                                                                                                                                                      |
| DMEG320003   | —          | There is no port to which host group can be added.                                                                                                                                                                                                                                                        |
| DMEG320004   | —          | Specified host group number is invalid. Please specify correct value.                                                                                                                                                                                                                                     |
| DMEG320005   | —          | Specified host group name is invalid. Please specify correct value.                                                                                                                                                                                                                                       |
| DMEG320006   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A port for addition host group is not selected. Please select port.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A port for adding the host group is not selected. Please select the port.                                |
| DMEG320007   | —          | The function cannot be executed because LUN Manager is disabled. Please install and enable LUN Manager and try again.                                                                                                                                                                                     |
| DMEG320008   | —          | Two or more host groups are selected. Please select only one host group and try again.                                                                                                                                                                                                                    |
| DMEG320009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified host group is not existed. Please specify other host group.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified host group does not exist. Please specify another host group.                                |
| DMEG32000A   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified wwn is unusable, please specify correct value.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified WWN is unusable. Please specify correct value.                                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| DMEG32000B   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The function cannot be executed because host group security is disabled. Please make host group security enable and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The function cannot be executed because host group security is disabled. Please enable host group security and try again.                                                                      |
| DMEG32000C   | —          | Port is not selected. Please specify port and try again.                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG32000D   | —          | WWN is not selected. Please specify WWN and try again.                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG32000E   | —          | The function cannot be executed because the WWN is already assigned to host groups and cannot be deleted.                                                                                                                                                                                                                                                                                                                                                  |
| DMEG32000F   | —          | Two or more WWNs are selected. Please select only one WWN and try again.                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG320010   | —          | Specified nickname is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG320011   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified WWN does not exist. Please specify other WWN.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified WWN does not exist. Please specify another WWN.                                                                                                                                                                                                             |
| DMEG320012   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified WWN already exists. Please specify other WWN.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified WWN already exists. Please specify another WWN.                                                                                                                                                                                                             |
| DMEG320013   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The initialization cannot be executed because host group other than host group 000 is specified.<br>Please execute deletion for host group other than host group 000.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The initialization cannot be executed because host group other than host group 000 is specified.<br>Please delete host group other than host group 000. |
| DMEG330001   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The deletion cannot be executed because iSCSI target 000 is specified.<br>Please execute initialization for iSCSI target 000.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The deletion cannot be executed because iSCSI target 000 is specified.<br>Please initialize iSCSI target 000.                                                                                   |
| DMEG330002   | —          | iSCSI target is not selected. Please specify iSCSI target and try again.                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG330003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>There is no port where iSCSI target creation is available.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>There is no port available to create the iSCSI target.                                                                                                                                                                                                             |
| DMEG330004   | —          | Specified iSCSI target number is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG330005   | —          | Specified iSCSI name is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG330006   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A port for creating iSCSI target is not selected. Please select port.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A port for creating the iSCSI target is not selected. Please select a port.                                                                                                                                                                             |
| DMEG330007   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The function cannot be executed because LUN Manager is disabled. Please install and enable LUN Manager, and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The function cannot be executed because LUN Manager is disabled. Please install and enable LUN Manager and try again.                                                                                  |
| DMEG330008   | —          | Two or more iSCSI targets are selected. Please select only one iSCSI target and try again.                                                                                                                                                                                                                                                                                                                                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| DMEG330009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified iSCSI target does not exist. Please specify other iSCSI target.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified iSCSI target does not exist. Please specify another iSCSI target.                                                                                                                                                                        |
| DMEG33000A   | —          | Specified host iSCSI name is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                       |
| DMEG33000B   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The function cannot be executed because iSCSI target security is disabled. Please make iSCSI target security enable and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The function cannot be executed because iSCSI target security is disabled. Please make enable iSCSI target security and try again.                                                        |
| DMEG33000C   | —          | Port is not selected. Please specify port and try again.                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEG33000D   | —          | Host is not selected. Please specify host and try again.                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEG33000E   | —          | The function cannot be executed because assigned host is specified.                                                                                                                                                                                                                                                                                                                                                                                       |
| DMEG33000F   | —          | Two or more hosts are selected. Please select only one host and try again.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG330010   | —          | Specified nickname is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG330011   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified host does not exist, please specify other host.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified host does not exist. Please specify other host.                                                                                                                                                                                                          |
| DMEG330012   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified iSCSI name has already existed, please specify other iSCSI name.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified iSCSI name already exists. Please specify another iSCSI name.                                                                                                                                                                           |
| DMEG330013   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The initialization cannot be executed because iSCSI target other than iSCSI target 000 is specified.<br>Please execute deletion for iSCSI target other than iSCSI target 000.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to initialize because iSCSI target other than iSCSI target 000 is specified.<br>Please delete iSCSI target other than iSCSI target 000. |
| DMEG330014   | —          | Specified iSCSI target alias is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG330015   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>iSCSI name for host should start from "eui." or "iqn.". Please specify correct value.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>iSCSI name for host should start with "eui." or "iqn.". Please specify correct value.                                                                                                                                                  |
| DMEG330016   | —          | Specified user name is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG330017   | —          | Specified secret is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG330018   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified retype secret does not match secret. Please retype again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The retyped secret does not match secret. Please retype again.                                                                                                                                                                                           |
| DMEG330019   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Fail to change Nickname of the selected host. You cannot change Nickname of an iSCSI host until the host is associated to an iSCSI Target.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to change Nickname of the selected host. You cannot change Nickname of an iSCSI host until the host is associated to an iSCSI Target.                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                 |
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| DMEG33001A   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Maximum number of hosts is assigned. Please remove hosts, which is not used.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Maximum number of hosts is already assigned. Please remove hosts that are not used. |
| DMEG330020   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified host does not exist, please specify other host.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified host does not exist. Please specify another host.                                            |
| DMEG330021   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>iSCSI name should start from "eui." or "iqn.". Please specify correct value.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>iSCSI name should start with "eui." or "iqn.". Please specify correct value.        |
| DMEG331001   | —          | User Name is invalid. Please specify correct value.                                                                                                                                                                                                                                           |
| DMEG331002   | —          | Secret is invalid. Please specify correct value.                                                                                                                                                                                                                                              |
| DMEG331003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Both secret and retyped secret do not match.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Secret and retyped secret do not match.                                                                             |
| DMEG331004   | —          | Select at least one port to be assigned.                                                                                                                                                                                                                                                      |
| DMEG331005   | —          | The maximum number of CHAP user have already been set.                                                                                                                                                                                                                                        |
| DMEG340100   | —          | A new DP pool cannot be created because the number of DP pool have reached the maximum.                                                                                                                                                                                                       |
| DMEG340101   | —          | Cannot create DP pool because drives are not available. Please confirm the drives and try again.                                                                                                                                                                                              |
| DMEG340102   | —          | Specified DP Pool is invalid. Please specify correct value.                                                                                                                                                                                                                                   |
| DMEG340103   | —          | Number of selected drives is invalid. Please select the correct number of drives.                                                                                                                                                                                                             |
| DMEG340104   | —          | Specified drive types do not match. Please specify the same drive type.                                                                                                                                                                                                                       |
| DMEG340105   | —          | Specified Early Alert is invalid. Please specify correct value.                                                                                                                                                                                                                               |
| DMEG340106   | —          | Specified Depletion Alert is invalid. Please specify correct value.                                                                                                                                                                                                                           |
| DMEG340107   | —          | Specified DP pool number is already defined. Specify a different DP pool number.                                                                                                                                                                                                              |
| DMEG340108   | —          | Specified Number of drives is invalid. Please specify correct value.                                                                                                                                                                                                                          |
| DMEG34010B   | —          | The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again.                                                                                                                                                     |
| DMEG34010C   | —          | Specified Warning is invalid. Please specify correct value.                                                                                                                                                                                                                                   |
| DMEG34010D   | —          | Specified Limit is invalid. Please specify correct value.                                                                                                                                                                                                                                     |
| DMEG34010E   | —          | The warning of over provisioning threshold is equal to or more than the limit. Please confirm the values and try again.                                                                                                                                                                       |
| DMEG34010F   | —          | The number of defined RAID group reached the maximum. Please delete unnecessary RAID group and try again.                                                                                                                                                                                     |
| DMEG340122   | —          | DP pool deleted successfully.<br>Failed to refresh. Please display the Arrays screen and confirm the array status.                                                                                                                                                                            |
| DMEG340130   | —          | Specified Early Alert is invalid. Please specify correct value.                                                                                                                                                                                                                               |
| DMEG340131   | —          | Specified Depletion Alert is invalid. Please specify correct value.                                                                                                                                                                                                                           |
| DMEG340133   | —          | The forewarning of over provisioning ratio is equal to or more than the overwarning. Please confirm the values and try again.                                                                                                                                                                 |
| DMEG340134   | —          | The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again.                                                                                                                                                     |
| DMEG340135   | —          | Specified Warning is invalid. Please specify correct value.                                                                                                                                                                                                                                   |
| DMEG340136   | —          | Specified Limit is invalid. Please specify correct value.                                                                                                                                                                                                                                     |
| DMEG340140   | —          | Cannot add DP pool capacity because drives are not available. Please confirm the drives and try again.                                                                                                                                                                                        |
| DMEG340141   | —          | Specified Number of drives is invalid. Please specify correct value.                                                                                                                                                                                                                          |
| DMEG340142   | —          | Number of selected drives is invalid. Please select the correct number of drives.                                                                                                                                                                                                             |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                       |
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| DMEG400000   | —          | Specified interval is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                        |
| DMEG400001   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The specified file is not firmware. Confirm the specified file.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The specified file is invalid. Confirm the file format.                                                                                                |
| DMEG400002   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Uploaded firmware file cannot extract. Confirm the file and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Uploaded firmware file cannot be extracted. Confirm the file and try again.                                                                     |
| DMEG410001   | —          | Cannot set over the maximum spare drives. Select them again.                                                                                                                                                                                                                                                                                        |
| DMEG410004   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Failed to the removing of the spare drive(s).<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to remove the spare drive(s).                                                                                                                                     |
| DMEG410006   | —          | Drives that set as spare drives are not selected. Select drives to set.                                                                                                                                                                                                                                                                             |
| DMEG410007   | —          | A drive to remove is not selected.                                                                                                                                                                                                                                                                                                                  |
| DMEG410008   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot add spare drives, because available drives do not exist. Allocate available drives, and try again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Cannot add spare drives because available drives do not exist. Allocate available drives and try again.      |
| DMEG410009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A new spare drive cannot be set because the number of spare drives that have already been set reached the maximum.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A new spare drive cannot be added. The maximum number of spare drives have already been configured. |
| DMEG41000A   | —          | Failed to add spare drives.                                                                                                                                                                                                                                                                                                                         |
| DMEG420000   | —          | Select the license to change the status.                                                                                                                                                                                                                                                                                                            |
| DMEG420001   | —          | Select the license to de-install.                                                                                                                                                                                                                                                                                                                   |
| DMEG420003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The error occurred in the selection of the check boxes of the licenses.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An error occurred in the check box selection of the licenses.                                                                                  |
| DMEG420004   | —          | Failed to change status of license.                                                                                                                                                                                                                                                                                                                 |
| DMEG420009   | —          | Failed to de-install the license.                                                                                                                                                                                                                                                                                                                   |
| DMEG42000D   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.7.70.<br>Failed to get license names. Please specify the correct keyfile.<br>Hitachi Storage Navigator Modular 2 is Ver.7.70 or more.<br>Keyfile is invalid or installation requirements aren't satisfied. Confirm keyfile or array configuration and try again.                               |
| DMEG420010   | —          | Failed to install the license.                                                                                                                                                                                                                                                                                                                      |
| DMEG420012   | —          | The keyfile is not specified.                                                                                                                                                                                                                                                                                                                       |
| DMEG420013   | —          | The keycode is empty.                                                                                                                                                                                                                                                                                                                               |
| DMEG430003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Failed the removing of command device(s).<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to remove command device(s).                                                                                                                                          |
| DMEG430004   | —          | Select the command device(s) to change.                                                                                                                                                                                                                                                                                                             |
| DMEG430005   | —          | The number of command devices is already maximum. No new command device can be set.                                                                                                                                                                                                                                                                 |
| DMEG430006   | —          | Select the logical unit(s) to add as command device.                                                                                                                                                                                                                                                                                                |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                  |
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| DMEG430007   | —          | Can not define command devices over the maximum count. Select them again.                                                                                                                                                                                                                                      |
| DMEG430008   | —          | Select the command device(s) to remove.                                                                                                                                                                                                                                                                        |
| DMEG430009   | —          | No logical units are selected for command device(s). Select them again.                                                                                                                                                                                                                                        |
| DMEG43000A   | —          | No logical units which are able to be set to command devices exist. Prepare some logical units.                                                                                                                                                                                                                |
| DMEG43000C   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The error occurred in the selection of the check boxes of the RAID manager protection.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An error occurred in the selection of the check boxes of the RAID manager protection.      |
| DMEG43000D   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The error occurred when push the Add or Remove.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An error occurred during the Add or Remove.                                                                                       |
| DMEG43000F   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The setting of command device may have been updated. Please refresh.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The setting of command devices may have been updated. Please refresh.                                        |
| DMEG430010   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Failed the addition of command device.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to add command device.                                                                                                              |
| DMEG430011   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Failed the change of RAID manager protection status.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to change RAID manager protection status.                                                                             |
| DMEG440000   | —          | Specified IP Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                 |
| DMEG440001   | —          | Specified Subnet Mask is invalid. Please specify correct value.                                                                                                                                                                                                                                                |
| DMEG440002   | —          | Specified Default Gateway is invalid. Please specify correct value.                                                                                                                                                                                                                                            |
| DMEG440003   | —          | Specified TCP Port Number is invalid. Please specify correct value.                                                                                                                                                                                                                                            |
| DMEG440004   | —          | Specified Keep Alive Timer is invalid. Please specify correct value.                                                                                                                                                                                                                                           |
| DMEG440005   | —          | When setting iSCSI port parameters except for Keep Alive Timer, the array stops access to all the ports on the same controller with the iSCSI port. Please make sure to stop the host accesses to the iSCSI ports on the same controller before performing this operation. Do you want to continue processing? |
| DMEG440006   | —          | The editing iSCSI port is completed successfully.<br>After the status of the port will return to normal, restart the host accesses to the ports on the same controller.                                                                                                                                        |
| DMEG440010   | —          | The editing iSNS Settings is completed successfully.                                                                                                                                                                                                                                                           |
| DMEG440011   | —          | Specified IP Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                 |
| DMEG440012   | —          | Specified TCP Port Number is invalid. Please specify correct value.                                                                                                                                                                                                                                            |
| DMEG450000   | —          | Completed sending test mails to all the addresses registered as Send To Address.<br>Confirm that the test mail was sent to the specified address(es).                                                                                                                                                          |
| DMEG450010   | —          | Specified Domain Name is invalid. Please specify correct value.                                                                                                                                                                                                                                                |
| DMEG450011   | —          | Specified Mail Server Address is invalid. Please specify correct value.                                                                                                                                                                                                                                        |
| DMEG450012   | —          | Specified From Address is invalid. Please specify correct value.                                                                                                                                                                                                                                               |
| DMEG450013   | —          | Specified Send To Address (1) is invalid. Please specify correct value.                                                                                                                                                                                                                                        |
| DMEG450014   | —          | Specified Send To Address (2) is invalid. Please specify correct value.                                                                                                                                                                                                                                        |
| DMEG450015   | —          | Specified Send To Address (3) is invalid. Please specify correct value.                                                                                                                                                                                                                                        |
| DMEG450016   | —          | Specified Send To Address (4) is invalid. Please specify correct value.                                                                                                                                                                                                                                        |
| DMEG450017   | —          | Specified Reply To Address is invalid. Please specify correct value.                                                                                                                                                                                                                                           |
| DMEG450018   | —          | Specified Mail Additional Information is invalid. Please specify correct value.                                                                                                                                                                                                                                |
| DMEG450019   | —          | Completed editing E-mail settings.                                                                                                                                                                                                                                                                             |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                               |
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| DMEG450020   | —          | Confirm to initialize the parameters of E-mail settings.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG450021   | —          | Completed initializing the parameters of E-mail settings.                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG450022   | —          | The Send To Address is duplicated. Please confirm the Send To Address.                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG460010   | —          | Specified Date is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG460011   | —          | Specified Time is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG460020   | —          | Specified IP address of NTP Server is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                |
| DMEG471000   | —          | Specified Array ID is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG471001   | —          | Specified IP Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG471002   | —          | Specified TCP Port Number is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG472001   | —          | Operation has failed. Confirm the array status.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG473000   | —          | Switch array cannot be executed. Please check the migration status.                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG473001   | —          | Specified IP Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG473002   | —          | Specified Subnet Mask is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG473003   | —          | Specified Default Gateway is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG474000   | —          | Shred Data cannot be executed. Please check the migration status.                                                                                                                                                                                                                                                                                                                                                                           |
| DMEG480000   | —          | The function cannot be executed because Password Protection is disable. Please install and enable Password Protection, and try again.                                                                                                                                                                                                                                                                                                       |
| DMEG480001   | —          | Specified user ID is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                 |
| DMEG480002   | —          | Specified password is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG480003   | —          | Specified retype password does not match password. Please retype again.                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG480004   | —          | Specified old user ID is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG480005   | —          | Specified new user ID is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG480006   | —          | Specified old password is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG480007   | —          | Specified new password is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG480008   | —          | Specified retype new password does not match new password. Please retype again.                                                                                                                                                                                                                                                                                                                                                             |
| DMEG480009   | —          | The function is not available, because there is no user id.                                                                                                                                                                                                                                                                                                                                                                                 |
| DMEG490000   | —          | Specified Environment Settings is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG490001   | —          | Please specify Environment Settings file.                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG490002   | —          | Specified Array Name is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG490003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Please specify Array Name file.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Please specify an Array Name file.                                                                                                                                                                                                                                             |
| DMEG500000   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Setup Array Wizard cannot start as E-mail Alert is enabled. Please disable E-mail Alert function on E-mail Alert window and start this wizard again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Setup Array Wizard cannot start because E-mail Alert is enabled. Please disable E-mail Alert function on E-mail Alert window and start this wizard again. |
| DMEG500001   | —          | Specified value is invalid.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DMEG500002   | —          | The Send To Address is duplicated. Please confirm the Send To Address.                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG500003   | —          | Cannot set over the maximum spare drives. Select them again.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG500004   | —          | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.                                                                                                                                                                                                                                                                                          |
| DMEG500005   | —          | Failed to enable E-mail Alert, though setting of the E-mail Alert was finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.                                                                                                                                                                                                                                                             |
| DMEG500008   | —          | Specified IPv4 Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG500009   | —          | Specified IPv4 Subnet Mask is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                        |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| DMEG500010   | —          | Specified IPv4 Default Gateway is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG500014   | —          | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations from the E-mail Alert window in Settings tree.                                                                                                                                                                                                                                                                                          |
| DMEG500016   | —          | Specified Subnet Prefix Length is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG500017   | —          | Specified IPv6 Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG500018   | —          | Specified IPv6 Default Gateway is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG510000   | —          | Specified Domain Name is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                 |
| DMEG510001   | —          | Specified Mail Server Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG510002   | —          | Specified From Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG510003   | —          | Specified Send To Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG510004   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Input at least one Send To Address.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Enter at least one Send To Address.                                                                                                                                                                                                                                            |
| DMEG510005   | —          | Specified Reply To Address is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG510006   | —          | IP address of controller 0 is invalid.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG510007   | —          | Subnet mask of controller 0 is invalid.                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG510008   | —          | Default gateway of controller 0 is invalid.                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG510009   | —          | IP address of controller 1 is invalid.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG510010   | —          | Subnet mask of controller 1 is invalid.                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG510011   | —          | Default gateway of controller 1 is invalid.                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG510012   | —          | IP address of port 0A is invalid.                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG510013   | —          | IP address of port 0B is invalid.                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG510014   | —          | IP address of port 1A is invalid.                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG510015   | —          | IP address of port 1B is invalid.                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG510016   | —          | Subnet mask of port 0A is invalid.                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG510017   | —          | Subnet mask of port 0B is invalid.                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG510018   | —          | Subnet mask of port 1A is invalid.                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG510019   | —          | Subnet mask of port 1B is invalid.                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG510020   | —          | Default gateway of port 0A is invalid.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG510021   | —          | Default gateway of port 0B is invalid.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG510022   | —          | Default gateway of port 1A is invalid.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG510023   | —          | Default gateway of port 1B is invalid.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG510024   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Initial Setup Wizard cannot start as E-mail Alert is enabled. Please disable E-mail Alert function on E-mail Alert window and start this wizard again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Initial Setup Wizard cannot start because E-mail Alert is enabled. Please disable E-mail Alert function on E-mail Alert window and start this wizard again. |
| DMEG510025   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The E-mail Alert setting could not be completed successfully. Please confirm the current configurations from the E-mail Alert window in Settings tree.          |
| DMEG510026   | —          | Failed to enable E-mail Alert, though setting of the E-mail Alert was finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.                                                                                                                                                                                                                                                                 |
| DMEG510027   | —          | The Send To Address is duplicated. Please confirm the Send To Address.                                                                                                                                                                                                                                                                                                                                                                          |

| Message code | Error code | Message text/Recovery methods                                                                                                                      |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG510028   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.   |
| DMEG510029   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.   |
| DMEG510030   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.   |
| DMEG510031   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.   |
| DMEG510032   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.   |
| DMEG510033   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.   |
| DMEG510034   | —          | Specified Date is invalid. Please specify correct value.                                                                                           |
| DMEG510035   | —          | Specified Time is invalid. Please specify correct value.                                                                                           |
| DMEG530000   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                         |
|              |            | The wizard cannot be executed. Please confirm the configuration of array.                                                                          |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                           |
|              |            | Cannot execute the wizard. Please confirm the configuration of array.                                                                              |
| DMEG530001   | —          | The Simple DR cannot be executed, because iSCSI port is unequipped.                                                                                |
| DMEG530002   | —          | The Simple DR cannot be executed, because the remote path is not iSCSI interface.                                                                  |
| DMEG530005   | —          | Specified Remote array ID is invalid. Please specify correct value.                                                                                |
| DMEG530006   | —          | Specified Remote IP address 0 is invalid. Please specify correct value.                                                                            |
| DMEG530007   | —          | Specified Remote IP address 1 is invalid. Please specify correct value.                                                                            |
| DMEG530008   | —          | No logical unit to be selected.                                                                                                                    |
| DMEG530009   | —          | Please select the logical unit.                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                |
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| DMEG53000A   | —          | The configuration of array has been modified. There are files unselected.                                                                                                                                                                                                                                                    |
| DMEG53000F   | —          | The initial setup of the Simple DR is completed successfully.<br>Failed to refresh. Please display the Arrays screen, and confirm the array status.                                                                                                                                                                          |
| DMEG530011   | —          | The selected number of logical units exceeded the maximum value.                                                                                                                                                                                                                                                             |
| DMEG530012   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>The Simple DR cannot be executed, because the number of the pairs reached the maximum.<br>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>The wizard cannot be executed, because the number of the pairs reached the maximum.                      |
| DMEG530013   | —          | The wizard cannot be executed, because the remote path is not set. Please set the remote path.                                                                                                                                                                                                                               |
| DMEG530015   | —          | The initial setup of the TrueCopy Extended Distance is completed successfully.<br>Failed to refresh. Please display the Arrays screen, and confirm the array status.                                                                                                                                                         |
| DMEG540000   | —          | The Create & Map Volume Wizard cannot be executed. Please confirm the configuration of array.                                                                                                                                                                                                                                |
| DMEG540001   | —          | The Create & Map Volume Wizard cannot be executed, because iSCSI port is unequipped.                                                                                                                                                                                                                                         |
| DMEG540002   | —          | The Create & Map Volume Wizard cannot be executed, because the mapping mode is disabled.                                                                                                                                                                                                                                     |
| DMEG540003   | —          | The Create & Map Volume Wizard cannot be executed, because there is no RAID groups.                                                                                                                                                                                                                                          |
| DMEG541000   | —          | Specified capacity is invalid. Please specify correct value.                                                                                                                                                                                                                                                                 |
| DMEG541001   | —          | Specified number of logical units is invalid. Please specify correct value.                                                                                                                                                                                                                                                  |
| DMEG541002   | —          | Please select the logical unit.                                                                                                                                                                                                                                                                                              |
| DMEG541003   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>There are not enough free spaces in RAID group.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>There is not enough free space in RAID group.                                                                                                   |
| DMEG541004   | —          | There are not enough Logical Unit Numbers.                                                                                                                                                                                                                                                                                   |
| DMEG542000   | —          | Specified iSCSI target No. is invalid. Please specify correct value.                                                                                                                                                                                                                                                         |
| DMEG542001   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The specified iSCSI target No. is already defined. Please confirm the number, and specify an unused number.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The specified iSCSI target No. is already defined. Please specify an unused number. |
| DMEG542002   | —          | Specified alias is invalid. Please specify correct value.                                                                                                                                                                                                                                                                    |
| DMEG542003   | —          | The specified alias has already been defined. Specify undefined alias.                                                                                                                                                                                                                                                       |
| DMEG550000   | —          | The Create & Map Volume Wizard cannot be executed. Please confirm the array configuration.                                                                                                                                                                                                                                   |
| DMEG550001   | —          | The Create & Map Volume Wizard cannot be executed because fibre channel port or iSCSI port is unequipped.                                                                                                                                                                                                                    |
| DMEG550002   | —          | The Create & Map Volume Wizard cannot be executed because the mapping mode is disabled.                                                                                                                                                                                                                                      |
| DMEG552000   | —          | Logical unit not specified.                                                                                                                                                                                                                                                                                                  |
| DMEG552003   | —          | There is not enough free space in RAID group.                                                                                                                                                                                                                                                                                |
| DMEG553001   | —          | The specified host group No. is already defined. Please confirm the number and specify an unused number.                                                                                                                                                                                                                     |
| DMEG553003   | —          | The specified host group name has already been defined. Specify an undefined host group name.                                                                                                                                                                                                                                |
| DMEG553004   | —          | There are not enough H-LUNs.                                                                                                                                                                                                                                                                                                 |
| DMEG600001   | —          | A new account cannot be created because the number of accounts has reached the maximum.                                                                                                                                                                                                                                      |
| DMEG600008   | —          | The user authentication is changed from RADIUS to Internal. It is necessary to change the password.                                                                                                                                                                                                                          |
| DMEG600013   | —          | The selected account cannot be changed. Make sure it is not the built-in account or that the user is not currently logged in.                                                                                                                                                                                                |
| DMEG600022   | —          | The selected account cannot be deleted. Make sure it is not the built-in account or that the user is not currently logged in.                                                                                                                                                                                                |
| DMEG600032   | —          | The selected account cannot be deleted. Make sure it is not the built-in account or that the user is not currently logged in.                                                                                                                                                                                                |
| DMEG600060   | —          | The function cannot be executed because Account Authentication is disabled. Please install and enable Account Authentication and try again.                                                                                                                                                                                  |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG600071   | —          | Specified IP Address is invalid. Please specify correct value.                                                                                                                                                               |
| DMEG600072   | —          | Specified Port Number is invalid. Please specify correct value.                                                                                                                                                              |
| DMEG600073   | —          | Specified IP Address and Port Number are invalid. Please specify correct value.                                                                                                                                              |
| DMEG600074   | —          | Specified Shared Secret is invalid. Please specify correct value.                                                                                                                                                            |
| DMEG600075   | —          | Specified retype shared secret does not match shared secret. Please retype again.                                                                                                                                            |
| DMEG600090   | —          | The Advanced Security Mode is already enabled. Check the specified of Advanced Security Mode.                                                                                                                                |
| DMEG600091   | —          | The Advanced Security Mode is already disabled. Check the specified of Advanced Security Mode.                                                                                                                               |
| DMEG620001   | —          | Failed to read the Internal Log.                                                                                                                                                                                             |
| DMEG630000   | —          | No controller is specified. Please specify a controller.                                                                                                                                                                     |
| DMEG630001   | —          | The specified non-secure port number of controller 0 is invalid. Please specify correct value.                                                                                                                               |
| DMEG630002   | —          | The specified secure port number of controller 0 is invalid. Please specify correct value.                                                                                                                                   |
| DMEG630003   | —          | The specified non-secure port number of controller 1 is invalid. Please specify correct value.                                                                                                                               |
| DMEG630004   | —          | The specified secure port number of controller 1 is invalid. Please specify correct value.                                                                                                                                   |
| DMEG630005   | —          | The non-secure port and secure port are same port number. Please specify different number.                                                                                                                                   |
| DMEG630006   | —          | Please specify same number for non-secure port number of controller 0 and controller 1.                                                                                                                                      |
| DMEG630007   | —          | Please specify same number for secure port number of controller 0 and controller 1.                                                                                                                                          |
| DMEG63000F   | —          | Specified IPv4 Address is invalid. Please specify correct value.                                                                                                                                                             |
| DMEG630010   | —          | Specified IPv4 Subnet Mask is invalid. Please specify correct value.                                                                                                                                                         |
| DMEG630011   | —          | Specified IPv4 Default Gateway is invalid. Please specify correct value.                                                                                                                                                     |
| DMEG630012   | —          | Specified IPv6 Address is invalid. Please specify correct value.                                                                                                                                                             |
| DMEG630013   | —          | Specified Subnet Prefix Length is invalid. Please specify correct value.                                                                                                                                                     |
| DMEG630014   | —          | Specified IPv6 Default Gateway is invalid. Please specify correct value.                                                                                                                                                     |
| DMEG661013   | —          | The file cannot be compressed.                                                                                                                                                                                               |
| DMEG661014   | —          | The file access error occurred.                                                                                                                                                                                              |
| DMEG661015   | —          | All performance measurement items are disabled. Please enable one or more measurement items.                                                                                                                                 |
| DMEG661016   | —          | The performance measurement cannot be got because RAID groups and logical units are undefined.<br>Please confirm RAID groups and logical units definition.                                                                   |
| DMEG661017   | —          | Measurement items are not selected. Please select measurement item.                                                                                                                                                          |
| DMEG661018   | —          | Specified interval is invalid. Please specify correct value.                                                                                                                                                                 |
| DMEG661019   | —          | Specified number of times are invalid. Please specify correct value.                                                                                                                                                         |
| DMEG66E000   | —          | The performance measurement cannot be got because library port is undefined. Please confirm library port definition.                                                                                                         |
| DMEG710001   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The error occurred when select the tab.                                                                                                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An error occurred when selecting the tab.                                                                                                                        |
|              |            |                                                                                                                                                                                                                              |
| DMEG710002   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Alert information is deleted, because the array status has changed. Close the dialog and click Refresh Information. Then, confirm the alert information again. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Alert information was deleted because the array status has changed. Close the dialog and click Refresh Information. Confirm the alert information again.         |
|              |            |                                                                                                                                                                                                                              |
|              |            |                                                                                                                                                                                                                              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                           |
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| DMEG800000   | —          | Are you sure you want to refresh?                                                                                                                                                                                                                                                                                                                                                                       |
| DMEG800001   | —          | Refreshed successfully.                                                                                                                                                                                                                                                                                                                                                                                 |
| DMEG800002   | —          | Currently refreshing of information.                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG800003   | —          | The error occurred in connecting RMI server. XXX Please reboot the server.                                                                                                                                                                                                                                                                                                                              |
| DMEG800004   | —          | The error occurred in registering temporary user of RMI launch. XXX Please reboot the server.                                                                                                                                                                                                                                                                                                           |
| DMEG800005   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>Your session is invalid. Logout, and then login again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more, less than Ver.5.20.<br>Your login is invalid. Close all browsers, and then login again.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Your login is invalid. Close all browsers and then login again. |
| DMEG800006   | —          | Please specify the file.                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG800007   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The process has taken more time. Please refresh, and confirm the array status.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The process is taking additional time. Please refresh and confirm the array status.                                                                                                         |
| DMEG800008   | —          | The information may have been deleted. Please refresh and confirm the array status.                                                                                                                                                                                                                                                                                                                     |
| DMEG800009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The configuration of array may have been updated. Please refresh.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The array configuration may have been updated. Please refresh.                                                                                                                                           |
| DMEG80000A   | —          | Your session is invalid. Logout, and then login again.                                                                                                                                                                                                                                                                                                                                                  |
| DMEG800010   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Please close the subsystem dialog window and retry.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Please close the subsystem dialog window and try again.                                                                                                                                                                |
| DMEG800011   | —          | Cannot launch applet, because the port of RMI server is not set as normal port. Please set as normal port and try again.                                                                                                                                                                                                                                                                                |
| DMEG800012   | —          | Cannot launch applet, because the port of RMI server is not set as secure port. Please set as secure port and try again.                                                                                                                                                                                                                                                                                |
| DMEG8F0001   | —          | Enter your user ID.                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG8F0002   | —          | Enter your password.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG8F0003   | —          | The user ID or password is not correct.                                                                                                                                                                                                                                                                                                                                                                 |
| DMEG900000   | —          | The maximum number of differential management logical units have already been set.                                                                                                                                                                                                                                                                                                                      |
| DMEG900001   | —          | The configuration of array may have been updated. Please refresh.                                                                                                                                                                                                                                                                                                                                       |
| DMEG900002   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Pairs with different copy types are selected. If you manipulate multiple pairs, select pairs of the same copy type.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Pairs with different copy types are selected. To manipulate multiple pairs, select pairs of the same copy type.                                        |
| DMEG900003   | —          | Pair name contains unallowed characters.                                                                                                                                                                                                                                                                                                                                                                |
| DMEG900004   | —          | A primary volume is not selected.                                                                                                                                                                                                                                                                                                                                                                       |
| DMEG900005   | —          | Size of both primary and secondary volumes do not match.                                                                                                                                                                                                                                                                                                                                                |
| DMEG900006   | —          | Group name is empty or contains unallowed characters.                                                                                                                                                                                                                                                                                                                                                   |
| DMEG900008   | —          | The same volume is selected as primary and secondary volume. Select different volumes.                                                                                                                                                                                                                                                                                                                  |
| DMEG900009   | —          | Split Description contains unallowed characters.                                                                                                                                                                                                                                                                                                                                                        |
| DMEG900010   | —          | The necessary licenses are not installed or enabled. Please install and enable necessary licenses and retry this operation.                                                                                                                                                                                                                                                                             |
| DMEG900011   | —          | A secondary volume is not selected.                                                                                                                                                                                                                                                                                                                                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                    |
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| DMEG900012   | —          | A pool is not selected.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG900013   | —          | The specified Group Number is not exit.                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG900014   | —          | You cannot set more than 2 logical units as differential management logical unit.                                                                                                                                                                                                                                                                                                                                                |
| DMEG900015   | —          | Group Number is not specified.                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG910001   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A new Data Pool cannot be created because the number of Data Pools reached the maximum.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A new Data Pool cannot be created because the number of Data Pools has reached the maximum.                                                                                                                 |
| DMEG910002   | —          | This Data Pool Number is incorrect.                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEG910003   | —          | This threshold value is incorrect.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG910005   | —          | Failed to create Data Pool.                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG910006   | —          | There is no logical units to add Data Pool.                                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG910007   | —          | There is no logical units to be added to the data pool.                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG910009   | —          | Failed to delete Data Pool.                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMEG910010   | —          | A failure has occurred when editing Data Pool                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG910011   | —          | Unable to edit the specified Pool Number.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG910013   | —          | The number of added logical unit is reached the maximum.                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG912001   | —          | The necessary licenses are not installed. Please install necessary licenses and retry this operation.                                                                                                                                                                                                                                                                                                                            |
| DMEG912002   | —          | A primary volume is not specified.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG912003   | —          | Please input the secondary volume.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEG912004   | —          | The secondary volume is not correct.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG912007   | —          | Pair name is empty or Pair Name has unallowed characters.                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG912008   | —          | A pool isn't chosen.                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG912009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMLU isn't set. After setting a DMLU, please reexecute the wizard.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMLU is not set. Set the DMLU and reexecute the wizard.                                                                                                                                                                          |
| DMEG912010   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A data pool isn't set. After setting a data pool, please reexecute the wizard.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A data pool is not set. Set the data pool and reexecute the wizard.                                                                                                                                                  |
| DMEG912011   | —          | Choice or the possible logical unit doesn't exist as the Primary volume. After setting a logical unit, please reexecute the wizard.                                                                                                                                                                                                                                                                                              |
| DMEG912012   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The maximum logical unit is made already. The associate volume can't be made. After deleting a logical unit of existence, please reexecute the wizard.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The maximum logical unit is made already. The associate volume cannot be made. Reexecute the wizard after deleting an existing logical unit. |
| DMEG912016   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>It is a LUN that has already been registered.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The LUN has already been registered.                                                                                                                                                                                                                  |
| DMEG912017   | —          | Please input a Pair Name within {0} character.                                                                                                                                                                                                                                                                                                                                                                                   |
| DMEG912106   | —          | Specified LUN is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG912107   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Drive Type and Stripe Size of sub logical units have to be same as those of unified logical unit.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Drive Type and Stripe Size of sub logical units must be same as those of unified logical unit.                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG912108   | —          | Sub logical unit is not selected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEG912110   | —          | The LUNs of unified logical unit and sub logical unit are the same. Select logical units which have different LUNs.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEG912113   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cash Partitions of the unified logical unit and the sub logical unit have to be in case of besides 00 or 01 and an identical cash partition.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Cache Partitions of the unified logical unit and the sub logical unit must be either 00 or 01 and with an identical cash partition.                                                                                                                        |
| DMEG912114   | —          | Sub logical unit does not exist.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG912903   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Cannot create logical unit, because there is no RAID groups that have free spaces.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more, less than 7.00.<br>Cannot create logical unit because there are no RAID groups that have free space.<br>Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>Cannot create logical unit because there are no DP pool or RAID groups that have free space. Please create new DP pool or RAID group and try again. |
| DMEG912904   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The capacity is a blank. Please input the capacity.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The capacity field is empty. Please enter the capacity.                                                                                                                                                                                                                                                                                             |
| DMEG912905   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The capacity is a blank. Please input the capacity.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character was used for the capacity.                                                                                                                                                                                                                                                                                                     |
| DMEG914003   | —          | Failed to delete logical units for SnapShot.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG914004   | —          | The specified LUN is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMEG914005   | —          | The specified capacity is invalid. Please specify correct value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMEG914006   | —          | The new logical unit cannot be added because the number of logical units reached the maximum.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG914008   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>It is a LUN that has already been registered.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>This LUN has already been registered.                                                                                                                                                                                                                                                                                                                     |
| DMEG916001   | —          | The pair name is a blank. Please input the pair name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMEG916002   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>An illegal character is used for the pair name.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character was used for the pair name.                                                                                                                                                                                                                                                                                                        |
| DMEG916003   | —          | It doesn't belong to CTG.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG916004   | —          | The speed of the copy exceeds the range.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMEG916005   | —          | The copy type is illegal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMEG916006   | —          | Pair information is illegal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEG916007   | —          | The license is not open lock. Please execute a necessary license again after of an open lock.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMEG916008   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Two LU or more has been selected.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Two LUs or more have been selected.                                                                                                                                                                                                                                                                                                                                   |
| DMEG916009   | —          | The pair doesn't exist. Please confirm whether there is a pair.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                    |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG916010   | —          | A primary volume is not specified. Please specify a primary volume.                                                                                                                                                                                                                                              |
| DMEG916011   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>LUN of PVOL is illegal.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The LUN of PVOL is illegal.                                                                                                                                 |
| DMEG916012   | —          | CTG information is illegal.                                                                                                                                                                                                                                                                                      |
| DMEG916013   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The group number is a blank. Please input the group number.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The group number is a blank. Please enter a group number.                                                               |
| DMEG916014   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The range where the group number can be input is exceeded. Please input it within the range.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The group number range has been exceeded. Please enter a correct range.                |
| DMEG916015   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>An illegal character is used for the group number.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character was used for the group number.                                                                              |
| DMEG916016   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The group name is a blank. Please input the group name which exists.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The group name is a blank. Please enter an existing group name.                                                |
| DMEG916017   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>An illegal character is used for the group name.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character has been used for the group name.                                                                             |
| DMEG916018   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The secondary volume is a blank. Please input the secondary volume.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The secondary volume is a blank. Please enter the secondary volume.                                             |
| DMEG916019   | —          | The Pool Number of Local Array has not been selected. Please select the Pool Number of Local Array.                                                                                                                                                                                                              |
| DMEG916020   | —          | The pool number is illegal.                                                                                                                                                                                                                                                                                      |
| DMEG916021   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The speed of the copy is illegal.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The copy speed is illegal.                                                                                                                        |
| DMEG916024   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Pool Number of Remote Array is a blank. Please input the Pool Number of Remote Array.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The pool number of the Remote Array is a blank. Please enter the pool number of Remote Array. |
| DMEG916025   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A Primary volume or the Secondary volume is illegal.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Either the PVOL or the SVOL is illegal.                                                                                        |
| DMEG916026   | —          | The fence level is illegal.                                                                                                                                                                                                                                                                                      |
| DMEG916027   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>An illegal character is used for the secondary volume.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character was used for the secondary volume.                                                                      |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                    |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG916028   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>An illegal character is used for the Pool Number of Remote Array.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character was used for the pool number of Remote Array.                                                                                                |
| DMEG916029   | —          | Please input a Pair Name within {0} character.                                                                                                                                                                                                                                                                                                                   |
| DMEG916030   | —          | Please input a Group Name within {0} character.                                                                                                                                                                                                                                                                                                                  |
| DMEG916031   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Because a remote pass is not set the pair cannot be generated.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Because a remote path is not set the pair cannot be generated.                                                                                                       |
| DMEG916032   | —          | Because LU that becomes the candidate of a primary volume doesn't exist the pair cannot be generated.                                                                                                                                                                                                                                                            |
| DMEG916033   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Because the data pool doesn't exist the pair cannot be generated.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Because the data pool does not exist the pair cannot be generated.                                                                                                |
| DMEG916034   | —          | Remote Pair does not exist.                                                                                                                                                                                                                                                                                                                                      |
| DMEG916035   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Pairs with different copy types are selected. If you manipulate multiple pairs, select pairs of the same copy type.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Pairs with different copy types are selected. To manipulate multiple pairs, select pairs of the same copy type. |
| DMEG916036   | —          | The data pool was not able to be acquired.                                                                                                                                                                                                                                                                                                                       |
| DMEG916037   | —          | It is necessary to input secondary volume by {0} characters.                                                                                                                                                                                                                                                                                                     |
| DMEG916038   | —          | It is necessary to input Pool Number of Remote Array by {0} characters.                                                                                                                                                                                                                                                                                          |
| DMEG918002   | —          | This Remote Array ID is incorrect.                                                                                                                                                                                                                                                                                                                               |
| DMEG918003   | —          | This Bandwidth is incorrect.                                                                                                                                                                                                                                                                                                                                     |
| DMEG918005   | —          | Failed to add Remote Path.                                                                                                                                                                                                                                                                                                                                       |
| DMEG918006   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A failure has occurred when editing Remote Path.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A failure has occurred while editing Remote Path.                                                                                                                                  |
| DMEG918007   | —          | Failed to delete Remote Path.                                                                                                                                                                                                                                                                                                                                    |
| DMEG918008   | —          | Available local port does not exist.                                                                                                                                                                                                                                                                                                                             |
| DMEG918009   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This IP Address is incorrect.(Remote Path 0)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The IP Address is incorrect.(Remote Path 0)                                                                                                                                            |
| DMEG918010   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This TCP Port is incorrect.(Remote Path 0)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The TCP Port is incorrect.(Remote Path 0)                                                                                                                                                |
| DMEG918011   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This CHAP Secret is incorrect.(Remote Path 0)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The CHAP Secret is incorrect.(Remote Path 0)                                                                                                                                          |
| DMEG918012   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified CHAP Secret is not matched.(Remote Path 0)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to match the CHAP Secret.(Remote Path 0)                                                                                                                                |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                               |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEG918013   | —          | A Remote Path already exists.                                                                                                                                                                                                               |
| DMEG918014   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This IP Address is incorrect.(Remote Path 1)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The IP Address is incorrect.(Remote Path 1)                       |
| DMEG918015   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This TCP Port is incorrect.(Remote Path 1)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The TCP Port is incorrect.(Remote Path 1)                           |
| DMEG918016   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This CHAP Secret is incorrect.(Remote Path 1)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The CHAP Secret is incorrect.(Remote Path 1)                     |
| DMEG918017   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified CHAP Secret is not matched.(Remote Path 1)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Failed to match the CHAP Secret.(Remote Path 1)           |
| DMEG918018   | —          | Remote Path does not exist.                                                                                                                                                                                                                 |
| DMEG918102   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>This CycleTime is incorrect.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The cycle time is incorrect.                                                      |
| DMEG918106   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>A failure has occurred when editing Options.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>A failure has occurred while editing Options.                     |
| DMEG918201   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Local Array ID is a blank. Please input Local Array ID.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Local Array ID is blank. Please input Local Array ID.  |
| DMEG918202   | —          | Input Local Array ID has already been made.                                                                                                                                                                                                 |
| DMEG918210   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>It is necessary to input Local Array ID by 8 characters.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>You must enter the Local Array ID using 8 characters. |
| DMEG918212   | —          | The secret is not correct. Please input a correct value.(Remote Path 0)                                                                                                                                                                     |
| DMEG918213   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified Secret is not matched.(Remote Path 0)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified Secret does not match.(Remote Path 0)                |
| DMEG918214   | —          | The secret is not correct. Please input a correct value.(Remote Path 1)                                                                                                                                                                     |
| DMEG918215   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>Specified Secret is not matched.(Remote Path 1)<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>Specified Secret does not match.(Remote Path 1)                |
| DMEG918216   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>An illegal character is input to the Local Array ID.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>An illegal character was input to the Local Array ID.     |

| Message code | Error code | Message text/Recovery methods                                                                 |
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| DMEG918217   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                    |
|              |            | CHAP of a remote port has already been set.                                                   |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                      |
|              |            | The CHAP of a remote port has already been set.                                               |
| DMEG918218   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                    |
|              |            | The bandwidth is a blank. Please input the bandwidth.                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                      |
|              |            | The bandwidth is blank. Please input the bandwidth.                                           |
| DMEG918219   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                    |
|              |            | An illegal character is used for the bandwidth.                                               |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                      |
|              |            | An illegal character was used for the bandwidth.                                              |
| DMEG918220   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                    |
|              |            | The cycleTime is a blank. Please input the cycleTime.                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                      |
|              |            | The cycle time was not specified. Please input the cycle time.                                |
| DMEG918221   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                    |
|              |            | An illegal character is used for the cycleTime.                                               |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                      |
|              |            | An illegal character was used for the cycle time.                                             |
| DMEGFF0001   | —          | The function is not supported.                                                                |
| DMEGFF0002   | —          | You have no permission. Please contact the Account Administrator and confirm your permission. |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEI000016   | —          | Unauthorized user. The user with administrators authority is allowed to execute the operation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMEI000021   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>Unable to detect the directory where HiCommand Suite Common Components are installed.<br>Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>Unable to detect the directory where Hitachi Storage Command Suite Common Component are installed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMEI000022   | —          | Unable to detect the "hcmdssrv" command.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMEI000101   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>Unable to continue installation, as some of HiCommand Suite Common Components Services are not stopped. Please refer to manuals of applications using HiCommand Suite Common Components to stop all of the service of common components.<br>Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>Unable to continue installation, as some of Hitachi Storage Command Suite Common Component Services are not stopped. Please refer to manuals of applications using Hitachi Storage Command Suite Common Component to stop all of the service of common components.                                                                                                                                                                                                                                                                                               |
| DMEI000102   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>Unable to get the status of HiCommand Suite Common Components Service. Some applications using HiCommand Suite Common Components are using those services. Please stop those services according to the manual of those applications.<br>Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>Unable to get the status of Hitachi Storage Command Suite Common Component Service. Some applications using Hitachi Storage Command Suite Common Component are using those services. Please stop those services according to the manual of those applications.                                                                                                                                                                                                                                                                                                       |
| DMEI000199   | —          | An undefined error occurred.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMEI000202   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>Unable to continue installation since there are HiCommand suite common components configured as active clustering. Please refer to manuals of applications using HiCommand suite common components to configure all of common components as non clustering. If no other applications are used, please release clustering configuration by "hcmdsdclustersetup /removecluster" command.<br>Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>Unable to continue installation since there are Hitachi Storage Command Suite Common Component configured as active clustering. Please refer to manuals of applications using Hitachi Storage Command Suite Common Component to configure all of common components as non clustering. If no other applications are used, please release clustering configuration by "hcmdsdclustersetup /removecluster" command.   |
| DMEI000203   | —          | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>Unable to continue installation since there are HiCommand suite common components configured as passive clustering. Please refer to manuals of applications using HiCommand suite common components to configure all of common components as non clustering. If no other applications are used, please release clustering configuration by "hcmdsdclustersetup /removecluster" command.<br>Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>Unable to continue installation since there are Hitachi Storage Command Suite Common Component configured as passive clustering. Please refer to manuals of applications using Hitachi Storage Command Suite Common Component to configure all of common components as non clustering. If no other applications are used, please release clustering configuration by "hcmdsdclustersetup /removecluster" command. |
| DMEI000298   | —          | Failed to get the status of the Database. Stop all applications and services (such as security, process monitoring) and retry to install.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMEI000299   | —          | An undefined error occurred.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMEI000398   | —          | An attempt to stop the services of Hitachi Storage Command Suite Common Component has failed. Please wait a few minutes, and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMEI000401   | —          | An attempt to stop the services of Hitachi Storage Command Suite Common Component has been time out. Please wait a few minutes, and then try again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMEI000498   | —          | Unable to get the status of Hitachi Storage Command Suite Common Component service.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                   |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEI001098   | —          | Unable to start HBase.                                                                                                                                                                                                          |
| DMEI010101   | —          | Failed to start internal process of the installer. The reason were possibly the lack of memory or system resources. Stop other applications and services, then retry installation.                                              |
| DMEI010102   | —          | "X:\hcmdsrtm.inst" can not be deleted. Make sure the file is not used by other applications and that is not read-only.                                                                                                          |
| DMEI010103   | —          | "X:\hcmdsrtm.inst" could not be read. Make sure the file is not used by other applications.                                                                                                                                     |
| DMEI010104   | —          | An internal error occurred. Force uninstall and re-install.                                                                                                                                                                     |
| DMEI010105   | —          | The files in the "suite" directory cannot be read. Please install again after confirming that the files which are listed in the "suite_file_config" file in the provided CD-ROM have existed.                                   |
| DMEI010111   | —          | As there was not enough disk space, files could not be written in the directory "<HBaseDirectory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then retry installation.    |
| DMEI010112   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010121   | —          | Unable to delete entries of registry. Make sure not to be changed the permission to edit registry, and retry installation.                                                                                                      |
| DMEI010122   | —          | Unable to read entries of registry. Make sure not to be changed the permission to edit registry, and retry installation.                                                                                                        |
| DMEI010124   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010198   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010199   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI010398   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010399   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI010401   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010498   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010499   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI010501   | —          | There was not enough disk space and files could not be written in the directory "<SNM2Directory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then restart the installer.  |
| DMEI010502   | —          | There was not enough disk space and file could not be written in the directory "<HBaseDirectory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then restart the installer.  |
| DMEI010503   | —          | There was not enough disk space and files could not be written in the directory "<HBaseDirectory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then restart the installer. |
| DMEI010598   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010599   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI010801   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010802   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010811   | —          | Unable to create the repository backup file "<SNM2Directory>\install\snmrepsetup-old.xml". Make sure the file is not used by other applications and that is not read-only.                                                      |
| DMEI010898   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI010899   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI011201   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI011298   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI011299   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI011398   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI011399   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI011498   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI011499   | —          | An undefined error occurred.                                                                                                                                                                                                    |
| DMEI011598   | —          | An internal error occurred.                                                                                                                                                                                                     |
| DMEI011599   | —          | An undefined error occurred.                                                                                                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                           |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEI012101   | —          | Unable to copy files.                                                                                                                                                                   |
| DMEI012198   | —          | Unable to write files in the directory "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only. |
| DMEI012298   | —          | An error occurred when deleting installation temporary files. Make sure the files and the directory are not used by other applications and they are not read-only.                      |
| DMEI013101   | —          | Unable to start the applet server.                                                                                                                                                      |
| DMEI013198   | —          | Failed to register SNM2Server as a service to the operating system.                                                                                                                     |
| DMEI014001   | —          | The path is invalid. Please specify path to directory on local disk.                                                                                                                    |
| DMEI014003   | —          | Invalid port number.                                                                                                                                                                    |
| DMEI014004   | —          | Invalid port number.                                                                                                                                                                    |
| DMEI014005   | —          | Out of disk space. 1.5GB free space is required for installation.                                                                                                                       |
| DMEI014006   | —          | The path name contains invalid character's. Valid characters for the path name are only a-z, 0-9, "_", "(", ")" and " "(space).                                                         |
| DMEI014007   | —          | Cannot install in the root folder of a drive. Please specify the subfolder.                                                                                                             |
| DMEI030801   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI030802   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI030898   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI030899   | —          | An undefined error occurred.                                                                                                                                                            |
| DMEI040101   | —          | Unable to start process in the uninstaller. The reason were possibly the lack of memory or system resources. Stop all other applications and services, then retry uninstallation.       |
| DMEI040102   | —          | "X:\hcmdsrtm.uit" could not be deleted. Make sure the file is not used by other applications and that is not read-only.                                                                 |
| DMEI040103   | —          | "X:\hcmdsrtm.uit" could not be read. Make sure the file is not used by other applications and the read-permission of the file.                                                          |
| DMEI040104   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040106   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040107   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040121   | —          | Unable to delete entries of registry. Make sure not to be changed the permission to edit registry, and retry uninstallation.                                                            |
| DMEI040198   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040199   | —          | An undefined error occurred.                                                                                                                                                            |
| DMEI040398   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040399   | —          | An undefined error occurred.                                                                                                                                                            |
| DMEI040401   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040498   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040499   | —          | An undefined error occurred.                                                                                                                                                            |
| DMEI040801   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040802   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040811   | —          | Unable to delete the repository configuration file "<SNM2Directory>\install\snmrepsetup-old.xml". Make sure the file is not used by other applications and that is not read-only.       |
| DMEI040898   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040899   | —          | An undefined error occurred.                                                                                                                                                            |
| DMEI040901   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040902   | —          | Failed to access the database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.                                                |
| DMEI040998   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI040999   | —          | An undefined error occurred.                                                                                                                                                            |
| DMEI041201   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI041298   | —          | An internal error occurred.                                                                                                                                                             |
| DMEI041299   | —          | An undefined error occurred.                                                                                                                                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                  |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMEI041398   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI041399   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI041498   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI041499   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI041598   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI041599   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI042198   | —          | An error occurred when deleting some files in "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only. |
| DMEI043198   | —          | Failed to release SNM2Server as a service from the operating system.                                                                                                                           |
| DMEI044198   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI044199   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI044201   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI044211   | —          | Time out occurred at the starting of the database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.                                   |
| DMEI044298   | —          | Failed to get status of Database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.                                                    |
| DMEI044299   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI044301   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI044398   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI044399   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI044401   | —          | An internal error occurred.                                                                                                                                                                    |
| DMEI044411   | —          | Time out occurred at the internal process. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.                                           |
| DMEI044498   | —          | Failed to get status of Database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.                                                    |
| DMEI044499   | —          | An undefined error occurred.                                                                                                                                                                   |
| DMEI050101   | —          | Unable to continue force uninstallation, as some of other Hitachi Storage Command Suite products are installed.                                                                                |
| DMEI050102   | —          | An attempt to stop the services of Hitachi Storage Command Suite Common Component has failed.                                                                                                  |
| DMEI050103   | —          | The error occurred in force uninstallation of the Hitachi Storage Command Suite Common Component.                                                                                              |
| DMEI050104   | —          | An error occurred when deleting some files in "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only. |

| Message code | Error code | Message text/Recovery methods                                                                                                                                     |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER010001   | 0x05010001 | The target LU is undergoing the change of an ownership of LU. Retry after waiting for a while.                                                                    |
| DMER010002   | 0x05010002 | The change of a controller that controls the LU cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.     |
| DMER010003   | 0x05010003 | An instruction to change the controller that controls the LU was issued. Retry after waiting for a while.                                                         |
| DMER010004   | 0x05010004 | The owner controller of the LUs to be paired is detached. Retry.                                                                                                  |
| DMER010005   | 0x05010005 | The owner controller of the LUs to be paired is detached. Retry.                                                                                                  |
| DMER010006   | 0x05010006 | The owner controller of the LUs to be paired is detached. Retry.                                                                                                  |
| DMER010007   | 0x05010007 | The owner controller of the LUs to be paired is detached. Retry.                                                                                                  |
| DMER010009   | 0x05010009 | The owner controller of the LUs to be paired is detached. Retry after waiting for a while.                                                                        |
| DMER01000A   | 0x0501000A | The owner controller of the LUs to be paired is detached. Retry after waiting for a while.                                                                        |
| DMER01000B   | 0x0501000B | The owner controller of the LUs to be paired is detached. Retry after waiting for a while.                                                                        |
| DMER010019   | 0x05010019 | The pair operation command is a time-out. Retry after waiting for a while.                                                                                        |
| DMER010065   | 0x05010065 | Since the specified P-VOL requires a change of an ownership of LU, it is undergoing the execution of the ownership of LU change. Retry after waiting for a while. |
| DMER010066   | 0x05010066 | Though the specified P-VOL requires a change of an ownership of LU, the controller to be changed is blocked. Retry after waiting for a while.                     |
| DMER010067   | 0x05010067 | Since the specified P-VOL requires a change of an ownership of LU, the execution of the ownership of LU change has been started. Retry after waiting for a while. |
| DMER011001   | 0x05011001 | The target LU is undergoing the change of an ownership of LU. Retry after waiting for a while.                                                                    |
| DMER011002   | 0x05011002 | The change of a controller that controls the LU cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.     |
| DMER011003   | 0x05011003 | An instruction to change the controller that controls the LU was issued. Retry after waiting for a while.                                                         |
| DMER012001   | 0x05012001 | The target LU is undergoing the change of an ownership of LU. Retry after waiting for a while.                                                                    |
| DMER012002   | 0x05012002 | The change of a controller that controls the LU cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.     |
| DMER012003   | 0x05012003 | An instruction to change the controller that controls the LU was issued. Retry after waiting for a while.                                                         |
| DMER020000   | 0x05020000 | The pair status of the P-VOL is other than Simplex. Check the pair status of the LU.                                                                              |
| DMER020001   | 0x05020001 | The status of the P-VOL is other than normal and regressive. Check the status of the LU.                                                                          |
| DMER020002   | 0x05020002 | The P-VOL is a Cache Residency LU. Check the status of the LU.                                                                                                    |
| DMER020003   | 0x05020003 | The P-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                        |
| DMER020004   | 0x05020004 | The P-VOL is a command device. Check the status of the LU.                                                                                                        |
| DMER020005   | 0x05020005 | The primary sequence number is different from the own Array ID. Check the Array ID.                                                                               |
| DMER020006   | 0x05020006 | Both of the two paths are abnormal. Check the status of the path.                                                                                                 |
| DMER020007   | 0x05020007 | The P-VOL has been defined as a SubLU of a unified LU. Check the status of the LU.                                                                                |
| DMER020009   | 0x05020009 | There exist maximum number of pairs already. Delete the unnecessary pairs.                                                                                        |
| DMER02000D   | 0x0502000D | The P-VOL is in a status other than Split and Failure. Check the pair status of the LU.                                                                           |
| DMER02000E   | 0x0502000E | The status of the P-VOL is other than normal and regressive. Check the pair attribute of the LU.                                                                  |
| DMER02000F   | 0x0502000F | The number of the LU to be paired is different. Check the specified LUN.                                                                                          |
| DMER020010   | 0x05020010 | The primary sequence number is different from the own Array ID. Check the Array ID.                                                                               |
| DMER020011   | 0x05020011 | Both of the two paths are abnormal. Check the status of the path.                                                                                                 |
| DMER020012   | 0x05020012 | The specified P-VOL is in a status other than Synchronizing and Paired. Check the pair status of the LU.                                                          |
| DMER020014   | 0x05020014 | The current Array ID differs from the number that was set initially. Check the Array ID.                                                                          |
| DMER020016   | 0x05020016 | The number of the LU to be paired is different. Check the specified LUN.                                                                                          |
| DMER020017   | 0x05020017 | The primary sequence number is different from the own Array ID. Check the Array ID.                                                                               |
| DMER020018   | 0x05020018 | The S-VOL pair cancellation instructions to a P-VOL or the pair cancellation instructions to an S-VOL was received. Check the pair status of the LU.              |
| DMER020020   | 0x05020020 | The Asynchronous mode is turned on. The Asynchronous mode is not supported.                                                                                       |
| DMER020021   | 0x05020021 | The fence level is STATUS. Make sure of the specified fence level.                                                                                                |
| DMER020023   | 0x05020023 | The P-VOL is a volume of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Check the pair status of the LU.                     |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                            |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER020024   | 0x05020024 | The P-VOL is undergoing the restoration of ShadowImage pair. Check the pair status of the LU.                                                                                                                                                                                            |
| DMER020025   | 0x05020025 | The P-VOL received an instruction to swap pair. Check the pair attribute of the LU.                                                                                                                                                                                                      |
| DMER020026   | 0x05020026 | The pair status is not Takeover. Check the pair status.                                                                                                                                                                                                                                  |
| DMER020027   | 0x05020027 | The S-VOL received an instruction to resynchronize pair. Check the pair attribute of the LU.                                                                                                                                                                                             |
| DMER020028   | 0x05020028 | The volume is a P-VOL of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Place the P-VOL concerned in the Simplex status and create the pair again.                                                                                                  |
| DMER020029   | 0x05020029 | The volume is a P-VOL of ShadowImage and undergoing a reverse copy. Check the pair status of the LU.                                                                                                                                                                                     |
| DMER02002A   | 0x0502002A | The P-VOL received an instruction to be taken over. Check the pair status of the LU.                                                                                                                                                                                                     |
| DMER02002B   | 0x0502002B | It is in the Simplex or Synchronizing status. Check the pair status of the LU.                                                                                                                                                                                                           |
| DMER02002C   | 0x0502002C | The secondary sequence number is different from the Array ID. Check the Array ID.                                                                                                                                                                                                        |
| DMER02002D   | 0x0502002D | The S-VOL received an instruction to be taken over. Check the pair status of the LU.                                                                                                                                                                                                     |
| DMER02002E   | 0x0502002E | The pair status of the P-VOL is Simplex or Synchronizing. Check the pair status of the LU.                                                                                                                                                                                               |
| DMER02002F   | 0x0502002F | The primary sequence number is different from the Array ID. Check the Array ID.                                                                                                                                                                                                          |
| DMER020030   | 0x05020030 | The S-VOL received the suspension. Check the pair status of the LU.                                                                                                                                                                                                                      |
| DMER020031   | 0x05020031 | The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                                                                               |
| DMER020032   | 0x05020032 | The P-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                             |
| DMER020033   | 0x05020033 | The specified LU is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the LU.                                                                                                                                                                |
| DMER020035   | 0x05020035 | The volume is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the LU.                                                                                                                                                                      |
| DMER020036   | 0x05020036 | The volume is a P-VOL of SnapShot and being restored. Check the pair status of the LU.                                                                                                                                                                                                   |
| DMER020037   | 0x05020037 | The volume is a P-VOL of SnapShot It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.                                                                                 |
| DMER020038   | 0x05020038 | The volume is a P-VOL of SnapShot and the mate to it has already been paired by Remote Replication. Check the pair status of the LU.                                                                                                                                                     |
| DMER020039   | 0x05020039 | The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the LU.                                                                                                                                                                   |
| DMER02003A   | 0x0502003A | The volume is a V-VOL of SnapShot. The related P-VOL of SnapShot is being restored or has been placed in the Failure status during a restoration. Check the pair status of the LU.                                                                                                       |
| DMER02003B   | 0x0502003B | The specified LU is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the LU.                                                                                                                                       |
| DMER02003C   | 0x0502003C | The specified LU is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the LU.                                                                                                                                       |
| DMER02003D   | 0x0502003D | The volume is a P-VOL of SnapShot and being restored. Check the pair status of the LU.                                                                                                                                                                                                   |
| DMER02003E   | 0x0502003E | The volume is a P-VOL of SnapShot. It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL related to Simplex and create the pair again.                                                                                   |
| DMER02003F   | 0x0502003F | The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the LU.                                                                                                                                                                   |
| DMER020040   | 0x05020040 | The volume is a P-VOL of SnapShot. It is being restored or in the Failure status and cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                             |
| DMER020042   | 0x05020042 | The RAID level differs between the MainLU and SubLU. Check that the RAID level of the specified LU is the same as that expected.                                                                                                                                                         |
| DMER020043   | 0x05020043 | The number of data disks differs between the MainLU and SubLU. Check that the number of data disks of the specified LU is the same as that expected.                                                                                                                                     |
| DMER020045   | 0x05020045 | The specified LU is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified LU, whose MainLU and SubLU are different in RAID level. Check that the RAID level of the SnapShot P-VOL corresponding to the specified LU is the same as that expected.                     |
| DMER020046   | 0x05020046 | The specified LU is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified LU, whose MainLU and SubLU are different in number of data disks. Check that the number of data disks of the SnapShot P-VOL corresponding to the specified LU is the same as that expected. |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                  |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER020047   | 0x05020047 | Data of the Remote Replication P-VOL is partially destroyed. Issue the SnapShot instruction (to change the status from Paired to Split) to the SnapShot pair again, and then create the pair again.            |
| DMER020048   | 0x05020048 | Data of the Remote Replication P-VOL is partially destroyed. Format the specified LU after getting backup data of it. Then restore the backup data.                                                            |
| DMER02004B   | 0x0502004B | The specified P-VOL is in the Failure (S-VOL Switch) status of ShadowImage. Request service personnel to replace drives that compose the P-VOL. Format them after the replacement then resynchronize the pair. |
| DMER02004D   | 0x0502004D | The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                           |
| DMER02004E   | 0x0502004E | The DM-LU cannot be specified as P-VOL. Check the status of the LU.                                                                                                                                            |
| DMER02004F   | 0x0502004F | Validity of the license expired. Purchase the license.                                                                                                                                                         |
| DMER020052   | 0x05020052 | The remote SnapShot split request was accepted in the Remote Replication environment. The remote SnapShot split request is not supported in the Remote Replication environment.                                |
| DMER020053   | 0x05020053 | The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                            |
| DMER020054   | 0x05020054 | The specified P-VOL is undergoing the migration. Check the pair status of the LU.                                                                                                                              |
| DMER020055   | 0x05020055 | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                     |
| DMER020056   | 0x05020056 | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                     |
| DMER020057   | 0x05020057 | The specified function is not supported in a remote array. Check the remote array.                                                                                                                             |
| DMER020058   | 0x05020058 | When creating pairs with group is specified, the specified group ID is beyond the limits of supported. Check the specified group ID.                                                                           |
| DMER020059   | 0x05020059 | The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL. on both local and remote arrays.                                                     |
| DMER02005A   | 0x0502005A | The command was received in unit of group at the time of resynchronization. Check the specified value.                                                                                                         |
| DMER02005B   | 0x0502005B | When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the LU.                                                                                           |
| DMER02005C   | 0x0502005C | When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.                                                                                                                   |
| DMER02005D   | 0x0502005D | When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of LU in the group.                                          |
| DMER02005E   | 0x0502005E | When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the LU.                                                                                           |
| DMER02005F   | 0x0502005F | When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.                                                                                                                  |
| DMER020060   | 0x05020060 | When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of LU in the group.                                          |
| DMER020061   | 0x05020061 | When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the LU.                                                                                           |
| DMER020062   | 0x05020062 | When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.                                                                                                                  |
| DMER020063   | 0x05020063 | When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the same group. Check the pair status of LU in the group.                                            |
| DMER020064   | 0x05020064 | The pair cancellation instructions was executed for the range that was not supported. Check the specified value.                                                                                               |
| DMER020065   | 0x05020065 | When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the LU.                                                                                           |
| DMER020066   | 0x05020066 | When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.                                                                                                                  |
| DMER020067   | 0x05020067 | When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the LU.                                                                                           |
| DMER020068   | 0x05020068 | When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.                                                                                                                   |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER020069   | 0x05020069 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The specified secondary sequence number does not match with the array serial number. Check the specified command device number.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The remote path connected to the specified remote array does not exist. Retry after creating the remote path from the local array to the remote array of the specified remote Array ID. |
| DMER02006A   | 0x0502006A | The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                                                                                                                                                                                                                     |
| DMER02006B   | 0x0502006B | The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                                                                                                                                                                                                                     |
| DMER02006C   | 0x0502006C | The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                                                                                                                                                                                                                     |
| DMER02006D   | 0x0502006D | There are other pairs in the group, whose fence level is not the same as the one specified. Confirm the fence level of the pair you are creating.                                                                                                                                                                                                                                                                                                    |
| DMER02006E   | 0x0502006E | There are other pairs in the group, whose P-VOL and S-VOL are swapped. Confirm the array on which you are executing the command.                                                                                                                                                                                                                                                                                                                     |
| DMER02006F   | 0x0502006F | The specified LU is the P-VOL or S-VOL of a ShadowImage pair that the status is Split Pending or Paired Internally Synchronizing. Check the status of the ShadowImage pair.                                                                                                                                                                                                                                                                          |
| DMER020070   | 0x05020070 | Migration status indicates a status other than Not Started. Check the Migration status.                                                                                                                                                                                                                                                                                                                                                              |
| DMER020071   | 0x05020071 | Migration mode indicates Migration. Check the migration mode.                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER020072   | 0x05020072 | The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                                                                                                                        |
| DMER020073   | 0x05020073 | An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.                                                                                                                                                                                                                                          |
| DMER020074   | 0x05020074 | The specified CTG number has been used into other remote replication pair with the remote array. Retry after specifying the number other than specified CTG number.                                                                                                                                                                                                                                                                                  |
| DMER020075   | 0x05020075 | The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.                                                                                                                                                                                                             |
| DMER020076   | 0x05020076 | The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.                                                                                                                                                                                                             |
| DMER020077   | 0x05020077 | The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                                                                                                                                                                                                |
| DMER020078   | 0x05020078 | The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                                                                                                                                                                                                                                          |
| DMER020079   | 0x05020079 | The specified P-VOL is a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.                                                                                                                                                                                                                                                                                       |
| DMER02007A   | 0x0502007A | The specified P-VOL is a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.                                                                                                                                                                                                                                                                                       |
| DMER02007B   | 0x0502007B | The specified P-VOL is an S-VOL of ShadowImage pair those P-VOL is part of another ShadowImage pair that S-VOL is the LU created in DP pool. Confirm all the S-VOL of ShadowImage pair that shares the P-VOL with the ShadowImage pair that specified P-VOL is part of.                                                                                                                                                                              |
| DMER02303D   | 0x0502303D | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                                                                              |
| DMER02403D   | 0x0502403D | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                                                                              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                          |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER030000   | 0x05030000 | The controller that controls the LU cannot be changed because pinned data exists. Retry after eliminating pinned data.                                                 |
| DMER030001   | 0x05030001 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                             |
|              |            | The controller that controls the LU cannot be changed because of an insufficient segment size. Retry after waiting for a while.                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                               |
|              |            | The controller that controls the LU cannot be changed temporarily. Retry after waiting for a while.                                                                    |
| DMER030002   | 0x05030002 | The operation to change LU is in progress. Retry after waiting for a while.                                                                                            |
| DMER030003   | 0x05030003 | There is no partition to which the current partition is to be changed. Retry after waiting for a while.                                                                |
| DMER030004   | 0x05030004 | The directory configuration is being changed. Reboot the subsystem.                                                                                                    |
| DMER030005   | 0x05030005 | The change of a controller that controls the LU resulted in a time-out. Retry after waiting for a while.                                                               |
| DMER030006   | 0x05030006 | The pair status of the P-VOL is other than Simplex, or a V-VOL does not exist. Check the pair status of the LU.                                                        |
| DMER030007   | 0x05030007 | The pair status is other than Simplex. Check the pair status of the LU.                                                                                                |
| DMER030008   | 0x05030008 | The specified P-VOL is a V-VOL. Check the pair status of the LU.                                                                                                       |
| DMER030009   | 0x05030009 | The specified V-VOL is a P-VOL. Check the pair status of the LU.                                                                                                       |
| DMER03000B   | 0x0503000B | The group ID is out of appropriate range. Make sure of the specified group ID number.                                                                                  |
| DMER03000D   | 0x0503000D | The same MU number was specified within the same P-VOL. Make sure of the specified MU number.                                                                          |
| DMER03000E   | 0x0503000E | The process is in progress. Retry after waiting for a while.                                                                                                           |
| DMER030010   | 0x05030010 | The pair status is other than Split. Check the pair status of the LU.                                                                                                  |
| DMER030011   | 0x05030011 | The object LUN is not the same as the expected one. Check the specified LU.                                                                                            |
| DMER030012   | 0x05030012 | The instruction of forced suspension was received. Make sure of the command.                                                                                           |
| DMER030014   | 0x05030014 | The P-VOL is in a status other than normal and regressive. Check the status of the LU.                                                                                 |
| DMER030015   | 0x05030015 | The data pool LU being used is in a status other than normal and regressive. Check the status of the pool LU.                                                          |
| DMER030017   | 0x05030017 | The pair attribute of the P-VOL is V-VOL. Check the status of the LU.                                                                                                  |
| DMER030018   | 0x05030018 | The pair attribute of the V-VOL is P-VOL. Check the status of the LU.                                                                                                  |
| DMER03001A   | 0x0503001A | The same MU number was specified within the same P-VOL. Make sure of the specified MU number.                                                                          |
| DMER03001B   | 0x0503001B | The process is in progress. Retry after waiting for a while.                                                                                                           |
| DMER03001D   | 0x0503001D | The object LUN is not the same as the expected one. Check the specified LU.                                                                                            |
| DMER03001E   | 0x0503001E | The specified V-VOL is not specified to be grouped(Group ID suspension). Check the pair attribute of the LU.                                                           |
| DMER03001F   | 0x0503001F | The V-VOL, which is an object of the batch suspension, is in a status other than Paired(Group ID suspension). Check the pair status of the LU.                         |
| DMER030020   | 0x05030020 | The process is in progress. Retry after waiting for a while.                                                                                                           |
| DMER030021   | 0x05030021 | The process is in progress. Retry after waiting for a while.                                                                                                           |
| DMER030022   | 0x05030022 | The pair status of the V-VOL is illegal. Check the pair status of the LU.                                                                                              |
| DMER030023   | 0x05030023 | The object LUN is not the same as the expected one. Check the specified LU.                                                                                            |
| DMER030028   | 0x05030028 | The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.                                                           |
| DMER030029   | 0x05030029 | The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.                                                           |
| DMER03002A   | 0x0503002A | The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.                                                           |
| DMER03002B   | 0x0503002B | The pair status was changed to Failure because the process terminated abnormally. Place the pair concerned in the Simplex status once, and then create the pair again. |
| DMER03002C   | 0x0503002C | The specified P-VOL has excess pinned data (at the time of a restoration only). Retry after eliminating pinned data.                                                   |
| DMER03002E   | 0x0503002E | Navigator was received by the control information on 8-byte form. Check the environment of Navigator.                                                                  |
| DMER03002F   | 0x0503002F | There are 64 or more LUs being restored. Retry after the restoration is completed.                                                                                     |
| DMER030030   | 0x05030030 | The P-VOL is being restored. Retry after the restoration is completed.                                                                                                 |
| DMER030031   | 0x05030031 | Data of the V-VOL is partially destroyed. Make a backup from the S-VOL to a tape device, etc. and then restore the data to the P-VOL.                                  |
| DMER030032   | 0x05030032 | The process is in progress. Retry after waiting for a while.                                                                                                           |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                    |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER030033   | 0x05030033 | Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. |
| DMER030034   | 0x05030034 | Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. |
| DMER030035   | 0x05030035 | The MU number is other than 0 to 2. Make sure of the specified MU number.                                                                                                                                                                        |
| DMER030036   | 0x05030036 | The MU number is other than 0 to 2. Make sure of the specified MU number.                                                                                                                                                                        |
| DMER030037   | 0x05030037 | The MU number is other than 0. Make sure of the specified MU number.                                                                                                                                                                             |
| DMER030038   | 0x05030038 | The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.                                                                                                                 |
| DMER030039   | 0x05030039 | The P-VOL of SnapShot is a P-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.                                                                    |
| DMER03003A   | 0x0503003A | The P-VOL of SnapShot is a S-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.                                                                    |
| DMER03003B   | 0x0503003B | The P-VOL of SnapShot is a volume of Remote Replication and it is in a status other than Simplex and Split. Check the status of the Remote Replication pair.                                                                                     |
| DMER03003C   | 0x0503003C | Among the other V-VOLs of SnapShot, there are LUs of Remote Replication in a status other than Split and Failure. Check the status of the Remote Replication pair.                                                                               |
| DMER03003D   | 0x0503003D | The V-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.                                                                                                       |
| DMER03003E   | 0x0503003E | The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.                                                                                                                 |
| DMER030044   | 0x05030044 | The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                             |
| DMER030045   | 0x05030045 | The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                                                    |
| DMER030046   | 0x05030046 | The DM-LU was specified as V-VOL. Check the status of the LU.                                                                                                                                                                                    |
| DMER030047   | 0x05030047 | The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                             |
| DMER030048   | 0x05030048 | The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                                                    |
| DMER030049   | 0x05030049 | The DM-LU was specified as V-VOL. Check the status of the LU.                                                                                                                                                                                    |
| DMER03004A   | 0x0503004A | Validity of the license expired. Purchase the license.                                                                                                                                                                                           |
| DMER03004B   | 0x0503004B | Validity of the license expired. Purchase the license.                                                                                                                                                                                           |
| DMER030052   | 0x05030052 | The specified P-VOL is a P-VOL of Remote Replication and the status of the Remote Replication pair is other than Split (at the time of restoration). Check the status of the LU.                                                                 |
| DMER030053   | 0x05030053 | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and writing to the S-VOL is prohibited (at the time of restoration). Check the status of the LU.                                    |
| DMER030054   | 0x05030054 | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Busy (at the time of restoration). Check the status of the LU.                                                                            |
| DMER030056   | 0x05030056 | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited (at the time of restoration). Check the status of the LU.                       |
| DMER030057   | 0x05030057 | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is other than Simplex or Split (at the time of restoration). Check the status of the LU.                                                     |
| DMER030058   | 0x05030058 | The P-VOL of this SnapShot is the S-VOL of the Remote Replication pair. It cannot be executed because the status of this Remote Replication pair is Synchronizing or Paired. Check the status of the LU.                                         |
| DMER030059   | 0x05030059 | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the LU.                                                    |
| DMER03005A   | 0x0503005A | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Synchronizing or Paired. Check the status of the LU.                                                                                      |
| DMER03005B   | 0x0503005B | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the LU.                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                   |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER03005C   | 0x0503005C | The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Pool Full (at the time of restoration). Check the status of the LU.      |
| DMER03005D   | 0x0503005D | The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                             |
| DMER03005E   | 0x0503005E | The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                             |
| DMER03005F   | 0x0503005F | Though the specified P-VOL requires a change of an ownership of LU, it has the pinned data. Contact the service personnel.                                                      |
| DMER030060   | 0x05030060 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                      |
|              |            | Though the specified P-VOL requires a change of an ownership of LU, the segments are insufficient. Check the status of the LU.                                                  |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                        |
|              |            | The controller that controls the LU that will be P-VOL cannot be changed. Check the status of the LU.                                                                           |
| DMER030061   | 0x05030061 | The operation to change LU is in progress. Retry after waiting for a while.                                                                                                     |
| DMER030062   | 0x05030062 | There is no partition to which the current partition to be changed. Retry after waiting for a while.                                                                            |
| DMER030063   | 0x05030063 | Though the specified P-VOL requires a change of an ownership of LU, the directory structure is being changed. Check the status of the LU.                                       |
| DMER030064   | 0x05030064 | Though the specified P-VOL requires a change of an ownership of LU, a time-out occurred in the ownership of LU changed. Check the status of the LU.                             |
| DMER030065   | 0x05030065 | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down (at the time of restoration). Check the status of the RAID group.         |
| DMER030066   | 0x05030066 | The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.                                                                                           |
| DMER030067   | 0x05030067 | There is no POOL LU at the specified POOL ID. Check the specified POOL ID.                                                                                                      |
| DMER030068   | 0x05030068 | The specified P-VOL is already paired with one or more V-VOLs, and the specified POOL ID is different from the POOL ID, which is already assigned. Check the specified POOL ID. |
| DMER030069   | 0x05030069 | The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified LU.                                                                      |
| DMER03006A   | 0x0503006A | The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.                                 |
| DMER03006B   | 0x0503006B | The specified P-VOL is a SubLU of a unified LU. Check the status of the LU.                                                                                                     |
| DMER03006C   | 0x0503006C | The specified P-VOL is a Volume Migration pair. Check the status of the LU.                                                                                                     |
| DMER03006D   | 0x0503006D | The specified P-VOL is a ShadowImage pair. Check the attribute of the LU.                                                                                                       |
| DMER03006E   | 0x0503006E | The specified P-VOL has been defined to the command device. Check the attribute of the LU.                                                                                      |
| DMER03006F   | 0x0503006F | The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                              |
| DMER030070   | 0x05030070 | The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                              |
| DMER030071   | 0x05030071 | It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.                                                       |
| DMER030072   | 0x05030072 | The specified P-VOL is a MainLU of a unified LU, which includes an LU with a capacity smaller than 1 GB. Check the status of the LU.                                            |
| DMER030073   | 0x05030073 | The specified P-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                                 |
| DMER030074   | 0x05030074 | The specified P-VOL has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                |
| DMER030075   | 0x05030075 | The specified P-VOL is the LU, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the LU.                                   |
| DMER030076   | 0x05030076 | Differential bit map is insufficient. Delete the unnecessary pairs.                                                                                                             |
| DMER030077   | 0x05030077 | When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.                                |
| DMER030078   | 0x05030078 | LU capacities of the P-VOL and V-VOL are different. Check the capacity of the LU.                                                                                               |
| DMER030079   | 0x05030079 | The specified V-VOL is an S-VOL of a Remote Replication pair.                                                                                                                   |
| DMER03007A   | 0x0503007A | Among the other V-VOLs of SnapShot, there are S-VOLs of Remote Replication. Check the status of the Remote Replication pair.                                                    |
| DMER03007B   | 0x0503007B | An unsupported command option was received. Check the specified value.                                                                                                          |
| DMER03007C   | 0x0503007C | The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.                                                                                           |
| DMER03007D   | 0x0503007D | There is no POOL LU at the specified POOL ID. Check the specified POOL ID.                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                               |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER03007E   | 0x0503007E | An instruction to create a pair was issued to a P-VOL, which has one or more pairs, specifying a POOL ID different from that has been assigned. Check the specified POOL ID.                                |
| DMER03007F   | 0x0503007F | The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified LU.                                                                                                  |
| DMER030080   | 0x05030080 | The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.                                                             |
| DMER030081   | 0x05030081 | The specified P-VOL is a SubLU of a unified LU. Check the status of the LU.                                                                                                                                 |
| DMER030082   | 0x05030082 | The specified P-VOL is a Volume Migration pair. Check the RAID level of the specified LU.                                                                                                                   |
| DMER030083   | 0x05030083 | The specified P-VOL is a ShadowImage pair. Check the attribute of the LU.                                                                                                                                   |
| DMER030084   | 0x05030084 | The specified P-VOL has been defined to the command device. Check the attribute of the LU.                                                                                                                  |
| DMER030085   | 0x05030085 | The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                                                          |
| DMER030086   | 0x05030086 | The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                                                          |
| DMER030087   | 0x05030087 | It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.                                                                                   |
| DMER030088   | 0x05030088 | The specified P-VOL is a MainLU of a unified LU, which includes an LU with a capacity smaller than 1 GB. Check the status of the LU.                                                                        |
| DMER030089   | 0x05030089 | The specified P-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                                                             |
| DMER03008A   | 0x0503008A | The specified P-VOL has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                            |
| DMER03008B   | 0x0503008B | The specified P-VOL is the LU, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the LU.                                                               |
| DMER03008C   | 0x0503008C | Differential bit map is insufficient. Delete the unnecessary pairs.                                                                                                                                         |
| DMER03008D   | 0x0503008D | When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.                                                            |
| DMER03008E   | 0x0503008E | LU capacities of the P-VOL and V-VOL are different. Check the capacity of the LU.                                                                                                                           |
| DMER03008F   | 0x0503008F | When creating a pair specifying a group ID, the specified group ID is already used for a ShadowImage pair. Check the specified group ID.                                                                    |
| DMER030090   | 0x05030090 | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                    |
| DMER030091   | 0x05030091 | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                           |
| DMER030092   | 0x05030092 | The P-VOL is in a status other than normal or regressive. Check the status of the LU.                                                                                                                       |
| DMER030093   | 0x05030093 | The used data POOL LU is in the status other than normal or regressive. Check the status of the LU.                                                                                                         |
| DMER030094   | 0x05030094 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                  |
| DMER030095   | 0x05030095 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                  |
| DMER030096   | 0x05030096 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                  |
| DMER030097   | 0x05030097 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                  |
| DMER030098   | 0x05030098 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                  |
| DMER030099   | 0x05030099 | There exist maximum number of pairs already. Delete the unnecessary pairs.                                                                                                                                  |
| DMER03009A   | 0x0503009A | There exist maximum number of pairs already. Delete the unnecessary pairs.                                                                                                                                  |
| DMER03009B   | 0x0503009B | The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                                    |
| DMER03009C   | 0x0503009C | The RAID group to which the target LU of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                            |
| DMER03009D   | 0x0503009D | The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                       |
| DMER03009E   | 0x0503009E | A P-VOL that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.                                      |
| DMER03009F   | 0x0503009F | An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal. |
| DMER0300A0   | 0x050300A0 | The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                      |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER0300A1   | 0x050300A1 | An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal. |
| DMER0300A2   | 0x050300A2 | The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                              |
| DMER0300A3   | 0x050300A3 | The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                        |
| DMER0300A4   | 0x050300A4 | The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                        |
| DMER0300A5   | 0x050300A5 | An LU whose DP optimization status is not Normal is included in the pair and its cascade pairs. Check the DP optimization status of the LUs which are included in the pairs.                                                       |
| DMER0300EF   | 0x050300EF | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                           |
| DMER0300F0   | 0x050300F0 | The micro program internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                             |
| DMER0300FA   | 0x050300FA | The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                                                           |
| DMER0300FB   | 0x050300FB | The RAID group to which the target LU of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                   |
| DMER031000   | 0x05031000 | The controller that controls the LU cannot be changed because pinned data exists. Retry after eliminating pinned data.                                                                                                             |
| DMER031001   | 0x05031001 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                         |
|              |            | The controller that controls the LU cannot be changed because of an insufficient segment size. Retry after waiting for a while.                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                           |
|              |            | The controller that controls the LU cannot be changed temporarily. Retry after waiting for a while.                                                                                                                                |
| DMER031002   | 0x05031002 | The operation to change LU is in progress. Retry after waiting for a while.                                                                                                                                                        |
| DMER031003   | 0x05031003 | There is no partition to which the current partition is to be changed. Retry after waiting for a while.                                                                                                                            |
| DMER031004   | 0x05031004 | The directory configuration is being changed. Reboot the subsystem.                                                                                                                                                                |
| DMER031005   | 0x05031005 | The change of a controller that controls the LU resulted in a time-out. Retry after waiting for a while.                                                                                                                           |
| DMER031090   | 0x05031090 | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                           |
| DMER031091   | 0x05031091 | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                  |
| DMER03109B   | 0x0503109B | The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                                                           |
| DMER03109C   | 0x0503109C | The RAID group to which the target LU of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                   |
| DMER032000   | 0x05032000 | The controller that controls the LU cannot be changed because pinned data exists. Retry after eliminating pinned data.                                                                                                             |
| DMER032001   | 0x05032001 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                         |
|              |            | The controller that controls the LU cannot be changed because of an insufficient segment size. Retry after waiting for a while.                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                           |
|              |            | The controller that controls the LU cannot be changed temporarily. Retry after waiting for a while.                                                                                                                                |
| DMER032002   | 0x05032002 | The operation to change LU is in progress. Retry after waiting for a while.                                                                                                                                                        |
| DMER032003   | 0x05032003 | There is no partition to which the current partition is to be changed. Retry after waiting for a while.                                                                                                                            |
| DMER032004   | 0x05032004 | The directory configuration is being changed. Reboot the subsystem.                                                                                                                                                                |
| DMER032005   | 0x05032005 | The change of a controller that controls the LU resulted in a time-out. Retry after waiting for a while.                                                                                                                           |
| DMER032090   | 0x05032090 | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                           |
| DMER032091   | 0x05032091 | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                  |
| DMER03209B   | 0x0503209B | The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                                                           |



| Message code | Error code | Message text/Recovery methods                                                                                                                                |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER050001   | 0x05050001 | The P-VOL is being quick formatted. Retry after the quick formatting is completed.                                                                           |
| DMER050002   | 0x05050002 | The P-VOL or S-VOL (including the unified LU(s)) is being quick formatted. Retry after the quick formatting is completed.                                    |
| DMER050003   | 0x05050003 | The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.                                                                              |
| DMER050004   | 0x05050004 | The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.                                                                              |
| DMER050005   | 0x05050005 | The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.                                                                              |
| DMER060001   | 0x05060001 | The S-VOL is in the S-VOL Disable mode. Cancel the access attribute.                                                                                         |
| DMER060002   | 0x05060002 | The P-VOL is in the S-VOL Disable mode (at the time of restoration). Check the attribute of the LU.                                                          |
| DMER060003   | 0x05060003 | The S-VOL Disable is specified for the P-VOL (at the time of a restoration only). Cancel the access attribute.                                               |
| DMER060004   | 0x05060004 | The S-VOL Disable is specified for the S-VOL. Cancel the access attribute.                                                                                   |
| DMER060005   | 0x05060005 | Resynchronization is directed to the ShadowImage pair whose S-VOL is specified as S-VOL Disable. Check the pair attribute of the LU.                         |
| DMER060006   | 0x05060006 | The S-VOL Disable is specified for the S-VOL (at the time of a restoration only). Check the pair attribute of the LU.                                        |
| DMER070001   | 0x05070001 | The P-VOL or S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                       |
| DMER070002   | 0x05070002 | The P-VOL is undergoing the forced restoration by means of parity (at the time of restoration). Retry after the restoration by means of parity is completed. |
| DMER070003   | 0x05070003 | The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.                                    |
| DMER070011   | 0x05070011 | The P-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                                |
| DMER070012   | 0x05070012 | The P-VOL is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.                              |
| DMER070021   | 0x05070021 | The P-VOL or data pool LU has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                |
| DMER070022   | 0x05070022 | The P-VOL is undergoing the forced restoration by means of parity (at the time of a restoration). Retry after parity correction is completed.                |
| DMER070023   | 0x05070023 | The data pool LU is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.                       |
| DMER080001   | 0x05080001 | More LUs than supportable ones were specified for LUNs of the P-VOL. Make sure of the number of the specified paired LU.                                     |
| DMER080002   | 0x05080002 | More LUs than supportable ones were specified for LUNs of the S-VOL. Make sure of the number of the specified paired LU.                                     |
| DMER080003   | 0x05080003 | The P-VOL is in the status other than normal and regressive. Check the status of the LU.                                                                     |
| DMER080004   | 0x05080004 | The S-VOL is in the status other than normal and regressive. Check the status of the LU.                                                                     |
| DMER080005   | 0x05080005 | The primary sequence number is different from the own Array ID. Check the Array ID.                                                                          |
| DMER080006   | 0x05080006 | The secondary sequence number is different from the own Array ID. Check the Array ID.                                                                        |
| DMER080007   | 0x05080007 | The primary port number is not supported. Check the specified port number.                                                                                   |
| DMER080008   | 0x05080008 | The secondary port number is not supported. Check the specified port number.                                                                                 |
| DMER080009   | 0x05080009 | The P-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the LU.                                                  |
| DMER08000A   | 0x0508000A | The S-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the LU.                                                  |
| DMER08000B   | 0x0508000B | The P-VOL is a Sub LU of a unified LU. Check the status of the LU.                                                                                           |
| DMER08000C   | 0x0508000C | The S-VOL is a Sub LU of a unified LU. Check the status of the LU.                                                                                           |
| DMER08000E   | 0x0508000E | The P-VOL is a Cache Residency LU. Check the status of the LU.                                                                                               |
| DMER08000F   | 0x0508000F | The S-VOL is a Cache Residency LU. Check the status of the LU.                                                                                               |
| DMER080010   | 0x05080010 | The P-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                   |
| DMER080011   | 0x05080011 | The S-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                   |
| DMER080012   | 0x05080012 | The P-VOL is a command device. Check the status of the LU.                                                                                                   |
| DMER080013   | 0x05080013 | The S-VOL is a command device. Check the status of the LU.                                                                                                   |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                        |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER080014   | 0x05080014 | The LUNs of the P-VOL and S-VOL are the same. Check the specified LU.                                                                                                                                                |
| DMER080016   | 0x05080016 | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.                                                                                                                                                           |
|              |            | The S-VOL is a volume of ShadowImage and in the pair status other than Split and Failure. Check the pair status.                                                                                                     |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>The specified pair is in a status other than Split, Split Pending and Failure. Check the pair status.                                                    |
| DMER080017   | 0x05080017 | The LU to be paired with the P-VOL is not an S-VOL. Check the specified LU.                                                                                                                                          |
| DMER080018   | 0x05080018 | The LUN of the P-VOL is higher than 512 (1,023). Make sure of the number of the specified paired LU.                                                                                                                 |
| DMER080019   | 0x05080019 | The LUN of the S-VOL is higher than 512 (1,023). Make sure of the number of the specified paired LU.                                                                                                                 |
| DMER08001A   | 0x0508001A | The primary sequence number is different from the own Array ID. Check the Array ID.                                                                                                                                  |
| DMER08001B   | 0x0508001B | The secondary sequence number is different from the own Array ID. Check the Array ID.                                                                                                                                |
| DMER08001C   | 0x0508001C | The primary port number is not supported. Check the specified port number.                                                                                                                                           |
| DMER08001D   | 0x0508001D | The secondary port number is not supported. Check the specified port number.                                                                                                                                         |
| DMER08001F   | 0x0508001F | The S-VOL is a volume of ShadowImage and in the pair status of Simplex or Failure. Check the pair status of the LU.                                                                                                  |
| DMER080020   | 0x05080020 | The LU to be paired with the P-VOL is not an S-VOL. Check the specified LU.                                                                                                                                          |
| DMER080021   | 0x05080021 | The status of the P-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                             |
| DMER080022   | 0x05080022 | The status of the S-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                             |
| DMER080023   | 0x05080023 | The P-VOL is a Sub LU of a unified LU. Check the status of the LU.                                                                                                                                                   |
| DMER080024   | 0x05080024 | The S-VOL is a Sub LU of a unified LU. Check the status of the LU.                                                                                                                                                   |
| DMER080026   | 0x05080026 | The P-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                                                                                |
| DMER080027   | 0x05080027 | The S-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                                                                                |
| DMER080028   | 0x05080028 | The P-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                                                                           |
| DMER080029   | 0x05080029 | The S-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                                                                           |
| DMER08002A   | 0x0508002A | The P-VOL is defined as a command device. Check the status of the LU.                                                                                                                                                |
| DMER08002B   | 0x0508002B | The S-VOL is defined as a command device. Check the status of the LU.                                                                                                                                                |
| DMER08002C   | 0x0508002C | The LUNs of the P-VOL and S-VOL are the same. Check the specified LU.                                                                                                                                                |
| DMER08002D   | 0x0508002D | The number of the LU to be paired is different. Check the specified LUN.                                                                                                                                             |
| DMER08002E   | 0x0508002E | The number of the LU to be paired is different. Check the specified LUN.                                                                                                                                             |
| DMER08002F   | 0x0508002F | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.                                                                                                                                                           |
|              |            | The pair status of the P-VOL/S-VOL is other than Simplex, Paired, and Synchronizing. Check the pair status of the LU.                                                                                                |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>The pair status of the P-VOL/S-VOL is other than Simplex, Paired, Paired Internally Synchronizing and Synchronizing. Check the pair status of the LU.    |
| DMER080030   | 0x05080030 | The LUN of the P-VOL is beyond the limits of support. Check the specified LUN.                                                                                                                                       |
| DMER080031   | 0x05080031 | The LUN of the S-VOL is beyond the limits of support. Check the specified LUN.                                                                                                                                       |
| DMER080032   | 0x05080032 | The pair attribute of the LU specified for a P-VOL is not a P-VOL. Check the specified LUN.                                                                                                                          |
| DMER080033   | 0x05080033 | The number of the LU to be paired is different. Check the specified LUN.                                                                                                                                             |
| DMER080034   | 0x05080034 | The primary sequence number is different from the Array ID. Check the specified primary sequence number.                                                                                                             |
| DMER080035   | 0x05080035 | The secondary sequence number is different from the Array ID. Check the specified secondary sequence number.                                                                                                         |
| DMER080036   | 0x05080036 | The primary port number is beyond the limits of support. Check the specified primary port number.                                                                                                                    |
| DMER080037   | 0x05080037 | The secondary port number is beyond the limits of support. Check the specified secondary port number.                                                                                                                |
| DMER080038   | 0x05080038 | A pair in the Failure (S-VOL Switch) status received an instruction to restore. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them. |
| DMER080039   | 0x05080039 | The specified pair is in the Failure (S-VOL Switch) status. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement and then resynchronize them.                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER08003A   | 0x0508003A | The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.                                                                                                                                                                                                                                                                                                                    |
| DMER08003B   | 0x0508003B | The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.                                                                                                                                                                                                                                                                                                                    |
| DMER08003C   | 0x0508003C | The group ID is out of appropriate range. Make sure of the specified group ID number.                                                                                                                                                                                                                                                                                                                                                            |
| DMER08003D   | 0x0508003D | The number of pairs having the same group ID exceeded 32. Make sure of the specified group ID number.                                                                                                                                                                                                                                                                                                                                            |
| DMER08003E   | 0x0508003E | The specified P-VOL/S-VOL is not specified to be grouped(Group ID suspension). Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                  |
| DMER08003F   | 0x0508003F | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>The P-VOL/S-VOL, which is the object of the batch suspension, is in a status other than Paired(Group ID suspension). Check the pair status of the LU.<br>Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>A pair that is in a status other than Paired or Paired Internally Synchronizing is included in the specified group. Check the pair status of LU in the group. |
| DMER080046   | 0x05080046 | The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER080047   | 0x05080047 | The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER080048   | 0x05080048 | The DM-LU was specified as S-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER08004B   | 0x0508004B | The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER08004C   | 0x0508004C | The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER08004D   | 0x0508004D | The DM-LU was specified as S-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER08004E   | 0x0508004E | Validity of the license expired. Purchase the license.                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER08004F   | 0x0508004F | Validity of the license expired. Purchase the license.                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER080050   | 0x05080050 | An LU, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                     |
| DMER080051   | 0x05080051 | An LU, for which a change of the cache partition(s) had been reserved, was specified as a S-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                     |
| DMER080052   | 0x05080052 | An LU, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                     |
| DMER080053   | 0x05080053 | An LU, for which a change of the cache partition(s) had been reserved, was specified as a S-VOL. Check the status of the LU.                                                                                                                                                                                                                                                                                                                     |
| DMER08005E   | 0x0508005E | The specified P-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                    |
| DMER08005F   | 0x0508005F | The specified S-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                    |
| DMER080060   | 0x05080060 | The specified P-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                    |
| DMER080061   | 0x05080061 | The specified S-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                    |
| DMER080064   | 0x05080064 | The specified MU# is used within the specified P-VOL. Check the specified MU number.                                                                                                                                                                                                                                                                                                                                                             |
| DMER080065   | 0x05080065 | One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                |
| DMER080066   | 0x05080066 | One or more volumes of special Failure are under the specified P-VOL. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                           |
| DMER080067   | 0x05080067 | One or more Failure pairs that are not readable/writable (Failure transition due to a failure during restoration) under the specified P-VOL. Check the pair status of the LU.                                                                                                                                                                                                                                                                    |
| DMER080068   | 0x05080068 | The group ID overlaps within the specified P-VOL at the time of creating the pair of which the group is specified. Make sure of the specified group ID number.                                                                                                                                                                                                                                                                                   |
| DMER080069   | 0x05080069 | The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not a S-VOL. Check the pair attribute of the LU.                                                                                                                                                                                                                                                                                        |
| DMER08006A   | 0x0508006A | The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                                                                                                                                                                                                                                                                                              |
| DMER08006B   | 0x0508006B | One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                |
| DMER08006C   | 0x0508006C | One or more Failure pairs that are not readable/writable (Failure transition due to a failure during the restoration) under the specified P-VOL. Check the pair status of the LU.                                                                                                                                                                                                                                                                |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                     |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER08006D   | 0x0508006D | The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not a S-VOL. Check the pair attribute of the LU.                         |
| DMER08006E   | 0x0508006E | The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                               |
| DMER08006F   | 0x0508006F | The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                               |
| DMER080070   | 0x05080070 | The specified MU# is used within the specified P-VOL. Check the specified MU number.                                                                                              |
| DMER080071   | 0x05080071 | One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                 |
| DMER080072   | 0x05080072 | One or more volumes of special Failure are under the specified P-VOL. Check the pair status of the LU.                                                                            |
| DMER080073   | 0x05080073 | One or more Failure pairs that are not readable/writable (Failure transition due to a failure during the restoration) under the specified P-VOL. Check the pair status of the LU. |
| DMER080074   | 0x05080074 | The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                               |
| DMER080075   | 0x05080075 | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                 |
| DMER080077   | 0x05080077 | The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                               |
| DMER080078   | 0x05080078 | The specified S-VOL is the reserved LU. Check the status of the LU.                                                                                                               |
| DMER080079   | 0x05080079 | The specified S-VOL is undergoing the migration and its status is Split or Failure. Check the pair status of the LU.                                                              |
| DMER080080   | 0x05080080 | The specified S-VOL is undergoing the migration and its status is Synchronizing or Split. Check the pair status of the LU.                                                        |
| DMER080081   | 0x05080081 | The specified P-VOL is the reserved LU. Check the pair status of the LU.                                                                                                          |
| DMER080082   | 0x05080082 | The specified S-VOL is the reserved LU. Check the pair status of the LU.                                                                                                          |
| DMER080083   | 0x05080083 | The specified S-VOL is undergoing the migration and its status is Synchronizing. Check the pair status of the LU.                                                                 |
| DMER080084   | 0x05080084 | The specified volume is undergoing the migration. Check the pair status of the LU.                                                                                                |
| DMER080085   | 0x05080085 | The specified P-VOL is undergoing the migration. Check the pair status of the LU.                                                                                                 |
| DMER080086   | 0x05080086 | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                        |
| DMER080087   | 0x05080087 | The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                        |
| DMER080088   | 0x05080088 | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                        |
| DMER080089   | 0x05080089 | The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                        |
| DMER08008A   | 0x0508008A | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                        |
| DMER08008B   | 0x0508008B | The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                        |
| DMER08008C   | 0x0508008C | When creating a pair specifying a group ID, the specified group ID is already used for a SnapShot pair. Check the specified group ID.                                             |
| DMER08008D   | 0x0508008D | The S-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.                                        |
| DMER08008E   | 0x0508008E | The S-VOL is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.                                                                        |
| DMER08008F   | 0x0508008F | An unsupported command option was received. Check the specified value.                                                                                                            |
| DMER080090   | 0x05080090 | The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the LU.                                                                                              |
| DMER080091   | 0x05080091 | The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the LU.                                                                                              |
| DMER080092   | 0x05080092 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                        |
| DMER080093   | 0x05080093 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                        |
| DMER080094   | 0x05080094 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                        |
| DMER080095   | 0x05080095 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                        |
| DMER080096   | 0x05080096 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                        |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                 |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER080097   | 0x05080097 | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                                                    |
| DMER080098   | 0x05080098 | An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the type of the remote array.                                                                      |
| DMER080099   | 0x05080099 | An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the type of the remote array.                                                                      |
| DMER08009A   | 0x0508009A | The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                                                    |
| DMER08009B   | 0x0508009B | One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                          |
| DMER08009C   | 0x0508009C | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.                                                                                                                                                                                    |
|              |            | The P-VOL or the S-VOL of the specified pair is a volume of another Remote Replication pair. Check the status of the LU.                                                                                                                      |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.                                                                                                                                                                                      |
|              |            | The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.                                                                                                                |
| DMER08009D   | 0x0508009D | One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                          |
| DMER08009E   | 0x0508009E | The specified pair is in the Split Pending status. Retry after the status becomes Split.                                                                                                                                                      |
| DMER08009F   | 0x0508009F | A pair in the Failure (S-VOL Switch) status received an instruction to resynchronize with Quick mode. Request that service personnel to replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them. |
| DMER0800A0   | 0x050800A0 | One or more Failure pairs that are not readable/writable under the specified P-VOL. Check the pair status of the LU.                                                                                                                          |
| DMER0800A1   | 0x050800A1 | The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                                    |
| DMER0800A2   | 0x050800A2 | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.                                                                                                                                                                                    |
|              |            | The P-VOL or the S-VOL of the specified pair has been cascaded with a Remote Replication pair. Check the status of the Remote Replication pair.                                                                                               |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.                                                                                                                                                                                      |
|              |            | The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.                                                                                                                |
| DMER0800A3   | 0x050800A3 | The P-VOL or the S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                                                                                                    |
| DMER0800A4   | 0x050800A4 | The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.                                                                                                                     |
| DMER0800A5   | 0x050800A5 | The disk drives that configure a RAID group to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                     |
| DMER0800A6   | 0x050800A6 | The disk drives that configure a RAID group to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                     |
| DMER0800A7   | 0x050800A7 | A pair that is in a status other than Paired, Paired Internally Synchronizing or Synchronizing is included in the specified group. Check the pair status of LU in the group.                                                                  |
| DMER0800A8   | 0x050800A8 | A pair that shares the P-VOL with another pair that is in Failure status that are not readable/writable is included in the specified group. Check the pair status of LU in the group.                                                         |
| DMER0800A9   | 0x050800A9 | The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                                    |
| DMER0800AA   | 0x050800AA | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.                                                                                                                                                                                    |
|              |            | A pair that the P-VOL or the S-VOL has been cascaded with a Remote Replication pair is included in the specified group. Check the status of the Remote Replication pair.                                                                      |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.                                                                                                                                                                                      |
|              |            | A pair that the S-VOL has been cascaded with a Remote Replication pair is included in the specified group. Check the status of the Remote Replication pair.                                                                                   |
| DMER0800AB   | 0x050800AB | A pair that the P-VOL or the S-VOL has not undergone the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                  |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER0800AC   | 0x050800AC | A pair that the S-VOL is undergoing the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.                       |
| DMER0800AD   | 0x050800AD | A pair that the P-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.                               |
| DMER0800AE   | 0x050800AE | A pair that the S-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.                               |
| DMER0800AF   | 0x050800AF | One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                           |
| DMER0800B0   | 0x050800B0 | The P-VOL or the S-VOL of the specified pair is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.                                                  |
| DMER0800B1   | 0x050800B1 | The specified pair is in the Split Pending status. Check the pair status of the LU.                                                                                                            |
| DMER0800B2   | 0x050800B2 | The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                  |
| DMER0800B3   | 0x050800B3 | An LU that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.                           |
| DMER0800B4   | 0x050800B4 | The specified pair is in a status other than Split and Failure. Check the pair status.                                                                                                         |
| DMER0800B5   | 0x050800B5 | The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                    |
| DMER0800B6   | 0x050800B6 | The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                    |
| DMER0800B7   | 0x050800B7 | The LU that was specified as S-VOL does not exist. Check the specified LUN.                                                                                                                    |
| DMER0800B8   | 0x050800B8 | The LU that was specified as S-VOL does not exist. Check the specified LUN.                                                                                                                    |
| DMER0800B9   | 0x050800B9 | DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      |
| DMER0800BA   | 0x050800BA | DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      |
| DMER0800BB   | 0x050800BB | DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      |
| DMER0800BC   | 0x050800BC | DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      |
| DMER0800BD   | 0x050800BD | The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is an LU created in DP pool. Specify an LU other than the LU created in DP pool to S-VOL.                   |
| DMER0800BE   | 0x050800BE | The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is an LU created in DP pool. Specify an LU other than the LU created in DP pool to S-VOL.                   |
| DMER0800BF   | 0x050800BF | The specified S-VOL is an LU created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair. |
| DMER0800C0   | 0x050800C0 | The specified S-VOL is an LU created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair. |
| DMER0800C1   | 0x050800C1 | The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.                                                                                |
| DMER0800C2   | 0x050800C2 | The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.                                                                                |
| DMER0800C3   | 0x050800C3 | The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.                                                                                |
| DMER0800C4   | 0x050800C4 | The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.                                                                                |
| DMER0800C5   | 0x050800C5 | Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         |
| DMER0800C6   | 0x050800C6 | Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         |
| DMER0800C7   | 0x050800C7 | Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         |
| DMER0800C8   | 0x050800C8 | Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         |
| DMER0800C9   | 0x050800C9 | The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.                                                                            |
| DMER0800CA   | 0x050800CA | The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.                                                                            |
| DMER0800CB   | 0x050800CB | The specified S-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.                                                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                    |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER0800CC   | 0x050800CC | The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.                                                                                                                                                                                                                              |
| DMER090001   | 0x05090001 | The specified P-VOL is normal or other than regressed. Check the status of the LU.                                                                                                                                                                                                                                                               |
| DMER090002   | 0x05090002 | The specified P-VOL has been set to the current Cache Residency LU. Check the attribute of the LU.                                                                                                                                                                                                                                               |
| DMER090003   | 0x05090003 | The specified P-VOL has been set to the reserved Cache Residency LU. Check the attribute of the LU.                                                                                                                                                                                                                                              |
| DMER090004   | 0x05090004 | The specified P-VOL has been defined to the command device. Check the attribute of the LU.                                                                                                                                                                                                                                                       |
| DMER090005   | 0x05090005 | The accepted sequence number is different from the serial number. Check the serial number.                                                                                                                                                                                                                                                       |
| DMER090006   | 0x05090006 | Both of the two paths are abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                |
| DMER090007   | 0x05090007 | The specified P-VOL is a Sub LU of a unified LU. Check the attribute of the LU.                                                                                                                                                                                                                                                                  |
| DMER090009   | 0x05090009 | The status of the Remote Replication pair of the specified P-VOL is other than Simplex. Check the pair status of the LU.                                                                                                                                                                                                                         |
| DMER09000A   | 0x0509000A | The specified P-VOL is a ShadowImage pair. Check the attribute of the LU.                                                                                                                                                                                                                                                                        |
| DMER09000B   | 0x0509000B | The specified P-VOL is a SnapShot V-VOL. Check the attribute of the LU.                                                                                                                                                                                                                                                                          |
| DMER09000C   | 0x0509000C | The group ID is beyond the limits (more than 16) of support. Check the group ID.                                                                                                                                                                                                                                                                 |
| DMER09000D   | 0x0509000D | The pair status of the specified P-VOL is other than Split or Failure. Check the pair status of the LU.                                                                                                                                                                                                                                          |
| DMER09000E   | 0x0509000E | The specified P-VOL status is normal or other than regressed. Check the status of the LU.                                                                                                                                                                                                                                                        |
| DMER09000F   | 0x0509000F | The specified S-VOL is not a pair target LUN. Check the LUN of the S-VOL.                                                                                                                                                                                                                                                                        |
| DMER090010   | 0x05090010 | The accepted sequence number is different from the serial number. Check the serial number.                                                                                                                                                                                                                                                       |
| DMER090011   | 0x05090011 | Both of the two paths are abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                |
| DMER090012   | 0x05090012 | When the unit of pair is specified, the pair status of the specified P-VOL is other than Synchronizing and Paired. Check the pair status of the LU.                                                                                                                                                                                              |
| DMER090013   | 0x05090013 | The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                                                                                                                                       |
| DMER090014   | 0x05090014 | The accepted sequence number is different from the serial number. Check the serial number.                                                                                                                                                                                                                                                       |
| DMER090015   | 0x05090015 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                     |
| DMER090016   | 0x05090016 | When the unit of pair is specified, the specified S-VOL is not a pair target LUN. Check the LUN of the specified S-VOL.                                                                                                                                                                                                                          |
| DMER090017   | 0x05090017 | The accepted sequence number is different from the serial number. Check the serial number.                                                                                                                                                                                                                                                       |
| DMER090018   | 0x05090018 | The S-VOL pair cancellation instructions was issued to the P-VOL or pair cancellation instructions was issued to the S-VOL. Check the pair attribute of the LU.                                                                                                                                                                                  |
| DMER090019   | 0x05090019 | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>This operation cannot be executed due to lack of resources. Retry after waiting for a while. |
| DMER090020   | 0x05090020 | The pool LU is not defined. Define the pool LU and retry.                                                                                                                                                                                                                                                                                        |
| DMER090021   | 0x05090021 | The specified fence level is STATUS. Make sure of the specified fence level.                                                                                                                                                                                                                                                                     |
| DMER090022   | 0x05090022 | The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                                                                                                                                       |
| DMER090023   | 0x05090023 | The internal pair status of the specified P-VOL is [under pair deletion]. Check the pair status of the LU.                                                                                                                                                                                                                                       |
| DMER090025   | 0x05090025 | The forced blockade of a P-VOL was accepted. The forced blockade of a P-VOL is not supported.                                                                                                                                                                                                                                                    |
| DMER090026   | 0x05090026 | The type of the side file release is other than ordinary splitting. Check the specified value.                                                                                                                                                                                                                                                   |
| DMER090027   | 0x05090027 | The S-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                                                                                                                                           |
| DMER090029   | 0x05090029 | The S-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                                                                                                                                           |
| DMER09002A   | 0x0509002A | The P-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                                                                                                                                           |
| DMER09002B   | 0x0509002B | When the unit of pair is specified, the pair status of the specified S-VOL is Simplex or Synchronizing. Check the pair status of the LU.                                                                                                                                                                                                         |
| DMER09002C   | 0x0509002C | The accepted sequence number is different from the serial number. Check the serial number.                                                                                                                                                                                                                                                       |
| DMER09002D   | 0x0509002D | The specified MU number is beyond the limits (0 to13) of support. Check the specified MU number.                                                                                                                                                                                                                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                     |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER090030   | 0x05090030 | The S-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                            |
| DMER090032   | 0x05090032 | The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified LU.                                                                                                                        |
| DMER090036   | 0x05090036 | The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.                                                                                                                          |
| DMER090037   | 0x05090037 | The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.                                                                                          |
| DMER090038   | 0x05090038 | There is no vacancy in the generation bits. Retry after waiting for a while.                                                                                                                                                      |
| DMER090039   | 0x05090039 | There is one or more pair(s) in the status of [under execution of remote SnapShot split] in the target group. Check the pair status of each LU in the target group. It is required to wait until the process is completed.        |
| DMER09003A   | 0x0509003A | There is one or more pair(s) in the status of [under pair splitting] in the target group. Check the pair status of each LU in the target group. It is required to wait until the process is completed.                            |
| DMER09003C   | 0x0509003C | There is one or more pair(s) in the status of [under pair deletion] in the target group. Check the pair status of each LU in the target group. It is required to wait until the process is completed.                             |
| DMER09003D   | 0x0509003D | The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.                                                                                                                          |
| DMER09003E   | 0x0509003E | The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.                                                                                          |
| DMER09003F   | 0x0509003F | There is no pair, which is in the Paired status, in the target group. Check the pair status of each LU in the target group.                                                                                                       |
| DMER090042   | 0x05090042 | When the unit of pair is specified, the pair status of the specified pair is Split (no reading/writing allowed). Check the pair status.                                                                                           |
| DMER090044   | 0x05090044 | When the unit of group is specified, there is one or more pair(s) placed in the Split status (no reading/writing allowed) in the group. Check the pair status of each LU in the target group.                                     |
| DMER090045   | 0x05090045 | When the unit of group is specified, there is no pair that is in the Paired, Split, or Failure status in the group. Check the pair status of each LU in the target group.                                                         |
| DMER090046   | 0x05090046 | When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the LU. It is required to wait until the process is completed.                     |
| DMER090047   | 0x05090047 | The specified P-VOL has the incomplete DDCB. Check the status of the LU.                                                                                                                                                          |
| DMER090048   | 0x05090048 | The specified P-VOL has unwritten data. Contact the service personnel.                                                                                                                                                            |
| DMER090049   | 0x05090049 | When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair deletion]. Check the pair status of the LU. It is required to wait until the process is completed.                      |
| DMER09004B   | 0x0509004B | When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the LU. It is required to wait until the process is completed. |
| DMER09004C   | 0x0509004C | When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each LU in the target group.                                             |
| DMER09004D   | 0x0509004D | The DM-LU is not defined. Define the DM-LU.                                                                                                                                                                                       |
| DMER09004E   | 0x0509004E | The specified P-VOL has been set to the DM-LU. Check the attribute of the LU.                                                                                                                                                     |
| DMER09004F   | 0x0509004F | Validity of the license expired. Purchase the license.                                                                                                                                                                            |
| DMER090050   | 0x05090050 | When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair deletion] in the group. Check the pair status of each LU in the target group.                                              |
| DMER090052   | 0x05090052 | When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each LU in the target group.                         |
| DMER090053   | 0x05090053 | When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the target group. Check the pair status of each LU in the target group.                                                 |
| DMER090054   | 0x05090054 | The pair cancellation instructions was executed for the range that was not supported. Check the specified value.                                                                                                                  |
| DMER090055   | 0x05090055 | When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the LU. It is required to wait until the process is completed.                     |
| DMER090057   | 0x05090057 | When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the LU. It is required to wait until the process is completed. |
| DMER090059   | 0x05090059 | When the unit of pair is specified, the internal status of the pair of the specified S-VOL is Busy. Check the pair status of the LU.                                                                                              |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                             |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER09005A   | 0x0509005A | When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each LU in the target group.                                     |
| DMER09005C   | 0x0509005C | When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each LU in the target group.                 |
| DMER09005E   | 0x0509005E | When the unit of group is specified, there is one or more pair(s) placed in the Busy status in the group. Check the pair status of each LU in the target group.                                                           |
| DMER090068   | 0x05090068 | There is the S-VOL pair whose direction is not correct in the indicated group. Check the group ID.                                                                                                                        |
| DMER090069   | 0x05090069 | The partition to which the LU belongs is being changed to the other directory. Retry after waiting for a while.                                                                                                           |
| DMER09006B   | 0x0509006B | There is no pair, which is in the Paired status, in the target group. Check the pair status of each LU in the target group.                                                                                               |
| DMER09006C   | 0x0509006C | The subsystem has not been rebooted after the Remote Replication option was unlocked. Reboot the subsystem.                                                                                                               |
| DMER09006D   | 0x0509006D | The specified P-VOL is a unified LU including an LU with a capacity less than 1 GB. Check the attribute of the LU.                                                                                                        |
| DMER09006E   | 0x0509006E | The specified P-VOL is the pool LU. Check the attribute of the LU.                                                                                                                                                        |
| DMER09006F   | 0x0509006F | The pool LU status is normal or other than regressed. Check the status of the pool LU.                                                                                                                                    |
| DMER090070   | 0x05090070 | The pool LU is undergoing the forced parity correction. Check the status of the pool LU.                                                                                                                                  |
| DMER090071   | 0x05090071 | It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete unnecessary pairs.                                                                                                     |
| DMER090072   | 0x05090072 | The remote SnapShot split request was accepted. Check the firmware version.                                                                                                                                               |
| DMER090073   | 0x05090073 | The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL on both local and remote arrays.                                                                 |
| DMER090074   | 0x05090074 | The suspension command was accepted with a specification of the unit of pair. The specification of the unit of pair is not supported.                                                                                     |
| DMER090075   | 0x05090075 | The specified P-VOL is a unified LU whose component LUs include an LU for which the format operation is being performed. Check the attribute of the LU.                                                                   |
| DMER090076   | 0x05090076 | The specified P-VOL is being formatted. Check the attribute of the LU.                                                                                                                                                    |
| DMER090077   | 0x05090077 | The state of the forced parity correction for the specified P-VOL is Uncorrected or Uncorrected 2. Check the status of the LU.                                                                                            |
| DMER090078   | 0x05090078 | The specified P-VOL has not undergone the forced parity correction. Retry it after executing the forced parity correction.                                                                                                |
| DMER09007B   | 0x0509007B | There is one or more pair(s) in the status of Split or Failure of [under pair deletion] in the target group. Check the pair status of the LU. It is required to wait until the process is completed.                      |
| DMER09007C   | 0x0509007C | The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                                                                                    |
| DMER09007D   | 0x0509007D | The pool LU status is normal or other than regressed. Check the status of the pool LU.                                                                                                                                    |
| DMER09007E   | 0x0509007E | The pool LU is undergoing the forced parity correction. Retry after waiting for a while.                                                                                                                                  |
| DMER09007F   | 0x0509007F | There is one or more P-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each LU in the target group.                                |
| DMER090080   | 0x05090080 | There is one or more P-VOL(s), status is normal or other than regressed, in the target group. Check the status of each LU in the target group.                                                                            |
| DMER090081   | 0x05090081 | There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each LU in the target group.                                           |
| DMER090082   | 0x05090082 | There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each LU in the target group. |
| DMER090083   | 0x05090083 | There is no pair, which is in the Split or Failure status, in the target group. Check the pair status of each LU in the target group.                                                                                     |
| DMER090084   | 0x05090084 | When a pair is created in the new group, the cycle time that has been set is less than [30 x number of groups] seconds. Check the cycle time that has been set.                                                           |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                         |
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| DMER090085   | 0x05090085 | When the unit of pair is specified, the S-VOL of the target pair has not completed the resynchronization after it accepted the resynchronization command. Check the Remote Replication pair status of the remote array.                               |
| DMER090086   | 0x05090086 | When the unit of group is specified, there is one or more S-VOL(s), which has not completed the resynchronization after it accepted the resynchronization command, in the target group. Check the Remote Replication pair status of the remote array. |
| DMER090087   | 0x05090087 | There are one or more pairs in the status of [under pair splitting] or [under pair competing] in the group. Retry after waiting for a while.                                                                                                          |
| DMER090088   | 0x05090088 | The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                                                   |
| DMER090089   | 0x05090089 | The specified P-VOL is undergoing the migration. Check the pair status of the LU.                                                                                                                                                                     |
| DMER09008A   | 0x0509008A | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                            |
| DMER09008B   | 0x0509008B | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                            |
| DMER09008C   | 0x0509008C | There are one or more Remote Replication P-VOLs corresponding to a RAID group that belongs to the group concerned and the disk drives that configure the RAID group have been spun down. Check the status of the RAID group.                          |
| DMER09008D   | 0x0509008D | The primary pool ID is beyond the limits of supported. Check the pool ID.                                                                                                                                                                             |
| DMER09008E   | 0x0509008E | The secondary pool ID is beyond the limits of supported. Check the pool ID.                                                                                                                                                                           |
| DMER09008F   | 0x0509008F | The specified pool ID differs from the pool ID in use. Check the pool ID.                                                                                                                                                                             |
| DMER090090   | 0x05090090 | Swap pair has been issued to the Remote Replication pair with AMS500 or AMS1000. The swap command is not supported in this configuration.                                                                                                             |
| DMER090091   | 0x05090091 | The Swap operation was received in the P-VOL. Check the pair attribute of the LU.                                                                                                                                                                     |
| DMER090092   | 0x05090092 | The Swap operation was received by specifying the pair unit. Please confirm the operation and try again.                                                                                                                                              |
| DMER090093   | 0x05090093 | The LU whose pair status is not Takeover exists in the target group. Check the pair status of each LU in the target group.                                                                                                                            |
| DMER090094   | 0x05090094 | The LU whose pair status is Busy exists in the target group. Check the pair status of each LU in the target group.                                                                                                                                    |
| DMER090095   | 0x05090095 | The LU whose pair status is Takeover and Delete exists in the target group. Check the pair status of each LU in the target group.                                                                                                                     |
| DMER090096   | 0x05090096 | The number of the unused bit numbers is insufficient. Retry after waiting for a while.                                                                                                                                                                |
| DMER090097   | 0x05090097 | The pool LU status is normal or other than regressed. Check the status of the pool LU.                                                                                                                                                                |
| DMER090098   | 0x05090098 | The pool LU is undergoing the forced parity correction. Check the status of the pool LU.                                                                                                                                                              |
| DMER090099   | 0x05090099 | There is one or more S-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each LU in the target group.                                                            |
| DMER09009A   | 0x0509009A | There is one or more S-VOL(s), status is normal or other than regressed, in the target group. Check the status of each LU in the target group.                                                                                                        |
| DMER09009B   | 0x0509009B | There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each LU in the target group.                                                                       |
| DMER09009C   | 0x0509009C | There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each LU in the target group.                             |
| DMER09009D   | 0x0509009D | There exists an S-VOL of a Remote Replication pair, the RAID group which belongs to is in Power Saving mode. Check the status of LUs in the group.                                                                                                    |
| DMER09009E   | 0x0509009E | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                                     |
| DMER09009F   | 0x0509009F | The specified secondary sequence number does not match with the remote side subsystem serial number. Check the specified command device number.                                                                                                       |
| DMER0900A0   | 0x050900A0 | The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                      |
| DMER0900A1   | 0x050900A1 | The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                      |
| DMER0900A2   | 0x050900A2 | The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                          |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER0900A3   | 0x050900A3 | The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                          |
| DMER0900A4   | 0x050900A4 | An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal.                                                     |
| DMER0900A5   | 0x050900A5 | An LU that belongs to the RAID group that indicates a status other than Normal is included in the group to which the specified pair belongs. Retry after the RAID group status becomes Normal.                                                                                         |
| DMER0900A6   | 0x050900A6 | An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs that belong to the same group as the specified pair. Retry after the RAID group status becomes Normal.                                               |
| DMER0900A7   | 0x050900A7 | The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                                  |
| DMER0900A8   | 0x050900A8 | The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                                                                            |
| DMER0A0001   | 0x050A0001 | The Volume Migration optional feature is invalid. Install the Volume Migration optional feature.                                                                                                                                                                                       |
| DMER0A0002   | 0x050A0002 | The temporary key of the Volume Migration was expired. Purchase the license.                                                                                                                                                                                                           |
| DMER0A0003   | 0x050A0003 | The status of the specified P-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                                                                                     |
| DMER0A0004   | 0x050A0004 | The status of the specified S-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                                                                                     |
| DMER0A0005   | 0x050A0005 | The status of the parity correction of the specified P-VOL is Uncorrected or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.                                  |
| DMER0A0006   | 0x050A0006 | The status of the parity correction of the specified S-VOL is correcting, waiting correction, Uncorrected, or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation. |
| DMER0A0007   | 0x050A0007 | The specified P-VOL has created a Volume Migration pair. Check the pair status of the LU.                                                                                                                                                                                              |
| DMER0A0008   | 0x050A0008 | The specified S-VOL has created a Volume Migration pair. Check the pair status of the LU.                                                                                                                                                                                              |
| DMER0A0009   | 0x050A0009 | The specified P-VOL has created a ShadowImage pair. Check the pair status of the LU.                                                                                                                                                                                                   |
| DMER0A000A   | 0x050A000A | The specified S-VOL has created a ShadowImage pair. Check the pair status of the LU.                                                                                                                                                                                                   |
| DMER0A000B   | 0x050A000B | The specified P-VOL is a command device. Check the status of the LU.                                                                                                                                                                                                                   |
| DMER0A000C   | 0x050A000C | The specified S-VOL is a command device. Check the status of the LU.                                                                                                                                                                                                                   |
| DMER0A000D   | 0x050A000D | The specified P-VOL has created a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                            |
| DMER0A000E   | 0x050A000E | The specified S-VOL has created a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                            |
| DMER0A000F   | 0x050A000F | The specified P-VOL has created a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                            |
| DMER0A0010   | 0x050A0010 | The specified S-VOL has created a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                            |
| DMER0A0011   | 0x050A0011 | The P-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                      |
| DMER0A0012   | 0x050A0012 | The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                      |
| DMER0A0013   | 0x050A0013 | The specified P-VOL has created a SnapShot pair. Check the pair status of the LU.                                                                                                                                                                                                      |
| DMER0A0014   | 0x050A0014 | The specified S-VOL has created a SnapShot pair. Check the pair status of the LU.                                                                                                                                                                                                      |
| DMER0A0015   | 0x050A0015 | The specified P-VOL is the pool LU. Check the pair status of the LU.                                                                                                                                                                                                                   |
| DMER0A0016   | 0x050A0016 | The specified S-VOL is the pool LU. Check the pair status of the LU.                                                                                                                                                                                                                   |
| DMER0A0017   | 0x050A0017 | The specified P-VOL is being quick formatted. Retry after the quick formatting is completed.                                                                                                                                                                                           |
| DMER0A0018   | 0x050A0018 | The specified S-VOL is being quick formatted. Retry after the quick formatting is completed.                                                                                                                                                                                           |
| DMER0A0019   | 0x050A0019 | The specified P-VOL is the DM-LU. Check the status of the LU.                                                                                                                                                                                                                          |
| DMER0A001A   | 0x050A001A | The specified S-VOL is the DM-LU. Check the status of the LU.                                                                                                                                                                                                                          |
| DMER0A001B   | 0x050A001B | The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                                                                   |
| DMER0A001C   | 0x050A001C | The specified P-VOL has unwritten data. Check the status of the LU.                                                                                                                                                                                                                    |
| DMER0A001D   | 0x050A001D | The pair cannot be allocated the differential bit map. Split the unnecessary pairs.                                                                                                                                                                                                    |
| DMER0A001E   | 0x050A001E | The specified P-VOL is a SubLU of a unified LU. Check the status of the LU.                                                                                                                                                                                                            |
| DMER0A001F   | 0x050A001F | The specified S-VOL is a SubLU of a unified LU. Check the status of the LU.                                                                                                                                                                                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER0A0020   | 0x050A0020 | The size of the specified P-VOL and the S-VOL are not the same. Specify an LU that the same size.                                                                                                                                                                                                                                                                                                                                       |
| DMER0A0021   | 0x050A0021 | The DIRs in charge of the specified P-VOL and the S-VOL are not the same. Specify an LU that belongs to the same DIR.                                                                                                                                                                                                                                                                                                                   |
| DMER0A0022   | 0x050A0022 | The LUNs of the specified P-VOL and S-VOL are the same. Check the specified LUN.                                                                                                                                                                                                                                                                                                                                                        |
| DMER0A0023   | 0x050A0023 | There exist maximum number of pairs already (included ShadowImage pairs). Split the unnecessary pairs.                                                                                                                                                                                                                                                                                                                                  |
| DMER0A0024   | 0x050A0024 | The specified P-VOL is the LU, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.                                                                                                                                                                                                                                                                                               |
| DMER0A0025   | 0x050A0025 | The specified S-VOL is the LU, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.                                                                                                                                                                                                                                                                                               |
| DMER0A0026   | 0x050A0026 | The RAID group of the specified P-VOL and S-VOL are the same. Specify a different RAID group.                                                                                                                                                                                                                                                                                                                                           |
| DMER0A0027   | 0x050A0027 | The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                     |
| DMER0A0028   | 0x050A0028 | The specified S-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                     |
| DMER0A0029   | 0x050A0029 | The access level of the specified S-VOL is other than the ordinary one. Check the access level of the LU.                                                                                                                                                                                                                                                                                                                               |
| DMER0A002C   | 0x050A002C | The specified MU number is 8 or higher. Make sure of the specified MU number.                                                                                                                                                                                                                                                                                                                                                           |
| DMER0A002D   | 0x050A002D | The specified primary port number is beyond the limits of support. Check the specified primary port number.                                                                                                                                                                                                                                                                                                                             |
| DMER0A002E   | 0x050A002E | The specified secondary port number is beyond the limits of support. Check the specified secondary port number.                                                                                                                                                                                                                                                                                                                         |
| DMER0A002F   | 0x050A002F | The specified primary sequence number is different from the own serial number. Check the specified primary sequence number.                                                                                                                                                                                                                                                                                                             |
| DMER0A0030   | 0x050A0030 | The specified secondary sequence number is different from the own serial number. Check the specified secondary sequence number.                                                                                                                                                                                                                                                                                                         |
| DMER0A0031   | 0x050A0031 | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.<br>The pair concerned is the one that the instruction to start the migration was issued by Navigator or HiCommand. Check the owner ID of the specified pair.<br>Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.<br>The pair concerned is the one that the instruction to start the migration was issued by Navigator etc. Check the owner ID of the specified pair. |
| DMER0A0032   | 0x050A0032 | The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                                                                                                                                                                                                              |
| DMER0A0033   | 0x050A0033 | The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                                                                                                                                                                                                              |
| DMER0A0034   | 0x050A0034 | The Migration status is [data is being copied], [data copy fails], or [data copy is completed]. Check the Migration status.                                                                                                                                                                                                                                                                                                             |
| DMER0A0035   | 0x050A0035 | The Migration status is [access path is being switched] or [access path switching fails]. Check the Migration status.                                                                                                                                                                                                                                                                                                                   |
| DMER0A0036   | 0x050A0036 | The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                                                                                                           |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                        |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER810001   | 0x05810001 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               |
| DMER810002   | 0x05810002 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER810003   | 0x05810003 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER810004   | 0x05810004 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER81000A   | 0x0581000A | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                            |
| DMER81000F   | 0x0581000F | The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                                                             |
| DMER81002C   | 0x0581002C | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER81002D   | 0x0581002D | The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                   |
| DMER81002E   | 0x0581002E | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                              |
| DMER81002F   | 0x0581002F | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                      |
| DMER810030   | 0x05810030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                               |
| DMER810031   | 0x05810031 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                     |
| DMER810033   | 0x05810033 | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                     |
| DMER810034   | 0x05810034 | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                           |
| DMER810035   | 0x05810035 | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                 |
| DMER810036   | 0x05810036 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                                                                                                                                                           |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                                                                                                                                                             |
|              |            | The process is in progress. Retry after waiting for a while. In case that the RAID group to which the LU that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.                                                                                                                                                      |
| DMER810037   | 0x05810037 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                                                           |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                                                             |
|              |            | The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                                                                                                  |
| DMER810038   | 0x05810038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               |
| DMER810039   | 0x05810039 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER81003A   | 0x0581003A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                                                           |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                                                             |
|              |            | The remote array is busy. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                           |
| DMER81003E   | 0x0581003E | The S-VOL command is receiving a command. Retry after waiting.                                                                                                                                                                                                                                                                                                       |
| DMER810042   | 0x05810042 | The capacity is beyond the limits of support. Eliminate unnecessary pairs of the remote array.                                                                                                                                                                                                                                                                       |
| DMER810058   | 0x05810058 | The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                                                                                                                    |
| DMER810060   | 0x05810060 | The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           |
| DMER810061   | 0x05810061 | The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           |
| DMER810062   | 0x05810062 | The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           |
| DMER810063   | 0x05810063 | The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           |
| DMER8100D4   | 0x058100D4 | The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                        |
| DMER8100D9   | 0x058100D9 | The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER8100E0   | 0x058100E0 | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                |
| DMER8100E5   | 0x058100E5 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                             |
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| DMER8100E8   | 0x058100E8 | The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                                                        |
| DMER811001   | 0x05811001 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                                    |
| DMER811002   | 0x05811002 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER811003   | 0x05811003 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER811004   | 0x05811004 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER81100A   | 0x0581100A | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                 |
| DMER81100F   | 0x0581100F | The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                                                                                                  |
| DMER81102C   | 0x0581102C | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER81102D   | 0x0581102D | The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                        |
| DMER81102E   | 0x0581102E | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                                   |
| DMER81102F   | 0x0581102F | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                           |
| DMER811030   | 0x05811030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                                                                    |
| DMER811031   | 0x05811031 | The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                                                                                                                                                       |
| DMER811033   | 0x05811033 | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                          |
| DMER811034   | 0x05811034 | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                |
| DMER811035   | 0x05811035 | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                                      |
| DMER811036   | 0x05811036 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The process is in progress. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The process is in progress. Retry after waiting for a while. In case that the RAID group to which the LU that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. |
| DMER811037   | 0x05811037 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The process is in progress. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                             |
| DMER811038   | 0x05811038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                                    |
| DMER811039   | 0x05811039 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER81103A   | 0x0581103A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The process is in progress. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The remote array is busy. Retry after waiting for a while.                                                                                                                                                      |
| DMER81103E   | 0x0581103E | The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                |
| DMER811042   | 0x05811042 | The capacity is beyond the limits of support. Delete unnecessary pairs of the remote array.                                                                                                                                                                                                                                                                                                               |
| DMER811058   | 0x05811058 | The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                                                                                                                                                         |
| DMER8110D4   | 0x058110D4 | The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                                                             |
| DMER8110E0   | 0x058110E0 | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                                                     |
| DMER8110E5   | 0x058110E5 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                                   |
| DMER8110E8   | 0x058110E8 | The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                                                        |
| DMER812001   | 0x05812001 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                                    |
| DMER812002   | 0x05812002 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER812003   | 0x05812003 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |
| DMER812004   | 0x05812004 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                       |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER81200A   | 0x0581200A | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                           |
| DMER81200F   | 0x0581200F | The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                            |
| DMER81202C   | 0x0581202C | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
| DMER81202D   | 0x0581202D | The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                  |
| DMER81202E   | 0x0581202E | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                             |
| DMER81202F   | 0x0581202F | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                     |
| DMER812030   | 0x05812030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                              |
| DMER812031   | 0x05812031 | The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                                                                                 |
| DMER812033   | 0x05812033 | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                    |
| DMER812034   | 0x05812034 | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                          |
| DMER812035   | 0x05812035 | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                |
| DMER812036   | 0x05812036 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                                                                                                                          |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                                                                                                                            |
|              |            | The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.                                                                                                                                     |
| DMER812037   | 0x05812037 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                          |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                            |
|              |            | The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                                                                 |
| DMER812038   | 0x05812038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                              |
| DMER812039   | 0x05812039 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
| DMER81203A   | 0x0581203A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                          |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                            |
|              |            | The remote array is busy. Retry after waiting for a while.                                                                                                                                                                                                                                                                          |
| DMER81203E   | 0x0581203E | The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                          |
| DMER8120D4   | 0x058120D4 | The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                       |
| DMER8120E0   | 0x058120E0 | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                               |
| DMER8120E5   | 0x058120E5 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                          |
| DMER8120E8   | 0x058120E8 | The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                  |
| DMER813001   | 0x05813001 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                              |
| DMER813002   | 0x05813002 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
| DMER813003   | 0x05813003 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
| DMER813004   | 0x05813004 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
| DMER81300A   | 0x0581300A | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                           |
| DMER81300F   | 0x0581300F | The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                            |
| DMER81301E   | 0x0581301E | The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER81302C   | 0x0581302C | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        |
| DMER81302D   | 0x0581302D | The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                  |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                        |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER81302E   | 0x0581302E | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                              |
| DMER81302F   | 0x0581302F | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                      |
| DMER813030   | 0x05813030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                               |
| DMER813031   | 0x05813031 | The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                                                                                                                  |
| DMER813033   | 0x05813033 | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                     |
| DMER813034   | 0x05813034 | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                           |
| DMER813035   | 0x05813035 | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                 |
| DMER813036   | 0x05813036 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                                                                                                                                                           |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                                                                                                                                                             |
|              |            | The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.                                                                                                                                                                      |
| DMER813037   | 0x05813037 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                                                           |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                                                             |
|              |            | The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                                                                                                  |
| DMER813038   | 0x05813038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               |
| DMER813039   | 0x05813039 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER81303A   | 0x0581303A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                                                           |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                                                             |
|              |            | The remote array is busy. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                           |
| DMER81303E   | 0x0581303E | The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                           |
| DMER8130D4   | 0x058130D4 | The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                        |
| DMER8130D9   | 0x058130D9 | The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER8130DE   | 0x058130DE | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                |
| DMER8130E0   | 0x058130E0 | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                |
| DMER8130E2   | 0x058130E2 | The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                           |
| DMER8130E3   | 0x058130E3 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                           |
| DMER8130E5   | 0x058130E5 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                           |
| DMER8130E8   | 0x058130E8 | The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                   |
| DMER814001   | 0x05814001 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               |
| DMER814002   | 0x05814002 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER814003   | 0x05814003 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER814004   | 0x05814004 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         |
| DMER81400A   | 0x0581400A | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                            |
| DMER81400F   | 0x0581400F | The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                                                             |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                             |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER81401E   | 0x0581401E | The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.                                                       |
| DMER81402C   | 0x0581402C | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                              |
| DMER81402D   | 0x0581402D | The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                        |
| DMER81402E   | 0x0581402E | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                   |
| DMER81402F   | 0x0581402F | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                           |
| DMER814030   | 0x05814030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                                                    |
| DMER814031   | 0x05814031 | The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                                                                                                                                       |
| DMER814033   | 0x05814033 | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                          |
| DMER814034   | 0x05814034 | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                |
| DMER814035   | 0x05814035 | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                      |
| DMER814036   | 0x05814036 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The process is in progress. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. |
| DMER814037   | 0x05814037 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The process is in progress. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                             |
| DMER814038   | 0x05814038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                    |
| DMER814039   | 0x05814039 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                              |
| DMER81403A   | 0x0581403A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The process is in progress. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The remote array is busy. Retry after waiting for a while.                                                                                                                                      |
| DMER81403E   | 0x0581403E | The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                |
| DMER8140D4   | 0x058140D4 | The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                                             |
| DMER8140D9   | 0x058140D9 | The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.                      |
| DMER8140DE   | 0x058140DE | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                                     |
| DMER8140E0   | 0x058140E0 | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                                     |
| DMER8140E2   | 0x058140E2 | The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                                                |
| DMER8140E3   | 0x058140E3 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                                                |
| DMER8140E5   | 0x058140E5 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                                                |
| DMER8140E8   | 0x058140E8 | The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                                        |
| DMER815001   | 0x05815001 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                    |
| DMER815002   | 0x05815002 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                              |
| DMER815003   | 0x05815003 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                              |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                   |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER815004   | 0x05815004 | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
| DMER81500A   | 0x0581500A | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                       |
| DMER81500F   | 0x0581500F | The path of the remote array was detached. Check the status of the path.                                                                                                                        |
| DMER81502C   | 0x0581502C | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
| DMER81502D   | 0x0581502D | The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                              |
| DMER81502E   | 0x0581502E | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                         |
| DMER81502F   | 0x0581502F | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                 |
| DMER815030   | 0x05815030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                          |
| DMER815031   | 0x05815031 | The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                             |
| DMER815033   | 0x05815033 | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                |
| DMER815034   | 0x05815034 | A command error occurred. Retry after waiting for a while.                                                                                                                                      |
| DMER815035   | 0x05815035 | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                            |
| DMER815036   | 0x05815036 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                      |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                        |
|              |            | The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. |
| DMER815037   | 0x05815037 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                      |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                        |
|              |            | The remote array is busy. Retry after waiting for a while.                                                                                                                                      |
| DMER815038   | 0x05815038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                          |
| DMER815039   | 0x05815039 | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
| DMER81503A   | 0x0581503A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                      |
|              |            | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                        |
|              |            | The remote array is busy. Retry after waiting for a while.                                                                                                                                      |
| DMER81503E   | 0x0581503E | The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                      |
| DMER8150D4   | 0x058150D4 | The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                   |
| DMER8150E0   | 0x058150E0 | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                           |
| DMER8150E5   | 0x058150E5 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                      |
| DMER8150E8   | 0x058150E8 | The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                              |
| DMER816022   | 0x05816022 | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
| DMER816023   | 0x05816023 | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
| DMER816024   | 0x05816024 | The process is in progress. Retry after waiting for a while.                                                                                                                                    |
| DMER816025   | 0x05816025 | The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                                          |
| DMER816026   | 0x05816026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                     |
| DMER816027   | 0x05816027 | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                             |
| DMER816028   | 0x05816028 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                         |
| DMER816029   | 0x05816029 | A command error occurred. Retry after waiting for a while.                                                                                                                                      |
| DMER81602A   | 0x0581602A | The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                        |
| DMER81602B   | 0x0581602B | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                      |
| DMER81602C   | 0x0581602C | The process is in progress. Retry after waiting for a while.                                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                     |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER81602D   | 0x0581602D | The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                                                                                            |
| DMER81602E   | 0x0581602E | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                       |
| DMER81602F   | 0x0581602F | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                               |
| DMER816030   | 0x05816030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                            |
| DMER816031   | 0x05816031 | The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.                                                                                                                                                                       |
| DMER816032   | 0x05816032 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                                           |
| DMER816033   | 0x05816033 | The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                              |
| DMER816035   | 0x05816035 | The optional feature of Remote Replication in the remote array is locked. Unlock and enable the optional feature.                                                                                                                                 |
| DMER816038   | 0x05816038 | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                                                        |
| DMER816041   | 0x05816041 | The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.                                                                                                                                                  |
| DMER816042   | 0x05816042 | The capacity is beyond the limits of support. Delete unnecessary pairs of the remote subsystem.                                                                                                                                                   |
| DMER816086   | 0x05816086 | The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.                                                                                            |
| DMER816087   | 0x05816087 | The S-VOL of the remote subsystem is executing format. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                              |
| DMER816088   | 0x05816088 | The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.                                                                                                          |
| DMER816089   | 0x05816089 | The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.                                                                                                    |
| DMER81608A   | 0x0581608A | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.                                                                                                                                                                                        |
|              |            | The S-VOL in the remote subsystem cannot be allocated the differential bit of Remote Replication. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                        |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.                                                                                                                                                                                          |
| DMER81608B   | 0x0581608B | The S-VOL in the remote array cannot allocate the differential bit of remote replication pair because the capacity is beyond the supported limit. Check the status of the remote array. In addition delete unnecessary pairs of the remote array. |
|              |            | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.                                                                                                                                                                                        |
|              |            | The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                    |
| DMER81608C   | 0x0581608C | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.                                                                                                                                                                                          |
|              |            | This operation cannot be executed due to lack of resources within the remote array. Retry after deleting unnecessary pairs.                                                                                                                       |
|              |            | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.                                                                                                                                                                                        |
| DMER81608D   | 0x0581608D | The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                            |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.                                                                                                                                                                                          |
|              |            | This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.                                                                                                            |
| DMER81608E   | 0x0581608E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                                        |
|              |            | The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the Remote Replication User's Guide.         |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                                          |
| DMER81608E   | 0x0581608E | The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the LU in the remote array.                                                                                                 |
|              |            | The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER816091   | 0x05816091 | The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMER816094   | 0x05816094 | The RAID level of the S-VOL in the remote array is RAID 0. Set the RAID level other than RAID 0 in the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMER816095   | 0x05816095 | The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMER816096   | 0x05816096 | The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMER816097   | 0x05816097 | The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DMER81609A   | 0x0581609A | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the LU status of the remote subsystem.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more, less than Ver.7.00.<br>The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.<br>Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal or the LU is created in DP pool. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify an LU other than an LU created in DP pool to S-VOL. |
| DMER81609B   | 0x0581609B | The S-VOL in the remote subsystem is a unified LU consists of 17 or more LUs. Make the number of the unified LUs that constitute the unified LU of the remote subsystem 16 or less.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER81609C   | 0x0581609C | The LU capacity of the S-VOL in the remote subsystem is not the same as the P-VOL capacity. Make the LU capacity of the remote subsystem the same as that of the P-VOL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMER81609D   | 0x0581609D | The S-VOL in the remote array is set to a Cache Residency LU. Specify an LU other than a Cache Residency LU of the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER81609E   | 0x0581609E | An LU with a capacity less than 1 GB is included in the LUs in which the S-VOL is unified in the remote subsystem. Check the status of the unified LU of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER81609F   | 0x0581609F | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>This operation cannot be executed due to lack of resources within the remote array. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DMER8160A0   | 0x058160A0 | The remote subsystem has no pool LU. Make a pool LU for the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER8160A1   | 0x058160A1 | The LU specified as the S-VOL in the remote subsystem is a pool LU. The pool LU cannot be set to an S-VOL. Check the pool LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER8160A2   | 0x058160A2 | The LU status of the pool LU in the remote subsystem is normal or other than regressed. Check the pool LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMER8160A3   | 0x058160A3 | The pool LU in the remote subsystem is undergoing the forced parity correction. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER8160A4   | 0x058160A4 | The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER8160A5   | 0x058160A5 | The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER8160A6   | 0x058160A6 | The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER8160A7   | 0x058160A7 | The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                            |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER8160A8   | 0x058160A8 | The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.                                                                  |
| DMER8160A9   | 0x058160A9 | The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                    |
| DMER8160AA   | 0x058160AA | The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.                                                                                      |
| DMER8160AB   | 0x058160AB | The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                |
| DMER8160B4   | 0x058160B4 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.        |
| DMER8160B5   | 0x058160B5 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU change for it has been started. Check the status of the remote subsystem and retry after waiting for a while. |
| DMER8160B6   | 0x058160B6 | The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote subsystem and retry after waiting for a while.                             |
| DMER8160B7   | 0x058160B7 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.       |
| DMER8160B8   | 0x058160B8 | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.                               |
| DMER8160B9   | 0x058160B9 | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER8160BA   | 0x058160BA | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it has pinned data. Contact the service personnel.                                                                                             |
| DMER8160BB   | 0x058160BB | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER8160BC   | 0x058160BC | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER8160BD   | 0x058160BD | The S-VOL in the remote subsystem cannot change an ownership of LU and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.                                                                |
| DMER8160BE   | 0x058160BE | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, the group# is illegal. Check the status of the remote subsystem.                                                                               |
| DMER8160C0   | 0x058160C0 | The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.                                           |
| DMER8160C1   | 0x058160C1 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.                      |
| DMER8160C2   | 0x058160C2 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.            |
| DMER8160C5   | 0x058160C5 | The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                                                            |
| DMER8160D2   | 0x058160D2 | The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.                                                                         |
| DMER8160DD   | 0x058160DD | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                        |
| DMER8160E0   | 0x058160E0 | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                                       |
| DMER8160E5   | 0x058160E5 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                  |
| DMER8160EA   | 0x058160EA | The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                              |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER817022   | 0x05817022 | The process is in progress. Retry after waiting for a while.                                                                                                                                               |
| DMER817023   | 0x05817023 | The process is in progress. Retry after waiting for a while.                                                                                                                                               |
| DMER817024   | 0x05817024 | The process is in progress. Retry after waiting for a while.                                                                                                                                               |
| DMER817025   | 0x05817025 | The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                                                     |
| DMER817026   | 0x05817026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                |
| DMER817027   | 0x05817027 | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                        |
| DMER817028   | 0x05817028 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                    |
| DMER817029   | 0x05817029 | A command error occurred. Retry after waiting for a while.                                                                                                                                                 |
| DMER81702A   | 0x0581702A | The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.                                                                                     |
| DMER81702B   | 0x0581702B | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                 |
| DMER81702C   | 0x0581702C | The process is in progress. Retry after waiting for a while.                                                                                                                                               |
| DMER81702D   | 0x0581702D | The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                                                     |
| DMER81702E   | 0x0581702E | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                |
| DMER81702F   | 0x0581702F | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                        |
| DMER817030   | 0x05817030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                     |
| DMER817031   | 0x05817031 | The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.                                                                                                                                |
| DMER817032   | 0x05817032 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                    |
| DMER817033   | 0x05817033 | The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                       |
| DMER817035   | 0x05817035 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                 |
|              |            | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                       |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                   |
|              |            | The optional feature of Remote Replication of the remote array is invalid. Unlock and enable the optional feature.                                                                                         |
| DMER817038   | 0x05817038 | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                 |
| DMER817041   | 0x05817041 | The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.                                                                                                           |
| DMER817042   | 0x05817042 | The capacity is beyond the limits of support. Delete unnecessary pairs of the remote subsystem.                                                                                                            |
| DMER817086   | 0x05817086 | The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.                                                     |
| DMER817087   | 0x05817087 | The S-VOL of the remote subsystem is executing format. Check the status of the remote subsystem and retry after waiting for a while.                                                                       |
| DMER817088   | 0x05817088 | The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.                                                                   |
| DMER817089   | 0x05817089 | The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.                                                             |
| DMER81708A   | 0x0581708A | The S-VOL in the remote subsystem cannot be allocated the differential bit of Remote Replication. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem. |
| DMER81708B   | 0x0581708B | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.                                                                                                                                                 |
|              |            | The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.             |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>This operation cannot be executed due to lack of resources within the remote array. Retry after deleting unnecessary pairs.                    |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| DMER81708C   | 0x0581708C | <p>Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br/>The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool LU status of the remote subsystem and retry after waiting for a while.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br/>This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER81708D   | 0x0581708D | <p>Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br/>The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the Remote Replication User's Guide.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br/>The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the LU in the remote array.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER81708E   | 0x0581708E | The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER817091   | 0x05817091 | The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER817094   | 0x05817094 | The RAID level of the S-VOL in the remote array is RAID 0. Make the RAID level of the remote array other than RAID 0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER817095   | 0x05817095 | The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMER817096   | 0x05817096 | The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER817097   | 0x05817097 | The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER817098   | 0x05817098 | The S-VOL in the remote array is changing the cache partition. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER81709A   | 0x0581709A | <p>Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br/>The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the LU status of the remote subsystem.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more, less than Ver.7.00.<br/>The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br/>The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal or the LU is created in DP pool. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify an LU other than an LU created in DP pool to S-VOL.</p> |
| DMER81709B   | 0x0581709B | The S-VOL in the remote subsystem is a unified LU consists of 17 or more LUs. Make the number of the unified LUs that constitute the unified LU of the remote subsystem 16 or less.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER81709C   | 0x0581709C | The LU capacity of the S-VOL in the remote subsystem is not the same as the P-VOL capacity. Make the LU capacity of the remote subsystem the same as that of the P-VOL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER81709D   | 0x0581709D | The S-VOL in the remote array is set to a Cache Residency LU. Specify an LU other than a Cache Residency LU of the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER81709E   | 0x0581709E | An LU with a capacity less than 1 GB is included in the LUs in which the S-VOL is unified in the remote subsystem. Check the status of the unified LU of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER81709F   | 0x0581709F | The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                            |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER8170A0   | 0x058170A0 | The remote subsystem has no pool LU. Make a pool LU for the remote subsystem.                                                                                                                                                            |
| DMER8170A1   | 0x058170A1 | The LU specified as the S-VOL in the remote subsystem is a pool LU. The pool LU cannot be set to an S-VOL. Check the pool LU status of the remote subsystem.                                                                             |
| DMER8170A2   | 0x058170A2 | The LU status of the pool LU in the remote subsystem is normal or other than regressed. Check the pool LU status of the remote subsystem.                                                                                                |
| DMER8170A3   | 0x058170A3 | The pool LU in the remote subsystem is undergoing the forced parity correction. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                    |
| DMER8170A4   | 0x058170A4 | The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.         |
| DMER8170A5   | 0x058170A5 | The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.                                                                                    |
| DMER8170A6   | 0x058170A6 | The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.                                                                             |
| DMER8170A7   | 0x058170A7 | The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.                                                         |
| DMER8170A8   | 0x058170A8 | The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.                                                                  |
| DMER8170A9   | 0x058170A9 | The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                    |
| DMER8170AA   | 0x058170AA | The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.                                                                                      |
| DMER8170AB   | 0x058170AB | The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                |
| DMER8170B4   | 0x058170B4 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.        |
| DMER8170B5   | 0x058170B5 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU change for it has been started. Check the status of the remote subsystem and retry after waiting for a while. |
| DMER8170B6   | 0x058170B6 | The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote subsystem and retry after waiting for a while.                             |
| DMER8170B7   | 0x058170B7 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.       |
| DMER8170B8   | 0x058170B8 | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.                               |
| DMER8170B9   | 0x058170B9 | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER8170BA   | 0x058170BA | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it has pinned data. Contact the service personnel.                                                                                             |
| DMER8170BB   | 0x058170BB | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER8170BC   | 0x058170BC | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER8170BD   | 0x058170BD | The S-VOL in the remote subsystem cannot change an ownership of LU and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.                                                                |
| DMER8170BE   | 0x058170BE | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, the group# is illegal. Check the status of the remote subsystem.                                                                               |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                 |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER8170C0   | 0x058170C0 | The S-VOL in the remote array does not exist on the default owner controller and, at the same time, its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.              |
| DMER8170C1   | 0x058170C1 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.           |
| DMER8170C2   | 0x058170C2 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while. |
| DMER8170C5   | 0x058170C5 | The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                                                 |
| DMER8170D2   | 0x058170D2 | The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.                                                              |
| DMER8170DD   | 0x058170DD | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                             |
| DMER8170E0   | 0x058170E0 | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                            |
| DMER8170E5   | 0x058170E5 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                       |
| DMER8170EA   | 0x058170EA | The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                         |
| DMER819022   | 0x05819022 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                  |
| DMER819023   | 0x05819023 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                  |
| DMER819024   | 0x05819024 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                  |
| DMER819025   | 0x05819025 | The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                                                                        |
| DMER819026   | 0x05819026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                   |
| DMER819027   | 0x05819027 | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                           |
| DMER819028   | 0x05819028 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                       |
| DMER819029   | 0x05819029 | A command error occurred. Retry after waiting for a while.                                                                                                                                                                    |
| DMER81902A   | 0x0581902A | The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.                                                                                                        |
| DMER81902B   | 0x0581902B | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                                    |
| DMER8190DE   | 0x058190DE | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                            |
| DMER81A022   | 0x0581A022 | Now executing. Wait a while and execute again.                                                                                                                                                                                |
| DMER81A023   | 0x0581A023 | Now executing. Wait a while and execute again.                                                                                                                                                                                |
| DMER81A024   | 0x0581A024 | Now executing. Wait a while and execute again.                                                                                                                                                                                |
| DMER81A025   | 0x0581A025 | The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.                                                                                                                                     |
| DMER81A026   | 0x0581A026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.                                                                                                        |
| DMER81A027   | 0x0581A027 | The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.                                                                                                                                 |
| DMER81A028   | 0x0581A028 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                       |
| DMER81A029   | 0x0581A029 | Command error was occurred. Wait a while and execute again.                                                                                                                                                                   |
| DMER81A02A   | 0x0581A02A | The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                                      |
| DMER81A02B   | 0x0581A02B | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                                    |
| DMER81A02C   | 0x0581A02C | Now executing. Wait a while and execute again.                                                                                                                                                                                |
| DMER81A02D   | 0x0581A02D | The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.                                                                                                                                     |
| DMER81A02E   | 0x0581A02E | The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.                                                                                                        |
| DMER81A02F   | 0x0581A02F | The remote subsystem is undergoing the pseudo deliberate shutdown. Wait a while and execute again.                                                                                                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                               |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER81A030   | 0x0581A030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                                                      |
| DMER81A032   | 0x0581A032 | The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                                                                                                                                                                                     |
| DMER81A033   | 0x0581A033 | The remote subsystem is undergoing hot replacement of the firmware. Wait a while and execute again.                                                                                                                                                                                                                                                                                         |
| DMER81A035   | 0x0581A035 | The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                    |
| DMER81A038   | 0x0581A038 | Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                  |
| DMER81A041   | 0x0581A041 | Now executing. Wait a while and execute again.                                                                                                                                                                                                                                                                                                                                              |
| DMER81A089   | 0x0581A089 | The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.                                                                                                                                                                                                                                              |
| DMER81A08B   | 0x0581A08B | The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                                                                                                                                                              |
| DMER81A08C   | 0x0581A08C | The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                      |
| DMER81A08D   | 0x0581A08D | The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the User's Guide.                                                                                                                                                                      |
| DMER81A090   | 0x0581A090 | Now executing. Wait a while and execute again.                                                                                                                                                                                                                                                                                                                                              |
| DMER81A091   | 0x0581A091 | The indicated Array ID is not same as the actual one for remote subsystem. Confirm the Array ID for the remote subsystem.                                                                                                                                                                                                                                                                   |
| DMER81A095   | 0x0581A095 | The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                                 |
| DMER81A097   | 0x0581A097 | The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.                                                                                                                                                                                                                                                                                    |
| DMER81A099   | 0x0581A099 | The array can not execute the operation because the target P-VOL of the specified LU does not exist. Delete the pair regarding the P-VOL in the remote array and create a remote replication pair.                                                                                                                                                                                          |
| DMER81A09A   | 0x0581A09A | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                                                                                                                                                                                  |
|              |            | The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                          |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The LU status of the S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. |
| DMER81A09F   | 0x0581A09F | The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                                                                                                                                                                                                                                                      |
| DMER81A0A0   | 0x0581A0A0 | The remote subsystem has no pool LU. Make a pool LU for the remote subsystem.                                                                                                                                                                                                                                                                                                               |
| DMER81A0A1   | 0x0581A0A1 | The LU specified as the S-VOL in the remote subsystem is a pool LU. The pool LU cannot be set to an S-VOL. Check the pool LU status of the remote subsystem.                                                                                                                                                                                                                                |
| DMER81A0A2   | 0x0581A0A2 | The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the pool LU status of the remote subsystem.                                                                                                                                                                                                                                                     |
| DMER81A0A3   | 0x0581A0A3 | The pool LU in the remote subsystem is undergoing the forced parity correction. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                       |
| DMER81A0A4   | 0x0581A0A4 | The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                                                                                                                            |
| DMER81A0A5   | 0x0581A0A5 | The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                                       |
| DMER81A0A6   | 0x0581A0A6 | The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                                |
| DMER81A0A7   | 0x0581A0A7 | The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                            |
| DMER81A0A8   | 0x0581A0A8 | The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                            |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER81A0A9   | 0x0581A0A9 | The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                    |
| DMER81A0AA   | 0x0581A0AA | The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.                                                                                      |
| DMER81A0AB   | 0x0581A0AB | The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                |
| DMER81A0B4   | 0x0581A0B4 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.        |
| DMER81A0B5   | 0x0581A0B5 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU change for it has been started. Check the status of the remote subsystem and retry after waiting for a while. |
| DMER81A0B6   | 0x0581A0B6 | The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote subsystem and retry after waiting for a while.                             |
| DMER81A0B7   | 0x0581A0B7 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.       |
| DMER81A0B8   | 0x0581A0B8 | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.                               |
| DMER81A0B9   | 0x0581A0B9 | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER81A0BA   | 0x0581A0BA | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it has pinned data. Contact the service personnel.                                                                                             |
| DMER81A0BB   | 0x0581A0BB | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER81A0BC   | 0x0581A0BC | The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         |
| DMER81A0BD   | 0x0581A0BD | The S-VOL in the remote subsystem cannot change an ownership of LU and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.                                                                |
| DMER81A0BE   | 0x0581A0BE | The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, the group# is illegal. Check the status of the remote subsystem.                                                                               |
| DMER81A0C1   | 0x0581A0C1 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.                      |
| DMER81A0C2   | 0x0581A0C2 | The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.            |
| DMER81A0D2   | 0x0581A0D2 | The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.                                                                         |
| DMER81A0D3   | 0x0581A0D3 | The license validity of the remote subsystem is expired. Purchase the license.                                                                                                                                                           |
| DMER81A0DD   | 0x0581A0DD | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                        |
| DMER81A0E0   | 0x0581A0E0 | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                                       |
| DMER81A0E5   | 0x0581A0E5 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER820005   | 0x05820005 | The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMER820006   | 0x05820006 | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMER820007   | 0x05820007 | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMER820008   | 0x05820008 | The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER820009   | 0x05820009 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER82000B   | 0x0582000B | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER82000C   | 0x0582000C | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER82000D   | 0x0582000D | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMER82000E   | 0x0582000E | The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER820011   | 0x05820011 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the LU and Array ID or number of the connected arrays. |
| DMER820012   | 0x05820012 | The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMER820015   | 0x05820015 | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.<br>Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP pool or a volume of ShadowImage pair that includes the LU created in DP pool. Make the status of the LU normal or regressive and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                          |
| DMER820017   | 0x05820017 | The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER820019   | 0x05820019 | The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMER82001A   | 0x0582001A | The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMER82001C   | 0x0582001C | The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER82001D   | 0x0582001D | The change of the default owner controller is reserved for the object LU. Cancel the reservation for changing the default owner controller or specify the LU for which the change of the default owner controller is not reserved.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER82001E   | 0x0582001E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.                                                    |
| DMER820021   | 0x05820021 | The object LU has already been cascaded with a ShadowImage pair. Check the pair status of the LU and check that its pair attribute is P-VOL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER820032   | 0x05820032 | The remote array is receiving a command. Retry after waiting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER82003D   | 0x0582003D | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMER82003F   | 0x0582003F | The LU assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                              |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER820040   | 0x05820040 | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more, less than Ver.8.00.<br>The object LU of the remote array is a volume of ShadowImage that status is Reverse Synchronizing/Split Pending/Paired Internally Synchronizing or cannot accept Read/Write instructions. Check the pair status of the LU. |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>The S-VOL of the specified pair cannot accept Read/Write instructions or is a part of ShadowImage whose status is Reverse Synchronizing. Check the status of the S-VOL or the pair status of the ShadowImage pair.                             |
|              |            |                                                                                                                                                                                                                                                                                                            |
| DMER820041   | 0x05820041 | The process is in progress. Retrying after waiting.                                                                                                                                                                                                                                                        |
| DMER820045   | 0x05820045 | The stripe size of the object LU of the remote array is other than 64KB. Make the stripe size of the LU of the remote array 64KB.                                                                                                                                                                          |
| DMER820046   | 0x05820046 | The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                             |
| DMER820048   | 0x05820048 | The specified LU is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises an LU of the remote array.                                                                                                                                                                                          |
| DMER820049   | 0x05820049 | The object LU of the remote array is being formatted. Create the pair again after the formatting is completed.                                                                                                                                                                                             |
| DMER82004A   | 0x0582004A | The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote array.                                                                                                                                                                                                 |
| DMER820050   | 0x05820050 | The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the LU of the remote array to Restored or Skip.                                       |
| DMER820053   | 0x05820053 | The number of unified LUs of the remote array is 17 or more. Make the number of unified LUs of the remote array 16 or less.                                                                                                                                                                                |
| DMER820054   | 0x05820054 | The V-VOL which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is an LU of the remote array.                                                                            |
| DMER820055   | 0x05820055 | The object LU of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote array to a volume other than a V-VOL of SnapShot.                                                                                                                                 |
| DMER820058   | 0x05820058 | The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                                                          |
| DMER820059   | 0x05820059 | The license validity of the remote array is expired. Purchase the license.                                                                                                                                                                                                                                 |
| DMER82005A   | 0x0582005A | The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                                                                 |
| DMER82005B   | 0x0582005B | The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                                                            |
| DMER82005C   | 0x0582005C | The specified S-VOL is the NAS LU. Check the status of the LU.                                                                                                                                                                                                                                             |
| DMER8200C6   | 0x058200C6 | The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                                            |
| DMER8200C7   | 0x058200C7 | The specified S-VOL is the reserved LU. Re-execute the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                                                |
| DMER8200CF   | 0x058200CF | The disk drives that configure a RAID group to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                                             |
| DMER8200D4   | 0x058200D4 | The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                                                      |
| DMER8200D9   | 0x058200D9 | The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.                                                              |
| DMED8200DE   | 0x058200DE | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                       |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER8200E2   | 0x058200E2 | The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                          |
| DMER8200E3   | 0x058200E3 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                             |
| DMER8200E9   | 0x058200E9 | The specified S-VOL is an LU created in DP pool or a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                                                                                                            |
| DMER821005   | 0x05821005 | The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                     |
| DMER821006   | 0x05821006 | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                             |
| DMER821007   | 0x05821007 | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                     |
| DMER821008   | 0x05821008 | The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                 |
| DMER821009   | 0x05821009 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                    |
| DMER82100B   | 0x0582100B | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                    |
| DMER82100C   | 0x0582100C | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                          |
| DMER82100D   | 0x0582100D | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                |
| DMER82100E   | 0x0582100E | The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                         |
| DMER821011   | 0x05821011 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.                                                                                                                                                                                                                                                                          |
|              |            | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                           |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.                                                                                                                                                                                                                                                                            |
|              |            | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the LU and Array ID or number of the connected Array.                                       |
| DMER821012   | 0x05821012 | The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                                                              |
| DMER821015   | 0x05821015 | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.                                                                                                                                                                                                                                                                          |
|              |            | The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.                                                                                                                                                                                                                                                                            |
| DMER821017   | 0x05821017 | The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP Pool or a volume of ShadowImage pair that includes the LU created in DP pool. Make the status of the LU normal or regressive and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.      |
|              |            |                                                                                                                                                                                                                                                                                                                                     |
|              |            |                                                                                                                                                                                                                                                                                                                                     |
| DMER821017   | 0x05821017 | The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                                                                        |
| DMER821019   | 0x05821019 | The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                                                                   |
| DMER82101A   | 0x0582101A | The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                   |
| DMER82101C   | 0x0582101C | The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                       |
| DMER82101D   | 0x0582101D | The change of the default owner controller is reserved for the object LU. Cancel the reservation for changing the default owner controller or specify the LU for which the change of the default owner controller is not reserved.                                                                                                  |
| DMER82101E   | 0x0582101E | The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER821021   | 0x05821021 | The object LU has already been cascaded with a ShadowImage pair. Check the pair status of the LU and check that its pair attribute is P-VOL.                                                                                                                                                                                        |
| DMER821032   | 0x05821032 | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                           |
| DMER82103F   | 0x0582103F | The LU assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the LU.                                                                                                                                                                                                               |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                          |
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| DMER821040   | 0x05821040 | The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                              |
| DMER821041   | 0x05821041 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                           |
| DMER821045   | 0x05821045 | The stripe size of the object LU of the remote array is other than 64KB. Make the stripe size of the LU of the remote array 64KB.                                                                                                                                      |
| DMER821046   | 0x05821046 | The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote array in the Simplex status once and then operate the pair.                        |
| DMER821048   | 0x05821048 | The specified LU is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises an LU of the remote array.                                                                                                                                                      |
| DMER821049   | 0x05821049 | The object LU of the remote array is being quick formatted. Create the pair again after the quick formatting is completed.                                                                                                                                             |
| DMER82104A   | 0x0582104A | The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote array.                                                                                                                                                             |
| DMER821050   | 0x05821050 | The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote array to Restored or Skip. |
| DMER821053   | 0x05821053 | The number of unified LUs of the remote array is 17 or more. Make the number of unified LUs of the remote array 16 or less.                                                                                                                                            |
| DMER821054   | 0x05821054 | The V-VOL, which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is an LU of the remote array.                                       |
| DMER821055   | 0x05821055 | The object LU of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote array to a volume other than a V-VOL of SnapShot.                                                                                             |
| DMER821058   | 0x05821058 | The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                      |
| DMER82105A   | 0x0582105A | The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                             |
| DMER82105B   | 0x0582105B | The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                        |
| DMER82105C   | 0x0582105C | The specified S-VOL is the NAS LU. Check the status of the LU.                                                                                                                                                                                                         |
| DMER8210C6   | 0x058210C6 | The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                        |
| DMER8210C7   | 0x058210C7 | The specified S-VOL is the reserved LU. Re-execute the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                            |
| DMER8210CF   | 0x058210CF | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                        |
| DMER8210D4   | 0x058210D4 | The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                  |
| DMER8210DE   | 0x058210DE | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                  |
| DMER8210E2   | 0x058210E2 | The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                             |
| DMER8210E3   | 0x058210E3 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                |
| DMER8210E9   | 0x058210E9 | The specified S-VOL is an LU created in DP pool or a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                                               |
| DMER822005   | 0x05822005 | The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                        |
| DMER822006   | 0x05822006 | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                |
| DMER822007   | 0x05822007 | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                        |
| DMER822008   | 0x05822008 | The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                    |
| DMER822009   | 0x05822009 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                       |
| DMER82200B   | 0x0582200B | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                       |
| DMER82200C   | 0x0582200C | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                             |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER82200D   | 0x0582200D | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMER82200E   | 0x0582200E | The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER822011   | 0x05822011 | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                                                                                                                                                                                                                                                          |
| DMER822014   | 0x05822014 | The current Array ID differs from the number that was set initially. Check the Array ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER822015   | 0x05822015 | The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER82201E   | 0x0582201E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER822020   | 0x05822020 | The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER822032   | 0x05822032 | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER82203D   | 0x0582203D | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER822041   | 0x05822041 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMER822046   | 0x05822046 | The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote array, in the Simplex status once and then operate the pair.                                                                                                                                                                                                                                                                                                                   |
| DMER82204A   | 0x0582204A | The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER822050   | 0x05822050 | The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote array to Restored or Skip.                                                                                                                                                                                                                                                                                             |
| DMER822059   | 0x05822059 | The license validity of the remote array is expired. Purchase the license.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER8220CF   | 0x058220CF | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                                                                                                                                                                                                                                                                                                    |
| DMER8220D4   | 0x058220D4 | The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMER8220D7   | 0x058220D7 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                                                                                           |
| DMER8220D8   | 0x058220D8 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                                                                                                           |
| DMER8220DE   | 0x058220DE | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMER8220E2   | 0x058220E2 | The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER8220E3   | 0x058220E3 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER823005   | 0x05823005 | The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER823006   | 0x05823006 | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                            |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| DMER823007   | 0x05823007 | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                          |
| DMER823008   | 0x05823008 | The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER823009   | 0x05823009 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER82300B   | 0x0582300B | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                         |
| DMER82300C   | 0x0582300C | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMER82300D   | 0x0582300D | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                                                                                     |
| DMER82300E   | 0x0582300E | The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                              |
| DMER823011   | 0x05823011 | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                                                                                                                                                |
| DMER82301E   | 0x0582301E | The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                                        |
| DMER823032   | 0x05823032 | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                |
| DMER823041   | 0x05823041 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER823046   | 0x05823046 | The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote array, in the Simplex status once and then operate the pair.                                                                                                                                                                                                         |
| DMER8230D4   | 0x058230D4 | The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                                                                                                                                                                                                    |
| DMER8230D7   | 0x058230D7 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex. |
| DMER8230D8   | 0x058230D8 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex. |
| DMER8230D9   | 0x058230D9 | The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.                                                                                                                                                                                                            |
| DMER824005   | 0x05824005 | The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                          |
| DMER824006   | 0x05824006 | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                                                                                  |
| DMER824007   | 0x05824007 | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                          |
| DMER824008   | 0x05824008 | The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                      |
| DMER824009   | 0x05824009 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER82400B   | 0x0582400B | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                         |
| DMER82400C   | 0x0582400C | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                               |
| DMER82400D   | 0x0582400D | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                                                                                     |
| DMER82400E   | 0x0582400E | The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                              |
| DMER824011   | 0x05824011 | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                                                                                                                                                |
| DMER82401E   | 0x0582401E | The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                                        |
| DMER824032   | 0x05824032 | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                |
| DMER824041   | 0x05824041 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                             |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| DMER824046   | 0x05824046 | The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                                                                                                                                                                                                                                                                                     |
| DMER8240D4   | 0x058240D4 | The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMER8240D7   | 0x058240D7 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                                                                                           |
| DMER8240D8   | 0x058240D8 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                                                                                                           |
| DMER8240D9   | 0x058240D9 | The status the remote array is in an inappropriate condition to create the Remote Replication pair. Confirm the Array ID, pair status of Remote Replication and status of SnapShot and ShadowImage. See the User's Guide for their detail information.                                                                                                                                                                                                                                                                                                             |
| DMER825005   | 0x05825005 | The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER825006   | 0x05825006 | The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER825007   | 0x05825007 | The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER825008   | 0x05825008 | The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMER825009   | 0x05825009 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER82500B   | 0x0582500B | The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER82500C   | 0x0582500C | A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER82500D   | 0x0582500D | The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DMER82500E   | 0x0582500E | The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER825011   | 0x05825011 | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                                                                                                                                                                                                                                                          |
| DMER825014   | 0x05825014 | The current Array ID differs from the number that was set initially. Check the Array ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER825015   | 0x05825015 | The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER82501E   | 0x0582501E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER825020   | 0x05825020 | The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER825032   | 0x05825032 | The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER82503D   | 0x0582503D | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER825041   | 0x05825041 | The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DMER825046   | 0x05825046 | The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                                                                                                                                                                                                                                                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                        |
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| DMER825047   | 0x05825047 | The specified LU is an S-VOL of ShadowImage. Specify an LU other than a ShadowImage S-VOL that comprises the LU of the remote array.                                                                                                                                 |
| DMER82504B   | 0x0582504B | Check the pair status of the LU. Cancel the S-VOL Disable specified for the LU of the remote array (at the time of a swap).                                                                                                                                          |
| DMER825050   | 0x05825050 | The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the LU of the remote array to Restored or Skip. |
| DMER825056   | 0x05825056 | The target LU of the remote array is a V-VOL of SnapShot (at the time of swap). Specify the LU of the remote array other than a V-VOL of SnapShot.                                                                                                                   |
| DMER825059   | 0x05825059 | The license validity of the remote array is expired. Purchase the license.                                                                                                                                                                                           |
| DMER8250CF   | 0x058250CF | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                      |
| DMER8250D4   | 0x058250D4 | The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                |
| DMER8250D7   | 0x058250D7 | The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status Split or Simplex.                                                                                                                                  |
| DMER8250D8   | 0x058250D8 | The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status Split or Simplex.                                                                                                                            |
| DMER8250DE   | 0x058250DE | Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                |
| DMER8250E2   | 0x058250E2 | The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                           |
| DMER8250E3   | 0x058250E3 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                           |
| DMER826011   | 0x05826011 | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the LU and Array ID.                                                                        |
| DMER826012   | 0x05826012 | The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                               |
| DMER826015   | 0x05826015 | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.                                                                                                                                                                                                           |
|              |            | The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                     |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.                                                                                                                                                                                                             |
|              |            | The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP pool. Make the status of the LU normal or regressive and specify an LU other than an LU created in DP pool to S-VOL.                                   |
|              |            |                                                                                                                                                                                                                                                                      |
|              |            |                                                                                                                                                                                                                                                                      |
| DMER826017   | 0x05826017 | The S-VOL resides in the RAID group of RAID 0. Choose a RAID group of RAID level other than RAID 0.                                                                                                                                                                  |
| DMER826019   | 0x05826019 | The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                    |
| DMER82601A   | 0x0582601A | The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                    |
| DMER82601C   | 0x0582601C | The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                        |
| DMER82601E   | 0x0582601E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.                                                                                                                                                                                                           |
|              |            | The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                    |
|              |            | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.                                                                                                                                                                                                             |
|              |            | The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status.                                                    |
|              |            | Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.                                                                                                                                                    |
|              |            |                                                                                                                                                                                                                                                                      |
| DMER826026   | 0x05826026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                          |
| DMER826027   | 0x05826027 | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                  |
| DMER82602A   | 0x0582602A | The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                                                                             |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                  |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER826040   | 0x05826040 | The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                              |
| DMER826045   | 0x05826045 | The stripe size of the object LU of the remote subsystem is other than 64KB. Make the stripe size of the LU of the remote subsystem 64KB.                                                                                                                                      |
| DMER826046   | 0x05826046 | The object LU of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote subsystem, in the Simplex status once and then operate the pair.                       |
| DMER826049   | 0x05826049 | The object LU of the remote subsystem is being formatted. Create the pair again after the formatting is completed.                                                                                                                                                             |
| DMER82604A   | 0x0582604A | The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote subsystem.                                                                                                                                                                 |
| DMER826050   | 0x05826050 | The object LU of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote subsystem to Restored or Skip. |
| DMER826053   | 0x05826053 | The number of unified LUs of the remote subsystem is 17 or more. Make the number of unified LUs of the remote subsystem 16 or less.                                                                                                                                            |
| DMER826055   | 0x05826055 | The object LU of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote subsystem to a volume other than a V-VOL of SnapShot.                                                                                             |
| DMER826059   | 0x05826059 | The license validity of the remote subsystem is expired. Purchase the license.                                                                                                                                                                                                 |
| DMER82605A   | 0x0582605A | The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                                 |
| DMER82605B   | 0x0582605B | The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                                |
| DMER8260B3   | 0x058260B3 | The specified S-VOL is a unified LU including a SubLU with a capacity less than 1 GB. Check whether the LU with a capacity less than 1 GB is included in each LU of the specified unified LU.                                                                                  |
| DMER8260C4   | 0x058260C4 | When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                   |
| DMER8260C6   | 0x058260C6 | The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                |
| DMER8260C7   | 0x058260C7 | The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                       |
| DMER8260CA   | 0x058260CA | The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                |
| DMER8260CB   | 0x058260CB | The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                       |
| DMER8260CF   | 0x058260CF | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                |
| DMER8260D1   | 0x058260D1 | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                |
| DMER8260D2   | 0x058260D2 | The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.                                                                                                         |
| DMER8260DB   | 0x058260DB | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                                                                       |
| DMER8260DD   | 0x058260DD | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                                                              |
| DMER8260DE   | 0x058260DE | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                                                                             |
| DMER8260E1   | 0x058260E1 | The operation to change LU has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.                                                                                                                   |
| DMER8260E3   | 0x058260E3 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                        |
| DMER8260E9   | 0x058260E9 | The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                          |
| DMER827011   | 0x05827011 | The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the LU and Array ID.                                                                                  |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER827012   | 0x05827012 | The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMER827015   | 0x05827015 | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.<br>Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP pool. Make the status of the LU normal or regressive and specify an LU other than an LU created in DP pool to S-VOL.                                                                                      |
| DMER827017   | 0x05827017 | The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DMER827019   | 0x05827019 | The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMER82701A   | 0x0582701A | The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| DMER82701C   | 0x0582701C | The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DMER82701E   | 0x0582701E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status.<br>Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER827026   | 0x05827026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER827027   | 0x05827027 | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER82702A   | 0x0582702A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.                                                                                                                                                                                          |
| DMER827040   | 0x05827040 | The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                     |
| DMER827045   | 0x05827045 | The stripe size of the object LU of the remote subsystem is other than 64KB. Make the stripe size of the LU of the remote subsystem 64KB.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DMER827046   | 0x05827046 | The object LU of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote subsystem, in the Simplex status once and then operate the pair.                                                                                                                                                                                                                                                                                                              |
| DMER827049   | 0x05827049 | The object LU of the remote subsystem is being formatted. Create the pair again after the formatting is completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER82704A   | 0x0582704A | The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER827050   | 0x05827050 | The object LU of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote subsystem to Restored or Skip.                                                                                                                                                                                                                                                                                        |
| DMER827053   | 0x05827053 | The number of unified LUs of the remote subsystem is 17 or more. Make the number of unified LUs of the remote subsystem 16 or less.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DMER827055   | 0x05827055 | The object LU of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote subsystem to a volume other than a V-VOL of SnapShot.                                                                                                                                                                                                                                                                                                                                                                                    |
| DMER827059   | 0x05827059 | The license validity of the remote subsystem is expired. Purchase the license.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER82705A   | 0x0582705A | The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                        |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                |
|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER82705B   | 0x0582705B | The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                                                                                                                              |
| DMER8270B3   | 0x058270B3 | The specified S-VOL is a unified LU including a SubLU with a capacity less than 1 GB. Check whether the LU with a capacity less than 1 GB is included in each LU of the specified unified LU.                                                                                                                                                                                |
| DMER8270C4   | 0x058270C4 | When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                                                                                                                 |
| DMER8270C6   | 0x058270C6 | The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                                                                                                              |
| DMER8270C7   | 0x058270C7 | The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                                                                                                                     |
| DMER8270CA   | 0x058270CA | The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                                                                                                              |
| DMER8270CB   | 0x058270CB | The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                                                                                                                     |
| DMER8270CF   | 0x058270CF | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                                                                                                              |
| DMER8270D1   | 0x058270D1 | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                                                                                                              |
| DMER8270D2   | 0x058270D2 | The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.                                                                                                                                                                                                       |
| DMER8270DB   | 0x058270DB | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                                                                                                                                                                     |
| DMER8270DD   | 0x058270DD | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                                                                                                                                                            |
| DMER8270DE   | 0x058270DE | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                                                                                                                                                                           |
| DMER8270E1   | 0x058270E1 | The operation to change LU has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.                                                                                                                                                                                                                 |
| DMER8270E3   | 0x058270E3 | The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                      |
| DMER8270E9   | 0x058270E9 | The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                                                                                                                        |
| DMER82901E   | 0x0582901E | The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                                                            |
| DMER829026   | 0x05829026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                  |
| DMER829027   | 0x05829027 | The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                          |
| DMER82902A   | 0x0582902A | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature. |
| DMER82903D   | 0x0582903D | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                      |
| DMER82905E   | 0x0582905E | Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                      |
| DMER82905F   | 0x0582905F | There is no pair, which is in the Paired status, in the target group. Check the pair status of each LU in the target group.                                                                                                                                                                                                                                                  |
| DMER8290DE   | 0x058290DE | Auto Migration is being executed in the remote array just now. Execute again after the Migration is completed.                                                                                                                                                                                                                                                               |
| DMER82A011   | 0x0582A011 | The indicated LU is in the Remote Replication pair for another subsystem. Confirm the pair status for the LU and also the Array ID.                                                                                                                                                                                                                                          |
| DMER82A015   | 0x0582A015 | The status of the object LU is other than normal and regressive. Make the LU status be normal or regressive.                                                                                                                                                                                                                                                                 |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| DMER82A01E   | 0x0582A01E | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The indicated LU has already been set as the Remote Replication pair. Confirm the pair status for the LU.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status.<br>Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. |
| DMER82A026   | 0x0582A026 | The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER82A027   | 0x0582A027 | The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DMER82A02A   | 0x0582A02A | The optional feature of Remote Replication of the remote array is disabled. Unlock and enable the optional feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| DMER82A02B   | 0x0582A02B | Both of the two remote paths of the local array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMER82A030   | 0x0582A030 | The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER82A031   | 0x0582A031 | The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DMER82A035   | 0x0582A035 | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>The optional feature of Remote Replication of the remote array is locked. Unlock and validate the optional feature.<br>Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature.                                                                                                                                                                                                            |
| DMER82A038   | 0x0582A038 | Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER82A046   | 0x0582A046 | The indicated LU in the remote subsystem is being restored for SnapShot or can not be executed the Read and Write command for the SnapShot pair. Execute again after having the SnapShot pair status in the remote subsystem be Simplex.                                                                                                                                                                                                                                                                                                                                      |
| DMER82A04A   | 0x0582A04A | The S-VOL is 'S-VOL Disable' status. Release the indication for the 'S-VOL Disable' in the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMER82A050   | 0x0582A050 | The indicated LU in the remote subsystem is in the forced parity correction, or has not executed the forced parity correction yet. Make the LU status for the forced parity correction in remote subsystem be Restored or Skip.                                                                                                                                                                                                                                                                                                                                               |
| DMER82A059   | 0x0582A059 | The license of the remote subsystem expires. Purchase the license.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER82A05D   | 0x0582A05D | Now executing. Wait a while and execute again.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DMER82A089   | 0x0582A089 | The S-VOL of the remote array is in the status of S-VOL Disable. Check the status of the remote array and cancel the access attribute.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER82A08B   | 0x0582A08B | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>The S-VOL in the remote array has no SnapShot cache block available. Check the data pool LU status of the remote array. In addition, delete unnecessary pairs of the remote array.<br>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>This operation cannot be executed due to lack of resources within the remote array. Try the operation again after deleting unnecessary pairs.                                                                                                                 |
| DMER82A08C   | 0x0582A08C | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>The SnapShot cache block for the S-VOL in the remote array is being deleted. Check the data pool LU status of the remote array and retry after waiting for a while.<br>Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.                                                                                                                                       |
| DMER82A08D   | 0x0582A08D | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array. See the User's Guide for their detail information.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array.                                                                                   |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| DMER82A090   | 0x0582A090 | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array. See the User's Guide for their detail information.<br>Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array. |
| DMER82A091   | 0x0582A091 | The indicated Array ID is not same as the actual one for remote array. Confirm the Array ID for the remote array.                                                                                                                                                                                                                                                                                                                                                                           |
| DMER82A095   | 0x0582A095 | The S-VOL in the remote array is undergoing the forced parity correction. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                         |
| DMER82A097   | 0x0582A097 | The S-VOL in the remote array received an illegal command. Check the status of the remote array.                                                                                                                                                                                                                                                                                                                                                                                            |
| DMER82A09A   | 0x0582A09A | The LU status of the S-VOL in the remote array is normal or other than regressed. Check the LU status of the remote array.                                                                                                                                                                                                                                                                                                                                                                  |
| DMER82A09F   | 0x0582A09F | Splitting or deleting SnapShot pair is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                        |
| DMER82A0A0   | 0x0582A0A0 | The remote array has no data pool. Create a data pool in the remote array.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMER82A0A1   | 0x0582A0A1 | The LU specified as the S-VOL in the remote array is a data pool LU. The data pool LU cannot be set to an S-VOL. Check the data pool LU status of the remote array.                                                                                                                                                                                                                                                                                                                         |
| DMER82A0A2   | 0x0582A0A2 | The LU status of the S-VOL in the remote array is normal or other than regressed. Check the pool LU status of the remote array.                                                                                                                                                                                                                                                                                                                                                             |
| DMER82A0A3   | 0x0582A0A3 | The data pool LU in the remote array is undergoing the forced parity correction. Check the pool LU status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                          |
| DMER82A0A4   | 0x0582A0A4 | The S-VOL in the remote array exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote array. In addition, delete unnecessary pairs of the remote array.                                                                                                                                                                                                                                                                        |
| DMER82A0A5   | 0x0582A0A5 | The Remote Replication pair status of the S-VOL in the remote array is Failure. Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                                               |
| DMER82A0A6   | 0x0582A0A6 | The Remote Replication pair status of the S-VOL in the remote array is Pool Full. Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                                             |
| DMER82A0A7   | 0x0582A0A7 | The Remote Replication pair status of the S-VOL in the remote array is Split (no read/write allowed). Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                         |
| DMER82A0A8   | 0x0582A0A8 | The Remote Replication pair status of the S-VOL in the remote array is Takeover (including Busy). Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                             |
| DMER82A0A9   | 0x0582A0A9 | The Remote Replication pair status of the S-VOL in the remote array is Simplex. Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                                               |
| DMER82A0AA   | 0x0582A0AA | The Remote Replication pair status of the S-VOL in the remote array is Split. Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                                                 |
| DMER82A0AB   | 0x0582A0AB | The Remote Replication pair status of the S-VOL in the remote array is not Simplex. Check the Remote Replication pair status of the remote array.                                                                                                                                                                                                                                                                                                                                           |
| DMER82A0B4   | 0x0582A0B4 | The S-VOL in the remote array does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                   |
| DMER82A0B5   | 0x0582A0B5 | The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of LU change for it has been started. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                              |
| DMER82A0B6   | 0x0582A0B6 | The S-VOL in the remote array does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                                        |
| DMER82A0B7   | 0x0582A0B7 | The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of LU to be changed is blocked. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                    |
| DMER82A0B8   | 0x0582A0B8 | The S-VOL in the remote array cannot change an ownership of LU and at the same time it is using the sequential buffer. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                                            |



| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                   |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMER82A0B9   | 0x0582A0B9 | The S-VOL in the remote array cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                    |
| DMER82A0BA   | 0x0582A0BA | The S-VOL in the remote array cannot change an ownership of LU and at the same time it has pinned data. Contact the service personnel.                                                                          |
| DMER82A0BB   | 0x0582A0BB | The S-VOL in the remote array cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                    |
| DMER82A0BC   | 0x0582A0BC | The S-VOL in the remote array cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                    |
| DMER82A0BD   | 0x0582A0BD | The S-VOL in the remote array cannot change an ownership of LU and a time-out occurred. Check the status of the remote array and retry after waiting for a while.                                               |
| DMER82A0BE   | 0x0582A0BE | The S-VOL in the remote array cannot change an ownership of LU, and the group number is illegal. Check the status of the remote array.                                                                          |
| DMER82A0C0   | 0x0582A0C0 | The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.                  |
| DMER82A0C1   | 0x0582A0C1 | The S-VOL in the remote array does not exist on the default owner controller, and the array is performing the system copy. Check the status of the remote array and retry after waiting for a while.            |
| DMER82A0C2   | 0x0582A0C2 | The S-VOL in the remote array does not exist on the default owner controller, and the array is writing the configuration information. Check the status of the remote array and retry after waiting for a while. |
| DMER82A0D1   | 0x0582A0D1 | The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group. |
| DMER82A0D2   | 0x0582A0D2 | The S-VOL pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.                                                   |
| DMER82A0D3   | 0x0582A0D3 | The license has expired. Purchase the license.                                                                                                                                                                  |
| DMER82A0DB   | 0x0582A0DB | The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                        |
| DMER82A0DD   | 0x0582A0DD | The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                               |
| DMER82A0DE   | 0x0582A0DE | Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                              |
| DMER82A0E1   | 0x0582A0E1 | The operation to change LU has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.                                                    |
| DMER82A0E3   | 0x0582A0E3 | The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                      |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                            |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMES000000   | 0x01000000 | Please retry.                                                                                                                                                                                            |
| DMES010200   | 0x01010200 | Please retry.                                                                                                                                                                                            |
| DMES010600   | 0x01010600 | Please retry.                                                                                                                                                                                            |
| DMES010802   | 0x01010802 | Please retry.                                                                                                                                                                                            |
| DMES010900   | 0x01010900 | Please retry.                                                                                                                                                                                            |
| DMES011300   | 0x01011300 | Please retry.                                                                                                                                                                                            |
| DMES011401   | 0x01011401 | Please retry.                                                                                                                                                                                            |
| DMES011501   | 0x01011501 | Please retry.                                                                                                                                                                                            |
| DMES011502   | 0x01011502 | Please retry.                                                                                                                                                                                            |
| DMES011700   | 0x01011700 | Please retry.                                                                                                                                                                                            |
| DMES011701   | 0x01011701 | Please retry.                                                                                                                                                                                            |
| DMES011702   | 0x01011702 | Please retry.                                                                                                                                                                                            |
| DMES011703   | 0x01011703 | Please retry.                                                                                                                                                                                            |
| DMES011800   | 0x01011800 | Please retry.                                                                                                                                                                                            |
| DMES011801   | 0x01011801 | Please retry.                                                                                                                                                                                            |
| DMES011802   | 0x01011802 | Please retry.                                                                                                                                                                                            |
| DMES011902   | 0x01011902 | Please retry.                                                                                                                                                                                            |
| DMES011903   | 0x01011903 | Please retry.                                                                                                                                                                                            |
| DMES013200   | 0x01013200 | Please retry.                                                                                                                                                                                            |
| DMES013201   | 0x01013201 | Please retry.                                                                                                                                                                                            |
| DMES015B00   | 0x01015B00 | Please retry.                                                                                                                                                                                            |
| DMES015B02   | 0x01015B02 | Please retry.                                                                                                                                                                                            |
| DMES015B03   | 0x01015B03 | Please retry.                                                                                                                                                                                            |
| DMES018A03   | 0x01018A03 | Please retry.                                                                                                                                                                                            |
| DMES018A04   | 0x01018A04 | Please retry.                                                                                                                                                                                            |
| DMES018B01   | 0x01018B01 | Please retry.                                                                                                                                                                                            |
| DMES019621   | 0x01019621 | A reboot is required to confirm a setup.                                                                                                                                                                 |
| DMES019625   | 0x01019625 | The Account Authentication is enabled successfully.                                                                                                                                                      |
| DMES019626   | 0x01019626 | The Account Authentication is disabled successfully.                                                                                                                                                     |
| DMES019627   | 0x01019627 | The Account Authentication is installed successfully.                                                                                                                                                    |
| DMES019628   | 0x01019628 | The Account Authentication is de-installed successfully.                                                                                                                                                 |
| DMES01EA05   | 0x0101EA05 | The firmware has been downloaded to the system drives, but some system drives could not be used. The subsystem can be used.                                                                              |
| DMES020400   | 0x01020400 | The process cannot be performed because formatting is now occurring, or LU is unformatted. Please confirm the LU status and try again.                                                                   |
| DMES020401   | 0x01020401 | Please retry.                                                                                                                                                                                            |
| DMES020402   | 0x01020402 | Please retry.                                                                                                                                                                                            |
| DMES020403   | 0x01020403 | The requested operation cannot be executed because the target drives are in spin-down status by Power Saving function. Please retry the operation after spinning-up the drives by Power Saving function. |
| DMES020404   | 0x01020404 | The process cannot be performed because formatting is now occurring. Retry after formatting completes.                                                                                                   |
| DMES020484   | 0x01020484 | The subsystem is under shutdown process. Retry when the subsystem is in Ready status.                                                                                                                    |
| DMES020500   | 0x01020500 | Please retry.                                                                                                                                                                                            |
| DMES023E00   | 0x01023E00 | Please retry.                                                                                                                                                                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                                                                                                                                                                                         |
|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMES029500   | 0x01029500 | The process cannot be performed because the subsystem is under shutdown process. Please wait a moment and restart the subsystem, then try again.                                                                                                                                                                                                                                      |
| DMES029501   | 0x01029501 | Hitachi Storage Navigator Modular 2 is less than Ver.8.50.<br>The process cannot be performed because the subsystem is under shutdown. Please restart the subsystem and then try again.<br>Hitachi Storage Navigator Modular 2 is Ver.8.50 or more.<br>The process cannot be performed because the subsystem is in a shutdown state. Please restart the subsystem and then try again. |
| DMES02959A   | 0x0102959A | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES02959B   | 0x0102959B | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES02959C   | 0x0102959C | The process cannot be performed because the subsystem is executing the Auto Migration. Please confirm the Migration Status and try again.                                                                                                                                                                                                                                             |
| DMES030C02   | 0x01030C02 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031000   | 0x01031000 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031102   | 0x01031102 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031104   | 0x01031104 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031200   | 0x01031200 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031300   | 0x01031300 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031401   | 0x01031401 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031501   | 0x01031501 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031502   | 0x01031502 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031902   | 0x01031902 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031903   | 0x01031903 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031C01   | 0x01031C01 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031C02   | 0x01031C02 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES031D00   | 0x01031D00 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES033100   | 0x01033100 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES033101   | 0x01033101 | Formatting ended abnormally. Please retry after waiting for a while.                                                                                                                                                                                                                                                                                                                  |
| DMES033180   | 0x01033180 | The specified LU is unformatted. Specify a formatted LU and try again.                                                                                                                                                                                                                                                                                                                |
| DMES033181   | 0x01033181 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES033201   | 0x01033201 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES038E01   | 0x01038E01 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES039300   | 0x01039300 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES03F000   | 0x0103F000 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES03F100   | 0x0103F100 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES03F200   | 0x0104F200 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES03F300   | 0x0104F300 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040100   | 0x01040100 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040200   | 0x01040200 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040300   | 0x01040300 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040600   | 0x01040600 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040700   | 0x01040700 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040800   | 0x01040800 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040801   | 0x01040801 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040802   | 0x01040802 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES040900   | 0x01040900 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES041B00   | 0x01041B00 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |
| DMES043200   | 0x01043200 | Please retry.                                                                                                                                                                                                                                                                                                                                                                         |

| Message code | Error code | Message text/Recovery methods                                                                                                        |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------|
| DMES044400   | 0x01044400 | Please retry.                                                                                                                        |
| DMES0444A0   | 0x010444A0 | Please retry.                                                                                                                        |
| DMES044C00   | 0x01044C00 | Please retry.                                                                                                                        |
| DMES048A01   | 0x01048A01 | Please retry.                                                                                                                        |
| DMES048A02   | 0x01048A02 | Please retry.                                                                                                                        |
| DMES049000   | 0x01049000 | Please retry.                                                                                                                        |
| DMES049001   | 0x01049001 | Please retry.                                                                                                                        |
| DMES049100   | 0x01049100 | Please retry.                                                                                                                        |
| DMES049101   | 0x01049101 | Please retry.                                                                                                                        |
| DMES049502   | 0x01049502 | The requested operation cannot be performed. Please confirm there are any alarms or warnings in the subsystem.                       |
| DMES049504   | 0x01049504 | The process cannot be performed because Switch Array failed. Please confirm the subsystem status and then try again.                 |
| DMES049599   | 0x01049599 | Please retry.                                                                                                                        |
| DMES049900   | 0x01049900 | Please retry.                                                                                                                        |
| DMES049903   | 0x01049903 | The elimination of PIN data is not completed. Please wait for a while and then try again.                                            |
| DMES04A000   | 0x0104A000 | Please retry.                                                                                                                        |
| DMES04E400   | 0x0104E400 | Please retry.                                                                                                                        |
| DMES04EA01   | 0x0104EA01 | Please retry.                                                                                                                        |
| DMES04EA02   | 0x0104EA02 | Please retry.                                                                                                                        |
| DMES04EA10   | 0x0104EA10 | An error was detected in firmware downgrade check. Please retry by using another firmware.                                           |
| DMES04EA11   | 0x0104EA11 | The specified firmware could not be installed on to the RKL type because the firmware version is old.                                |
| DMES04EB00   | 0x0104EB00 | The information could not be set because the backup floppy disk is not inserted.                                                     |
| DMES04EB01   | 0x0104EB01 | The backup information could not be written on to the FD because the FDD is in use or an error occurred in the FDD on the subsystem. |
| DMES04EB02   | 0x0104EB02 | An error occurred while writing on to the floppy disk.                                                                               |
| DMES04EB03   | 0x0104EB03 | The SCSI ID could not be set online due to other controller blockage.                                                                |
| DMES04F400   | 0x0104F400 | Please retry.                                                                                                                        |
| DMES04F610   | 0x0104F610 | Please retry.                                                                                                                        |
| DMES04F611   | 0x0104F611 | Please retry.                                                                                                                        |
| DMES04F620   | 0x0104F620 | Please retry.                                                                                                                        |
| DMES04F621   | 0x0104F621 | Please retry.                                                                                                                        |
| DMES04F630   | 0x0104F630 | Please retry.                                                                                                                        |
| DMES04F631   | 0x0104F631 | Please retry.                                                                                                                        |
| DMES04F640   | 0x0104F640 | Please retry.                                                                                                                        |
| DMES04F641   | 0x0104F641 | Please retry.                                                                                                                        |
| DMES04F650   | 0x0104F650 | Please retry.                                                                                                                        |
| DMES04F651   | 0x0104F651 | Please retry.                                                                                                                        |
| DMES04F660   | 0x0104F660 | Please retry.                                                                                                                        |
| DMES04F661   | 0x0104F661 | Please retry.                                                                                                                        |
| DMES04F670   | 0x0104F670 | Please retry.                                                                                                                        |
| DMES04F671   | 0x0104F671 | Please retry.                                                                                                                        |
| DMES04F800   | 0x0104F800 | Please retry.                                                                                                                        |
| DMES04F801   | 0x0104F801 | Please retry.                                                                                                                        |
| DMES04F802   | 0x0104F802 | Please retry.                                                                                                                        |
| DMES04F803   | 0x0104F803 | Please retry.                                                                                                                        |
| DMES04F804   | 0x0104F804 | Please retry.                                                                                                                        |
| DMES04F805   | 0x0104F805 | Please retry.                                                                                                                        |
| DMES04F807   | 0x0104F807 | Please retry.                                                                                                                        |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                            |
|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMES04F808   | 0x0104F808 | Please retry.                                                                                                                                                                                            |
| DMES04F809   | 0x0104F809 | Please retry.                                                                                                                                                                                            |
| DMES04F8F0   | 0x0104F8F0 | Please retry.                                                                                                                                                                                            |
| DMES04F900   | 0x0104F900 | Please retry.                                                                                                                                                                                            |
| DMES04F901   | 0x0104F901 | Please retry.                                                                                                                                                                                            |
| DMES04F902   | 0x0104F902 | Please retry.                                                                                                                                                                                            |
| DMES04F903   | 0x0104F903 | Please retry.                                                                                                                                                                                            |
| DMES04F904   | 0x0104F904 | Please retry.                                                                                                                                                                                            |
| DMES04F905   | 0x0104F905 | Please retry.                                                                                                                                                                                            |
| DMES04F906   | 0x0104F906 | Please retry.                                                                                                                                                                                            |
| DMES04F907   | 0x0104F907 | Please retry.                                                                                                                                                                                            |
| DMES04F908   | 0x0104F908 | Please retry.                                                                                                                                                                                            |
| DMES04F909   | 0x0104F909 | Please retry.                                                                                                                                                                                            |
| DMES04F9F0   | 0x0104F9F0 | Please retry.                                                                                                                                                                                            |
| DMES050000   | 0x01050000 | Please retry.                                                                                                                                                                                            |
| DMES051A00   | 0x01051A00 | Please retry.                                                                                                                                                                                            |
| DMES052000   | 0x01052000 | Please retry.                                                                                                                                                                                            |
| DMES052100   | 0x01052100 | Please retry.                                                                                                                                                                                            |
| DMES052400   | 0x01052400 | Please retry.                                                                                                                                                                                            |
| DMES052500   | 0x01052500 | The process cannot be performed because the LU is undefined or cannot be recognized from a host.                                                                                                         |
| DMES052580   | 0x01052580 | Failed to allocate LU. Confirm the specified value.                                                                                                                                                      |
| DMES052581   | 0x01052581 | The RAID group is not defined. Please specify an existing RAID group.                                                                                                                                    |
| DMES052583   | 0x01052583 | The Cache Residency function cannot be enabled.                                                                                                                                                          |
| DMES052584   | 0x01052584 | The last LBA in the RAID group defined at RAID1+0 full mapping does not match the current value.                                                                                                         |
| DMES052590   | 0x01052590 | The LU non-owner controller received an LU replacement command (for TRESPASS mode only).                                                                                                                 |
| DMES0525A0   | 0x010525A0 | Please retry.                                                                                                                                                                                            |
| DMES052600   | 0x01052600 | The process failed due to an invalid parameter. Confirm the specified value.                                                                                                                             |
| DMES052601   | 0x01052601 | The process failed due to an unsupported parameter. Confirm the specified value.                                                                                                                         |
| DMES052602   | 0x01052602 | The process failed due to an invalid parameter. Confirm the specified value.                                                                                                                             |
| DMES052604   | 0x01052604 | It failed in release of Persistent Reservation because the type of the Persistent Reserve command was different.                                                                                         |
| DMES055504   | 0x01055504 | It is impossible to register over 32 LU Reservation Keys.                                                                                                                                                |
| DMES058C01   | 0x01058C01 | Please retry.                                                                                                                                                                                            |
| DMES059401   | 0x01059401 | Please retry.                                                                                                                                                                                            |
| DMES059503   | 0x01059503 | The process cannot be performed because Switch Array failed. Please confirm the subsystem status and then try again.                                                                                     |
| DMES059505   | 0x01059505 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                             |
| DMES059510   | 0x01059510 | The process cannot be performed because the firmware is being replaced.                                                                                                                                  |
| DMES059511   | 0x01059511 | The process cannot be performed because the SVP is being replaced.                                                                                                                                       |
| DMES059520   | 0x01059520 | The specified function cannot be performed because the subsystem is in an incorrect status for execution. Please confirm there are no alarms/warnings in the subsystem, or the configuration is changed. |
| DMES059521   | 0x01059521 | Change in HotStandbyMode from DualActiveMode and change in DualActiveMode from HotStandbyMode cannot be performed because the PIN exceeded state. Restore PIN data and try again.                        |
| DMES059530   | 0x01059530 | The specified User ID is not registered.                                                                                                                                                                 |
| DMES059531   | 0x01059531 | Could not execute the function, because another user is already logged in.                                                                                                                               |
| DMES059532   | 0x01059532 | The specified User ID is already registered.                                                                                                                                                             |
| DMES059533   | 0x01059533 | Failed in registration, because 20 users have already been registered.                                                                                                                                   |
| DMES059534   | 0x01059534 | Specified password is not confirmed.                                                                                                                                                                     |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                   |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMES059535   | 0x01059535 | Another user already logged in.                                                                                                                                                                 |
| DMES059536   | 0x01059536 | The function cannot be used because it is not installed, locked, or disabled.                                                                                                                   |
| DMES059537   | 0x01059537 | The function cannot be executed because you haven't logged in.                                                                                                                                  |
| DMES059540   | 0x01059540 | A spare disk is defined within the range of the specified RAID group. Please specify the range which does not contain a spare disk.                                                             |
| DMES059541   | 0x01059541 | The drive capacity of RAID group is invalid, or the RAID group capacity is too large.                                                                                                           |
| DMES059542   | 0x01059542 | The specified drive cannot be used as a spare drive.                                                                                                                                            |
| DMES059543   | 0x01059543 | The number of spare drives has reached the maximum.                                                                                                                                             |
| DMES059544   | 0x01059544 | The specified drive is already defined as a spare drive, or is already being used in the RAID group.                                                                                            |
| DMES059545   | 0x01059545 | The specified drive capacity is smaller than that of the RAID group.                                                                                                                            |
| DMES059546   | 0x01059546 | The specified drive is not defined as a spare drive.                                                                                                                                            |
| DMES059547   | 0x01059547 | The specified spare drive cannot be released because it is in use.                                                                                                                              |
| DMES059548   | 0x01059548 | The specified function has already been unlocked.                                                                                                                                               |
| DMES059549   | 0x01059549 | The specified function has already been locked.                                                                                                                                                 |
| DMES05954A   | 0x0105954A | Invalid key code.                                                                                                                                                                               |
| DMES05954B   | 0x0105954B | The RAID group cannot be defined because the drive is not mounted, or a blocked drive exists.                                                                                                   |
| DMES05954C   | 0x0105954C | The specified drive cannot be defined as a spare drive because it is not mounted or is in blocked status.                                                                                       |
| DMES05954D   | 0x0105954D | The process cannot be performed because the target mode is not M-TID, M-LUN.                                                                                                                    |
| DMES05954E   | 0x0105954E | The process cannot be performed because the addition of target information required but changed or deleted information exist.                                                                   |
| DMES059550   | 0x01059550 | The function cannot be executed because of write prohibition.                                                                                                                                   |
| DMES059551   | 0x01059551 | The function cannot be executed because concealment mode is enabled.                                                                                                                            |
| DMES059552   | 0x01059552 | The function cannot be executed because the coupling LU or command device exists.                                                                                                               |
| DMES059554   | 0x01059554 | The function cannot be executed because the command device is not registered.                                                                                                                   |
| DMES059555   | 0x01059555 | The function cannot be executed because the stripe size is not 64KB.                                                                                                                            |
| DMES059557   | 0x01059557 | LU capacities of the P-VOL and S-VOL are not the same. Check the capacity of the LU.                                                                                                            |
| DMES059558   | 0x01059558 | The process cannot be performed because the specified LU is a unified LU, or unified LUs exist.                                                                                                 |
| DMES059559   | 0x01059559 | The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                         |
| DMES05955A   | 0x0105955A | The unification cannot be performed because the controllers in charge of the LUs do not match.                                                                                                  |
| DMES05955B   | 0x0105955B | The unification cannot be performed because the controller in charge of LU is reserved to be changed. Cancel the reservation and then try again.                                                |
| DMES05955C   | 0x0105955C | The LU of RAID0 cannot be unified. Specify an LU which the RAID level is not RAID0.                                                                                                             |
| DMES05955D   | 0x0105955D | The unification cannot be performed because the size of the unified LU will exceed the maximum.                                                                                                 |
| DMES05955E   | 0x0105955E | The separation cannot be performed because the specified LU is not a unified LU. Specify a unified LU and then try again.                                                                       |
| DMES059560   | 0x01059560 | The process cannot be performed because the target mode is not M-TID, M-LUN.                                                                                                                    |
| DMES059561   | 0x01059561 | The process cannot be performed because the target mode is M-TID, M-LUN, but target information have already been set.                                                                          |
| DMES059562   | 0x01059562 | The unification cannot be performed because the specified Sub LU is a unified LU. Specify a non-unified LU for Sub LU and then try again.                                                       |
| DMES059563   | 0x01059563 | The unification or separation cannot be performed because the specified LU is a Sub LU. Specify a Main LU (unified LU) and then try again.                                                      |
| DMES059564   | 0x01059564 | LU0 cannot be specified as a Sub LU. Specify an LU other than LU0 for Sub LU and then try again.                                                                                                |
| DMES059565   | 0x01059565 | The unification ( LU concatenation ) cannot be performed because the status of the LU is not normal ( a disk might have failed ). Specify an LU where the status is normal, and then try again. |
| DMES059566   | 0x01059566 | The process cannot be performed because the LU number is over max LU number. Specify a number under max LU number and then try again.                                                           |
| DMES059568   | 0x01059568 | The specified RAID group cannot be deleted because it contains LU0, and LUs exist in other RAID groups.                                                                                         |
| DMES059569   | 0x01059569 | The specified LU cannot be deleted because it is not the last defined LU.                                                                                                                       |

| Message code | Error code | Message text/Recovery methods                                                                                                                                           |
|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMES05956A   | 0x0105956A | Cannot define the specified LU because LU0 is not yet defined. Define LU0 first, and then try again.                                                                    |
| DMES05956B   | 0x0105956B | The capacity is beyond the limits of supported. Split the unnecessary pairs.                                                                                            |
| DMES059571   | 0x01059571 | Failed to set the path. Please confirm the conditions required for a path setup are met.                                                                                |
| DMES059572   | 0x01059572 | Failed to delete the path. Please confirm the conditions required for path deletion are met.                                                                            |
| DMES059573   | 0x01059573 | The option which cannot be specified at the same time is unlocked.                                                                                                      |
| DMES059574   | 0x01059574 | The process cannot be performed because Remote Replication is in progress.                                                                                              |
| DMES059575   | 0x01059575 | The option cannot be locked or disabled because the path has already been set.                                                                                          |
| DMES059577   | 0x01059577 | The process cannot be performed because the pair creation is in progress.                                                                                               |
| DMES05957A   | 0x0105957A | The process cannot be performed because the status of pair is suspend. Please retry after solving the error.                                                            |
| DMES05957B   | 0x0105957B | The process cannot be performed under 'pair' status. Please retry after splitting the pair.                                                                             |
| DMES05957C   | 0x0105957C | The process cannot be performed because the pair has been created in other subsystem.                                                                                   |
| DMES05957D   | 0x0105957D | The process cannot be performed because the subsystem is over the inflow threshold.                                                                                     |
| DMES05957E   | 0x0105957E | The process cannot be performed because the status of ShadowImage pair is incorrect.                                                                                    |
| DMES05957F   | 0x0105957F | The option cannot be unlocked because it is in use in the fibre channel subsystem.                                                                                      |
| DMES059580   | 0x01059580 | The process cannot be performed because the RAID Manager is doing a conflicting process. Please wait a moment and then try again.                                       |
| DMES059590   | 0x01059590 | The process cannot be performed because the subsystem is for the exclusive use of 128 LUs.                                                                              |
| DMES059591   | 0x01059591 | The process cannot be performed because the number of ShadowImage pairs reached the maximum.                                                                            |
| DMES059596   | 0x01059596 | Please retry.                                                                                                                                                           |
| DMES059600   | 0x01059600 | The process cannot be performed. Wait for a while and then try again.                                                                                                   |
| DMES059601   | 0x01059601 | The specified host group number is invalid.                                                                                                                             |
| DMES059602   | 0x01059602 | The process cannot be performed because the specified option is a fee-basis option.                                                                                     |
| DMES059603   | 0x01059603 | The process cannot be performed because the specified size of LU is over max LU size.                                                                                   |
| DMES059606   | 0x01059606 | The specified LU is invalid. Specify a valid LU and try again.                                                                                                          |
| DMES059607   | 0x01059607 | The function cannot be executed because the pair LU or SnapShot logical unit already exists.                                                                            |
| DMES05960A   | 0x0105960A | The function cannot be executed because there already exists logical units added to the data pool.                                                                      |
| DMES059612   | 0x01059612 | The process cannot be performed because quick formatting is now occurring. Retry after quick formatting is completed.                                                   |
| DMES059615   | 0x01059615 | The process cannot be performed because the specified logical unit is a part of Snapshot pair. Cancel the Snapshot pair and try again.                                  |
| DMES059617   | 0x01059617 | The process cannot be performed because the specified RAID level is not supported. Specify the RAID level currently supported and try again.                            |
| DMES05961A   | 0x0105961A | The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                                                    |
| DMES05961D   | 0x0105961D | The RAID group cannot be created because the different drives are specified within the range of a RAID group. Please confirm the drive type and try again.              |
| DMES05961E   | 0x0105961E | One internal LUN cannot be mapped to two or more host LUN in a port. Please confirm the mapping information and try again.                                              |
| DMES05961F   | 0x0105961F | The function cannot be executed because the Hi-Copy pair LU already exists. Cancel the Hi-Copy pair and try again.                                                      |
| DMES05EA03   | 0x0105EA03 | Failed to download the firmware. Please confirm the combination of the specified firmware and the subsystem.                                                            |
| DMES05EA04   | 0x0105EA04 | Failed to replace the firmware. Confirm the subsystem.                                                                                                                  |
| DMES05EA10   | 0x0105EA10 | An error was detected in firmware downgrade check. Please retry by using another firmware.                                                                              |
| DMES05EA12   | 0x0105EA12 | It is impossible to change from the 128LU version firmware to the 64LU version firmware.                                                                                |
| DMES05EA14   | 0x0105EA14 | The firmware cannot be downgraded because the High-speed Sequential Write Mode is enabled. Please set the High-speed Sequential Write Mode to disable then try again.   |
| DMES05EA15   | 0x0105EA15 | The firmware cannot be downgraded because the Random Simple Buffer Size 0% Mode is enabled. Please set the Random Simple Buffer Size 0% Mode to disable then try again. |
| DMES05EA16   | 0x0105EA16 | The firmware cannot be downgraded on this current spare drive configuration. Please release all spare drives then try again.                                            |

| Message code | Error code | Message text/Recovery methods                                                                                                                                                                                      |
|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMES05EA17   | 0x0105EA17 | The firmware cannot be downgraded because the units are intermixed. Please remove the AT units then try again.                                                                                                     |
| DMES05EA18   | 0x0105EA18 | The firmware cannot be downgraded because the ShadowImage I/O Switch Mode is enabled. Please set the ShadowImage I/O Switch Mode to disable then try again.                                                        |
| DMES05EA19   | 0x0105EA19 | The firmware cannot be downgraded because SnapShot and Cache Residency are unlocked together or not restarted the subsystem after locked. Please lock either option and restart the subsystem, and then try again. |
| DMES05EA1A   | 0x0105EA1A | Cannot download, because the firmware does not match to this subsystem. Please retry by using another firmware.                                                                                                    |
| DMES05EA1B   | 0x0105EA1B | The firmware cannot be downgraded because the RAID group of RAID6 exists. Please retry after deleting it or by using another firmware.                                                                             |
| DMES05EA1C   | 0x0105EA1C | The firmware cannot be downgraded because the non-supported units are connected. Please retry after removing the units or by using another firmware.                                                               |
| DMES05EA1D   | 0x0105EA1D | The firmware cannot be downgraded because the non-supported cache is connected. Please retry after removing the cache or by using another firmware.                                                                |
| DMES05EA1E   | 0x0105EA1E | The process cannot be performed because the NNC connected to the specified controller is not shutdown status. Please shutdown the NNC and try again.                                                               |
| DMES05EA1F   | 0x0105EA1F | The process cannot be performed because the NNC is not shutdown status. Please shutdown the NNC and try again.                                                                                                     |
| DMES05EA20   | 0x0105EA20 | The subsystem cannot be restarted.                                                                                                                                                                                 |
| DMES05EA30   | 0x0105EA30 | The ENC firmware download and replacement cannot be performed because there is an error in the loop. Please retry after solving the error.                                                                         |
| DMES05EA31   | 0x0105EA31 | The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.                                                                                              |
| DMES05EA32   | 0x0105EA32 | Failed to download the ENC firmware. Please confirm the combination of the specified ENC firmware and the subsystem.                                                                                               |
| DMES05EA33   | 0x0105EA33 | The ENC firmware of this revision cannot be downloaded. Please retry by using another ENC firmware.                                                                                                                |
| DMES05EA34   | 0x0105EA34 | The sum check error of the ENC firmware occurred. Please retry by using another ENC firmware.                                                                                                                      |
| DMES05EA35   | 0x0105EA35 | The ENC firmware is not downloaded. Please try again after downloading.                                                                                                                                            |
| DMES05EA36   | 0x0105EA36 | Failed to replace the ENC firmware. Please confirm the subsystem.                                                                                                                                                  |
| DMES05EA40   | 0x0105EA40 | The process cannot be performed because the Automatic Download is enabled. Please set the Automatic Download to disable then try again.                                                                            |
| DMES05EA41   | 0x0105EA41 | The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.                                                                                              |
| DMES05EA42   | 0x0105EA42 | The process cannot be performed because the subsystem is under diagnosis process. Please retry after a while.                                                                                                      |
| DMES05EA43   | 0x0105EA43 | The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                       |
| DMES05EA44   | 0x0105EA44 | The process cannot be performed because the ENC is detached. Please recover the ENC status and then try again.                                                                                                     |
| DMES05EA45   | 0x0105EA45 | The process cannot be performed in the single-controller system. Please confirm the system configuration.                                                                                                          |
| DMES05EA46   | 0x0105EA46 | The ENC firmware of this revision cannot be replaced. Please retry by using another ENC firmware.                                                                                                                  |
| DMES05EA49   | 0x0105EA49 | The firmware replacement cannot be performed because the CPU is heavily-loaded. Please wait a moment and then try again.                                                                                           |
| DMES05EB04   | 0x0105EB04 | The FDD on the subsystem could not be diagnosed because the FDD is in use.                                                                                                                                         |
| DMES062900   | 0x01062900 | Please retry.                                                                                                                                                                                                      |
| DMES062A00   | 0x01062A00 | Please retry.                                                                                                                                                                                                      |
| DMES062A03   | 0x01062A03 | About LU, all Reservation Keys and Persistent Reservations were cleared by the Clear service action of the Persistent Reserve command.                                                                             |
| DMES062A04   | 0x01062A04 | By register of the Persistent Reserve command or Register & Ignore Key service action, the Reservation Key was cleared, and Persistent Reservation was released.                                                   |



| Message code | Error code | Message text/Recovery methods                                                                                         |
|--------------|------------|-----------------------------------------------------------------------------------------------------------------------|
| DMES062A05   | 0x01062A05 | Reservation Key was cleared by Preempt of the Persistent Reserve command, or the Preempt & Abort service action.      |
| DMES062F00   | 0x01062F00 | Please retry.                                                                                                         |
| DMES063F01   | 0x01063F01 | The firmware is downloaded.                                                                                           |
| DMES068200   | 0x01068200 | Please retry.                                                                                                         |
| DMES068201   | 0x01068201 | Please retry.                                                                                                         |
| DMES068202   | 0x01068202 | Please retry.                                                                                                         |
| DMES068210   | 0x01068210 | Please retry.                                                                                                         |
| DMES068211   | 0x01068211 | Please retry.                                                                                                         |
| DMES068212   | 0x01068212 | Please retry.                                                                                                         |
| DMES068213   | 0x01068213 | Please retry.                                                                                                         |
| DMES068214   | 0x01068214 | Please retry.                                                                                                         |
| DMES068215   | 0x01068215 | Please retry.                                                                                                         |
| DMES068216   | 0x01068216 | Please retry.                                                                                                         |
| DMES068217   | 0x01068217 | Please retry.                                                                                                         |
| DMES068218   | 0x01068218 | Please retry.                                                                                                         |
| DMES068219   | 0x01068219 | Please retry.                                                                                                         |
| DMES06821A   | 0x0106821A | Please retry.                                                                                                         |
| DMES068300   | 0x01068300 | Please retry.                                                                                                         |
| DMES068400   | 0x01068400 | Please retry.                                                                                                         |
| DMES079578   | 0x01079578 | The process cannot be performed because the data is being copied.                                                     |
| DMES079595   | 0x01079595 | Please retry.                                                                                                         |
| DMES079597   | 0x01079597 | Please retry.                                                                                                         |
| DMES079598   | 0x01079598 | Please retry.                                                                                                         |
| DMES0B3D00   | 0x010B3D00 | Please retry.                                                                                                         |
| DMES0B4300   | 0x010B4300 | Please retry.                                                                                                         |
| DMES0B4500   | 0x010B4500 | Please retry.                                                                                                         |
| DMES0B4700   | 0x010B4700 | Please retry.                                                                                                         |
| DMES0B4800   | 0x010B4800 | Please retry.                                                                                                         |
| DMES0B4900   | 0x010B4900 | Please retry.                                                                                                         |
| DMES0B4A00   | 0x010B4A00 | Please retry.                                                                                                         |
| DMES0B4B00   | 0x010B4B00 | Please retry.                                                                                                         |
| DMES0B4E00   | 0x010B4E00 | Please retry.                                                                                                         |
| DMES0B9531   | 0x010B9531 | Could not execute the function, because another user is already logged in.                                            |
| DMES0BC000   | 0x010BC000 | Please retry.                                                                                                         |
| DMES0BC001   | 0x010BC001 | Please retry.                                                                                                         |
| DMES0BC002   | 0x010BC002 | Please retry.                                                                                                         |
| DMES0BC100   | 0x010BC100 | Please retry.                                                                                                         |
| DMES0BC200   | 0x010BC200 | Please retry.                                                                                                         |
| DMES0BDA00   | 0x010BDA00 | The process cannot be performed because the drive recovery is in progress. Please retry after waiting for a while.    |
| DMES0BFD00   | 0x010BFD00 | The process cannot be performed due to LU replacement. Connect to the controller with owner permission and try again. |
| DMES0BFD01   | 0x010BFD01 | The process for LU replacement is suspended. Please retry after waiting for a while.                                  |

This page is for editorial purpose only.

## Chapter 9. Failure Analysis by Sense Data

In case of Fibre Channel, when an error occurs Sense Data is stored in Payload of FCP\_RSP and transferred to Host Computer.

### 9.1 Details of Sense Code

The details of Sense Code are shown below.

| Sense key | Sense code | Description                                                                                         | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 0/5       | 00 00      | There is no valid additional sense information.                                                     | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 4         | 01 00      | The INDEX signal cannot be detected.<br>The SECTOR signal cannot be detected.                       |                                                                                                                                                   |                                                                              |
| 1/4       | 02 00      | Seek operation in the Disk Drive cannot be executed correctly.                                      |                                                                                                                                                   |                                                                              |
| 4         | 03 00      | A Write Fault was detected in the Disk Drive.                                                       |                                                                                                                                                   |                                                                              |
| 2         | 04 00      | The LU connected cannot execute a command because LUs are being formatted.                          | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 2         | 04 01      | The Disk Drive will soon become ready although it is currently not ready.                           |                                                                                                                                                   |                                                                              |
| 2         | 04 02      | The Disk Drive is currently not ready; it has not been spun-up.                                     |                                                                                                                                                   |                                                                              |
| 2         | 04 03      | The host I/O cannot be executed because the Disk Drive is spin-down with the Power Saving function. | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 2         | 04 04      | The logical unit is currently not ready.<br>(It is executing the formatting command.)               | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 2         | 04 84      | A sequential shutdown is in progress.                                                               |                                                                                                                                                   |                                                                              |
| 2         | 05 00      | An error occurred in the drive interface in the logical unit.                                       | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 1/4       | 06 00      | The positioning to Track 0 failed.                                                                  |                                                                                                                                                   |                                                                              |
| 4         | 07 00      | Two or more Disk Drives were selected at the same time.                                             |                                                                                                                                                   |                                                                              |
| 4         | 08 00      | An error occurred in the drive interface in the logical unit.                                       |                                                                                                                                                   |                                                                              |
| 4         | 08 01      | A time-out error occurred in the drive interface in the logical unit.                               |                                                                                                                                                   |                                                                              |
| 1/4       | 08 02      | A parity error occurred in the drive interface in the logical unit.                                 |                                                                                                                                                   |                                                                              |
| 1/4       | 09 00      | A track positioning failed.                                                                         |                                                                                                                                                   |                                                                              |
| 3         | 0C 02      | An automatic allocation was executed against the write error but failed.                            |                                                                                                                                                   |                                                                              |
| 3         | 0C FF      | Write processing time exceeded Recovery Time Limit, write processing was terminated.                |                                                                                                                                                   |                                                                              |
| 3         | 10 00      | A CRC error occurred in the ID field.                                                               |                                                                                                                                                   |                                                                              |

| Sense key | Sense code | Description                                                                                                   | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 3         | 11 00      | An error occurred in the data field.                                                                          | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 3         | 11 01      | Reading of the data field was retried but the error was not recovered. (An error correction was not applied.) |                                                                                                                                                   |                                                                              |
| 3         | 11 02      | The read error in the data field could not be corrected by means of the ECC.                                  |                                                                                                                                                   |                                                                              |
| 3         | 11 04      | An automatic reallocation was executed against the recoverable error but failed                               |                                                                                                                                                   |                                                                              |
| 3         | 11 FF      | Read or Verify processing time exceeded Recovery Time Limit, read or verify processing was terminated.        |                                                                                                                                                   |                                                                              |
| 3         | 12 00      | The address mark of the ID field could not be detected.                                                       |                                                                                                                                                   |                                                                              |
| 1/3       | 13 00      | The address mark of the data field could not be detected.                                                     |                                                                                                                                                   |                                                                              |
| 1/3       | 14 01      | The block with the identical ID field could not be detected.                                                  |                                                                                                                                                   |                                                                              |
| 1/4       | 15 01      | A seek error occurred.                                                                                        |                                                                                                                                                   |                                                                              |
| 1/4       | 15 02      | The seek operation terminated normally but the head was positioned at an address not intended.                |                                                                                                                                                   |                                                                              |
| 1         | 17 00      | The error was recovered by a retry.                                                                           | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 1         | 17 01      | The error was recovered by a retry (without a head offset).                                                   |                                                                                                                                                   |                                                                              |
| 1         | 17 02      | The error was recovered by a retry with a head offset in the positive direction.                              |                                                                                                                                                   |                                                                              |
| 1         | 17 03      | The error was recovered by a retry with a head offset in the negative direction.                              |                                                                                                                                                   |                                                                              |
| 1         | 18 00      | The error was recovered by the ECC (without a retry).                                                         |                                                                                                                                                   |                                                                              |
| 1         | 18 01      | The error was recovered by the ECC applied in a retry.                                                        |                                                                                                                                                   |                                                                              |
| 1         | 18 02      | Data was recovered by an automatic reallocation.                                                              |                                                                                                                                                   |                                                                              |
| 1/3       | 19 02      | An error occurred during an access to the Primary (P) list.                                                   | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 1/3       | 19 03      | An error occurred during an access to the Grown (G) list.                                                     |                                                                                                                                                   |                                                                              |
| 5         | 1A 00      | The parameter list length is illegal.                                                                         |                                                                                                                                                   |                                                                              |
| 4         | 1B 00      | A synchronous data transfer error occurred in a data transfer.                                                |                                                                                                                                                   |                                                                              |
| 3         | 1C 01      | The positioning to the Primary (P) list failed.                                                               |                                                                                                                                                   |                                                                              |
| 3         | 1C 02      | The positioning to the Primary (P) list failed.                                                               |                                                                                                                                                   |                                                                              |
| 3         | 1D 00      | A data compare error occurred during write or read buffer verify processing.                                  |                                                                                                                                                   |                                                                              |

| Sense key | Sense code | Description                                                                                                                                                                                                                                                                                                     | Recovery methods                                                                                                                                  | Reference page                                               |
|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 5         | 20 00      | The operation code is invalid.                                                                                                                                                                                                                                                                                  | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040) |
| 5         | 21 00      | An attempt was made to access beyond the logical block address reported with Read Capacity (PMI bit=0).                                                                                                                                                                                                         | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 22 00      | <ul style="list-style-type: none"> <li>The Read command could not be executed because the access level had been set with Data Retention Utility.</li> <li>The read command from the host was unable to be executed because there was no usable capacity for the DP Pool.</li> </ul>                             | —                                                                                                                                                 | —                                                            |
| 5         | 24 00      | There is an invalid field in the CDB.<br>Ex.: RESERVED Bit/VALUE ≠ ZERO                                                                                                                                                                                                                                         | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040) |
| 5         | 25 00      | The LUN shown by the CDB or Identify message is not supported.                                                                                                                                                                                                                                                  | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 25 80      | The logical unit allocation failed.                                                                                                                                                                                                                                                                             | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                              |
| 5         | 25 81      | The RAID group (RG) is not defined.                                                                                                                                                                                                                                                                             | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 25 83      | P The Turbo LU specification was rejected by the specification condition check.                                                                                                                                                                                                                                 | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                              |
| 5         | 25 84      | The current value of the Row Last LBA in the RAID group is different from that when RAID 1+0 full mapping was defined.                                                                                                                                                                                          | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 25 90      | The controller with no LU owner right received a command to switch the LU (in the case of the Trespass mode).                                                                                                                                                                                                   | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 25 A0      | The divisional transfer failed.                                                                                                                                                                                                                                                                                 | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 26 00      | There is an invalid field in the parameter list.                                                                                                                                                                                                                                                                | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 26 01      | An unsupported parameter was received.                                                                                                                                                                                                                                                                          | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 26 02      | The parameter value is invalid.                                                                                                                                                                                                                                                                                 | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 5         | 26 04      | The release from the Persistent Reservation failed because the type of the Persistent Reserve command was different.                                                                                                                                                                                            | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                              |
| 7         | 27 00      | <ul style="list-style-type: none"> <li>The write command could not be executed because the access level had been set with Data Retention Utility.</li> <li>Since there was no capacity which can be used for the DP Pool, the firmware was unable to execute the Write system command from the host.</li> </ul> | —                                                                                                                                                 | —                                                            |
|           |            |                                                                                                                                                                                                                                                                                                                 | Add the DP Pool capacity using Hitachi Storage Navigator Modular 2 according to "Dynamic Provisioning User's Guide".                              | "Dynamic Provisioning User's Guide"                          |

| Sense key | Sense code | Description                                                                                                                                                                                                                                                                          | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 6         | 29 00      | <ul style="list-style-type: none"> <li>A Power On Reset occurred.</li> <li>An internal reset occurred owing to a serious hardware error.</li> </ul>                                                                                                                                  | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 6         | 2A 00      | <ul style="list-style-type: none"> <li>The Mode Select parameter was changed.</li> <li>Another system received the SCSI Reset in the dual configuration.<br/>Ex.: A parameter was changed by the Mode Select command.</li> </ul>                                                     |                                                                                                                                                   |                                                                              |
| 6         | 2A 03      | The Reservation Key and Persistent Reservation of the LU concerned were all cleared by the Clear service action of the Persistent Reserve command.                                                                                                                                   |                                                                                                                                                   |                                                                              |
| 6         | 2A 04      | The Reservation Key was deleted and the Persistent Reservation was cancelled by the Register or Resister & Ignre Key service action of the Persistent Reserve command.                                                                                                               |                                                                                                                                                   |                                                                              |
| 6         | 2A 05      | The Reservation Key was deleted by the Preempt or Preempt & Abort service action of the Persistent Reserve command.                                                                                                                                                                  |                                                                                                                                                   |                                                                              |
| 6         | 2F 00      | The command was cleared according to the Clear Queue message from another initiator or owing to an occurrence of the CA status in the initiator.                                                                                                                                     |                                                                                                                                                   |                                                                              |
| 3         | 31 00      | The medium is not formatted correctly; it must be reformatted by the Format Unit command                                                                                                                                                                                             | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 3         | 31 01      | The Format command terminated abnormally; it must be reformatted by the Format Unit command.                                                                                                                                                                                         |                                                                                                                                                   |                                                                              |
| 3         | 31 80      | The data format for the disk array is not established.                                                                                                                                                                                                                               |                                                                                                                                                   |                                                                              |
| 3         | 31 81      | <ul style="list-style-type: none"> <li>The format command cannot be executed because the Disk Drive configuration is incomplete (i.e., the data or parity drive is detached).</li> <li>An attempt was made to execute the format command beyond the actual disk capacity.</li> </ul> |                                                                                                                                                   |                                                                              |
| 1/4       | 32 00      | The reallocation cannot be done because the alternative area is insufficient.                                                                                                                                                                                                        |                                                                                                                                                   |                                                                              |
| 1/3       | 32 01      | The update of the Grown (G) list failed.                                                                                                                                                                                                                                             |                                                                                                                                                   |                                                                              |
| 5         | 35 01      | An ENC time-out (FC) or an illegal frame was sent (SATA).                                                                                                                                                                                                                            | —                                                                                                                                                 | —                                                                            |
| 1         | 37 00      | The processing was executed with the parameter value rounded because it could not be executed with the original value.                                                                                                                                                               |                                                                                                                                                   |                                                                              |
| B         | 3D 00      | An invalid bit was detected in the Identify message.                                                                                                                                                                                                                                 | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 2         | 3E 00      | The self-configuration of the Disk Drive is not established yet.                                                                                                                                                                                                                     |                                                                                                                                                   |                                                                              |
| 6         | 3F 01      | The firmware was downloaded.                                                                                                                                                                                                                                                         | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |

| Sense key | Sense code | Description                                                                                                                                                 | Recovery methods                                                                                         | Reference page                                                               |
|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| B         | 43 00      | The operation cannot be continued because the message was rejected or an error occurred in the Message phase.                                               | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 4         | 44 00      | A hardware or firmware error was detected in the Controller during the command execution.                                                                   |                                                                                                          |                                                                              |
| 4         | 44 00      | A abnormal end of the Formatting job generated by the read command was detected.                                                                            |                                                                                                          |                                                                              |
| 4         | 44 00      | A abnormal end of the Formatting job generated by the write command was detected.                                                                           |                                                                                                          |                                                                              |
| 4         | 44 A0      | No sector to be reassigned cannot be detected.                                                                                                              |                                                                                                          |                                                                              |
| B         | 45 00      | A Select/ Reselect time-over was detected.<br>An invalid selection was detected.                                                                            |                                                                                                          |                                                                              |
| B         | 47 00      | A Fibre Channel bus on CRC error occurred.                                                                                                                  |                                                                                                          |                                                                              |
| B         | 48 00      | The Initiator Detected Error message was received from the initiator.                                                                                       |                                                                                                          |                                                                              |
| B         | 49 00      | • An invalid message was detected.                                                                                                                          |                                                                                                          |                                                                              |
|           |            | • The communication via a LAN was not done normally because of a LAN failure.                                                                               |                                                                                                          |                                                                              |
| B         | 4A 00      | An error occurred during accepting of the command.                                                                                                          |                                                                                                          |                                                                              |
| B         | 4B 00      | An error occurred during data transfer.                                                                                                                     |                                                                                                          |                                                                              |
| 4         | 4C 00      | A loading of a firmware or parameter failed when starting up the controller.                                                                                |                                                                                                          |                                                                              |
| B         | 4E 00      | • Two commands with no tag was issued to the same I-T-L.                                                                                                    |                                                                                                          |                                                                              |
|           |            | • Commands with and without tags were issued to the same I-T-L. (When this code is reported, all the commands queuing for the I-T-L concerned are cleared.) |                                                                                                          |                                                                              |
| 5         | 55 04      | A registration of 32 or more Reservation Keys in an LU was attempted.                                                                                       |                                                                                                          |                                                                              |
| 1         | 5B 00      | An exceptional log in the Disk Drive was detected.                                                                                                          |                                                                                                          |                                                                              |
| 1         | 5B 02      | The log counter in the Disk Drive reached its maximum value.                                                                                                |                                                                                                          |                                                                              |
| 1         | 5B 03      | All log list codes in the Disk Drive were used up.                                                                                                          |                                                                                                          |                                                                              |
| 1/6       | 5C 02      | A synchronous lead-in failure or synchronous loss after synchronization was detected.                                                                       | —                                                                                                        | —                                                                            |

| Sense key | Sense code | Description                                                                                                                                                                                                                     | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 6         | 82 00      | The disk recovery by means of a drive recovery completed normally <sup>(*1)</sup> .                                                                                                                                             | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 6         | 82 01      | Unrecoverable data was generated although the disk recovery by means of a drive recovery completed normally.                                                                                                                    | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 6         | 82 02      | The Disk Drive recovery by means of a Disk Drive recovery completed normally. But the configuration status was not changed to that in which the recovery had completed because a unrecoverable error occurred <sup>(*1)</sup> . |                                                                                                                                                   |                                                                              |
| 6         | 82 10      | The Disk Drive recovery was forcibly terminated by an operator instruction <sup>(*1)</sup> .                                                                                                                                    | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 6         | 82 11      | The Disk Drive recovery was forcibly terminated because a media error was detected in the Disk Drive recovery source disk during the drive recovery <sup>(*1)</sup> .                                                           | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 6         | 82 12      | The Disk Drive recovery was forcibly terminated because a media error was detected in the Disk Drive recovery destination disk during the drive recovery <sup>(*1)</sup> .                                                      |                                                                                                                                                   |                                                                              |
| 6         | 82 13      | The Disk Drive recovery was forcibly terminated because a hardware error was detected in the Disk Drive recovery source disk during the drive recovery <sup>(*1)</sup> .                                                        |                                                                                                                                                   |                                                                              |
| 6         | 82 14      | The Disk Drive recovery was forcibly terminated because a hardware error was detected in the Disk Drive recovery destination Disk Drive during the drive recovery <sup>(*1)</sup> .                                             |                                                                                                                                                   |                                                                              |
| 6         | 82 15      | The Disk Drive recovery was forcibly terminated because the Disk Drive recovery source disk was blocked during the Disk Drive recovery <sup>(*1)</sup> .                                                                        |                                                                                                                                                   |                                                                              |
| 6         | 82 16      | The Disk Drive recovery was forcibly terminated because the Disk Drive recovery destination Disk Drive was blocked during the drive recovery <sup>(*1)</sup> .                                                                  |                                                                                                                                                   |                                                                              |
| 6         | 82 17      | The Disk Drive recovery was forcibly terminated because a hardware error was detected in an inter-cache control during the Disk Drive recovery. <sup>(*1)</sup> .                                                               |                                                                                                                                                   |                                                                              |
| 6         | 82 18      | The Disk Drive recovery was forcibly terminated because the status of the configuration information changed <sup>(*1)</sup> .                                                                                                   |                                                                                                                                                   |                                                                              |
| 6         | 82 19      | The Disk Drive could not be started because data for write-after remains in the recovery destination Spare Disk <sup>(*1)</sup> .                                                                                               |                                                                                                                                                   |                                                                              |
| 6         | 82 1A      | The Disk Drive recovery was forcibly terminated because an time-out occurred in an internal process <sup>(*1)</sup> .                                                                                                           |                                                                                                                                                   |                                                                              |

\*1 : The sense code is not reported to the host. (It is reported as the Sense Information on Mode Sense page 34<sub>H</sub>.)



| Sense key | Sense code | Description                                                                                                                                           | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| B         | 83 00      | The dump information was changed because another controller was blocked during a collection of the Send Diag drive dump.                              | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 4         | 8A 01      | A parity error was detected during a medium parity consistency check.                                                                                 |                                                                                                                                                   |                                                                              |
| 4         | 8A 02      | A parity error was detected during a medium LA consistency check.                                                                                     |                                                                                                                                                   |                                                                              |
| 1         | 8A 03      | Intermediate pinned data and dirty data were found during a parity consistency check.                                                                 |                                                                                                                                                   |                                                                              |
| 1         | 8A 04      | Remaining intermediate or physical dirty data and pinned data were found during an LA consistency check of a medium.                                  |                                                                                                                                                   |                                                                              |
| 1         | 8B 01      | An inoperable command was issued to the blocked logical unit.                                                                                         |                                                                                                                                                   |                                                                              |
| 5         | 8C 01      | Parity check was required in the Regression mode.                                                                                                     |                                                                                                                                                   |                                                                              |
| 3         | 8E 01      | An instruction to read or verify was given to the block on which a writing has not completed.                                                         |                                                                                                                                                   |                                                                              |
| 3         | 8E 02      | Reading on the V-Vol was attempted it could not be done because of the incomplete DDCB.                                                               |                                                                                                                                                   |                                                                              |
| 3         | 8E 03      | Writing on the V-Vol was attempted it could not be done because of the incomplete DDCB.                                                               |                                                                                                                                                   |                                                                              |
| 1         | 8E 04      | Write through was operated due to failures of the Power Unit, UPS and Control Unit.                                                                   | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 3         | 8E 05      | A copy or restore by a general purpose ASYNC job was not completed in execution of Copy-on-write SnapShot.                                            | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 3         | 8E 06      | The copy to ShadowImage S-VOL that operated by the Write command extension to match the primary/secondary data was not completed due to the time-out. |                                                                                                                                                   |                                                                              |
| 3         | 8E 07      | The completion of the job related to the general-purpose copy job timed out.                                                                          | Retry the command.                                                                                                                                | —                                                                            |
| 3/4       | 90 00      | An unrecoverable data error occurred during a data recovery with parity disk data.                                                                    | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 3/4       | 90 01      | An unrecoverable data error occurred during operation in the Regression mode.                                                                         |                                                                                                                                                   |                                                                              |
| 4         | 91 00      | Data could not be reconstructed because an unrecoverable error was detected during an automatic allocation                                            |                                                                                                                                                   |                                                                              |
| 4         | 91 01      | The alternative block could not be reallocated in an automatic reallocation.                                                                          |                                                                                                                                                   |                                                                              |
| 3         | 93 00      | A parity adjustment error occurred in the Cache memory.                                                                                               |                                                                                                                                                   |                                                                              |
| 5         | 94 01      | The Control Unit with no LU owner right received a command to switch the LU (in the case of the Alternate Paths 1 and 2).                             | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |

\*1 : The sense code is not reported to the host. (It is reported as the Sense Information on Mode Sense page 34<sub>H</sub>.)

| Sense key                         | Sense code | Description                                                                                                                                                                                                       | Recovery methods                                                                                                                                                                                                                                           | Reference page                                               |
|-----------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 2                                 | 95 00      | The pseudo sequential shutdown is in progress.                                                                                                                                                                    | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.                                                                                                          | Troubleshooting “7.3 Collecting Simple Trace” (TRBL 07-0040) |
| 2                                 | 95 01      | The pseudo sequential shutdown terminated normally.                                                                                                                                                               |                                                                                                                                                                                                                                                            |                                                              |
| 4                                 | 95 02      | The pseudo sequential shutdown terminated abnormally.                                                                                                                                                             | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                                                                                   |                                                              |
| 5                                 | 95 03      | The synchronize cache command, which requires pseudo planned shutdown for switching the access path, was not executed. The reason is shown in each detail code.                                                   |                                                                                                                                                                                                                                                            |                                                              |
|                                   |            | Detail code: 1<br>Because the subsystem is under pseudo planned shutdown.                                                                                                                                         | 1. Restart the subsystem.                                                                                                                                                                                                                                  | —                                                            |
|                                   |            |                                                                                                                                                                                                                   | 2. Execute the access path switching.                                                                                                                                                                                                                      | —                                                            |
|                                   |            | Detail code 2:<br>Because the synchronize cache command, which requires the pseudo planned shutdown by access path switching, was received from the host computer of iSCSI I/F.                                   | The synchronize cache command, which requires the pseudo planned shutdown by access path switching, was issued from the host computer of iSCSI I/F. Execute the pseudo planned shutdown by access path switching from Hitachi Storage Navigator Modular 2. | —                                                            |
|                                   |            | Detail code: 3<br>Because the auto migration is not completed.                                                                                                                                                    | The command was not executed because the auto migration was not completed. Execute the access path switching after completing the auto migration.                                                                                                          | —                                                            |
|                                   |            | Detail code: 4<br>Because the pseudo planned shutdown by access path switching is already completed.                                                                                                              | The pseudo planned shutdown by access path switching is already completed. Therefore, the command, which requires the pseudo planned shutdown by access path switching, cannot be executed or it is not needed.                                            | —                                                            |
| 4                                 | 95 04      | Detail code: 5<br>Because the synchronize cache command, which requires the pseudo planned shutdown by access path switching, was received although the subsystem was not array.                                  | The command exclusive for array was received. Connect it to the subsystem which was going to execute the command from Hitachi Storage Navigator Modular 2, and then execute the command.                                                                   | —                                                            |
|                                   |            | The pseudo planned shutdown by access path switching was not executed. When this error occurs, the pseudo planned shutdown is not executed and the subsystem is still Ready. Errors occur in the following cases. |                                                                                                                                                                                                                                                            |                                                              |
|                                   |            | ① The access path switching failed because CHK1Reset and Control Unit blockade occurred.                                                                                                                          | Execute the access path switching from Hitachi Storage Navigator Modular 2 again.                                                                                                                                                                          | —                                                            |
|                                   |            | ② The access path switching failed because the Power Unit of the subsystem was turned off.                                                                                                                        | 1. Turn on the Power Unit of Original Array.<br><br>2. Execute the access path switching from Hitachi Storage Navigator Modular 2.                                                                                                                         | —<br><br>—                                                   |
| To be continued to the next page. |            |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                            |                                                              |

| Sense key | Sense code | Description                                                                                                                                                                                                           | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference page |
|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|           |            | ③ The data migration failed because a Disk Drive failure occurred in Original Array with no empty slot in repair slots and the pair status of the ShadowImage pair of the auto migration changed to PSUE.             | When a Disk Drive failure occurs in Original Array, check if there are empty slots in spare slots. When there is no empty slot in repair slots of Original Array, the auto migration cannot be executed. If Original Array can access from the host computer, set the same setting contents in a New Array as the various settings of Original Array, and then request the customer to copy the user data of Original Array to the New Array via host computer. If Original Array cannot access from the host computer, set the same setting contents in New Array as the various settings of Original Array, and then request the customer to restore his/her backup data in New Array.                                                           | —              |
|           |            | ④ The data migration failed because a Disk Drive failure occurred in the Original Array subsystem with empty slots in repair slots and the pair status of the ShadowImage pair of the auto migration changed to PSUE. | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | —              |
|           |            | ⑤ The data migration failed because a Disk Drive failure occurred in the New Array and the pair status of the ShadowImage pair of the data migration changed to PSUE.                                                 | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | —              |
|           |            | ⑥ The pseudo planned shutdown failed because a failure of which the number of PIN exceeds the threshold value occurred in Original Array with no empty slot in repair slots.                                          | When a failure of which the number of PINs exceeds the threshold value occurs in Original Array, check if there are empty slots in repair slots of Original Array. When there is no empty slot in repair slots of Original Array, the auto migration cannot be executed. If Original Array can access from the host computer, set the same setting contents in New Array as the various settings of Original Array, and then request the customer to copy the user data of Original Array to New Array via host computer. If Original Array cannot access from the host computer, set the same setting contents in New Array as the various settings of Original Array, and then request the customer to restore his/her backup data in New Array. | —              |
|           |            | ⑦ The pseudo planned shutdown failed because a failure of which the number of PIN exceeds the threshold value occurred in Original Array with empty slots in repair slots.                                            | When a failure of which the number of PINs exceeds the threshold value occurs in Original Array, check if there are empty slots in repair slots of Original Array. When there are empty slots in repair slots of Original Array, contact for inquiries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | —              |
|           |            | ⑧ The pseudo planned shutdown failed because PIN over occurred in New Array.                                                                                                                                          | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | —              |

| Sense key | Sense code | Description                                                                                                                                                                                                                                                                                                          | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 5         | 95 05      | The subsystem cannot execute the command because the array is being switched.                                                                                                                                                                                                                                        | Wait until the array switching is completed. Check the operation procedure.                                                                       | —                                                                            |
| 5         | 95 10      | The command cannot be executed because the firmware is being replaced.                                                                                                                                                                                                                                               | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 5         | 95 20      | The Mode Select/Mode Sense 3E <sub>H</sub> (extended code 03 <sub>H</sub> /04 <sub>H</sub> /05 <sub>H</sub> /06 <sub>H</sub> ) was received in the state in which no command could be executed.                                                                                                                      | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 5         | 95 36      | The priced option function is in the unsupported status.                                                                                                                                                                                                                                                             | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 5         | 95 37      | The command cannot be executed because you haven't logged in.                                                                                                                                                                                                                                                        | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 5         | 95 40      | A Spare Disk has been defined within a range of the designated RG (at the time of the RG setting).                                                                                                                                                                                                                   | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 5         | 95 41      | The Disk Drive capacity is illegal (when the RG is set). The cause may be one the following.<br>1. The capacity of the data disk exceeds that of the Spare Disk.<br>2. When the RG was expanded, the Disk Drive capacity of the added portion was smaller than that of the Disk Drive that had already been defined. | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 5         | 95 42      | The designated Disk Drive is that which cannot be defined as a Spare Disk (at the time of the Spare Disk designation).                                                                                                                                                                                               |                                                                                                                                                   |                                                                              |
| 5         | 95 43      | The number of the specified Spare Disks exceeds maximum definable value (at the time of the Spare Disk designation).                                                                                                                                                                                                 |                                                                                                                                                   |                                                                              |
| 5         | 95 44      | The designated drive has already been defined as a Spare Disk or an RG (at the time of the Spare Disk specification).                                                                                                                                                                                                |                                                                                                                                                   |                                                                              |
| 5         | 95 45      | The value of the designated Last LBA is less than the maximum Last LBA of the RG (at the time of the Spare Disk designation). (The cases where the drive is blocked or uninstalled are excluded.)                                                                                                                    |                                                                                                                                                   |                                                                              |
| 5         | 95 46      | An instruction to release a drive of a Spare Disk was issued to the Disk Drive which was not designated as a Spare Drive (at the time of the Spare Disk release).                                                                                                                                                    |                                                                                                                                                   |                                                                              |
| 5         | 95 47      | The Spare Disk is being used though it was specified to be released of the Spare Disk.                                                                                                                                                                                                                               | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. |                                                                              |
| 5         | 95 48      | An unlocking instruction was given to the drive which was not locked.                                                                                                                                                                                                                                                | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          |                                                                              |
| 5         | 95 49      | A locking instruction was given to the drive which was already locked.                                                                                                                                                                                                                                               |                                                                                                                                                   |                                                                              |
| 5         | 95 4A      | The pricing key code is invalid.                                                                                                                                                                                                                                                                                     |                                                                                                                                                   |                                                                              |

| Sense key | Sense code | Description                                                                                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                 | Reference page                                                                                                                                                         |
|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5         | 95 4B      | The RAID group cannot be set because the uninstalled or blocked Disk Drive is included in the specified Disk Drive.                                                                                                                                                                                                                                                                                           | Select the installed Disk Drive, and set the RAID group.<br>Or, set the RAID group again after replacing the blocked Disk Drive. | <a href="#">System Parameter "Chapter 3. Setting the RAID/LU/Spare Disk" (SYSPR 03-0000)</a><br><a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a> |
| 5         | 95 4D      | The process cannot be performed because the target mode is not M-TID, M-LUN. (Mapping mode)                                                                                                                                                                                                                                                                                                                   | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                         | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>                                                                                           |
| 5         | 95 4E      | The process cannot be performed because the target information are changed or deleted.                                                                                                                                                                                                                                                                                                                        |                                                                                                                                  |                                                                                                                                                                        |
| 5/7       | 95 50      | Command not execute for write prohibition.                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 51      | Command not execute for concealment mode.                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 52      | Command not execute for coupling LU or Command Device exist.                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 53      | Ap distinction number is full.                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 54      | Command response can not be done because command device is not set.                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 56      | The command cannot be executed because a failure occurred during the reverse resynchronization or the I/O switch operation.                                                                                                                                                                                                                                                                                   |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 57      | <ul style="list-style-type: none"> <li>(LU Size Non-Rounding mode is off)<br/>A pair cannot be formed because the primary and secondary LU sizes (host LU size = rounded LU size) are not the same.</li> <li>(LU Size Non-Rounding mode is on)<br/>A pair cannot be formed because the primary and secondary LU sizes (either or both of the host LU sizes and rounded LU sizes) are not the same.</li> </ul> |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 58      | The command cannot be issued because LU unification is in progress.                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 59      | LU unification, a dissolution of LU unification, or a separation of a final LU could not be done because an internal LU to have been used for the operation above was a Turbo LU or a reserved Turbo LU.                                                                                                                                                                                                      |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 5A      | The LU unification could not be done because Controllers that control LUs to be unified were not the same.                                                                                                                                                                                                                                                                                                    |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 5B      | The LU unification could not be done because a Controller that controls the LUs to be unified was being changed.                                                                                                                                                                                                                                                                                              |                                                                                                                                  |                                                                                                                                                                        |
| 5         | 95 5C      | The LU unification could not be done because a RAID level of the LUs to be unified was RAID 0.                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |                                                                                                                                                                        |

| Sense key | Sense code | Description                                                                                                                                                                  | Recovery methods                                                                                         | Reference page                                                               |
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| 5         | 95 5D      | The LU unification could not be done because an LU size after the unification would be larger than 2 Tbytes.                                                                 | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 5         | 95 5E      | A dissolution of LU unification or a separation of a final LU could not be done because the LU concerned was not a unified LU.                                               |                                                                                                          |                                                                              |
| 5         | 95 62      | The LU unification could not be done because a unified LU was selected as a Sub LU to be unified.                                                                            |                                                                                                          |                                                                              |
| 5         | 95 63      | LU unification, a dissolution of a unified LU or a separation of a final LU could not be done because a Sub LU had been selected.                                            |                                                                                                          |                                                                              |
| 5         | 95 64      | The LU unification could not be done because the LU #0 was selected as the Sub LU.                                                                                           |                                                                                                          |                                                                              |
| 7         | 95 65      | The LU unification could not be done because an LU status was other than normal or regression.                                                                               |                                                                                                          |                                                                              |
| 5         | 95 66      | The LU unification could not be done because the number of the internal LU that configures the unified LU exceeded 2047.                                                     |                                                                                                          |                                                                              |
| 5         | 95 67      | LU unification, a dissolution of an LU unification, or an expansion of a final LU could not be done because the LU unifying function (enhancing function) was not validated. |                                                                                                          |                                                                              |
| 5         | 95 69      | The final LU could not be deleted because it was not specified.                                                                                                              |                                                                                                          |                                                                              |
| 5         | 95 6B      | Because the differential bit could not be assigned, the pair forming command of the MRCF-Lite could not be executed.                                                         |                                                                                                          |                                                                              |
| 5         | 95 71      | The path could not be set.                                                                                                                                                   |                                                                                                          |                                                                              |
| 5         | 95 72      | The path could not be deleted.                                                                                                                                               |                                                                                                          |                                                                              |
| 5         | 95 73      | Since a function that cannot coexist with the function was being used in the system, the key for the extra-cost option could not be open.                                    |                                                                                                          |                                                                              |
| 5         | 95 74      | The command could not be executed because the remote copy function was being used.                                                                                           |                                                                                                          |                                                                              |
| 5         | 95 75      | The command could not be executed because the path was already defined.                                                                                                      |                                                                                                          |                                                                              |
| 5         | 95 76      | The pair operation command from RAID Manager could not be executed.                                                                                                          |                                                                                                          |                                                                              |
| 5         | 95 77      | The command (host or Hitachi Storage Navigator Modular 2) could not be executed because the pair was being generated.                                                        |                                                                                                          |                                                                              |
| 7         | 95 78      | The host command could not be executed because data copy was on progress.                                                                                                    |                                                                                                          |                                                                              |
| 5         | 95 79      | The host command could not be executed because the primary volume was write-protected.                                                                                       |                                                                                                          |                                                                              |

| Sense key | Sense code | Description                                                                                                                                          | Recovery methods                                                                                         | Reference page                                                               |
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| 5         | 95 7A      | The host command could not be executed because the pair status is PSUE (suspended due to failure).                                                   | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 5         | 95 7B      | The command could not be executed between the devices because the pair status was invalid.                                                           |                                                                                                          |                                                                              |
| 5         | 95 7C      | The command could not be executed between the devices because the remote device was already paired with another device.                              |                                                                                                          |                                                                              |
| 5         | 95 7D      | The command issued by a DF to another DF cannot be executed because the limit of the inflow has been exceeded.                                       |                                                                                                          |                                                                              |
| 5         | 95 7E      | The command issued by a DF to another DF cannot be executed because a status of the pair formed by the ShadowImage in-system replication is invalid. |                                                                                                          |                                                                              |
| 5         | 95 80      | The command cannot be executed because the command from RAID Manager is being received.                                                              |                                                                                                          |                                                                              |
| B         | 95 81      | Any further processing cannot be executed because the SEL command is received consecutively.                                                         | Execute it again after waiting for a while.                                                              | —                                                                            |
| 5         | 95 91      | The setting of or reference to the pairs, number of which exceeds the allowable maximum value, was attempted.                                        | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 7         | 95 95      | The write command could not be executed because the fence level was data.                                                                            |                                                                                                          |                                                                              |
| 5         | 95 96      | The read command could not be executed because the concealment mode was turned on for the remote copy function.                                      |                                                                                                          |                                                                              |
| 7         | 95 97      | The write command could not be executed because the secondary volume was in the paired status in the remote copy function.                           |                                                                                                          |                                                                              |
| 7         | 95 98      | The write command could not be executed due to the restriction on the secondary volume access in the remote copy function.                           |                                                                                                          |                                                                              |
| 4         | 95 99      | The pair status transited to PSUE because the write command failed duplicate write.                                                                  |                                                                                                          |                                                                              |
| 2         | 95 9A      | The vendor unique command cannot be executed in order to avoid a deadlock owing to a duplex writing.                                                 |                                                                                                          |                                                                              |
| 2         | 95 9B      | The read/write command cannot be executed because the read access mode is "Enable" when the fence level is "data."                                   |                                                                                                          |                                                                              |
| 2         | 95 9E      | The command was unable to be executed because TrueCopy remote replication was under execution in the subsystem of the command issue destination,     | The operation is not required because it retries inside the DF.                                          | —                                                                            |
| 2         | 95 9F      | The command was unable to be executed because two or more commands from RAID Manager were in process.                                                | The operation is not required because it retries inside the DF.                                          | —                                                                            |

| Sense key | Sense code | Description                                                                                                                                                                              | Recovery methods                                                                                                      | Reference page                                                               |
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| 4         | 96 00      | The ShadowImage pair status changed to PSUE during the Write system command operation.                                                                                                   | ① 1. Recover the ShadowImage pair from PSUE.<br>2. Return the ShadowImage pair status to the customer service status. | —                                                                            |
| 5         | 96 00      | Storage Hitachi Navigator Modular 2 command sequence error (Another command is being executed in the disk array subsystem.)                                                              | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.              | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 5         | 96 01      | The setting was made for a host group other than 0.                                                                                                                                      |                                                                                                                       |                                                                              |
| 5         | 96 02      | The command could not be executed because locking or unlocking operation for the feature other than purchasable optional features was attempted.                                         |                                                                                                                       |                                                                              |
| 5         | 96 03      | The command could not be executed because locking or unlocking operation for the feature other than purchasable optional features was attempted.                                         |                                                                                                                       |                                                                              |
| 5         | 96 04      | Writing of the system parameters on five drives failed.                                                                                                                                  |                                                                                                                       |                                                                              |
| 5         | 96 05      | Although the Control Units in charge of the copy source LU/copy destination LU/command reception LU differ, the XCOPY command cannot be executed because the LU switching is impossible. |                                                                                                                       |                                                                              |
| 5         | 96 07      | The execution could not be done because the pair was a Copy-on-write SnapShot pair.                                                                                                      |                                                                                                                       |                                                                              |
| 5         | 96 08      | The pair operation command issued by RAID Manager could not be executed.                                                                                                                 |                                                                                                                       |                                                                              |
| 2         | 96 09      | The pair operation command cannot be executed from RAID Manager. (Waiting for a command to be retried from RAID Manager.)                                                                |                                                                                                                       |                                                                              |
| 5         | 96 0A      | The command could not be executed because the LU was that in the pool filed.                                                                                                             |                                                                                                                       |                                                                              |
| 5         | 96 0B      | The pool management filed is invalid.                                                                                                                                                    |                                                                                                                       |                                                                              |
| 5         | 96 0C      | The command could not be executed because a reading was prohibited.                                                                                                                      |                                                                                                                       |                                                                              |
| 5         | 96 0D      | A reading in an S-VOL was attempted when the pair status was special PSUE, however, it failed.                                                                                           |                                                                                                                       |                                                                              |
| 5         | 96 11      | The access level could not be changed.                                                                                                                                                   |                                                                                                                       |                                                                              |
| 5         | 96 12      | The execution was impossible because the Format was in progress.                                                                                                                         |                                                                                                                       |                                                                              |
| 5         | 96 13      | The execution was impossible because the access level had been specified.                                                                                                                |                                                                                                                       |                                                                              |
| 7         | 96 14      | The write command could not be executed because the LU forming the Copy-on-write SnapShot pair was in the status in which writing to it was prohibited.                                  |                                                                                                                       |                                                                              |
| 7         | 96 15      | The LU could not be formatted because it formed a Copy-on-write SnapShot pair.                                                                                                           |                                                                                                                       |                                                                              |
| 5         | 96 16      | No pair formation enabled because more than 33 pairs existed in the same group ID with the specified group ID.                                                                           |                                                                                                                       |                                                                              |



| Sense key | Sense code | Description                                                                                                                                                                    | Recovery methods                                                                                                                                                                                | Reference page                                                                              |
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| 5         | 96 17      | The RG (RAID group) could not be defined because a RAID level specified for the RG was RAID 0.                                                                                 | Specify a RAID level other than RAID 0.                                                                                                                                                         | —                                                                                           |
| 5         | 96 18      | The execution was impossible because the status of the LU concerning the parity correction was Unrestored or Unrestored 2.                                                     | Retry after issuing an instruction to make or skip the parity correction using the Hitachi Storage Navigator Modular 2.                                                                         | —                                                                                           |
| 5         | 96 19      | The command of the Juke Box function could not be executed.                                                                                                                    | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                        | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>                |
| 5         | 96 1A      | The execution was impossible because the restoration for the LU by means of parity was undone, undone 2, in progress, or on standby.                                           | Issue an instruction to make or skip the parity correction using the Hitachi Storage Navigator Modular 2 and retry after the restoration for the LU by means of parity is completed or skipped. | <a href="#">Troubleshooting "6.1.3 &lt; Procedure given in windows &gt;" (TRBL 06-0320)</a> |
| 7         | 96 1B      | A command was issued to an inaccessible area while the forced parity correction, which was made with the subsystem power turned on, was in progress.                           | Execute the forced parity correction or skip it.                                                                                                                                                |                                                                                             |
| 5         | 96 1C      | The ShadowImage in-system replication pair operation could not be executed.                                                                                                    | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                        | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>                |
| 5         | 96 1D      | The RG (RAID group) could not be defined because the specified RG included both of the FC and SATA drives.                                                                     | Make sure of the operation and try again.                                                                                                                                                       | —                                                                                           |
| B         | 96 1E      | A response with a notification that the status had been changed to special PSUE was made during execution of the R/W command.                                                  | Retry the execution of the command.                                                                                                                                                             | —                                                                                           |
| 5         | 96 1F      | It cannot be executed due to the Hi-Copy pair.                                                                                                                                 | Execute it again after releasing the Hi-Copy pair.                                                                                                                                              | —                                                                                           |
| 2         | 96 20      | It responded the check condition requesting retry of the vendor unique command of TrueCopy Asynchronous to the local disk subsystem.                                           | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                        | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>                |
| 5         | 96 20      | The Hi-Copy operation cannot be executed.                                                                                                                                      | Check the status of the subsystem on the other side.                                                                                                                                            | —                                                                                           |
| 5         | 96 21      | It responded the check condition indicating that the vendor unique command of TrueCopy Asynchronous terminates abnormally and retry is impossible to the local disk subsystem. | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                        | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>                |
| 5         | 96 22      | The RAID Manager command for setting TrueCopy Asynchronous was unable to be executed.                                                                                          |                                                                                                                                                                                                 |                                                                                             |
| 5         | 96 23      | The RAID Manager command was unable to be executed.                                                                                                                            |                                                                                                                                                                                                 |                                                                                             |
| 5         | 96 24      | The command is unable to be executed because the pair status of TrueCopy Asynchronous does not meet the command execution conditions.                                          |                                                                                                                                                                                                 |                                                                                             |
| 1         | 96 25      | The priced option of "Modular Volume Migration" became enabled from disabled.                                                                                                  | —                                                                                                                                                                                               | —                                                                                           |
| 1         | 96 26      | The priced option of "Modular Volume Migration" became disabled from enabled.                                                                                                  | —                                                                                                                                                                                               | —                                                                                           |
| 1         | 96 27      | The locked priced-option of "Modular Volume Migration" was unlocked.                                                                                                           | —                                                                                                                                                                                               | —                                                                                           |

| Sense key | Sense code | Description                                                                                                                                             | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                               |
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| 1         | 96 28      | The priced option of "Modular Volume Migration", which was unlocked and enabled, was locked.                                                            | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                                            |
| 1         | 96 29      | A copy of the Modular Volume Migration started from the RAID Manager but it could not be executed.                                                      | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —                                                                            |
| 5         | 96 30      | The host group option for the command is not enabled during the XCOPY command operation.                                                                | Set the special Extended Copy mode of the host group option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <a href="#">System Parameter "2.2 Setting of Option" (SYSPR 02-0010)</a>     |
| 5         | 96 31      | The command cannot be executed because the target LUs create a pair.                                                                                    | Cancel the pair of the copy system function (ShadowImage, SnapShot, TrueCopy remote replication, TrueCopy Extended Distance) for the logical unit where the command was issued.                                                                                                                                                                                                                                                                                                                                                                                                               | —                                                                            |
| 5         | 96 32      | The host group option for the command is not enabled during the Write Same command operation.                                                           | Set the special Write Same mode of the host group option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <a href="#">System Parameter "2.2 Setting of Option" (SYSPR 02-0010)</a>     |
| 4         | 97 00      | A copy job of Copy-on-write SnapShot terminated abnormally.                                                                                             | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 4         | 97 01      | A restoration job of Copy-on-write SnapShot terminated abnormally.                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |
| 4         | 97 02      | The status of the Copy-on-write SnapShot pair was changed to PSUE.                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |
| 4         | 97 03      | The status of the Copy-on-write SnapShot pair was changed to PSUE because the restoration failed.                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |
| 4         | 98 01      | The general-purpose copy job terminated abnormally.                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |
| 4         | 99 00      | Data in the cache cannot be written on the drive in a synchronized cache.                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |
| 5         | 99 01      | The command (R.M command) was issued to the remote subsystem by the command of the RAID Manager, but the time-out of the retry of the command occurred. | Execute it again after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —                                                                            |
| 5         | 99 04      | When the SyncCache command is started in the PIN elimination mode, the CHECK response is done.                                                          | ① 1. When the PIN data recovery command executed from Hitachi Storage Navigator Modular 2 becomes an error, perform the version upgrade of the firmware of the subsystem to the revision supporting the recovery function of the PIN data because the firmware of the subsystem does not support the recovery function of the PIN data.<br>2. Execute the command again.<br>② The Synchronize Cache command to make the dirty data executed from the host computer destage becomes an error, set the Vendor Unique bit of CDB of the Synchronize Cache command to "0", and issue the command. | —                                                                            |
| 4         | 9A 01      | The DMA (DRR) hardware error was detected during a diagnosis of Disk Drives.                                                                            | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |

| Sense key | Sense code | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Recovery methods                                                                                                                                                                                                                                                                                                            | Reference page                                                  |
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| 5         | 9F FE      | Representative sense key and sense code of the pair operation system command Check response from Hitachi Storage Navigator Modular 2.<br>This indicates that when the pair related command was executed from Hitachi Storage Navigator Modular 2, the command terminated abnormally.                                                                                                                                                                                                                                                                                         | Take a recovery action referring to “9.2 List of Detail Codes of Sense Code (5/9FFE)”.                                                                                                                                                                                                                                      | “9.2 List of Detail Codes of Sense Code (5/9FFE)” (MSG 09-0220) |
| 5         | 9F FF      | A sense key and sense code to be used exclusively for responding to Hitachi Storage Navigator Modular 2 and RAID Manager.                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Take a recovery action referring to “9.3 List of Detail Codes of Sense Code (5/9FFF)”.                                                                                                                                                                                                                                      | “9.3 List of Detail Codes of Sense Code (5/9FFF)” (MSG 09-0890) |
| 4         | A0 00      | A failure occurred in the cache circuit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                                                                                                                                                    | Troubleshooting “7.3 Collecting Simple Trace” (TRBL 07-0040)    |
| B         | A1 00      | An invalid boundary error occurred during DMA transfer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                             |                                                                 |
| B         | C0 00      | XCOPY JOB was waiting for sleep because the LU owner right switching processing was operating. However, since the LU owner right switching processing is not completed even after 30 seconds passed, the time-out occurred in the waiting processing of sleep of XCOPY JOB.<br>Since the page of Hitachi Dynamic Provisioning to be released by the WriteSame command JOB was processed by the other JOB, the page was not released within the specified time, and the release of the page timed out.<br>A time-out occurred during an internal processing or data transfer. |                                                                                                                                                                                                                                                                                                                             |                                                                 |
| B         | C0 01      | A time-out occurred during a data transfer between a host computer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                             |                                                                 |
| B         | C0 02      | The command cannot be executed continuously due to the Control Unit blockade on the cross call operation side.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                             |                                                                 |
| B         | C0 03      | A time-out occurred during a data transfer between a host computer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                             |                                                                 |
| B         | C0 04      | A time-out of the Formatting job generated by the read command or write command were detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                             |                                                                 |
| B         | C0 05      | The read command and write command of the host were unable to be executed because there is no usable capacity of the DP pool or the DP pool is in preparation (format) in the subsystem.                                                                                                                                                                                                                                                                                                                                                                                     | Check the DP pool total capacity and consumed capacity using Hitachi Storage navigator Modular 2 and, if the DP Pool free capacity is depleted, add the DP Pool capacity according to the “Dynamic Provisioning User's Guide”. If free capacity is available, wait for one minute or more, and then retry the host command. | —                                                               |
| B         | C0 06      | A segment securing waiting time-out occurred.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | —                                                                                                                                                                                                                                                                                                                           | —                                                               |
| B         | C0 07      | The completion of the general-purpose job timed out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Retry the command.                                                                                                                                                                                                                                                                                                          | —                                                               |

| Sense key | Sense code | Description                                                                                                                     | Recovery methods                                                                                                                       | Reference page                                                                |
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| B         | C0 0A      | A CRC error occurred during a data transfer between a host computer.                                                            | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                               | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>  |
| B         | C1 00      | The cache necessary for the formatting cannot be assigned.                                                                      |                                                                                                                                        |                                                                               |
| B         | C2 00      | The system current drive was changed                                                                                            |                                                                                                                                        |                                                                               |
| B         | DA 00      | The new data recovery request cannot be accepted because another Disk Drive is being recovered                                  |                                                                                                                                        |                                                                               |
| 6         | E0 00      | The Cache battery voltage decreased.                                                                                            | —                                                                                                                                      | —                                                                             |
| 6         | E2 00      | FAN STOP                                                                                                                        | —                                                                                                                                      | —                                                                             |
| 4         | E4 00      | The system area overflowed <sup>(*1)</sup> . (Pinned data management area)                                                      | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                               | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>  |
| 6         | E5 00      | Abnormality of the power supply section occurred.                                                                               | —                                                                                                                                      | —                                                                             |
| 6         | E5 01      | The DC voltage decreased.                                                                                                       | —                                                                                                                                      | —                                                                             |
| 6         | EA 00      | There was a Disk Drive on which the take-over information could not be written.                                                 | —                                                                                                                                      | —                                                                             |
| 4         | EA 01      | The program size which the write buffer received was larger than that of the program area.                                      | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                               | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a>  |
| 4         | EA 02      | The take-over information size which the write buffer received was larger than that of the take-over information of the system. |                                                                                                                                        |                                                                               |
| 5         | EA 03      | A firmware download error was detected.                                                                                         |                                                                                                                                        |                                                                               |
| 5         | EA 04      | An error was detected when the hot replacement of the firmware was directed.                                                    |                                                                                                                                        |                                                                               |
| 1         | EA 05      | A firmware installation is in the state in which it has been partially completed.                                               |                                                                                                                                        |                                                                               |
| 4         | EA 10      | An error in the firmware downgrade check.                                                                                       |                                                                                                                                        |                                                                               |
| 5         | EA 13      | An error in the firmware upgrade check.                                                                                         |                                                                                                                                        |                                                                               |
| 5         | EA 15      | A downgrade was made though a specification for the random simple buffer size as 0% was validated.                              | Reduce the number of the spare disk drives to 15 or less.                                                                              | —                                                                             |
| 5         | EA 16      | Downgrade of the firmware was performed when 16 or more Spare Disk Drives were used.                                            |                                                                                                                                        |                                                                               |
| 5         | EA 17      | Downgrade of the firmware was performed when the FC and SATA disk array units coexisted.                                        | Make the system configuration have the FC disk array unit only. (A configuration with the SATA disk array unit only is not supported.) | —                                                                             |
| 5         | EA 1A      | A system version check error occurred in the firmware download.                                                                 | Use the firmware corresponding to the subsystem and do the update installation of the firmware again.                                  | <a href="#">Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</a> |

\*1 : In the case where WAR = 1 in the Mode Select command when reporting the sense code to a host, Sense key: 4/  
Code: "F8 04<sub>H</sub>" are also reported.

| Sense key | Sense code | Description                                                                                                                                 | Recovery methods                                                                                                 | Reference page                                                               |
|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 5         | EA 1E      | Because the NAS OS is operating, the microprogram cannot be replaced by the update installation.                                            | Replace the firmware after stopping the NAS OS.                                                                  | —                                                                            |
| 5         | EA 1F      | Because the NAS OS is operating, the command with the reboot of the Control Unit cannot be executed.                                        | Execute the operation again after stopping all NAS OS.                                                           | —                                                                            |
| 5         | EA 30      | The online ENC firmware downloading or online ENC firmware replacement cannot be executed because of the loop trouble or the Single mode.   | Execute the online ENC firmware downloading or online ENC firmware replacement after the loop trouble is solved. | —                                                                            |
| 5         | EA 31      | The command cannot be executed because the online ENC firmware replacement is in progress.                                                  | Execute the command after the online ENC firmware replacement is completed.                                      | —                                                                            |
| 5         | EA 32      | The online ENC firmware downloading cannot be done.                                                                                         | Execute the online ENC firmware downloading again.                                                               | —                                                                            |
| 5         | EA 33      | A revision check error of the online ENC firmware downloading occurred.                                                                     | Check the revision of the ENC firmware again and re-execute the online ENC firmware downloading.                 | —                                                                            |
| 5         | EA 34      | A sum check error of the online ENC firmware downloading occurred.                                                                          | Check the ENC firmware again and re-execute the online ENC firmware downloading.                                 | —                                                                            |
| 5         | EA 35      | The online ENC firmware replacement cannot be made because the online ENC firmware downloading has not been done yet.                       | Make the online firmware replacement after executing the online ENC firmware downloading.                        | —                                                                            |
| 5         | EA 36      | The parameter of the online ENC firmware replacement is incorrect.                                                                          | Make the online ENC firmware replacement again.                                                                  | —                                                                            |
| 5         | EA 40      | Since the automatic ENC firmware download function is enabled, the command cannot be executed.                                              | Disable the option and execute the command again.                                                                | —                                                                            |
| 5         | EA 41      | Since the automatic ENC firmware download is executing, the command cannot be executed.                                                     | Execute the command at the time of the automatic download.                                                       | —                                                                            |
| 5         | EA 42      | The command cannot be executed because the status of the backend path has an abnormal part in the path or the diagnosis is being executed.  | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.         | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 5         | EA 43      | It cannot be executed because the CTL is being blocked.                                                                                     |                                                                                                                  |                                                                              |
| 5         | EA 44      | It cannot be executed because the ENC is being blocked.                                                                                     |                                                                                                                  |                                                                              |
| 5         | EA 45      | It cannot be executed because it is in the single mode.                                                                                     |                                                                                                                  |                                                                              |
| 5         | EA 46      | The ENC firmware revision check is NG.                                                                                                      |                                                                                                                  |                                                                              |
| 5         | EA 47      | The cross call firmware replacement cannot be executed because the firmware is not allowed for the cross call firmware replacement.         |                                                                                                                  |                                                                              |
| 5         | EA 48      | The cross call firmware replacement cannot be executed because a backend path failure occurs.                                               |                                                                                                                  |                                                                              |
| 5         | EA 49      | When replacing the firmware with the subsystem power turned on, the firmware cannot be replaced because the load of CPU (host I/O) is high. |                                                                                                                  |                                                                              |
| 5         | EB 10      | The information on the traceability cannot be set.                                                                                          | —                                                                                                                | —                                                                            |
| 4         | F4 00      | The cache module was blocked because a Cache memory error occurred.                                                                         | Replace the Cache Unit.                                                                                          | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a>       |

| Sense key | Sense code | Description                                                                                                             | Recovery methods                                                                                                 | Reference page                                                                                                                                                |
|-----------|------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | F6 10      | A Disk Drive emerged in which the number of recovered mechanical errors exceeded the threshold value(*1).               | Replace the Disk Drive.                                                                                          | <a href="#">Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)</a>                                                                                        |
| 4         | F6 11      | A Disk Drive emerged in which the number of unrecovered mechanical errors exceeded the threshold value(*1).             |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 20      | A Disk Drive emerged in which the number of recovered medium errors exceeded the threshold value(*1).                   |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 21      | A Disk Drive emerged in which the number of unrecovered medium errors exceeded the threshold value(*1).                 |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 30      | A Disk Drive emerged in which the number of recovered R/W errors exceeded the threshold value(*1).                      |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 31      | A Disk Drive emerged in which the number of unrecovered R/W errors exceeded the threshold value(*1).                    |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 40      | A Disk Drive emerged in which the number of recovered interface errors exceeded the threshold value(*1).                |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 41      | A Disk Drive emerged in which the number of unrecovered interface errors exceeded the threshold value(*1).              |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 50      | A Disk Drive emerged in which the number of recovered hardware errors exceeded the threshold value(*1).                 |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 51      | A Disk Drive emerged in which the number of unrecovered hardware errors exceeded the threshold value(*1).               |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 70      | A Disk Drive emerged in which the number of correctable errors in the online verify exceeded the threshold value(*1).   |                                                                                                                  |                                                                                                                                                               |
| 4         | F6 71      | A Disk Drive emerged in which the number of uncorrectable errors in the online verify exceeded the threshold value(*1). |                                                                                                                  |                                                                                                                                                               |
| 4         | F8 00      | Battery failure(*1)                                                                                                     | Specify a part to be replaced by checking the log message of the subsystem and replace the Cache Backup Battery. | <a href="#">Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)</a><br><a href="#">Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)</a> |
| 4         | F8 01      | Fan failure(*1)                                                                                                         | Specify a part to be replaced by checking the log message of the subsystem and replace the FAN Unit.             | <a href="#">Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)</a><br><a href="#">Replacement "2.2.3 Replacing FAN Unit" (REP 02-0350)</a>             |

\*1 : In the case where WAR = 1 in the Mode Select command when reporting the sense code to a host, Sense key: 4/  
Code: "F8 04 H" are also reported.

| Sense key | Sense code | Description                    | Recovery methods                                                                                                                                                                                                                                                                              | Reference page                                                                                                                   |
|-----------|------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 4         | F8 02      | DC failure(*1)                 | Specify a part to be replaced by checking the log message of the subsystem and replace the Power Unit.                                                                                                                                                                                        | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.4 Replacing Power Unit" (REP 02-0390)              |
| 4         | F8 03      | Drive failure (regression)(*1) | Specify a part to be replaced by checking the log message of the subsystem and replace the Disk Drive.                                                                                                                                                                                        | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)              |
| 4         | F8 04      | Pin data over(*1)              | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                                                                                                                                                                      | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)                                                                     |
| 4         | F8 05      | Module blockade(*1)            | Specify a part to be replaced by checking the log message of the subsystem and replace the Cache Unit.                                                                                                                                                                                        | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)              |
| 4         | F8 07      | AC LINE/INBOX failure          | Specify a part to be replaced by checking the log message of the subsystem and replace the Power Unit.                                                                                                                                                                                        | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.4 Replacing Power Unit" (REP 02-0390)              |
| 4         | F8 08      | UPS failure                    | Specify a part to be replaced by checking the log message of the subsystem. When the UPS is connected, take a recovery action referring the UPS manual. (If a sense code, "FB F2", is displayed at the same time, take an action following the recovery procedure corresponding to it first.) | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.1 Locations of Replacement Components" (REP 02-0000) |
| 4         | F8 09      | Battery backup circuit failure | Specify a part to be replaced by checking the log message of the subsystem and replace the Cache Backup Battery.                                                                                                                                                                              | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.2 Replacing Cache Backup Battery" (REP 02-0280)    |
| 4         | F8 0A      | ENC blockade                   | Specify a part to be replaced by checking the log message of the subsystem and replace the ENC Unit.                                                                                                                                                                                          | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)                |

\*1 : In the case where WAR = 1 in the Mode Select command when reporting the sense code to a host, Sense key: 4/  
Code: "F8 04<sub>H</sub>" are also reported.

| Sense key | Sense code | Description                                       | Recovery methods                                                                                                                                  | Reference page                                                                                                                       |
|-----------|------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 4         | F8 0B      | Loop failure                                      | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)                                                                         |
| 4         | F8 0C      | A path detachment occurred.                       | Replace the LOOP.                                                                                                                                 |                                                                                                                                      |
| 4         | F8 0D      | SATA Drive failure (regression)                   | Specify a part to be replaced by checking the log message of the subsystem and replace the Disk Drive.                                            | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.1 Replacing Disk Drive" (REP 02-0030)                  |
| 4         | F8 0E      | SENC failure                                      | Specify a part to be replaced by checking the log message of the subsystem and replace the ENC Unit.                                              | Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0100)<br>Replacement "2.2.9 Replacing ENC Unit" (REP 02-1020)                    |
| 4         | F8 F0      | The controller of another system was blocked(*1). | Get the CTL alarm trace of the detached Control Unit and replace the Control Unit.                                                                | Troubleshooting "7.4 Collecting CTL Alarm Trace" (TRBL 07-0090)<br>Refer to Replacement "2.2.5 Replacing Control Unit" (REP 02-0450) |
| 4         | F8 F1      | Host connector failure                            | Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.                                          | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)                                                                         |
| 4         | F9 00      | Battery failure recovery(*1)                      | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)                                                                         |
| 4         | F9 01      | Fan failure recovery(*1)                          |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 02      | DC failure recovery(*1)                           |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 03      | Drive failure (regression) recovery(*1)           |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 04      | Pin data over recovery(*1)                        |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 05      | Module blockade release(*1)                       |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 06      | Own Controller recovery(*1)                       |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 07      | AC LINE/INBOX recovery                            |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 08      | UPS failure recovery                              |                                                                                                                                                   |                                                                                                                                      |
| 4         | F9 09      | Battery backup circuit failure recovery           |                                                                                                                                                   |                                                                                                                                      |

\*1 : The sense code is reported to the host only when WAR = 1 in the Mode Select command (page35 H).



| Sense key | Sense code | Description                                                     | Recovery methods                                                                                                                                  | Reference page                                                               |
|-----------|------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 4         | F9 0A      | ENC failure recovery                                            | This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure. | <a href="#">Troubleshooting "7.3 Collecting Simple Trace" (TRBL 07-0040)</a> |
| 4         | F9 0B      | Loop failure recovery                                           |                                                                                                                                                   |                                                                              |
| 4         | F9 0C      | The path recovered from the detachment.                         |                                                                                                                                                   |                                                                              |
| 4         | F9 0D      | SATA Drive failure (regression) recovery                        |                                                                                                                                                   |                                                                              |
| 4         | F9 0E      | SENC failure recovery                                           |                                                                                                                                                   |                                                                              |
| 4         | F9 F0      | Another system Controller failure recovery(* <sup>1</sup> )     |                                                                                                                                                   |                                                                              |
| 4         | F9 F1      | Host connector failure recovery                                 |                                                                                                                                                   |                                                                              |
| B         | FD 00      | Command execution was disabled because the LU was switched.     |                                                                                                                                                   |                                                                              |
| B         | FD 01      | The command execution was interrupted owing to an LU switching. |                                                                                                                                                   |                                                                              |

\*1 : The sense code is reported to the host only when WAR = 1 in the Mode Select command (page35<sub>H</sub>).

This page is for editorial purpose only.

## 9.2 List of Detail Codes of Sense Code (5/9FFE)

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                | Recovery methods                 | Reference page |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------|
| 010001      | DMER010001: The target LU is undergoing the change of an ownership of LU. Retry after waiting for a while.                                                                    | Retry after waiting for a while. | —              |
| 010002      | DMER010002: The change of a controller that controls the LU cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.     | Retry after waiting for a while. | —              |
| 010003      | DMER010003: An instruction to change the controller that controls the LU was issued. Retry after waiting for a while.                                                         | Retry after waiting for a while. | —              |
| 010004      | DMER010004: The owner controller of the LUs to be paired is detached. Retry.                                                                                                  | Retry.                           | —              |
| 010005      | DMER010005: The owner controller of the LUs to be paired is detached. Retry.                                                                                                  | Retry.                           | —              |
| 010006      | DMER010006: The owner controller of the LUs to be paired is detached. Retry.                                                                                                  | Retry.                           | —              |
| 010007      | DMER010007: The owner controller of the LUs to be paired is detached. Retry.                                                                                                  | Retry.                           | —              |
| 010009      | DMER010009: The owner controller of the LUs to be paired is detached. Retry after waiting for a while.                                                                        | Retry after waiting for a while. | —              |
| 01000A      | DMER01000A: The owner controller of the LUs to be paired is detached. Retry after waiting for a while.                                                                        | Retry after waiting for a while. | —              |
| 01000B      | DMER01000B: The owner controller of the LUs to be paired is detached. Retry after waiting for a while.                                                                        | Retry after waiting for a while. | —              |
| 010019      | DMER010019: The pair operation command is a time-out. Retry after waiting for a while.                                                                                        | Retry after waiting for a while. | —              |
| 010065      | DMER010065: Since the specified P-VOL requires a change of an ownership of LU, it is undergoing the execution of the ownership of LU change. Retry after waiting for a while. | Retry after waiting for a while. | —              |
| 010066      | DMER010066: Though the specified P-VOL requires a change of an ownership of LU, the controller to be changed is blocked. Retry after waiting for a while.                     | Retry after waiting for a while. | —              |
| 010067      | DMER010067: Since the specified P-VOL requires a change of an ownership of LU, the execution of the ownership of LU change has been started. Retry after waiting for a while. | Retry after waiting for a while. | —              |
| 011001      | DMER011001: The target LU is undergoing the change of an ownership of LU. Retry after waiting for a while.                                                                    | Retry after waiting for a while. | —              |
| 011002      | DMER011002: The change of a controller that controls the LU cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.     | Retry after waiting for a while. | —              |
| 011003      | DMER011003: An instruction to change the controller that controls the LU was issued. Retry after waiting for a while.                                                         | Retry after waiting for a while. | —              |
| 012001      | DMER012001: The target LU is undergoing the change of an ownership of LU. Retry after waiting for a while.                                                                    | Retry after waiting for a while. | —              |
| 012002      | DMER012002: The change of a controller that controls the LU cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.     | Retry after waiting for a while. | —              |
| 012003      | DMER012003: An instruction to change the controller that controls the LU was issued. Retry after waiting for a while.                                                         | Retry after waiting for a while. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                   | Recovery methods                        | Reference page |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------|
| 020000      | DMER020000: The pair status of the P-VOL is other than Simplex. Check the pair status of the LU.                                                                 | Check the pair status of the LU.        | —              |
| 020001      | DMER020001: The status of the P-VOL is other than normal and regressive. Check the status of the LU.                                                             | Check the status of the LU.             | —              |
| 020002      | DMER020002: The P-VOL is a Cache Residency LU. Check the status of the LU.                                                                                       | Check the status of the LU.             | —              |
| 020003      | DMER020003: The P-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                           | Check the status of the LU.             | —              |
| 020004      | DMER020004: The P-VOL is a command device. Check the status of the LU.                                                                                           | Check the status of the LU.             | —              |
| 020005      | DMER020005: The primary sequence number is different from the own Array ID. Check the Array ID.                                                                  | Check the Array ID.                     | —              |
| 020006      | DMER020006: Both of the two paths are abnormal. Check the status of the path.                                                                                    | Check the status of the path.           | —              |
| 020007      | DMER020007: The P-VOL has been defined as a SubLU of a unified LU. Check the status of the LU.                                                                   | Check the status of the LU.             | —              |
| 020009      | DMER020009: There exist maximum number of pairs already. Delete the unnecessary pairs.                                                                           | Delete the unnecessary pairs.           | —              |
| 02000D      | DMER02000D: The P-VOL is in a status other than Split and Failure. Check the pair status of the LU.                                                              | Check the pair status of the LU.        | —              |
| 02000E      | DMER02000E: The status of the P-VOL is other than normal and regressive. Check the pair attribute of the LU.                                                     | Check the pair attribute of the LU.     | —              |
| 02000F      | DMER02000F: The number of the LU to be paired is different. Check the specified LUN.                                                                             | Check the specified LUN.                | —              |
| 020010      | DMER020010: The primary sequence number is different from the own Array ID. Check the Array ID.                                                                  | Check the Array ID.                     | —              |
| 020011      | DMER020011: Both of the two paths are abnormal. Check the status of the path.                                                                                    | Check the status of the path.           | —              |
| 020012      | DMER020012: The specified P-VOL is in a status other than Synchronizing and Paired. Check the pair status of the LU.                                             | Check the pair status of the LU.        | —              |
| 020014      | DMER020014: The current Array ID differs from the number that was set initially. Check the Array ID.                                                             | Check the Array ID.                     | —              |
| 020016      | DMER020016: The number of the LU to be paired is different. Check the specified LUN.                                                                             | Check the specified LUN.                | —              |
| 020017      | DMER020017: The primary sequence number is different from the own Array ID. Check the Array ID.                                                                  | Check the Array ID.                     | —              |
| 020018      | DMER020018: The S-VOL pair cancellation instructions to a P-VOL or the pair cancellation instructions to an S-VOL was received. Check the pair status of the LU. | Check the pair status of the LU.        | —              |
| 020020      | DMER020020: The Asynchronous mode is turned on. The Asynchronous mode is not supported.                                                                          | The Asynchronous mode is not supported. | —              |
| 020021      | DMER020021: The fence level is STATUS. Make sure of the specified fence level.                                                                                   | Make sure of the specified fence level. | —              |
| 020023      | DMER020023: The P-VOL is a volume of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Check the pair status of the LU.        | Check the pair status of the LU.        | —              |
| 020024      | DMER020024: The P-VOL is undergoing the restoration of ShadowImage pair. Check the pair status of the LU.                                                        | Check the pair status of the LU.        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                       | Recovery methods                                                                                | Reference page |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------|
| 020025      | DMER020025: The P-VOL received an instruction to swap pair. Check the pair attribute of the LU.                                                                                                                      | Check the pair attribute of the LU.                                                             | —              |
| 020026      | DMER020026: The pair status is not Takeover. Check the pair status.                                                                                                                                                  | Check the pair status.                                                                          | —              |
| 020027      | DMER020027: The S-VOL received an instruction to resynchronize pair. Check the pair attribute of the LU.                                                                                                             | Check the pair attribute of the LU.                                                             | —              |
| 020028      | DMER020028: The volume is a P-VOL of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Place the P-VOL concerned in the Simplex status and create the pair again.                  | Place the P-VOL concerned in the Simplex status and create the pair again.                      | —              |
| 020029      | DMER020029: The volume is a P-VOL of ShadowImage and undergoing a reverse copy. Check the pair status of the LU.                                                                                                     | Check the pair status of the LU.                                                                | —              |
| 02002A      | DMER02002A: The P-VOL received an instruction to be taken over. Check the pair status of the LU.                                                                                                                     | Check the pair status of the LU.                                                                | —              |
| 02002B      | DMER02002B: It is in the Simplex or Synchronizing status. Check the pair status of the LU.                                                                                                                           | Check the pair status of the LU.                                                                | —              |
| 02002C      | DMER02002C: The secondary sequence number is different from the Array ID. Check the Array ID.                                                                                                                        | Check the Array ID.                                                                             | —              |
| 02002D      | DMER02002D: The S-VOL received an instruction to be taken over. Check the pair status of the LU.                                                                                                                     | Check the pair status of the LU.                                                                | —              |
| 02002E      | DMER02002E: The pair status of the P-VOL is Simplex or Synchronizing. Check the pair status of the LU.                                                                                                               | Check the pair status of the LU.                                                                | —              |
| 02002F      | DMER02002F: The primary sequence number is different from the Array ID. Check the Array ID.                                                                                                                          | Check the Array ID.                                                                             | —              |
| 020030      | DMER020030: The S-VOL received the suspension. Check the pair status of the LU.                                                                                                                                      | Check the pair status of the LU.                                                                | —              |
| 020031      | DMER020031: The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                               | Split the unnecessary pairs.                                                                    | —              |
| 020032      | DMER020032: The P-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                             | Check the RAID level of the specified LU.                                                       | —              |
| 020033      | DMER020033: The specified LU is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the LU.                                                                                | Check the pair status of the LU.                                                                | —              |
| 020035      | DMER020035: The volume is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the LU.                                                                                      | Check the pair status of the LU.                                                                | —              |
| 020036      | DMER020036: The volume is a P-VOL of SnapShot and being restored.                                                                                                                                                    | Check the pair status of the LU.                                                                | —              |
| 020037      | DMER020037: The volume is a P-VOL of SnapShot It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. | Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. | —              |
| 020038      | DMER020038: The volume is a P-VOL of SnapShot and the mate to it has already been paired by Remote Replication. Check the pair status of the LU.                                                                     | Check the pair status of the LU.                                                                | —              |
| 020039      | DMER020039: The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the LU.                                                                                   | Check the pair status of the LU.                                                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                       | Recovery methods                                                                                                                       | Reference page |
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| 02003A      | DMER02003A: The volume is a V-VOL of SnapShot. The related P-VOL of SnapShot is being restored or has been placed in the Failure status during a restoration. Check the pair status of the LU.                                                                                                       | Check the pair status of the LU.                                                                                                       | —              |
| 02003B      | DMER02003B: The specified LU is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the LU.                                                                                                                                       | Check the pair status of the LU.                                                                                                       | —              |
| 02003C      | DMER02003C: The specified LU is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the LU.                                                                                                                                       | Check the pair status of the LU.                                                                                                       | —              |
| 02003D      | DMER02003D: The volume is a P-VOL of SnapShot and being restored. Check the pair status of the LU.                                                                                                                                                                                                   | Check the pair status of the LU.                                                                                                       | —              |
| 02003E      | DMER02003E: The volume is a P-VOL of SnapShot. It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL related to Simplex and create the pair again.                                                                                   | Change the statuses of all V-VOLs of the P-VOL related to Simplex and create the pair again.                                           | —              |
| 02003F      | DMER02003F: The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the LU.                                                                                                                                                                   | Check the pair status of the LU.                                                                                                       | —              |
| 020040      | DMER020040: The volume is a P-VOL of SnapShot. It is being restored or in the Failure status and cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                             | Check the pair status of the LU.                                                                                                       | —              |
| 020042      | DMER020042: The RAID level differs between the MainLU and SubLU. Check that the RAID level of the specified LU is the same as that expected.                                                                                                                                                         | Check that the RAID level of the specified LU is the same as that expected.                                                            | —              |
| 020043      | DMER020043: The number of data disks differs between the MainLU and SubLU. Check that the number of data disks of the specified LU is the same as that expected.                                                                                                                                     | Check that the number of data disks of the specified LU is the same as that expected.                                                  | —              |
| 020045      | DMER020045: The specified LU is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified LU, whose MainLU and SubLU are different in RAID level. Check that the RAID level of the SnapShot P-VOL corresponding to the specified LU is the same as that expected.                     | Check that the RAID level of the SnapShot P-VOL corresponding to the specified LU is the same as that expected.                        | —              |
| 020046      | DMER020046: The specified LU is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified LU, whose MainLU and SubLU are different in number of data disks. Check that the number of data disks of the SnapShot P-VOL corresponding to the specified LU is the same as that expected. | Check that the number of data disks of the SnapShot P-VOL corresponding to the specified LU is the same as that expected.              | —              |
| 020047      | DMER020047: Data of the Remote Replication P-VOL is partially destroyed. Issue the SnapShot instruction (to change the status from Paired to Split) to the SnapShot pair again, and then create the pair again.                                                                                      | Issue the SnapShot instruction (to change the status from Paired to Split) to the SnapShot pair again, and then create the pair again. | —              |
| 020048      | DMER020048: Data of the Remote Replication P-VOL is partially destroyed. Format the specified LU after getting backup data of it. Then restore the backup data.                                                                                                                                      | Format the specified LU after getting backup data of it. Then restore the backup data.                                                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                             | Recovery methods                                                                                                                   | Reference page |
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| 02004B      | DMER02004B: The specified P-VOL is in the Failure (S-VOL Switch) status of ShadowImage. Request service personnel to replace drives that compose the P-VOL. Format them after the replacement then resynchronize the pair. | Request service personnel to replace drives that compose the P-VOL. Format them after the replacement then resynchronize the pair. | —              |
| 02004D      | DMER02004D: The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                           | Retry after setting the DM-LU.                                                                                                     | —              |
| 02004E      | DMER02004E: The DM-LU cannot be specified as P-VOL. Check the status of the LU.                                                                                                                                            | Check the status of the LU.                                                                                                        | —              |
| 02004F      | DMER02004F: Validity of the license expired. Purchase the license.                                                                                                                                                         | Purchase the license.                                                                                                              | —              |
| 020052      | DMER020052: The remote SnapShot split request was accepted in the Remote Replication environment. The remote SnapShot split request is not supported in the Remote Replication environment.                                | The remote SnapShot split request is not supported in the Remote Replication environment.                                          | —              |
| 020053      | DMER020053: The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                            | Check the status of the LU.                                                                                                        | —              |
| 020054      | DMER020054: The specified P-VOL is undergoing the migration. Check the pair status of the LU.                                                                                                                              | Check the pair status of the LU.                                                                                                   | —              |
| 020055      | DMER020055: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                     | Check the status of the RAID group.                                                                                                | —              |
| 020056      | DMER020056: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                     | Check the status of the RAID group.                                                                                                | —              |
| 020057      | DMER020057: The specified function is not supported in a remote array. Check the remote array.                                                                                                                             | Check the remote array.                                                                                                            | —              |
| 020058      | DMER020058: When creating pairs with group is specified, the specified group ID is beyond the limits of supported. Check the specified group ID.                                                                           | Check the specified group ID.                                                                                                      | —              |
| 020059      | DMER020059: The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL. on both local and remote arrays.                                                     | Check the pair status of the specified S-VOL. on both local and remote arrays.                                                     | —              |
| 02005A      | DMER02005A: The command was received in unit of group at the time of resynchronization. Check the specified value.                                                                                                         | Check the specified value.                                                                                                         | —              |
| 02005B      | DMER02005B: When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the LU.                                                                                           | Check the status of the LU.                                                                                                        | —              |
| 02005C      | DMER02005C: When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.                                                                                                                   | Check the group ID.                                                                                                                | —              |
| 02005D      | DMER02005D: When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of LU in the group.                                          | Check the pair status of LU in the group.                                                                                          | —              |
| 02005E      | DMER02005E: When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the LU.                                                                                           | Check the status of the LU.                                                                                                        | —              |
| 02005F      | DMER02005F: When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.                                                                                                                  | Check the group ID.                                                                                                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                  | Recovery methods                                                                                                | Reference page |
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| 020060      | DMER020060: When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of LU in the group.                                                                               | Check the pair status of LU in the group.                                                                       | —              |
| 020061      | DMER020061: When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the LU.                                                                                                                                | Check the status of the LU.                                                                                     | —              |
| 020062      | DMER020062: When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.                                                                                                                                                       | Check the group ID.                                                                                             | —              |
| 020063      | DMER020063: When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the same group. Check the pair status of LU in the group.                                                                                 | Check the pair status of LU in the group.                                                                       | —              |
| 020064      | DMER020064: The pair cancellation instructions was executed for the range that was not supported. Check the specified value.                                                                                                                                    | Check the specified value.                                                                                      | —              |
| 020065      | DMER020065: When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the LU.                                                                                                                                | Check the status of the LU.                                                                                     | —              |
| 020066      | DMER020066: When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.                                                                                                                                                       | Check the group ID.                                                                                             | —              |
| 020067      | DMER020067: When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the LU.                                                                                                                                | Check the status of the LU.                                                                                     | —              |
| 020068      | DMER020068: When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.                                                                                                                                                        | Check the group ID.                                                                                             | —              |
| 020069      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER020069: The specified secondary sequence number does not match with the array serial number. Check the specified command device number.                                                       | Check the specified command device number.                                                                      | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER020069: The remote path connected to the specified remote array does not exist. Retry after creating the remote path from the local array to the remote array of the specified remote Array ID. | Retry after creating the remote path from the local array to the remote array of the specified remote Array ID. | —              |
| 02006A      | DMER02006A: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                    | Check the Migration status.                                                                                     | —              |
| 02006B      | DMER02006B: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                    | Check the Migration status.                                                                                     | —              |
| 02006C      | DMER02006C: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                    | Check the Migration status.                                                                                     | —              |
| 02006D      | DMER02006D: There are other pairs in the group, whose fence level is not the same as the one specified. Confirm the fence level of the pair you are creating.                                                                                                   | Confirm the fence level of the pair you are creating.                                                           | —              |
| 02006E      | DMER02006E: There are other pairs in the group, whose P-VOL and S-VOL are swapped. Confirm the array on which you are executing the command.                                                                                                                    | Confirm the array on which you are executing the command.                                                       | —              |
| 02006F      | DMER02006F: The specified LU is the P-VOL or S-VOL of a ShadowImage pair that the status is Split Pending or Paired Internally Synchronizing. Check the status of the ShadowImage pair.                                                                         | Check the status of the ShadowImage pair.                                                                       | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                      | Recovery methods                                                                                                           | Reference page |
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| 020070      | DMER020070: Migration status indicates a status other than Not Started. Check the Migration status.                                                                                                                                                                                 | Check the Migration status.                                                                                                | —              |
| 020071      | DMER020071: Migration mode indicates Migration. Check the migration mode.                                                                                                                                                                                                           | Check the migration mode.                                                                                                  | —              |
| 020072      | DMER020072: The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                           | Retry after the status becomes Normal.                                                                                     | —              |
| 020073      | DMER020073: An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.                                                             | Retry after the RAID group status becomes Normal.                                                                          | —              |
| 020074      | DMER020074: The specified CTG number has been used into other remote replication pair with the remote array. Retry after specifying the number other than specified CTG number.                                                                                                     | Retry after specifying the number other than specified CTG number.                                                         | —              |
| 020075      | DMER020075: The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.                                | Retry after deleting the all remote replication pair with the another remote array.                                        | —              |
| 020076      | DMER020076: The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.                                | Retry after deleting the all remote replication pair with the another remote array.                                        | —              |
| 020077      | DMER020077: The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                   | Specify an LU other than the LU created in DP pool.                                                                        | —              |
| 020078      | DMER020078: The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                                                             | Check the specified LUN.                                                                                                   | —              |
| 020079      | DMER020079: The specified P-VOL is a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.                                                                                                          | Confirm the ShadowImage pair that the specified P-VOL is part of.                                                          | —              |
| 02007A      | DMER02007A: The specified P-VOL is a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.                                                                                                          | Confirm the ShadowImage pair that the specified P-VOL is part of.                                                          | —              |
| 02007B      | DMER02007B: The specified P-VOL is an S-VOL of ShadowImage pair those P-VOL is part of another ShadowImage pair that S-VOL is the LU created in DP pool. Confirm all the S-VOL of ShadowImage pair that shares the P-VOL with the ShadowImage pair that specified P-VOL is part of. | Confirm all the S-VOL of ShadowImage pair that shares the P-VOL with the ShadowImage pair that specified P-VOL is part of. | —              |
| 02303D      | DMER02303D: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                 | Confirm the pair status of LU and the other side's LUN.                                                                    | —              |
| 02403D      | DMER02403D: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                 | Confirm the pair status of LU and the other side's LUN.                                                                    | —              |

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| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                            | Recovery methods                            | Reference page |
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| 030000      | DMER030000: The controller that controls the LU cannot be changed because pinned data exists. Retry after eliminating pinned data.                                                                        | Retry after eliminating pinned data.        | —              |
| 030001      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER030001: The controller that controls the LU cannot be changed because of an insufficient segment size. Retry after waiting for a while. | Retry after waiting for a while.            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER030001: The controller that controls the LU cannot be changed temporarily. Retry after waiting for a while.                               | Retry after waiting for a while.            | —              |
| 030002      | DMER030002: The operation to change LU is in progress. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.            | —              |
| 030003      | DMER030003: There is no partition to which the current partition is to be changed. Retry after waiting for a while.                                                                                       | Retry after waiting for a while.            | —              |
| 030004      | DMER030004: The directory configuration is being changed. Reboot the subsystem.                                                                                                                           | Reboot the subsystem.                       | —              |
| 030005      | DMER030005: The change of a controller that controls the LU resulted in a time-out. Retry after waiting for a while.                                                                                      | Retry after waiting for a while.            | —              |
| 030006      | DMER030006: The pair status of the P-VOL is other than Simplex, or a V-VOL does not exist. Check the pair status of the LU.                                                                               | Check the pair status of the LU.            | —              |
| 030007      | DMER030007: The pair status is other than Simplex. Check the pair status of the LU.                                                                                                                       | Check the pair status of the LU.            | —              |
| 030008      | DMER030008: The specified P-VOL is a V-VOL. Check the pair status of the LU.                                                                                                                              | Check the pair status of the LU.            | —              |
| 030009      | DMER030009: The specified V-VOL is a P-VOL. Check the pair status of the LU.                                                                                                                              | Check the pair status of the LU.            | —              |
| 03000B      | DMER03000B: The group ID is out of appropriate range. Make sure of the specified group ID number.                                                                                                         | Make sure of the specified group ID number. | —              |
| 03000D      | DMER03000D: The same MU number was specified within the same P-VOL. Make sure of the specified MU number.                                                                                                 | Make sure of the specified MU number.       | —              |
| 03000E      | DMER03000E: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.            | —              |
| 030010      | DMER030010: The pair status is other than Split. Check the pair status of the LU.                                                                                                                         | Check the pair status of the LU.            | —              |
| 030011      | DMER030011: The object LUN is not the same as the expected one. Check the specified LU.                                                                                                                   | Check the specified LU.                     | —              |
| 030012      | DMER030012: The instruction of forced suspension was received. Make sure of the command.                                                                                                                  | Make sure of the command.                   | —              |
| 030014      | DMER030014: The P-VOL is in a status other than normal and regressive. Check the status of the LU.                                                                                                        | Check the status of the LU.                 | —              |
| 030015      | DMER030015: The data pool LU being used is in a status other than normal and regressive. Check the status of the pool LU.                                                                                 | Check the status of the pool LU.            | —              |
| 030017      | DMER030017: The pair attribute of the P-VOL is V-VOL. Check the status of the LU.                                                                                                                         | Check the status of the LU.                 | —              |
| 030018      | DMER030018: The pair attribute of the V-VOL is P-VOL. Check the status of the LU.                                                                                                                         | Check the status of the LU.                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                               | Recovery methods                                                                                | Reference page |
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| 03001A      | DMER03001A: The same MU number was specified within the same P-VOL. Make sure of the specified MU number.                                                                                                                                                    | Make sure of the specified MU number.                                                           | —              |
| 03001B      | DMER03001B: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                     | Retry after waiting for a while.                                                                | —              |
| 03001D      | DMER03001D: The object LUN is not the same as the expected one. Check the specified LU.                                                                                                                                                                      | Check the specified LU.                                                                         | —              |
| 03001E      | DMER03001E: The specified V-VOL is not specified to be grouped(Group ID suspension). Check the pair attribute of the LU.                                                                                                                                     | Check the pair attribute of the LU.                                                             | —              |
| 03001F      | DMER03001F: The V-VOL, which is an object of the batch suspension, is in a status other than Paired(Group ID suspension). Check the pair status of the LU.                                                                                                   | Check the pair status of the LU.                                                                | —              |
| 030020      | DMER030020: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                     | Retry after waiting for a while.                                                                | —              |
| 030021      | DMER030021: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                     | Retry after waiting for a while.                                                                | —              |
| 030022      | DMER030022: The pair status of the V-VOL is illegal. Check the pair status of the LU.                                                                                                                                                                        | Check the pair status of the LU.                                                                | —              |
| 030023      | DMER030023: The object LUN is not the same as the expected one. Check the specified LU.                                                                                                                                                                      | Check the specified LU.                                                                         | —              |
| 030028      | DMER030028: The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.                                                                                                                                     | Make sure of the specified MU number.                                                           | —              |
| 030029      | DMER030029: The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.                                                                                                                                     | Make sure of the specified MU number.                                                           | —              |
| 03002A      | DMER03002A: The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.                                                                                                                                     | Make sure of the specified MU number.                                                           | —              |
| 03002B      | DMER03002B: The pair status was changed to Failure because the process terminated abnormally. Place the pair concerned in the Simplex status once, and then create the pair again.                                                                           | Place the pair concerned in the Simplex status once, and then create the pair again.            | —              |
| 03002C      | DMER03002C: The specified P-VOL has excess pinned data (at the time of a restoration only). Retry after eliminating pinned data.                                                                                                                             | Retry after eliminating pinned data.                                                            | —              |
| 03002E      | DMER03002E: Navigator was received by the control information on 8-byte form. Check the environment of Navigator.                                                                                                                                            | Check the environment of Navigator.                                                             | —              |
| 03002F      | DMER03002F: There are 64 or more LUs being restored. Retry after the restoration is completed.                                                                                                                                                               | Retry after the restoration is completed.                                                       | —              |
| 030030      | DMER030030: The P-VOL is being restored. Retry after the restoration is completed.                                                                                                                                                                           | Retry after the restoration is completed.                                                       | —              |
| 030031      | DMER030031: Data of the V-VOL is partially destroyed. Make a backup from the S-VOL to a tape device, etc. and then restore the data to the P-VOL.                                                                                                            | Make a backup from the S-VOL to a tape device, etc. and then restore the data to the P-VOL.     | —              |
| 030032      | DMER030032: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                     | Retry after waiting for a while.                                                                | —              |
| 030033      | DMER030033: Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. | Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                               | Recovery methods                                                                                | Reference page |
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| 030034      | DMER030034: Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. | Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again. | —              |
| 030035      | DMER030035: The MU number is other than 0 to 2. Make sure of the specified MU number.                                                                                                                                                                        | Make sure of the specified MU number.                                                           | —              |
| 030036      | DMER030036: The MU number is other than 0 to 2. Make sure of the specified MU number.                                                                                                                                                                        | Make sure of the specified MU number.                                                           | —              |
| 030037      | DMER030037: The MU number is other than 0. Make sure of the specified MU number.                                                                                                                                                                             | Make sure of the specified MU number.                                                           | —              |
| 030038      | DMER030038: The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.                                                                                                                 | Check the status of the Remote Replication pair.                                                | —              |
| 030039      | DMER030039: The P-VOL of SnapShot is a P-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.                                                                    | Check the pair status and pair attribute.                                                       | —              |
| 03003A      | DMER03003A: The P-VOL of SnapShot is a S-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.                                                                    | Check the pair status and pair attribute.                                                       | —              |
| 03003B      | DMER03003B: The P-VOL of SnapShot is a volume of Remote Replication and it is in a status other than Simplex and Split. Check the status of the Remote Replication pair.                                                                                     | Check the status of the Remote Replication pair.                                                | —              |
| 03003C      | DMER03003C: Among the other V-VOLs of SnapShot, there are LUs of Remote Replication in a status other than Split and Failure. Check the status of the Remote Replication pair.                                                                               | Check the status of the Remote Replication pair.                                                | —              |
| 03003D      | DMER03003D: The V-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.                                                                                                       | Check the status of the Remote Replication pair.                                                | —              |
| 03003E      | DMER03003E: The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.                                                                                                                 | Check the status of the Remote Replication pair.                                                | —              |
| 030044      | DMER030044: The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                             | Retry after setting the DM-LU.                                                                  | —              |
| 030045      | DMER030045: The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                                                    | Check the status of the LU.                                                                     | —              |
| 030046      | DMER030046: The DM-LU was specified as V-VOL. Check the status of the LU.                                                                                                                                                                                    | Check the status of the LU.                                                                     | —              |
| 030047      | DMER030047: The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                                             | Retry after setting the DM-LU.                                                                  | —              |
| 030048      | DMER030048: The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                                                    | Check the status of the LU.                                                                     | —              |
| 030049      | DMER030049: The DM-LU was specified as V-VOL. Check the status of the LU.                                                                                                                                                                                    | Check the status of the LU.                                                                     | —              |
| 03004A      | DMER03004A: Validity of the license expired. Purchase the license.                                                                                                                                                                                           | Purchase the license.                                                                           | —              |
| 03004B      | DMER03004B: Validity of the license expired. Purchase the license.                                                                                                                                                                                           | Purchase the license.                                                                           | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                         | Recovery methods               | Reference page |
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| 030052      | DMER030052: The specified P-VOL is a P-VOL of Remote Replication and the status of the Remote Replication pair is other than Split (at the time of restoration). Check the status of the LU.                                           | Check the status of the LU.    | —              |
| 030053      | DMER030053: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and writing to the S-VOL is prohibited (at the time of restoration). Check the status of the LU.              | Check the status of the LU.    | —              |
| 030054      | DMER030054: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Busy (at the time of restoration). Check the status of the LU.                                                      | Check the status of the LU.    | —              |
| 030056      | DMER030056: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited (at the time of restoration). Check the status of the LU. | Check the status of the LU.    | —              |
| 030057      | DMER030057: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is other than Simplex or Split (at the time of restoration). Check the status of the LU.                               | Check the status of the LU.    | —              |
| 030058      | DMER030058: The P-VOL of this SnapShot is the S-VOL of the Remote Replication pair. It cannot be executed because the status of this Remote Replication pair is Synchronizing or Paired. Check the status of the LU.                   | Check the status of the LU.    | —              |
| 030059      | DMER030059: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the LU.                              | Check the status of the LU.    | —              |
| 03005A      | DMER03005A: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Synchronizing or Paired. Check the status of the LU.                                                                | Check the status of the LU.    | —              |
| 03005B      | DMER03005B: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the LU.                              | Check the status of the LU.    | —              |
| 03005C      | DMER03005C: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Pool Full (at the time of restoration). Check the status of the LU.                                                 | Check the status of the LU.    | —              |
| 03005D      | DMER03005D: The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                        | Check the status of the LU.    | —              |
| 03005E      | DMER03005E: The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                        | Check the status of the LU.    | —              |
| 03005F      | DMER03005F: Though the specified P-VOL requires a change of an ownership of LU, it has the pinned data. Contact the service personnel.                                                                                                 | Contact the service personnel. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                           | Recovery methods                                             | Reference page |
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| 030060      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER030060: Though the specified P-VOL requires a change of an ownership of LU, the segments are insufficient. Check the status of the LU. | Check the status of the LU.                                  | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER030060: The controller that controls the LU that will be P-VOL cannot be changed. Check the status of the LU.                            | Check the status of the LU.                                  | —              |
| 030061      | DMER030061: The operation to change LU is in progress. Retry after waiting for a while.                                                                                                                  | Retry after waiting for a while.                             | —              |
| 030062      | DMER030062: There is no partition to which the current partition to be changed. Retry after waiting for a while.                                                                                         | Retry after waiting for a while.                             | —              |
| 030063      | DMER030063: Though the specified P-VOL requires a change of an ownership of LU, the directory structure is being changed. Check the status of the LU.                                                    | Check the status of the LU.                                  | —              |
| 030064      | DMER030064: Though the specified P-VOL requires a change of an ownership of LU, a time-out occurred in the ownership of LU changed. Check the status of the LU.                                          | Check the status of the LU.                                  | —              |
| 030065      | DMER030065: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down (at the time of restoration). Check the status of the RAID group.                      | Check the status of the RAID group.                          | —              |
| 030066      | DMER030066: The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.                                                                                                        | Check the specified POOL ID.                                 | —              |
| 030067      | DMER030067: There is no POOL LU at the specified POOL ID. Check the specified POOL ID.                                                                                                                   | Check the specified POOL ID.                                 | —              |
| 030068      | DMER030068: The specified P-VOL is already paired with one or more V-VOLs, and the specified POOL ID is different from the POOL ID, which is already assigned. Check the specified POOL ID.              | Check the specified POOL ID.                                 | —              |
| 030069      | DMER030069: The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified LU.                                                                                   | Check the RAID level of the specified LU.                    | —              |
| 03006A      | DMER03006A: The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.                                              | Check the number of V-VOLs which have paired with the P-VOL. | —              |
| 03006B      | DMER03006B: The specified P-VOL is a SubLU of a unified LU. Check the status of the LU.                                                                                                                  | Check the status of the LU.                                  | —              |
| 03006C      | DMER03006C: The specified P-VOL is a Volume Migration pair. Check the status of the LU.                                                                                                                  | Check the status of the LU.                                  | —              |
| 03006D      | DMER03006D: The specified P-VOL is a ShadowImage pair. Check the attribute of the LU.                                                                                                                    | Check the attribute of the LU.                               | —              |
| 03006E      | DMER03006E: The specified P-VOL has been defined to the command device. Check the attribute of the LU.                                                                                                   | Check the attribute of the LU.                               | —              |
| 03006F      | DMER03006F: The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                                           | Delete the unnecessary pairs.                                | —              |
| 030070      | DMER030070: The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                                           | Delete the unnecessary pairs.                                | —              |
| 030071      | DMER030071: It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.                                                                    | Delete the unnecessary pairs.                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                           | Recovery methods                                             | Reference page |
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| 030072      | DMER030072: The specified P-VOL is a MainLU of a unified LU, which includes an LU with a capacity smaller than 1 GB. Check the status of the LU.                                         | Check the status of the LU.                                  | —              |
| 030073      | DMER030073: The specified P-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                              | Check the status of the LU.                                  | —              |
| 030074      | DMER030074: The specified P-VOL has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                             | Check the status of the LU.                                  | —              |
| 030075      | DMER030075: The specified P-VOL is the LU, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the LU.                                | Check the status of the LU.                                  | —              |
| 030076      | DMER030076: Differential bit map is insufficient. Delete the unnecessary pairs.                                                                                                          | Delete the unnecessary pairs.                                | —              |
| 030077      | DMER030077: When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.                             | Check the specified pool ID.                                 | —              |
| 030078      | DMER030078: LU capacities of the P-VOL and V-VOL are different. Check the capacity of the LU.                                                                                            | Check the capacity of the LU.                                | —              |
| 030079      | DMER030079: The specified V-VOL is an S-VOL of a Remote Replication pair.                                                                                                                | —                                                            | —              |
| 03007A      | DMER03007A: Among the other V-VOLs of SnapShot, there are S-VOLs of Remote Replication. Check the status of the Remote Replication pair.                                                 | Check the status of the Remote Replication pair.             | —              |
| 03007B      | DMER03007B: An unsupported command option was received. Check the specified value.                                                                                                       | Check the specified value.                                   | —              |
| 03007C      | DMER03007C: The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.                                                                                        | Check the specified POOL ID.                                 | —              |
| 03007D      | DMER03007D: There is no POOL LU at the specified POOL ID. Check the specified POOL ID.                                                                                                   | Check the specified POOL ID.                                 | —              |
| 03007E      | DMER03007E: An instruction to create a pair was issued to a P-VOL, which has one or more pairs, specifying a POOL ID different from that has been assigned. Check the specified POOL ID. | Check the specified POOL ID.                                 | —              |
| 03007F      | DMER03007F: The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified LU.                                                                   | Check the RAID level of the specified LU.                    | —              |
| 030080      | DMER030080: The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.                              | Check the number of V-VOLs which have paired with the P-VOL. | —              |
| 030081      | DMER030081: The specified P-VOL is a SubLU of a unified LU. Check the status of the LU.                                                                                                  | Check the status of the LU.                                  | —              |
| 030082      | DMER030082: The specified P-VOL is a Volume Migration pair. Check the RAID level of the specified LU.                                                                                    | Check the RAID level of the specified LU.                    | —              |
| 030083      | DMER030083: The specified P-VOL is a ShadowImage pair. Check the attribute of the LU.                                                                                                    | Check the attribute of the LU.                               | —              |
| 030084      | DMER030084: The specified P-VOL has been defined to the command device. Check the attribute of the LU.                                                                                   | Check the attribute of the LU.                               | —              |
| 030085      | DMER030085: The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                           | Delete the unnecessary pairs.                                | —              |
| 030086      | DMER030086: The maximum supported capacity is beyond the limits. Delete the unnecessary pairs.                                                                                           | Delete the unnecessary pairs.                                | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                               | Recovery methods                                           | Reference page |
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| 030087      | DMER030087: It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.                        | Delete the unnecessary pairs.                              | —              |
| 030088      | DMER030088: The specified P-VOL is a MainLU of a unified LU, which includes an LU with a capacity smaller than 1 GB. Check the status of the LU.             | Check the status of the LU.                                | —              |
| 030089      | DMER030089: The specified P-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                  | Check the status of the LU.                                | —              |
| 03008A      | DMER03008A: The specified P-VOL has been set to the reserved Cache Residency LU. Check the status of the LU.                                                 | Check the status of the LU.                                | —              |
| 03008B      | DMER03008B: The specified P-VOL is the LU, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the LU.    | Check the status of the LU.                                | —              |
| 03008C      | DMER03008C: Differential bit map is insufficient. Delete the unnecessary pairs.                                                                              | Delete the unnecessary pairs.                              | —              |
| 03008D      | DMER03008D: When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID. | Check the specified pool ID.                               | —              |
| 03008E      | DMER03008E: LU capacities of the P-VOL and V-VOL are different. Check the capacity of the LU.                                                                | Check the capacity of the LU.                              | —              |
| 03008F      | DMER03008F: When creating a pair specifying a group ID, the specified group ID is already used for a ShadowImage pair. Check the specified group ID.         | Check the specified group ID.                              | —              |
| 030090      | DMER030090: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                         | Check the partition number.                                | —              |
| 030091      | DMER030091: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                | If an error occurred again, contact the service personnel. | —              |
| 030092      | DMER030092: The P-VOL is in a status other than normal or regressive. Check the status of the LU.                                                            | Check the status of the LU.                                | —              |
| 030093      | DMER030093: The used data POOL LU is in the status other than normal or regressive. Check the status of the LU.                                              | Check the status of the LU.                                | —              |
| 030094      | DMER030094: The Migration status is other than unexecuted. Check the Migration status.                                                                       | Check the Migration status.                                | —              |
| 030095      | DMER030095: The Migration status is other than unexecuted. Check the Migration status.                                                                       | Check the Migration status.                                | —              |
| 030096      | DMER030096: The Migration status is other than unexecuted. Check the Migration status.                                                                       | Check the Migration status.                                | —              |
| 030097      | DMER030097: The Migration status is other than unexecuted. Check the Migration status.                                                                       | Check the Migration status.                                | —              |
| 030098      | DMER030098: The Migration status is other than unexecuted. Check the Migration status.                                                                       | Check the Migration status.                                | —              |
| 030099      | DMER030099: There exist maximum number of pairs already. Delete the unnecessary pairs.                                                                       | Delete the unnecessary pairs.                              | —              |
| 03009A      | DMER03009A: There exist maximum number of pairs already. Delete the unnecessary pairs.                                                                       | Delete the unnecessary pairs.                              | —              |
| 03009B      | DMER03009B: The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.         | Retry the operation after the controller is recovered.     | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                 | Recovery methods                                                                            | Reference page |
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| 03009C      | DMER03009C: The RAID group to which the target LU of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                   | Retry after the status becomes Normal.                                                      | —              |
| 03009D      | DMER03009D: The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                              | Specify an LU other than the LU created in DP pool.                                         | —              |
| 03009E      | DMER03009E: A P-VOL that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.                                                             | Retry after the RAID group status becomes Normal.                                           | —              |
| 03009F      | DMER03009F: An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.                        | Retry after the RAID group status becomes Normal.                                           | —              |
| 0300A0      | DMER0300A0: The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                      | Retry after the status becomes Normal.                                                      | —              |
| 0300A1      | DMER0300A1: An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal. | Retry after the RAID group status becomes Normal.                                           | —              |
| 0300A2      | DMER0300A2: The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                              | Specify an LU other than the LU created in DP pool.                                         | —              |
| 0300A3      | DMER0300A3: The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                        | Check the specified LUN.                                                                    | —              |
| 0300A4      | DMER0300A4: The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                        | Check the specified LUN.                                                                    | —              |
| 0300A5      | DMER0300A5: An LU whose DP optimization status is not Normal is included in the pair and its cascade pairs. Check the DP optimization status of the LUs which are included in the pairs.                                                       | Check the DP optimization status of the LUs which are included in the pairs.                | —              |
| 0300EF      | DMER0300EF: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                           | Check the partition number.                                                                 | —              |
| 0300F0      | DMER0300F0: The micro program internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                             | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 0300FA      | DMER0300FA: The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                                                           | Retry the operation after the controller is recovered.                                      | —              |
| 0300FB      | DMER0300FB: The RAID group to which the target LU of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                   | Retry after the status becomes Normal.                                                      | —              |
| 031000      | DMER031000: The controller that controls the LU cannot be changed because pinned data exists. Retry after eliminating pinned data.                                                                                                             | Retry after eliminating pinned data.                                                        | —              |
| 031001      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER031001: The controller that controls the LU cannot be changed because of an insufficient segment size. Retry after waiting for a while.                                      | Retry after waiting for a while.                                                            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER031001: The controller that controls the LU cannot be changed temporarily. Retry after waiting for a while.                                                                    | Retry after waiting for a while.                                                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                            | Recovery methods                                                                            | Reference page |
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| 031002      | DMER031002: The operation to change LU is in progress. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.                                                            | —              |
| 031003      | DMER031003: There is no partition to which the current partition is to be changed. Retry after waiting for a while.                                                                                       | Retry after waiting for a while.                                                            | —              |
| 031004      | DMER031004: The directory configuration is being changed. Reboot the subsystem.                                                                                                                           | Reboot the subsystem.                                                                       | —              |
| 031005      | DMER031005: The change of a controller that controls the LU resulted in a time-out. Retry after waiting for a while.                                                                                      | Retry after waiting for a while.                                                            | —              |
| 031090      | DMER031090: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                      | Check the partition number.                                                                 | —              |
| 031091      | DMER031091: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                             | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 03109B      | DMER03109B: The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                      | Retry the operation after the controller is recovered.                                      | —              |
| 03109C      | DMER03109C: The RAID group to which the target LU of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.                                              | Retry after the status becomes Normal.                                                      | —              |
| 032000      | DMER032000: The controller that controls the LU cannot be changed because pinned data exists. Retry after eliminating pinned data.                                                                        | Retry after eliminating pinned data.                                                        | —              |
| 032001      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER032001: The controller that controls the LU cannot be changed because of an insufficient segment size. Retry after waiting for a while. | Retry after waiting for a while.                                                            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER032001: The controller that controls the LU cannot be changed temporarily. Retry after waiting for a while.                               | Retry after waiting for a while.                                                            | —              |
| 032002      | DMER032002: The operation to change LU is in progress. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.                                                            | —              |
| 032003      | DMER032003: There is no partition to which the current partition is to be changed. Retry after waiting for a while.                                                                                       | Retry after waiting for a while.                                                            | —              |
| 032004      | DMER032004: The directory configuration is being changed. Reboot the subsystem.                                                                                                                           | Reboot the subsystem.                                                                       | —              |
| 032005      | DMER032005: The change of a controller that controls the LU resulted in a time-out. Retry after waiting for a while.                                                                                      | Retry after waiting for a while.                                                            | —              |
| 032090      | DMER032090: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                      | Check the partition number.                                                                 | —              |
| 032091      | DMER032091: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                             | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 03209B      | DMER03209B: The operation to change LU has become timeout while the controller is recovering. Retry the operation after the controller is recovered.                                                      | Retry the operation after the controller is recovered.                                      | —              |
| 050001      | DMER050001: The P-VOL is being quick formatted. Retry after the quick formatting is completed.                                                                                                            | Retry after the quick formatting is completed.                                              | —              |
| 050002      | DMER050002: The P-VOL or S-VOL (including the unified LU(s)) is being quick formatted. Retry after the quick formatting is completed.                                                                     | Retry after the quick formatting is completed.                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                           | Recovery methods                                             | Reference page |
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| 050003      | DMER050003: The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.                                                                              | Retry after the formatting is completed.                     | —              |
| 050004      | DMER050004: The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.                                                                              | Retry after the formatting is completed.                     | —              |
| 050005      | DMER050005: The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.                                                                              | Retry after the formatting is completed.                     | —              |
| 060001      | DMER060001: The S-VOL is in the S-VOL Disable mode. Cancel the access attribute.                                                                                         | Cancel the access attribute.                                 | —              |
| 060002      | DMER060002: The P-VOL is in the S-VOL Disable mode (at the time of restoration). Check the attribute of the LU.                                                          | Check the attribute of the LU.                               | —              |
| 060003      | DMER060003: The S-VOL Disable is specified for the P-VOL (at the time of a restoration only). Cancel the access attribute.                                               | Cancel the access attribute.                                 | —              |
| 060004      | DMER060004: The S-VOL Disable is specified for the S-VOL. Cancel the access attribute.                                                                                   | Cancel the access attribute.                                 | —              |
| 060005      | DMER060005: Resynchronization is directed to the ShadowImage pair whose S-VOL is specified as S-VOL Disable. Check the pair attribute of the LU.                         | Check the pair attribute of the LU.                          | —              |
| 060006      | DMER060006: The S-VOL Disable is specified for the S-VOL (at the time of a restoration only). Check the pair attribute of the LU.                                        | Check the pair attribute of the LU.                          | —              |
| 070001      | DMER070001: The P-VOL or S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                       | Retry after making the restoration by means of parity.       | —              |
| 070002      | DMER070002: The P-VOL is undergoing the forced restoration by means of parity (at the time of restoration). Retry after the restoration by means of parity is completed. | Retry after the restoration by means of parity is completed. | —              |
| 070003      | DMER070003: The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.                                    | Retry after making the restoration by means of parity.       | —              |
| 070011      | DMER070011: The P-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                                | Retry after making the restoration by means of parity.       | —              |
| 070012      | DMER070012: The P-VOL is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.                              | Retry after the restoration by means of parity is completed. | —              |
| 070021      | DMER070021: The P-VOL or data pool LU has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                | Retry after making the restoration by means of parity.       | —              |
| 070022      | DMER070022: The P-VOL is undergoing the forced restoration by means of parity (at the time of a restoration). Retry after parity correction is completed.                | Retry after parity correction is completed.                  | —              |
| 070023      | DMER070023: The data pool LU is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.                       | Retry after the restoration by means of parity is completed. | —              |
| 080001      | DMER080001: More LUs than supportable ones were specified for LUNs of the P-VOL. Make sure of the number of the specified paired LU.                                     | Make sure of the number of the specified paired LU.          | —              |
| 080002      | DMER080002: More LUs than supportable ones were specified for LUNs of the S-VOL. Make sure of the number of the specified paired LU.                                     | Make sure of the number of the specified paired LU.          | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                               | Recovery methods                                    | Reference page |
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| 080003      | DMER080003: The P-VOL is in the status other than normal and regressive.                                                     | Check the status of the LU.                         | —              |
| 080004      | DMER080004: The S-VOL is in the status other than normal and regressive. Check the status of the LU.                         | Check the status of the LU.                         | —              |
| 080005      | DMER080005: The primary sequence number is different from the own Array ID. Check the Array ID.                              | Check the Array ID.                                 | —              |
| 080006      | DMER080006: The secondary sequence number is different from the own Array ID. Check the Array ID.                            | Check the Array ID.                                 | —              |
| 080007      | DMER080007: The primary port number is not supported. Check the specified port number.                                       | Check the specified port number.                    | —              |
| 080008      | DMER080008: The secondary port number is not supported. Check the specified port number.                                     | Check the specified port number.                    | —              |
| 080009      | DMER080009: The P-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the LU.      | Check the pair status of the LU.                    | —              |
| 08000A      | DMER08000A: The S-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the LU.      | Check the pair status of the LU.                    | —              |
| 08000B      | DMER08000B: The P-VOL is a Sub LU of a unified LU. Check the status of the LU.                                               | Check the status of the LU.                         | —              |
| 08000C      | DMER08000C: The S-VOL is a Sub LU of a unified LU. Check the status of the LU.                                               | Check the status of the LU.                         | —              |
| 08000E      | DMER08000E: The P-VOL is a Cache Residency LU. Check the status of the LU.                                                   | Check the status of the LU.                         | —              |
| 08000F      | DMER08000F: The S-VOL is a Cache Residency LU. Check the status of the LU.                                                   | Check the status of the LU.                         | —              |
| 080010      | DMER080010: The P-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                       | Check the status of the LU.                         | —              |
| 080011      | DMER080011: The S-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                       | Check the status of the LU.                         | —              |
| 080012      | DMER080012: The P-VOL is a command device. Check the status of the LU.                                                       | Check the status of the LU.                         | —              |
| 080013      | DMER080013: The S-VOL is a command device. Check the status of the LU.                                                       | Check the status of the LU.                         | —              |
| 080014      | DMER080014: The LUNs of the P-VOL and S-VOL are the same. Check the specified LU.                                            | Check the specified LU.                             | —              |
| 080016      | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.                                                                   |                                                     |                |
|             | DMER080016: The S-VOL is a volume of ShadowImage and in the pair status other than Split and Failure. Check the pair status. | Check the pair status.                              | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.                                                                     |                                                     |                |
|             | DMER080016: The specified pair is in a status other than Split, Split Pending and Failure. Check the pair status.            | Check the pair status.                              | —              |
| 080017      | DMER080017: The LU to be paired with the P-VOL is not an S-VOL. Check the specified LU.                                      | Check the specified LU.                             | —              |
| 080018      | DMER080018: The LUN of the P-VOL is higher than 512 (1,023). Make sure of the number of the specified paired LU.             | Make sure of the number of the specified paired LU. | —              |
| 080019      | DMER080019: The LUN of the S-VOL is higher than 512 (1,023). Make sure of the number of the specified paired LU.             | Make sure of the number of the specified paired LU. | —              |
| 08001A      | DMER08001A: The primary sequence number is different from the own Array ID. Check the Array ID.                              | Check the Array ID.                                 | —              |
| 08001B      | DMER08001B: The secondary sequence number is different from the own Array ID. Check the Array ID.                            | Check the Array ID.                                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                | Recovery methods                 | Reference page |
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| 08001C      | DMER08001C: The primary port number is not supported. Check the specified port number.                                                                                                                                        | Check the specified port number. | —              |
| 08001D      | DMER08001D: The secondary port number is not supported. Check the specified port number.                                                                                                                                      | Check the specified port number. | —              |
| 08001F      | DMER08001F: The S-VOL is a volume of ShadowImage and in the pair status of Simplex or Failure. Check the pair status of the LU.                                                                                               | Check the pair status of the LU. | —              |
| 080020      | DMER080020: The LU to be paired with the P-VOL is not an S-VOL. Check the specified LU.                                                                                                                                       | Check the specified LU.          | —              |
| 080021      | DMER080021: The status of the P-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                          | Check the status of the LU.      | —              |
| 080022      | DMER080022: The status of the S-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                          | Check the status of the LU.      | —              |
| 080023      | DMER080023: The P-VOL is a Sub LU of a unified LU. Check the status of the LU.                                                                                                                                                | Check the status of the LU.      | —              |
| 080024      | DMER080024: The S-VOL is a Sub LU of a unified LU. Check the status of the LU.                                                                                                                                                | Check the status of the LU.      | —              |
| 080026      | DMER080026: The P-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                                                                             | Check the status of the LU.      | —              |
| 080027      | DMER080027: The S-VOL has been set to the current Cache Residency LU. Check the status of the LU.                                                                                                                             | Check the status of the LU.      | —              |
| 080028      | DMER080028: The P-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                                                                        | Check the status of the LU.      | —              |
| 080029      | DMER080029: The S-VOL is reserved as a Cache Residency LU. Check the status of the LU.                                                                                                                                        | Check the status of the LU.      | —              |
| 08002A      | DMER08002A: The P-VOL is defined as a command device. Check the status of the LU.                                                                                                                                             | Check the status of the LU.      | —              |
| 08002B      | DMER08002B: The S-VOL is defined as a command device. Check the status of the LU.                                                                                                                                             | Check the status of the LU.      | —              |
| 08002C      | DMER08002C: The LUNs of the P-VOL and S-VOL are the same. Check the specified LU.                                                                                                                                             | Check the specified LU.          | —              |
| 08002D      | DMER08002D: The number of the LU to be paired is different. Check the specified LUN.                                                                                                                                          | Check the specified LUN.         | —              |
| 08002E      | DMER08002E: The number of the LU to be paired is different. Check the specified LUN.                                                                                                                                          | Check the specified LUN.         | —              |
| 08002F      | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>DMER08002F: The pair status of the P-VOL/S-VOL is other than Simplex, Paired, and Synchronizing. Check the pair status of the LU.                               | Check the pair status of the LU. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>DMER08002F: The pair status of the P-VOL/S-VOL is other than Simplex, Paired, Paired Internally Synchronizing and Synchronizing. Check the pair status of the LU. | Check the pair status of the LU. | —              |
| 080030      | DMER080030: The LUN of the P-VOL is beyond the limits of support. Check the specified LUN.                                                                                                                                    | Check the specified LUN.         | —              |
| 080031      | DMER080031: The LUN of the S-VOL is beyond the limits of support. Check the specified LUN. Check the specified LUN.                                                                                                           | Check the specified LUN.         | —              |
| 080032      | DMER080032: The pair attribute of the LU specified for a P-VOL is not a P-VOL. Check the specified LUN.                                                                                                                       | Check the specified LUN.         | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                        | Recovery methods                                                                                                                         | Reference page |
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| 080033      | DMER080033: The number of the LU to be paired is different. Check the specified LUN.                                                                                                                                                  | Check the specified LUN.                                                                                                                 | —              |
| 080034      | DMER080034: The primary sequence number is different from the Array ID. Check the specified primary sequence number.                                                                                                                  | Check the specified primary sequence number.                                                                                             | —              |
| 080035      | DMER080035: The secondary sequence number is different from the Array ID. Check the specified secondary sequence number.                                                                                                              | Check the specified secondary sequence number.                                                                                           | —              |
| 080036      | DMER080036: The primary port number is beyond the limits of support. Check the specified primary port number.                                                                                                                         | Check the specified primary port number.                                                                                                 | —              |
| 080037      | DMER080037: The secondary port number is beyond the limits of support. Check the specified secondary port number.                                                                                                                     | Check the specified secondary port number.                                                                                               | —              |
| 080038      | DMER080038: A pair in the Failure (S-VOL Switch) status received an instruction to restore. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.      | Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.     | —              |
| 080039      | DMER080039: The specified pair is in the Failure (S-VOL Switch) status. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement and then resynchronize them.                      | Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement and then resynchronize them. | —              |
| 08003A      | DMER08003A: The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.                                                                                             | Wait until the resynchronization is completed.                                                                                           | —              |
| 08003B      | DMER08003B: The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.                                                                                             | Wait until the resynchronization is completed.                                                                                           | —              |
| 08003C      | DMER08003C: The group ID is out of appropriate range. Make sure of the specified group ID number.                                                                                                                                     | Make sure of the specified group ID number.                                                                                              | —              |
| 08003D      | DMER08003D: The number of pairs having the same group ID exceeded 32. Make sure of the specified group ID number.                                                                                                                     | Make sure of the specified group ID number.                                                                                              | —              |
| 08003E      | DMER08003E: The specified P-VOL/S-VOL is not specified to be grouped(Group ID suspension). Check the pair status of the LU.                                                                                                           | Check the pair status of the LU.                                                                                                         | —              |
| 08003F      | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>DMER08003F: The P-VOL/S-VOL, which is the object of the batch suspension, is in a status other than Paired(Group ID suspension). Check the pair status of the LU.       | Check the pair status of the LU.                                                                                                         | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>DMER08003F: A pair that is in a status other than Paired or Paired Internally Synchronizing is included in the specified group. Check the pair status of LU in the group. | Check the pair status of LU in the group.                                                                                                | —              |
|             |                                                                                                                                                                                                                                       |                                                                                                                                          |                |
| 080046      | DMER080046: The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                      | Retry after setting the DM-LU.                                                                                                           | —              |
| 080047      | DMER080047: The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                             | Check the status of the LU.                                                                                                              | —              |
| 080048      | DMER080048: The DM-LU was specified as S-VOL. Check the status of the LU.                                                                                                                                                             | Check the status of the LU.                                                                                                              | —              |
| 08004B      | DMER08004B: The DM-LU is not set. Retry after setting the DM-LU.                                                                                                                                                                      | Retry after setting the DM-LU.                                                                                                           | —              |
| 08004C      | DMER08004C: The DM-LU was specified as P-VOL. Check the status of the LU.                                                                                                                                                             | Check the status of the LU.                                                                                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                            | Recovery methods                            | Reference page |
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| 08004D      | DMER08004D: The DM-LU was specified as S-VOL. Check the status of the LU.                                                                                                                 | Check the status of the LU.                 | —              |
| 08004E      | DMER08004E: Validity of the license expired. Purchase the license.                                                                                                                        | Purchase the license.                       | —              |
| 08004F      | DMER08004F: Validity of the license expired. Purchase the license.                                                                                                                        | Purchase the license.                       | —              |
| 080050      | DMER080050: An LU, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the LU.                                                  | Check the status of the LU.                 | —              |
| 080051      | DMER080051: An LU, for which a change of the cache partition(s) had been reserved, was specified as a S-VOL. Check the status of the LU.                                                  | Check the status of the LU.                 | —              |
| 080052      | DMER080052: An LU, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the LU.                                                  | Check the status of the LU.                 | —              |
| 080053      | DMER080053: An LU, for which a change of the cache partition(s) had been reserved, was specified as a S-VOL. Check the status of the LU.                                                  | Check the status of the LU.                 | —              |
| 08005E      | DMER08005E: The specified P-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                 | Check the status of the LU.                 | —              |
| 08005F      | DMER08005F: The specified S-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                 | Check the status of the LU.                 | —              |
| 080060      | DMER080060: The specified P-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                 | Check the status of the LU.                 | —              |
| 080061      | DMER080061: The specified S-VOL is a Remote Replication pair. Check the status of the LU.                                                                                                 | Check the status of the LU.                 | —              |
| 080064      | DMER080064: The specified MU# is used within the specified P-VOL. Check the specified MU number.                                                                                          | Check the specified MU number.              | —              |
| 080065      | DMER080065: One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                             | Check the pair status of the LU.            | —              |
| 080066      | DMER080066: One or more volumes of special Failure are under the specified P-VOL. Check the pair status of the LU.                                                                        | Check the pair status of the LU.            | —              |
| 080067      | DMER080067: One or more Failure pairs that are not readable/writable (Failure transition due to a failure during restoration) under the specified P-VOL. Check the pair status of the LU. | Check the pair status of the LU.            | —              |
| 080068      | DMER080068: The group ID overlaps within the specified P-VOL at the time of creating the pair of which the group is specified. Make sure of the specified group ID number.                | Make sure of the specified group ID number. | —              |
| 080069      | DMER080069: The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not a S-VOL. Check the pair attribute of the LU.                     | Check the pair attribute of the LU.         | —              |
| 08006A      | DMER08006A: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                           | Check the specified MU number.              | —              |
| 08006B      | DMER08006B: One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                             | Check the pair status of the LU.            | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                | Recovery methods                                                                            | Reference page |
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| 08006C      | DMER08006C: One or more Failure pairs that are not readable/writable (Failure transition due to a failure during the restoration) under the specified P-VOL. Check the pair status of the LU. | Check the pair status of the LU.                                                            | —              |
| 08006D      | DMER08006D: The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not a S-VOL. Check the pair attribute of the LU.                         | Check the pair attribute of the LU.                                                         | —              |
| 08006E      | DMER08006E: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                               | Check the specified MU number.                                                              | —              |
| 08006F      | DMER08006F: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                               | Check the specified MU number.                                                              | —              |
| 080070      | DMER080070: The specified MU# is used within the specified P-VOL. Check the specified MU number.                                                                                              | Check the specified MU number.                                                              | —              |
| 080071      | DMER080071: One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                 | Check the pair status of the LU.                                                            | —              |
| 080072      | DMER080072: One or more volumes of special Failure are under the specified P-VOL. Check the pair status of the LU.                                                                            | Check the pair status of the LU.                                                            | —              |
| 080073      | DMER080073: One or more Failure pairs that are not readable/writable (Failure transition due to a failure during the restoration) under the specified P-VOL. Check the pair status of the LU. | Check the pair status of the LU.                                                            | —              |
| 080074      | DMER080074: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.                                                                               | Check the specified MU number.                                                              | —              |
| 080075      | DMER080075: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                 | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 080077      | DMER080077: The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                               | Check the status of the LU.                                                                 | —              |
| 080078      | DMER080078: The specified S-VOL is the reserved LU. Check the status of the LU.                                                                                                               | Check the status of the LU.                                                                 | —              |
| 080079      | DMER080079: The specified S-VOL is undergoing the migration and its status is Split or Failure. Check the pair status of the LU.                                                              | Check the pair status of the LU.                                                            | —              |
| 080080      | DMER080080: The specified S-VOL is undergoing the migration and its status is Synchronizing or Split. Check the pair status of the LU.                                                        | Check the pair status of the LU.                                                            | —              |
| 080081      | DMER080081: The specified P-VOL is the reserved LU. Check the pair status of the LU.                                                                                                          | Check the pair status of the LU.                                                            | —              |
| 080082      | DMER080082: The specified S-VOL is the reserved LU. Check the pair status of the LU.                                                                                                          | Check the pair status of the LU.                                                            | —              |
| 080083      | DMER080083: The specified S-VOL is undergoing the migration and its status is Synchronizing. Check the pair status of the LU.                                                                 | Check the pair status of the LU.                                                            | —              |
| 080084      | DMER080084: The specified volume is undergoing the migration. Check the pair status of the LU.                                                                                                | Check the pair status of the LU.                                                            | —              |
| 080085      | DMER080085: The specified P-VOL is undergoing the migration. Check the pair status of the LU.                                                                                                 | Check the pair status of the LU.                                                            | —              |
| 080086      | DMER080086: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                        | Check the status of the RAID group.                                                         | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                       | Recovery methods                                 | Reference page |
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| 080087      | DMER080087: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                               | Check the status of the RAID group.              | —              |
| 080088      | DMER080088: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                               | Check the status of the RAID group.              | —              |
| 080089      | DMER080089: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                               | Check the status of the RAID group.              | —              |
| 08008A      | DMER08008A: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                               | Check the status of the RAID group.              | —              |
| 08008B      | DMER08008B: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                               | Check the status of the RAID group.              | —              |
| 08008C      | DMER08008C: When creating a pair specifying a group ID, the specified group ID is already used for a SnapShot pair. Check the specified group ID.                                    | Check the specified group ID.                    | —              |
| 08008D      | DMER08008D: The S-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.                               | Check the status of the Remote Replication pair. | —              |
| 08008E      | DMER08008E: The S-VOL is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.                                                               | Check the status of the Remote Replication pair. | —              |
| 08008F      | DMER08008F: An unsupported command option was received. Check the specified value.                                                                                                   | Check the specified value.                       | —              |
| 080090      | DMER080090: The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the LU.                                                                                     | Check the status of the LU.                      | —              |
| 080091      | DMER080091: The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the LU.                                                                                     | Check the status of the LU.                      | —              |
| 080092      | DMER080092: The Migration status is other than unexecuted. Check the Migration status.                                                                                               | Check the Migration status.                      | —              |
| 080093      | DMER080093: The Migration status is other than unexecuted. Check the Migration status.                                                                                               | Check the Migration status.                      | —              |
| 080094      | DMER080094: The Migration status is other than unexecuted. Check the Migration status.                                                                                               | Check the Migration status.                      | —              |
| 080095      | DMER080095: The Migration status is other than unexecuted. Check the Migration status.                                                                                               | Check the Migration status.                      | —              |
| 080096      | DMER080096: The Migration status is other than unexecuted. Check the Migration status.                                                                                               | Check the Migration status.                      | —              |
| 080097      | DMER080097: The Migration status is other than unexecuted. Check the Migration status.                                                                                               | Check the Migration status.                      | —              |
| 080098      | DMER080098: An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the type of the remote array. | Check the type of the remote array.              | —              |
| 080099      | DMER080099: An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the type of the remote array. | Check the type of the remote array.              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                            | Recovery methods                                                                                                                        | Reference page |
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| 08009A      | DMER08009A: The Migration status is other than unexecuted. Check the Migration status.                                                                                                                                                                    | Check the Migration status.                                                                                                             | —              |
| 08009B      | DMER08009B: One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                          | Check the pair status of the LU.                                                                                                        | —              |
| 08009C      | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>DMER08009C: The P-VOL or the S-VOL of the specified pair is a volume of another Remote Replication pair. Check the status of the LU.                                                        | Check the status of the LU.                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>DMER08009C: The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.                                                    | Check the status of the Remote Replication pair.                                                                                        | —              |
| 08009D      | DMER08009D: One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                          | Check the pair status of the LU.                                                                                                        | —              |
| 08009E      | DMER08009E: The specified pair is in the Split Pending status. Retry after the status becomes Split.                                                                                                                                                      | Retry after the status becomes Split.                                                                                                   | —              |
| 08009F      | DMER08009F: A pair in the Failure (S-VOL Switch) status received an instruction to resynchronize with Quick mode. Request that service personnel to replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them. | Request that service personnel to replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them. | —              |
| 0800A0      | DMER0800A0: One or more Failure pairs that are not readable/writable under the specified P-VOL. Check the pair status of the LU.                                                                                                                          | Check the pair status of the LU.                                                                                                        | —              |
| 0800A1      | DMER0800A1: The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                                    | Split the unnecessary pairs.                                                                                                            | —              |
| 0800A2      | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>DMER0800A2: The P-VOL or the S-VOL of the specified pair has been cascaded with a Remote Replication pair. Check the status of the Remote Replication pair.                                 | Check the status of the Remote Replication pair.                                                                                        | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>DMER0800A2: The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.                                                    | Check the status of the Remote Replication pair.                                                                                        | —              |
| 0800A3      | DMER0800A3: The P-VOL or the S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.                                                                                                    | Retry after making the restoration by means of parity.                                                                                  | —              |
| 0800A4      | DMER0800A4: The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.                                                                                                                     | Retry after making the restoration by means of parity.                                                                                  | —              |
| 0800A5      | DMER0800A5: The disk drives that configure a RAID group to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                     | Check the status of the RAID group.                                                                                                     | —              |
| 0800A6      | DMER0800A6: The disk drives that configure a RAID group to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                     | Check the status of the RAID group.                                                                                                     | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                     | Recovery methods                                       | Reference page |
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| 0800A7      | DMER0800A7: A pair that is in a status other than Paired, Paired Internally Synchronizing or Synchronizing is included in the specified group. Check the pair status of LU in the group.                                                           | Check the pair status of LU in the group.              | —              |
| 0800A8      | DMER0800A8: A pair that shares the P-VOL with another pair that is in Failure status that are not readable/writable is included in the specified group. Check the pair status of LU in the group.                                                  | Check the pair status of LU in the group.              | —              |
| 0800A9      | DMER0800A9: The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                             | Split the unnecessary pairs.                           | —              |
| 0800AA      | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.<br>DMER0800AA: A pair that the P-VOL or the S-VOL has been cascaded with a Remote Replication pair is included in the specified group. Check the status of the Remote Replication pair. | Check the status of the Remote Replication pair.       | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>DMER0800AA: A pair that the S-VOL has been cascaded with a Remote Replication pair is included in the specified group. Check the status of the Remote Replication pair.                | Check the status of the Remote Replication pair.       | —              |
| 0800AB      | DMER0800AB: A pair that the P-VOL or the S-VOL has not undergone the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.                                              | Retry after making the restoration by means of parity. | —              |
| 0800AC      | DMER0800AC: A pair that the S-VOL is undergoing the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.                                                               | Retry after making the restoration by means of parity. | —              |
| 0800AD      | DMER0800AD: A pair that the P-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.                                                                       | Check the status of the RAID group.                    | —              |
| 0800AE      | DMER0800AE: A pair that the S-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.                                                                       | Check the status of the RAID group.                    | —              |
| 0800AF      | DMER0800AF: One or more volumes of Split Pending/ Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the LU.                                                                                                  | Check the pair status of the LU.                       | —              |
| 0800B0      | DMER0800B0: The P-VOL or the S-VOL of the specified pair is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.                                                                                          | Check the status of the Remote Replication pair.       | —              |
| 0800B1      | DMER0800B1: The specified pair is in the Split Pending status. Check the pair status of the LU.                                                                                                                                                    | Check the pair status of the LU.                       | —              |
| 0800B2      | DMER0800B2: The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                          | Retry after the status becomes Normal.                 | —              |
| 0800B3      | DMER0800B3: An LU that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.                                                                   | Retry after the RAID group status becomes Normal.      | —              |
| 0800B4      | DMER0800B4: The specified pair is in a status other than Split and Failure. Check the pair status.                                                                                                                                                 | Check the pair status.                                 | —              |
| 0800B5      | DMER0800B5: The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                            | Check the specified LUN.                               | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                             | Recovery methods                                             | Reference page |
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| 0800B6      | DMER0800B6: The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                    | Check the specified LUN.                                     | —              |
| 0800B7      | DMER0800B7: The LU that was specified as S-VOL does not exist. Check the specified LUN.                                                                                                                    | Check the specified LUN.                                     | —              |
| 0800B8      | DMER0800B8: The LU that was specified as S-VOL does not exist. Check the specified LUN.                                                                                                                    | Check the specified LUN.                                     | —              |
| 0800B9      | DMER0800B9: DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      | Confirm the capacity of DP pool.                             | —              |
| 0800BA      | DMER0800BA: DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      | Confirm the capacity of DP pool.                             | —              |
| 0800BB      | DMER0800BB: DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      | Confirm the capacity of DP pool.                             | —              |
| 0800BC      | DMER0800BC: DP pool is insufficient. Confirm the capacity of DP pool.                                                                                                                                      | Confirm the capacity of DP pool.                             | —              |
| 0800BD      | DMER0800BD: The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is an LU created in DP pool. Specify an LU other than the LU created in DP pool to S-VOL.                   | Specify an LU other than the LU created in DP pool to S-VOL. | —              |
| 0800BE      | DMER0800BE: The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is an LU created in DP pool. Specify an LU other than the LU created in DP pool to S-VOL.                   | Specify an LU other than the LU created in DP pool to S-VOL. | —              |
| 0800BF      | DMER0800BF: The specified S-VOL is an LU created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair. | Retry after deleting the remote replication pair.            | —              |
| 0800C0      | DMER0800C0: The specified S-VOL is an LU created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair. | Retry after deleting the remote replication pair.            | —              |
| 0800C1      | DMER0800C1: The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.                                                                                | Check the DP optimization status of the P-VOL.               | —              |
| 0800C2      | DMER0800C2: The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.                                                                                | Check the DP optimization status of the S-VOL.               | —              |
| 0800C3      | DMER0800C3: The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.                                                                                | Check the DP optimization status of the P-VOL.               | —              |
| 0800C4      | DMER0800C4: The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.                                                                                | Check the DP optimization status of the S-VOL.               | —              |
| 0800C5      | DMER0800C5: Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         | Retry after waiting for a while.                             | —              |
| 0800C6      | DMER0800C6: Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         | Retry after waiting for a while.                             | —              |
| 0800C7      | DMER0800C7: Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         | Retry after waiting for a while.                             | —              |
| 0800C8      | DMER0800C8: Management information regarding DP is being updated. Retry after waiting for a while.                                                                                                         | Retry after waiting for a while.                             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                  | Recovery methods                   | Reference page |
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| 0800C9      | DMER0800C9: The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool. | Check the capacity of the DP pool. | —              |
| 0800CA      | DMER0800CA: The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool. | Check the capacity of the DP pool. | —              |
| 0800CB      | DMER0800CB: The specified S-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool. | Check the capacity of the DP pool. | —              |
| 0800CC      | DMER0800CC: The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool. | Check the capacity of the DP pool. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                              | Recovery methods                      | Reference page |
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| 090001      | DMER090001: The specified P-VOL is normal or other than regressed. Check the status of the LU.                                                                              | Check the status of the LU.           | —              |
| 090002      | DMER090002: The specified P-VOL has been set to the current Cache Residency LU. Check the attribute of the LU.                                                              | Check the attribute of the LU.        | —              |
| 090003      | DMER090003: The specified P-VOL has been set to the reserved Cache Residency LU. Check the attribute of the LU.                                                             | Check the attribute of the LU.        | —              |
| 090004      | DMER090004: The specified P-VOL has been defined to the command device. Check the attribute of the LU.                                                                      | Check the attribute of the LU.        | —              |
| 090005      | DMER090005: The accepted sequence number is different from the serial number. Check the serial number.                                                                      | Check the serial number.              | —              |
| 090006      | DMER090006: Both of the two paths are abnormal. Check the status of the path.                                                                                               | Check the status of the path.         | —              |
| 090007      | DMER090007: The specified P-VOL is a Sub LU of a unified LU. Check the attribute of the LU.                                                                                 | Check the attribute of the LU.        | —              |
| 090009      | DMER090009: The status of the Remote Replication pair of the specified P-VOL is other than Simplex. Check the pair status of the LU.                                        | Check the pair status of the LU.      | —              |
| 09000A      | DMER09000A: The specified P-VOL is a ShadowImage pair. Check the attribute of the LU.                                                                                       | Check the attribute of the LU.        | —              |
| 09000B      | DMER09000B: The specified P-VOL is a SnapShot V-VOL. Check the attribute of the LU.                                                                                         | Check the attribute of the LU.        | —              |
| 09000C      | DMER09000C: The group ID is beyond the limits (more than 16) of support. Check the group ID.                                                                                | Check the group ID.                   | —              |
| 09000D      | DMER09000D: The pair status of the specified P-VOL is other than Split or Failure. Check the pair status of the LU.                                                         | Check the pair status of the LU.      | —              |
| 09000E      | DMER09000E: The specified P-VOL status is normal or other than regressed. Check the status of the LU.                                                                       | Check the status of the LU.           | —              |
| 09000F      | DMER09000F: The specified S-VOL is not a pair target LUN. Check the LUN of the S-VOL.                                                                                       | Check the LUN of the S-VOL.           | —              |
| 090010      | DMER090010: The accepted sequence number is different from the serial number. Check the serial number.                                                                      | Check the serial number.              | —              |
| 090011      | DMER090011: Both of the two paths are abnormal. Check the status of the path.                                                                                               | Check the status of the path.         | —              |
| 090012      | DMER090012: When the unit of pair is specified, the pair status of the specified P-VOL is other than Synchronizing and Paired. Check the pair status of the LU.             | Check the pair status of the LU.      | —              |
| 090013      | DMER090013: The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                      | Split the unnecessary pairs.          | —              |
| 090014      | DMER090014: The accepted sequence number is different from the serial number. Check the serial number.                                                                      | Check the serial number.              | —              |
| 090015      | DMER090015: The process is in progress. Retry after waiting for a while.                                                                                                    | Retry after waiting for a while.      | —              |
| 090016      | DMER090016: When the unit of pair is specified, the specified S-VOL is not a pair target LUN. Check the LUN of the specified S-VOL.                                         | Check the LUN of the specified S-VOL. | —              |
| 090017      | DMER090017: The accepted sequence number is different from the serial number. Check the serial number.                                                                      | Check the serial number.              | —              |
| 090018      | DMER090018: The S-VOL pair cancellation instructions was issued to the P-VOL or pair cancellation instructions was issued to the S-VOL. Check the pair attribute of the LU. | Check the pair attribute of the LU.   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                         | Recovery methods                                                                                             | Reference page |
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| 090019      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER090019: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                       | Retry after waiting for a while.                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER090019: This operation cannot be executed due to lack of resources. Retry after waiting for a while.                                                                   | Retry after waiting for a while.                                                                             | —              |
| 090020      | DMER090020: The pool LU is not defined. Define the pool LU and retry.                                                                                                                                                                  | Define the pool LU and retry.                                                                                | —              |
| 090021      | DMER090021: The specified fence level is STATUS. Make sure of the specified fence level.                                                                                                                                               | Make sure of the specified fence level.                                                                      | —              |
| 090022      | DMER090022: The capacity is beyond the limits of support. Split the unnecessary pairs.                                                                                                                                                 | Split the unnecessary pairs.                                                                                 | —              |
| 090023      | DMER090023: The internal pair status of the specified P-VOL is [under pair deletion]. Check the pair status of the LU.                                                                                                                 | Check the pair status of the LU.                                                                             | —              |
| 090025      | DMER090025: The forced blockade of a P-VOL was accepted. The forced blockade of a P-VOL is not supported.                                                                                                                              | The forced blockade of a P-VOL is not supported.                                                             | —              |
| 090026      | DMER090026: The type of the side file release is other than ordinary splitting. Check the specified value.                                                                                                                             | Check the specified value.                                                                                   | —              |
| 090027      | DMER090027: The S-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                     | Check the pair attribute of the LU.                                                                          | —              |
| 090029      | DMER090029: The S-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                     | Check the pair attribute of the LU.                                                                          | —              |
| 09002A      | DMER09002A: The P-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                     | Check the pair attribute of the LU.                                                                          | —              |
| 09002B      | DMER09002B: When the unit of pair is specified, the pair status of the specified S-VOL is Simplex or Synchronizing. Check the pair status of the LU.                                                                                   | Check the pair status of the LU.                                                                             | —              |
| 09002C      | DMER09002C: The accepted sequence number is different from the serial number. Check the serial number.                                                                                                                                 | Check the serial number.                                                                                     | —              |
| 09002D      | DMER09002D: The specified MU number is beyond the limits (0 to13) of support. Check the specified MU number.                                                                                                                           | Check the specified MU number.                                                                               | —              |
| 090030      | DMER090030: The S-VOL received an instruction. Check the pair attribute of the LU.                                                                                                                                                     | Check the pair attribute of the LU.                                                                          | —              |
| 090032      | DMER090032: The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified LU.                                                                                                                 | Check the RAID level of the specified LU.                                                                    | —              |
| 090036      | DMER090036: The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.                                                                                                                   | Check the pair status of the SnapShot.                                                                       | —              |
| 090037      | DMER090037: The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.                                                                                   | Check the pair status of the SnapShot.                                                                       | —              |
| 090038      | DMER090038: There is no vacancy in the generation bits. Retry after waiting for a while.                                                                                                                                               | Retry after waiting for a while.                                                                             | —              |
| 090039      | DMER090039: There is one or more pair(s) in the status of [under execution of remote SnapShot split] in the target group. Check the pair status of each LU in the target group. It is required to wait until the process is completed. | Check the pair status of each LU in the target group. It is required to wait until the process is completed. | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                | Recovery methods                                                                                             | Reference page |
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| 09003A      | DMER09003A: There is one or more pair(s) in the status of [under pair splitting] in the target group. Check the pair status of each LU in the target group. It is required to wait until the process is completed.                            | Check the pair status of each LU in the target group. It is required to wait until the process is completed. | —              |
| 09003C      | DMER09003C: There is one or more pair(s) in the status of [under pair deletion] in the target group. Check the pair status of each LU in the target group. It is required to wait until the process is completed.                             | Check the pair status of each LU in the target group. It is required to wait until the process is completed. | —              |
| 09003D      | DMER09003D: The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.                                                                                                                          | Check the pair status of the SnapShot.                                                                       | —              |
| 09003E      | DMER09003E: The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.                                                                                          | Check the pair status of the SnapShot.                                                                       | —              |
| 09003F      | DMER09003F: There is no pair, which is in the Paired status, in the target group. Check the pair status of each LU in the target group.                                                                                                       | Check the pair status of each LU in the target group.                                                        | —              |
| 090042      | DMER090042: When the unit of pair is specified, the pair status of the specified pair is Split (no reading/writing allowed). Check the pair status.                                                                                           | Check the pair status.                                                                                       | —              |
| 090044      | DMER090044: When the unit of group is specified, there is one or more pair(s) placed in the Split status (no reading/writing allowed) in the group. Check the pair status of each LU in the target group.                                     | Check the pair status of each LU in the target group.                                                        | —              |
| 090045      | DMER090045: When the unit of group is specified, there is no pair that is in the Paired, Split, or Failure status in the group. Check the pair status of each LU in the target group.                                                         | Check the pair status of each LU in the target group.                                                        | —              |
| 090046      | DMER090046: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the LU. It is required to wait until the process is completed.                     | Check the pair status of the LU. It is required to wait until the process is completed.                      | —              |
| 090047      | DMER090047: The specified P-VOL has the incomplete DDCB. Check the status of the LU.                                                                                                                                                          | Check the status of the LU.                                                                                  | —              |
| 090048      | DMER090048: The specified P-VOL has unwritten data. Contact the service personnel.                                                                                                                                                            | Contact the service personnel.                                                                               | —              |
| 090049      | DMER090049: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair deletion]. Check the pair status of the LU. It is required to wait until the process is completed.                      | Check the pair status of the LU. It is required to wait until the process is completed.                      | —              |
| 09004B      | DMER09004B: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the LU. It is required to wait until the process is completed. | Check the pair status of the LU. It is required to wait until the process is completed.                      | —              |
| 09004C      | DMER09004C: When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each LU in the target group.                                             | Check the pair status of each LU in the target group.                                                        | —              |
| 09004D      | DMER09004D: The DM-LU is not defined. Define the DM-LU.                                                                                                                                                                                       | Define the DM-LU.                                                                                            | —              |
| 09004E      | DMER09004E: The specified P-VOL has been set to the DM-LU. Check the attribute of the LU.                                                                                                                                                     | Check the attribute of the LU.                                                                               | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                | Recovery methods                                                                        | Reference page |
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| 09004F      | DMER09004F: Validity of the license expired. Purchase the license.                                                                                                                                                                            | Purchase the license.                                                                   | —              |
| 090050      | DMER090050: When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair deletion] in the group. Check the pair status of each LU in the target group.                                              | Check the pair status of each LU in the target group.                                   | —              |
| 090052      | DMER090052: When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each LU in the target group.                         | Check the pair status of each LU in the target group.                                   | —              |
| 090053      | DMER090053: When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the target group. Check the pair status of each LU in the target group.                                                 | Check the pair status of each LU in the target group.                                   | —              |
| 090054      | DMER090054: The pair cancellation instructions was executed for the range that was not supported. Check the specified value.                                                                                                                  | Check the specified value.                                                              | —              |
| 090055      | DMER090055: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the LU. It is required to wait until the process is completed.                     | Check the pair status of the LU. It is required to wait until the process is completed. | —              |
| 090057      | DMER090057: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the LU. It is required to wait until the process is completed. | Check the pair status of the LU. It is required to wait until the process is completed. | —              |
| 090059      | DMER090059: When the unit of pair is specified, the internal status of the pair of the specified S-VOL is Busy. Check the pair status of the LU.                                                                                              | Check the pair status of the LU.                                                        | —              |
| 09005A      | DMER09005A: When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each LU in the target group.                                             | Check the pair status of each LU in the target group.                                   | —              |
| 09005C      | DMER09005C: When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each LU in the target group.                         | Check the pair status of each LU in the target group.                                   | —              |
| 09005E      | DMER09005E: When the unit of group is specified, there is one or more pair(s) placed in the Busy status in the group. Check the pair status of each LU in the target group.                                                                   | Check the pair status of each LU in the target group.                                   | —              |
| 090068      | DMER090068: There is the S-VOL pair whose direction is not correct in the indicated group. Check the group ID.                                                                                                                                | Check the group ID.                                                                     | —              |
| 090069      | DMER090069: The partition to which the LU belongs is being changed to the other directory. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.                                                        | —              |
| 09006B      | DMER09006B: There is no pair, which is in the Paired status, in the target group. Check the pair status of each LU in the target group.                                                                                                       | Check the pair status of each LU in the target group.                                   | —              |
| 09006C      | DMER09006C: The subsystem has not been rebooted after the Remote Replication option was unlocked. Reboot the subsystem.                                                                                                                       | Reboot the subsystem.                                                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                   | Recovery methods                                                                        | Reference page |
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| 09006D      | DMER09006D: The specified P-VOL is a unified LU including an LU with a capacity less than 1 GB. Check the attribute of the LU.                                                                                   | Check the attribute of the LU.                                                          | —              |
| 09006E      | DMER09006E: The specified P-VOL is the pool LU. Check the attribute of the LU.                                                                                                                                   | Check the attribute of the LU.                                                          | —              |
| 09006F      | DMER09006F: The pool LU status is normal or other than regressed. Check the status of the pool LU.                                                                                                               | Check the status of the pool LU.                                                        | —              |
| 090070      | DMER090070: The pool LU is undergoing the forced parity correction. Check the status of the pool LU.                                                                                                             | Check the status of the pool LU.                                                        | —              |
| 090071      | DMER090071: It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete unnecessary pairs.                                                                                | Delete unnecessary pairs.                                                               | —              |
| 090072      | DMER090072: The remote SnapShot split request was accepted. Check the firmware version.                                                                                                                          | Check the firmware version.                                                             | —              |
| 090073      | DMER090073: The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL on both local and remote arrays.                                            | Check the pair status of the specified S-VOL on both local and remote arrays.           | —              |
| 090074      | DMER090074: The suspension command was accepted with a specification of the unit of pair. The specification of the unit of pair is not supported.                                                                | The specification of the unit of pair is not supported.                                 | —              |
| 090075      | DMER090075: The specified P-VOL is a unified LU whose component LUs include an LU for which the format operation is being performed. Check the attribute of the LU.                                              | Check the attribute of the LU.                                                          | —              |
| 090076      | DMER090076: The specified P-VOL is being formatted. Check the attribute of the LU.                                                                                                                               | Check the attribute of the LU.                                                          | —              |
| 090077      | DMER090077: The state of the forced parity correction for the specified P-VOL is Uncorrected or Uncorrected 2. Check the status of the LU.                                                                       | Check the status of the LU.                                                             | —              |
| 090078      | DMER090078: The specified P-VOL has not undergone the forced parity correction. Retry it after executing the forced parity correction.                                                                           | Retry it after executing the forced parity correction.                                  | —              |
| 09007B      | DMER09007B: There is one or more pair(s) in the status of Split or Failure of [under pair deletion] in the target group. Check the pair status of the LU. It is required to wait until the process is completed. | Check the pair status of the LU. It is required to wait until the process is completed. | —              |
| 09007C      | DMER09007C: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                                                               | Retry after waiting for a while.                                                        | —              |
| 09007D      | DMER09007D: The pool LU status is normal or other than regressed. Check the status of the pool LU.                                                                                                               | Check the status of the pool LU.                                                        | —              |
| 09007E      | DMER09007E: The pool LU is undergoing the forced parity correction. Retry after waiting for a while.                                                                                                             | Retry after waiting for a while.                                                        | —              |
| 09007F      | DMER09007F: There is one or more P-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each LU in the target group.           | Check the status of each LU in the target group.                                        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                    | Recovery methods                                              | Reference page |
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| 090080      | DMER090080: There is one or more P-VOL(s), status is normal or other than regressed, in the target group. Check the status of each LU in the target group.                                                                                                        | Check the status of each LU in the target group.              | —              |
| 090081      | DMER090081: There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each LU in the target group.                                                                       | Check the status of each LU in the target group.              | —              |
| 090082      | DMER090082: There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each LU in the target group.                             | Check the status of each LU in the target group.              | —              |
| 090083      | DMER090083: There is no pair, which is in the Split or Failure status, in the target group. Check the pair status of each LU in the target group.                                                                                                                 | Check the pair status of each LU in the target group.         | —              |
| 090084      | DMER090084: When a pair is created in the new group, the cycle time that has been set is less than [30 x number of groups] seconds. Check the cycle time that has been set.                                                                                       | Check the cycle time that has been set.                       | —              |
| 090085      | DMER090085: When the unit of pair is specified, the S-VOL of the target pair has not completed the resynchronization after it accepted the resynchronization command. Check the Remote Replication pair status of the remote array.                               | Check the Remote Replication pair status of the remote array. | —              |
| 090086      | DMER090086: When the unit of group is specified, there is one or more S-VOL(s), which has not completed the resynchronization after it accepted the resynchronization command, in the target group. Check the Remote Replication pair status of the remote array. | Check the Remote Replication pair status of the remote array. | —              |
| 090087      | DMER090087: There are one or more pairs in the status of [under pair splitting] or [under pair competing] in the group. Retry after waiting for a while.                                                                                                          | Retry after waiting for a while.                              | —              |
| 090088      | DMER090088: The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                                                   | Check the status of the LU.                                   | —              |
| 090089      | DMER090089: The specified P-VOL is undergoing the migration. Check the pair status of the LU.                                                                                                                                                                     | Check the pair status of the LU.                              | —              |
| 09008A      | DMER09008A: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                            | Check the status of the RAID group.                           | —              |
| 09008B      | DMER09008B: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                                                            | Check the status of the RAID group.                           | —              |
| 09008C      | DMER09008C: There are one or more Remote Replication P-VOLs corresponding to a RAID group that belongs to the group concerned and the disk drives that configure the RAID group have been spun down. Check the status of the RAID group.                          | Check the status of the RAID group.                           | —              |
| 09008D      | DMER09008D: The primary pool ID is beyond the limits of supported. Check the pool ID.                                                                                                                                                                             | Check the pool ID.                                            | —              |
| 09008E      | DMER09008E: The secondary pool ID is beyond the limits of supported. Check the pool ID.                                                                                                                                                                           | Check the pool ID.                                            | —              |
| 09008F      | DMER09008F: The specified pool ID differs from the pool ID in use. Check the pool ID.                                                                                                                                                                             | Check the pool ID.                                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                        | Recovery methods                                                                            | Reference page |
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| 090090      | DMER090090: Swap pair has been issued to the Remote Replication pair with AMS500 or AMS1000. The swap command is not supported in this configuration.                                                                                 | The swap command is not supported in this configuration.                                    | —              |
| 090091      | DMER090091: The Swap operation was received in the P-VOL. Check the pair attribute of the LU.                                                                                                                                         | Check the pair attribute of the LU.                                                         | —              |
| 090092      | DMER090092: The Swap operation was received by specifying the pair unit. Please confirm the operation and try again.                                                                                                                  | Please confirm the operation and try again.                                                 | —              |
| 090093      | DMER090093: The LU whose pair status is not Takeover exists in the target group. Check the pair status of each LU in the target group.                                                                                                | Check the pair status of each LU in the target group.                                       | —              |
| 090094      | DMER090094: The LU whose pair status is Busy exists in the target group. Check the pair status of each LU in the target group.                                                                                                        | Check the pair status of each LU in the target group.                                       | —              |
| 090095      | DMER090095: The LU whose pair status is Takeover and Delete exists in the target group. Check the pair status of each LU in the target group.                                                                                         | Check the pair status of each LU in the target group.                                       | —              |
| 090096      | DMER090096: The number of the unused bit numbers is insufficient. Retry after waiting for a while.                                                                                                                                    | Retry after waiting for a while.                                                            | —              |
| 090097      | DMER090097: The pool LU status is normal or other than regressed. Check the status of the pool LU.                                                                                                                                    | Check the status of the pool LU.                                                            | —              |
| 090098      | DMER090098: The pool LU is undergoing the forced parity correction. Check the status of the pool LU.                                                                                                                                  | Check the status of the pool LU.                                                            | —              |
| 090099      | DMER090099: There is one or more S-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each LU in the target group.                                | Check the status of each LU in the target group.                                            | —              |
| 09009A      | DMER09009A: There is one or more S-VOL(s), status is normal or other than regressed, in the target group. Check the status of each LU in the target group.                                                                            | Check the status of each LU in the target group.                                            | —              |
| 09009B      | DMER09009B: There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each LU in the target group.                                           | Check the status of each LU in the target group.                                            | —              |
| 09009C      | DMER09009C: There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each LU in the target group. | Check the status of each LU in the target group.                                            | —              |
| 09009D      | DMER09009D: There exists an S-VOL of a Remote Replication pair, the RAID group which belongs to is in Power Saving mode. Check the status of LUs in the group.                                                                        | Check the status of LUs in the group.                                                       | —              |
| 09009E      | DMER09009E: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                         | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 09009F      | DMER09009F: The specified secondary sequence number does not match with the remote side subsystem serial number. Check the specified command device number.                                                                           | Check the specified command device number.                                                  | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                     | Recovery methods                                                                                                                                          | Reference page |
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| 0900A0      | DMER0900A0: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                                                       | Check the Migration status.                                                                                                                               | —              |
| 0900A1      | DMER0900A1: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                                                       | Check the Migration status.                                                                                                                               | —              |
| 0900A2      | DMER0900A2: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.                                                                                                                                                                                       | Check the Migration status.                                                                                                                               | —              |
| 0900A3      | DMER0900A3: The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                          | Retry after the status becomes Normal.                                                                                                                    | —              |
| 0900A4      | DMER0900A4: An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal.                                                     | Retry after the RAID group status becomes Normal.                                                                                                         | —              |
| 0900A5      | DMER0900A5: An LU that belongs to the RAID group that indicates a status other than Normal is included in the group to which the specified pair belongs. Retry after the RAID group status becomes Normal.                                                                                         | Retry after the RAID group status becomes Normal.                                                                                                         | —              |
| 0900A6      | DMER0900A6: An LU that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs that belong to the same group as the specified pair. Retry after the RAID group status becomes Normal.                                               | Retry after the RAID group status becomes Normal.                                                                                                         | —              |
| 0900A7      | DMER0900A7: The LU created in DP pool was specified as P-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                                  | Specify an LU other than the LU created in DP pool.                                                                                                       | —              |
| 0900A8      | DMER0900A8: The LU that was specified as P-VOL does not exist. Check the specified LUN.                                                                                                                                                                                                            | Check the specified LUN.                                                                                                                                  | —              |
| 0A0001      | DMER0A0001: The Volume Migration optional feature is invalid. Install the Volume Migration optional feature.                                                                                                                                                                                       | Install the Volume Migration optional feature.                                                                                                            | —              |
| 0A0002      | DMER0A0002: The temporary key of the Volume Migration was expired. Purchase the license.                                                                                                                                                                                                           | Purchase the license.                                                                                                                                     | —              |
| 0A0003      | DMER0A0003: The status of the specified P-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                                                                                     | Check the status of the LU.                                                                                                                               | —              |
| 0A0004      | DMER0A0004: The status of the specified S-VOL is other than normal and regressive. Check the status of the LU.                                                                                                                                                                                     | Check the status of the LU.                                                                                                                               | —              |
| 0A0005      | DMER0A0005: The status of the parity correction of the specified P-VOL is Uncorrected or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.                                  | Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation. | —              |
| 0A0006      | DMER0A0006: The status of the parity correction of the specified S-VOL is correcting, waiting correction, Uncorrected, or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation. | Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation. | —              |
| 0A0007      | DMER0A0007: The specified P-VOL has created a Volume Migration pair. Check the pair status of the LU.                                                                                                                                                                                              | Check the pair status of the LU.                                                                                                                          | —              |
| 0A0008      | DMER0A0008: The specified S-VOL has created a Volume Migration pair. Check the pair status of the LU.                                                                                                                                                                                              | Check the pair status of the LU.                                                                                                                          | —              |
| 0A0009      | DMER0A0009: The specified P-VOL has created a ShadowImage pair. Check the pair status of the LU.                                                                                                                                                                                                   | Check the pair status of the LU.                                                                                                                          | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                | Recovery methods                               | Reference page |
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| 0A000A      | DMER0A000A: The specified S-VOL has created a ShadowImage pair. Check the pair status of the LU.                              | Check the pair status of the LU.               | —              |
| 0A000B      | DMER0A000B: The specified P-VOL is a command device. Check the status of the LU.                                              | Check the status of the LU.                    | —              |
| 0A000C      | DMER0A000C: The specified S-VOL is a command device. Check the status of the LU.                                              | Check the status of the LU.                    | —              |
| 0A000D      | DMER0A000D: The specified P-VOL has created a Remote Replication pair. Check the pair status of the LU.                       | Check the pair status of the LU.               | —              |
| 0A000E      | DMER0A000E: The specified S-VOL has created a Remote Replication pair. Check the pair status of the LU.                       | Check the pair status of the LU.               | —              |
| 0A000F      | DMER0A000F: The specified P-VOL has created a Remote Replication pair. Check the pair status of the LU.                       | Check the pair status of the LU.               | —              |
| 0A0010      | DMER0A0010: The specified S-VOL has created a Remote Replication pair. Check the pair status of the LU.                       | Check the pair status of the LU.               | —              |
| 0A0011      | DMER0A0011: The P-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU. | Check the status of the LU.                    | —              |
| 0A0012      | DMER0A0012: The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU. | Check the status of the LU.                    | —              |
| 0A0013      | DMER0A0013: The specified P-VOL has created a SnapShot pair. Check the pair status of the LU.                                 | Check the pair status of the LU.               | —              |
| 0A0014      | DMER0A0014: The specified S-VOL has created a SnapShot pair. Check the pair status of the LU.                                 | Check the pair status of the LU.               | —              |
| 0A0015      | DMER0A0015: The specified P-VOL is the pool LU. Check the pair status of the LU.                                              | Check the pair status of the LU.               | —              |
| 0A0016      | DMER0A0016: The specified S-VOL is the pool LU. Check the pair status of the LU.                                              | Check the pair status of the LU.               | —              |
| 0A0017      | DMER0A0017: The specified P-VOL is being quick formatted. Retry after the quick formatting is completed.                      | Retry after the quick formatting is completed. | —              |
| 0A0018      | DMER0A0018: The specified S-VOL is being quick formatted. Retry after the quick formatting is completed.                      | Retry after the quick formatting is completed. | —              |
| 0A0019      | DMER0A0019: The specified P-VOL is the DM-LU. Check the status of the LU.                                                     | Check the status of the LU.                    | —              |
| 0A001A      | DMER0A001A: The specified S-VOL is the DM-LU. Check the status of the LU.                                                     | Check the status of the LU.                    | —              |
| 0A001B      | DMER0A001B: The DM-LU is not set. Retry after setting the DM-LU.                                                              | Retry after setting the DM-LU.                 | —              |
| 0A001C      | DMER0A001C: The specified P-VOL has unwritten data. Check the status of the LU.                                               | Check the status of the LU.                    | —              |
| 0A001D      | DMER0A001D: The pair cannot be allocated the differential bit map. Split the unnecessary pairs.                               | Split the unnecessary pairs.                   | —              |
| 0A001E      | DMER0A001E: The specified P-VOL is a SubLU of a unified LU. Check the status of the LU.                                       | Check the status of the LU.                    | —              |
| 0A001F      | DMER0A001F: The specified S-VOL is a SubLU of a unified LU. Check the status of the LU.                                       | Check the status of the LU.                    | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                      | Recovery methods                               | Reference page |
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| 0A0020      | DMER0A0020: The size of the specified P-VOL and the S-VOL are not the same. Specify an LU that the same size.                                                                                                                       | Specify an LU that the same size.              | —              |
| 0A0021      | DMER0A0021: The DIRs in charge of the specified P-VOL and the S-VOL are not the same. Specify an LU that belongs to the same DIR.                                                                                                   | Specify an LU that belongs to the same DIR.    | —              |
| 0A0022      | DMER0A0022: The LUNs of the specified P-VOL and S-VOL are the same. Check the specified LUN.                                                                                                                                        | Check the specified LUN.                       | —              |
| 0A0023      | DMER0A0023: There exist maximum number of pairs already (included ShadowImage pairs). Split the unnecessary pairs.                                                                                                                  | Split the unnecessary pairs.                   | —              |
| 0A0024      | DMER0A0024: The specified P-VOL is the LU, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.                                                                               | Retry after releasing the reserved status.     | —              |
| 0A0025      | DMER0A0025: The specified S-VOL is the LU, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.                                                                               | Retry after releasing the reserved status.     | —              |
| 0A0026      | DMER0A0026: The RAID group of the specified P-VOL and S-VOL are the same. Specify a different RAID group.                                                                                                                           | Specify a different RAID group.                | —              |
| 0A0027      | DMER0A0027: The specified P-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                     | Check the status of the LU.                    | —              |
| 0A0028      | DMER0A0028: The specified S-VOL is the reserved LU. Check the status of the LU.                                                                                                                                                     | Check the status of the LU.                    | —              |
| 0A0029      | DMER0A0029: The access level of the specified S-VOL is other than the ordinary one. Check the access level of the LU.                                                                                                               | Check the access level of the LU.              | —              |
| 0A002C      | DMER0A002C: The specified MU number is 8 or higher. Make sure of the specified MU number.                                                                                                                                           | Make sure of the specified MU number.          | —              |
| 0A002D      | DMER0A002D: The specified primary port number is beyond the limits of support. Check the specified primary port number.                                                                                                             | Check the specified primary port number.       | —              |
| 0A002E      | DMER0A002E: The specified secondary port number is beyond the limits of support. Check the specified secondary port number.                                                                                                         | Check the specified secondary port number.     | —              |
| 0A002F      | DMER0A002F: The specified primary sequence number is different from the own serial number. Check the specified primary sequence number.                                                                                             | Check the specified primary sequence number.   | —              |
| 0A0030      | DMER0A0030: The specified secondary sequence number is different from the own serial number. Check the specified secondary sequence number.                                                                                         | Check the specified secondary sequence number. | —              |
| 0A0031      | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.<br>DMER0A0031: The pair concerned is the one that the instruction to start the migration was issued by Navigator or HiCommand. Check the owner ID of the specified pair. | Check the owner ID of the specified pair.      | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.<br>DMER0A0031: The pair concerned is the one that the instruction to start the migration was issued by Navigator etc. Check the owner ID of the specified pair.            | Check the owner ID of the specified pair.      | —              |
| 0A0032      | DMER0A0032: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.                                                                              | Check the status of the RAID group.            | —              |
| 0A0033      | DMER0A0033: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.                                                                              | Check the status of the RAID group.            | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                          | Recovery methods                                                                                                                                                                    | Reference page |
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| 0A0034      | DMER0A0034: The Migration status is [data is being copied], [data copy fails], or [data copy is completed]. Check the Migration status.                                                                                                                                                 | Check the Migration status.                                                                                                                                                         | —              |
| 0A0035      | DMER0A0035: The Migration status is [access path is being switched] or [access path switching fails]. Check the Migration status.                                                                                                                                                       | Check the Migration status.                                                                                                                                                         | —              |
| 0A0036      | DMER0A0036: The RAID group to which the specified LU belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                               | Retry after the status becomes Normal.                                                                                                                                              | —              |
| 810001      | DMER810001: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                      | Check the status of the path.                                                                                                                                                       | —              |
| 810002      | DMER810002: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 810003      | DMER810003: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 810004      | DMER810004: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81000A      | DMER81000A: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                   | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81000F      | DMER81000F: The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                    | Check the status of the path.                                                                                                                                                       | —              |
| 81002C      | DMER81002C: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81002D      | DMER81002D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81002E      | DMER81002E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                     | Retry after the pseudo deliberate shutdown is completed.                                                                                                                            | —              |
| 81002F      | DMER81002F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                             | Retry after waiting for a while.                                                                                                                                                    | —              |
| 810030      | DMER810030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                      | Check the attribute of the LU.                                                                                                                                                      | —              |
| 810031      | DMER810031: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                            | Check the equipment WWN.                                                                                                                                                            | —              |
| 810033      | DMER810033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                            | Retry after waiting for a while.                                                                                                                                                    | —              |
| 810034      | DMER810034: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                                    | —              |
| 810035      | DMER810035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                        | Unlock and validate the optional feature.                                                                                                                                           | —              |
| 810036      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER810036: The process is in progress. Retry after waiting for a while.                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER810036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the LU that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | Retry after waiting for a while. In case that the RAID group to which the LU that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                                                                                                                                             | Reference page |
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| 810037      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER810037: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER810037: The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                                      | Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                    | —              |
| 810038      | DMER810038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 810039      | DMER810039: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81003A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER81003A: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER81003A: The remote array is busy. Retry after waiting for a while.                                                                                                                                                                                                                                               | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81003E      | DMER81003E: The S-VOL command is receiving a command. Retry after waiting.                                                                                                                                                                                                                                                                                                       | Retry after waiting.                                                                                                                                                                                                                                         | —              |
| 810042      | DMER810042: The capacity is beyond the limits of support. Eliminate unnecessary pairs of the remote array.                                                                                                                                                                                                                                                                       | Eliminate unnecessary pairs of the remote array.                                                                                                                                                                                                             | —              |
| 810058      | DMER810058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                                                                                                                    | Contact the service personnel.                                                                                                                                                                                                                               | —              |
| 810060      | DMER810060: The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 810061      | DMER810061: The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 810062      | DMER810062: The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 810063      | DMER810063: The path of the local subsystem is abnormal. Check the status of the path.                                                                                                                                                                                                                                                                                           | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 8100D4      | DMER8100D4: The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                        | Confirm the LU status in the remote subsystem.                                                                                                                                                                                                               | —              |
| 8100D9      | DMER8100D9: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 8100E0      | DMER8100E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                | Execute again after the Migration is completed.                                                                                                                                                                                                              | —              |
| 8100E5      | DMER8100E5: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                              | Retry after the status becomes Normal.                                                                                                                                                                                                                       | —              |
| 8100E8      | DMER8100E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                   | Retry after the pair operation is completed with another array.                                                                                                                                                                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                          | Recovery methods                                                                                                                                                                    | Reference page |
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| 811001      | DMER811001: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                      | Check the status of the path.                                                                                                                                                       | —              |
| 811002      | DMER811002: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 811003      | DMER811003: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 811004      | DMER811004: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81100A      | DMER81100A: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                   | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81100F      | DMER81100F: The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                    | Check the status of the path.                                                                                                                                                       | —              |
| 81102C      | DMER81102C: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81102D      | DMER81102D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                                    | —              |
| 81102E      | DMER81102E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                     | Retry after the pseudo deliberate shutdown is completed.                                                                                                                            | —              |
| 81102F      | DMER81102F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                             | Retry after waiting for a while.                                                                                                                                                    | —              |
| 811030      | DMER811030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                      | Check the attribute of the LU.                                                                                                                                                      | —              |
| 811031      | DMER811031: The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                         | Check the remote array WWN.                                                                                                                                                         | —              |
| 811033      | DMER811033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                            | Retry after waiting for a while.                                                                                                                                                    | —              |
| 811034      | DMER811034: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                                    | —              |
| 811035      | DMER811035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                        | Unlock and validate the optional feature.                                                                                                                                           | —              |
| 811036      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER811036: The process is in progress. Retry after waiting for a while.                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER811036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the LU that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | Retry after waiting for a while. In case that the RAID group to which the LU that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | —              |
|             | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER811037: The process is in progress. Retry after waiting for a while.                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                                    | —              |
| 811037      | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER811037: The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                             | Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                           | —              |
|             | DMER811038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                      | Check the status of the path.                                                                                                                                                       | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                      | Recovery methods                                                | Reference page |
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| 811039      | DMER811039: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                | —              |
| 81103A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER81103A: The process is in progress. Retry after waiting for a while.                                              | Retry after waiting for a while.                                | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER81103A: The remote array is busy. Retry after waiting for a while.                                                  | Retry after waiting for a while.                                | —              |
| 81103E      | DMER81103E: The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                              | Retry after waiting for a while.                                | —              |
| 811042      | DMER811042: The capacity is beyond the limits of support. Delete unnecessary pairs of the remote array.                                                                             | Delete unnecessary pairs of the remote array.                   | —              |
| 811058      | DMER811058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                       | Contact the service personnel.                                  | —              |
| 8110D4      | DMER8110D4: The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                           | Confirm the LU status in the remote subsystem.                  | —              |
| 8110E0      | DMER8110E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                   | Execute again after the Migration is completed.                 | —              |
| 8110E5      | DMER8110E5: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal. | Retry after the status becomes Normal.                          | —              |
| 8110E8      | DMER8110E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                      | Retry after the pair operation is completed with another array. | —              |
| 812001      | DMER812001: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                  | Check the status of the path.                                   | —              |
| 812002      | DMER812002: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                | —              |
| 812003      | DMER812003: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                | —              |
| 812004      | DMER812004: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                | —              |
| 81200A      | DMER81200A: The remote array is receiving a command. Retry after waiting for a while.                                                                                               | Retry after waiting for a while.                                | —              |
| 81200F      | DMER81200F: The path of the remote array was detached. Check the status of the path.                                                                                                | Check the status of the path.                                   | —              |
| 81202C      | DMER81202C: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                | —              |
| 81202D      | DMER81202D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                      | Retry after waiting for a while.                                | —              |
| 81202E      | DMER81202E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                 | Retry after the pseudo deliberate shutdown is completed.        | —              |
| 81202F      | DMER81202F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                         | Retry after waiting for a while.                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                          | Recovery methods                                                                                                                                                    | Reference page |
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| 812030      | DMER812030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                      | Check the attribute of the LU.                                                                                                                                      | —              |
| 812031      | DMER812031: The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                         | Check the remote array WWN.                                                                                                                                         | —              |
| 812033      | DMER812033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                            | Retry after waiting for a while.                                                                                                                                    | —              |
| 812034      | DMER812034: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
| 812035      | DMER812035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                        | Unlock and validate the optional feature.                                                                                                                           | —              |
| 812036      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER812036: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER812036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | —              |
| 812037      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER812037: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER812037: The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                             | Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                           | —              |
| 812038      | DMER812038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                      | Check the status of the path.                                                                                                                                       | —              |
| 812039      | DMER812039: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                    | —              |
| 81203A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER81203A: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER81203A: The remote array is busy. Retry after waiting for a while.                                                                                                                                      | Retry after waiting for a while.                                                                                                                                    | —              |
| 81203E      | DMER81203E: The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
| 8120D4      | DMER8120D4: The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                               | Confirm the LU status in the remote subsystem.                                                                                                                      | —              |
| 8120E0      | DMER8120E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                       | Execute again after the Migration is completed.                                                                                                                     | —              |
| 8120E5      | DMER8120E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                  | Retry after the status becomes Normal.                                                                                                                              | —              |
| 8120E8      | DMER8120E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                          | Retry after the pair operation is completed with another array.                                                                                                     | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                  | Recovery methods                                                                                                                                                             | Reference page |
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| 813001      | DMER813001: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                              | Check the status of the path.                                                                                                                                                | —              |
| 813002      | DMER813002: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |
| 813003      | DMER813003: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |
| 813004      | DMER813004: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |
| 81300A      | DMER81300A: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                             | —              |
| 81300F      | DMER81300F: The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                            | Check the status of the path.                                                                                                                                                | —              |
| 81301E      | DMER81301E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 81302C      | DMER81302C: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |
| 81302D      | DMER81302D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                             | —              |
| 81302E      | DMER81302E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                             | Retry after the pseudo deliberate shutdown is completed.                                                                                                                     | —              |
| 81302F      | DMER81302F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                     | Retry after waiting for a while.                                                                                                                                             | —              |
| 813030      | DMER813030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                              | Check the attribute of the LU.                                                                                                                                               | —              |
| 813031      | DMER813031: The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                                                                                 | Check the remote array WWN.                                                                                                                                                  | —              |
| 813033      | DMER813033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                    | Retry after waiting for a while.                                                                                                                                             | —              |
| 813034      | DMER813034: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                             | —              |
| 813035      | DMER813035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                | Unlock and validate the optional feature.                                                                                                                                    | —              |
| 813036      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER813036: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER813036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.                                                                         | Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.          | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                                                                                                                                             | Reference page |
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| 813037      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER813037: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER813037: The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                                      | Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                                    | —              |
| 813038      | DMER813038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 813039      | DMER813039: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81303A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER81303A: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER81303A: The remote array is busy. Retry after waiting for a while.                                                                                                                                                                                                                                               | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81303E      | DMER81303E: The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 8130D4      | DMER8130D4: The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                        | Confirm the LU status in the remote subsystem.                                                                                                                                                                                                               | —              |
| 8130D9      | DMER8130D9: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 8130DE      | DMER8130DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                | Execute again after the Migration is completed.                                                                                                                                                                                                              | —              |
| 8130E0      | DMER8130E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                | Execute again after the Migration is completed.                                                                                                                                                                                                              | —              |
| 8130E2      | DMER8130E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                           | Retry after the Auto Migration is completed.                                                                                                                                                                                                                 | —              |
| 8130E3      | DMER8130E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                           | Retry after the status becomes Normal.                                                                                                                                                                                                                       | —              |
| 8130E5      | DMER8130E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                           | Retry after the status becomes Normal.                                                                                                                                                                                                                       | —              |
| 8130E8      | DMER8130E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                   | Retry after the pair operation is completed with another array.                                                                                                                                                                                              | —              |
| 814001      | DMER814001: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 814002      | DMER814002: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 814003      | DMER814003: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                  | Recovery methods                                                                                                                                                             | Reference page |
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| 814004      | DMER814004: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |
| 81400A      | DMER81400A: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                             | —              |
| 81400F      | DMER81400F: The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                            | Check the status of the path.                                                                                                                                                | —              |
| 81401E      | DMER81401E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 81402C      | DMER81402C: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |
| 81402D      | DMER81402D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                             | —              |
| 81402E      | DMER81402E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                             | Retry after the pseudo deliberate shutdown is completed.                                                                                                                     | —              |
| 81402F      | DMER81402F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                     | Retry after waiting for a while.                                                                                                                                             | —              |
| 814030      | DMER814030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                              | Check the attribute of the LU.                                                                                                                                               | —              |
| 814031      | DMER814031: The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                                                                                                 | Check the remote array WWN.                                                                                                                                                  | —              |
| 814033      | DMER814033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                    | Retry after waiting for a while.                                                                                                                                             | —              |
| 814034      | DMER814034: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                             | —              |
| 814035      | DMER814035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                | Unlock and validate the optional feature.                                                                                                                                    | —              |
| 814036      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER814036: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER814036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.                                                                         | Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.          | —              |
| 814037      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER814037: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                          | Retry after waiting for a while.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER814037: The remote array is busy. Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                                                                                     | Retry after checking the pair status of the LU, Array ID, number of the connected arrays, and CTG number.                                                                    | —              |
| 814038      | DMER814038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                              | Check the status of the path.                                                                                                                                                | —              |
| 814039      | DMER814039: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                                             | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                                                                                                                                             | Reference page |
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| 81403A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER81403A: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER81403A: The remote array is busy. Retry after waiting for a while.                                                                                                                                                                                                                                               | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81403E      | DMER81403E: The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 8140D4      | DMER8140D4: The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                                                                                                                                        | Confirm the LU status in the remote subsystem.                                                                                                                                                                                                               | —              |
| 8140D9      | DMER8140D9: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target LU belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 8140DE      | DMER8140DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                | Execute again after the Migration is completed.                                                                                                                                                                                                              | —              |
| 8140E0      | DMER8140E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                                                                                                                | Execute again after the Migration is completed.                                                                                                                                                                                                              | —              |
| 8140E2      | DMER8140E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                           | Retry after the Auto Migration is completed.                                                                                                                                                                                                                 | —              |
| 8140E3      | DMER8140E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                           | Retry after the status becomes Normal.                                                                                                                                                                                                                       | —              |
| 8140E5      | DMER8140E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                           | Retry after the status becomes Normal.                                                                                                                                                                                                                       | —              |
| 8140E8      | DMER8140E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.                                                                                                                                                                                                                                   | Retry after the pair operation is completed with another array.                                                                                                                                                                                              | —              |
| 815001      | DMER815001: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                               | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 815002      | DMER815002: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 815003      | DMER815003: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 815004      | DMER815004: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81500A      | DMER81500A: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                            | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81500F      | DMER81500F: The path of the remote array was detached. Check the status of the path.                                                                                                                                                                                                                                                                                             | Check the status of the path.                                                                                                                                                                                                                                | —              |
| 81502C      | DMER81502C: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                         | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |
| 81502D      | DMER81502D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                   | Retry after waiting for a while.                                                                                                                                                                                                                             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                          | Recovery methods                                                                                                                                                    | Reference page |
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| 81502E      | DMER81502E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                     | Retry after the pseudo deliberate shutdown is completed.                                                                                                            | —              |
| 81502F      | DMER81502F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                             | Retry after waiting for a while.                                                                                                                                    | —              |
| 815030      | DMER815030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                      | Check the attribute of the LU.                                                                                                                                      | —              |
| 815031      | DMER815031: The WWN of the remote array is illegal. Check the remote array WWN.                                                                                                                                                                                         | Check the remote array WWN.                                                                                                                                         | —              |
| 815033      | DMER815033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                            | Retry after waiting for a while.                                                                                                                                    | —              |
| 815034      | DMER815034: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
| 815035      | DMER815035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                        | Unlock and validate the optional feature.                                                                                                                           | —              |
| 815036      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER815036: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER815036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal. | —              |
| 815037      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER815037: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER815037: The remote array is busy. Retry after waiting for a while.                                                                                                                                      | Retry after waiting for a while.                                                                                                                                    | —              |
| 815038      | DMER815038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                      | Check the status of the path.                                                                                                                                       | —              |
| 815039      | DMER815039: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                    | —              |
| 81503A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER81503A: The process is in progress. Retry after waiting for a while.                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER81503A: The remote array is busy. Retry after waiting for a while.                                                                                                                                      | Retry after waiting for a while.                                                                                                                                    | —              |
| 81503E      | DMER81503E: The S-VOL command is receiving a command. Retry after waiting for a while.                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                    | —              |
| 8150D4      | DMER8150D4: The LU which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the LU status in the remote subsystem.                                                                                                                               | Confirm the LU status in the remote subsystem.                                                                                                                      | —              |
| 8150E0      | DMER8150E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                       | Execute again after the Migration is completed.                                                                                                                     | —              |
| 8150E5      | DMER8150E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                  | Retry after the status becomes Normal.                                                                                                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                 | Recovery methods                                                | Reference page |
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| 8150E8      | DMER8150E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array. | Retry after the pair operation is completed with another array. | —              |
| 816022      | DMER816022: The process is in progress. Retry after waiting for a while.                                                                       | Retry after waiting for a while.                                | —              |
| 816023      | DMER816023: The process is in progress. Retry after waiting for a while.                                                                       | Retry after waiting for a while.                                | —              |
| 816024      | DMER816024: The process is in progress. Retry after waiting for a while.                                                                       | Retry after waiting for a while.                                | —              |
| 816025      | DMER816025: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                             | Retry after waiting for a while.                                | —              |
| 816026      | DMER816026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.        | Retry after the pseudo deliberate shutdown is completed.        | —              |
| 816027      | DMER816027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                | Retry after waiting for a while.                                | —              |
| 816028      | DMER816028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                            | Wait a while and execute again.                                 | —              |
| 816029      | DMER816029: A command error occurred. Retry after waiting for a while.                                                                         | Retry after waiting for a while.                                | —              |
| 81602A      | DMER81602A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.           | Unlock and validate the optional feature.                       | —              |
| 81602B      | DMER81602B: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                         | Check the status of the path.                                   | —              |
| 81602C      | DMER81602C: The process is in progress. Retry after waiting for a while.                                                                       | Retry after waiting for a while.                                | —              |
| 81602D      | DMER81602D: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                             | Retry after waiting for a while.                                | —              |
| 81602E      | DMER81602E: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.        | Retry after the pseudo deliberate shutdown is completed.        | —              |
| 81602F      | DMER81602F: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                | Retry after waiting for a while.                                | —              |
| 816030      | DMER816030: The S-VOL is undefined. Check the attribute of the LU.                                                                             | Check the attribute of the LU.                                  | —              |
| 816031      | DMER816031: The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.                                                        | Check the remote subsystem WWN.                                 | —              |
| 816032      | DMER816032: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                            | Wait a while and execute again.                                 | —              |
| 816033      | DMER816033: The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.                               | Retry after waiting for a while.                                | —              |
| 816035      | DMER816035: The optional feature of Remote Replication in the remote array is locked. Unlock and enable the optional feature.                  | Unlock and enable the optional feature.                         | —              |
| 816038      | DMER816038: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                         | Check the status of the path.                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                            | Recovery methods                                                                                                 | Reference page |
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| 816041      | DMER816041: The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.                                                                                                                                                                                                              | Retry after waiting for a while.                                                                                 | —              |
| 816042      | DMER816042: The capacity is beyond the limits of support. Delete unnecessary pairs of the remote subsystem.                                                                                                                                                                                                               | Delete unnecessary pairs of the remote subsystem.                                                                | —              |
| 816086      | DMER816086: The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.                                                                                                                                                        | Specify a volume other than a command device of the remote subsystem as the S-VOL.                               | —              |
| 816087      | DMER816087: The S-VOL of the remote subsystem is executing format. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                          | Check the status of the remote subsystem and retry after waiting for a while.                                    | —              |
| 816088      | DMER816088: The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.                                                                                                                                                                      | Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.                                      | —              |
| 816089      | DMER816089: The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.                                                                                                                                                                | Check the status of the remote subsystem and cancel the access attribute.                                        | —              |
| 81608A      | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.<br>DMER81608A: The S-VOL in the remote subsystem cannot be allocated the differential bit of Remote Replication. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                      | Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.         | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.<br>DMER81608A: The S-VOL in the remote array cannot allocate the differential bit of remote replication pair because the capacity is beyond the supported limit. Check the status of the remote array. In addition delete unnecessary pairs of the remote array. | Check the status of the remote array. In addition delete unnecessary pairs of the remote array.                  | —              |
| 81608B      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER81608B: The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                  | Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER81608B: This operation cannot be executed due to lack of resources within the remote array. Retry after deleting unnecessary pairs.                                                                                                                       | Retry after deleting unnecessary pairs.                                                                          | —              |
| 81608C      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER81608C: The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                          | Check the pool LU status of the remote subsystem and retry after waiting for a while.                            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER81608C: This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.                                                                                                            | Try the operation again after waiting for a while.                                                               | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                                                                                                        | Reference page |
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| 81608D      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER81608D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the Remote Replication User's Guide.                                                                                                                                                                                              | Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the Remote Replication User's Guide.                                                                                 | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER81608D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the LU in the remote array.                                                                                                                                                                                                                                                                                        | Check the status of the LU in the remote array.                                                                                                                                                                         | —              |
| 81608E      | DMER81608E: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                    | Check the LU status of the remote subsystem.                                                                                                                                                                            | —              |
| 816091      | DMER816091: The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                              | Check the Array ID of the remote subsystem.                                                                                                                                                                             | —              |
| 816094      | DMER816094: The RAID level of the S-VOL in the remote array is RAID 0. Set the RAID level other than RAID 0 in the remote array.                                                                                                                                                                                                                                                                                                                                                                                 | Set the RAID level other than RAID 0 in the remote array.                                                                                                                                                               | —              |
| 816095      | DMER816095: The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                          | Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                           | —              |
| 816096      | DMER816096: The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                   | Check the LU status of the remote subsystem.                                                                                                                                                                            | —              |
| 816097      | DMER816097: The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                             | Check the status of the remote subsystem.                                                                                                                                                                               | —              |
| 81609A      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER81609A: The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                     | Check the LU status of the remote subsystem.                                                                                                                                                                            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more, less than Ver.7.00.<br>DMER81609A: The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.                                                                         | Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMER81609A: The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal or the LU is created in DP pool. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify an LU other than an LU created in DP pool to S-VOL. | Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify an LU other than an LU created in DP pool to S-VOL. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                               | Recovery methods                                                                                         | Reference page |
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| 81609B      | DMER81609B: The S-VOL in the remote subsystem is a unified LU consists of 17 or more LUs. Make the number of the unified LUs that constitute the unified LU of the remote subsystem 16 or less.                                              | Make the number of the unified LUs that constitute the unified LU of the remote subsystem 16 or less.    | —              |
| 81609C      | DMER81609C: The LU capacity of the S-VOL in the remote subsystem is not the same as the P-VOL capacity. Make the LU capacity of the remote subsystem the same as that of the P-VOL.                                                          | Make the LU capacity of the remote subsystem the same as that of the P-VOL.                              | —              |
| 81609D      | DMER81609D: The S-VOL in the remote array is set to a Cache Residency LU. Specify an LU other than a Cache Residency LU of the remote array.                                                                                                 | Specify an LU other than a Cache Residency LU of the remote array.                                       | —              |
| 81609E      | DMER81609E: An LU with a capacity less than 1 GB is included in the LUs in which the S-VOL is unified in the remote subsystem. Check the status of the unified LU of the remote subsystem.                                                   | Check the status of the unified LU of the remote subsystem.                                              | —              |
| 81609F      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER81609F: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                             | Retry after waiting for a while.                                                                         | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER81609F: This operation cannot be executed due to lack of resources within the remote array. Retry after waiting for a while.                                                 | Retry after waiting for a while.                                                                         | —              |
|             |                                                                                                                                                                                                                                              |                                                                                                          |                |
| 8160A0      | DMER8160A0: The remote subsystem has no pool LU. Make a pool LU for the remote subsystem.                                                                                                                                                    | Make a pool LU for the remote subsystem.                                                                 | —              |
| 8160A1      | DMER8160A1: The LU specified as the S-VOL in the remote subsystem is a pool LU. The pool LU cannot be set to an S-VOL. Check the pool LU status of the remote subsystem.                                                                     | Check the pool LU status of the remote subsystem.                                                        | —              |
| 8160A2      | DMER8160A2: The LU status of the pool LU in the remote subsystem is normal or other than regressed. Check the pool LU status of the remote subsystem.                                                                                        | Check the pool LU status of the remote subsystem.                                                        | —              |
| 8160A3      | DMER8160A3: The pool LU in the remote subsystem is undergoing the forced parity correction. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                            | Check the pool LU status of the remote subsystem and retry after waiting for a while.                    | —              |
| 8160A4      | DMER8160A4: The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem. | Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem. | —              |
| 8160A5      | DMER8160A5: The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.                                                                            | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8160A6      | DMER8160A6: The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.                                                                     | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8160A7      | DMER8160A7: The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.                                                 | Check the Remote Replication pair status of the remote subsystem.                                        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                       | Recovery methods                                                              | Reference page |
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| 8160A8      | DMER8160A8: The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.                                                                  | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 8160A9      | DMER8160A9: The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                    | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 8160AA      | DMER8160AA: The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.                                                                                      | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 8160AB      | DMER8160AB: The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 8160B4      | DMER8160B4: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.        | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8160B5      | DMER8160B5: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU change for it has been started. Check the status of the remote subsystem and retry after waiting for a while. | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8160B6      | DMER8160B6: The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote subsystem and retry after waiting for a while.                             | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8160B7      | DMER8160B7: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.       | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8160B8      | DMER8160B8: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.                               | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8160B9      | DMER8160B9: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         | Retry after waiting for a while.                                              | —              |
| 8160BA      | DMER8160BA: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it has pinned data. Contact the service personnel.                                                                                             | Contact the service personnel.                                                | —              |
| 8160BB      | DMER8160BB: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         | Retry after waiting for a while.                                              | —              |
| 8160BC      | DMER8160BC: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         | Retry after waiting for a while.                                              | —              |
| 8160BD      | DMER8160BD: The S-VOL in the remote subsystem cannot change an ownership of LU and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.                                                                | Check the status of the remote subsystem and retry after waiting for a while. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                            | Recovery methods                                                                            | Reference page |
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| 8160BE      | DMER8160BE: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, the group# is illegal. Check the status of the remote subsystem.                                                                    | Check the status of the remote subsystem.                                                   | —              |
| 8160C0      | DMER8160C0: The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.                                | Check the status of the remote array and retry after waiting for a while.                   | —              |
| 8160C1      | DMER8160C1: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.           | Check the status of the remote subsystem and retry after waiting for a while.               | —              |
| 8160C2      | DMER8160C2: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while. | Check the status of the remote subsystem and retry after waiting for a while.               | —              |
| 8160C5      | DMER8160C5: The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                                                 | Check the cycle time that has been set for the remote subsystem.                            | —              |
| 8160D2      | DMER8160D2: The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.                                                              | Confirm the indicated pool number in the remote subsystem.                                  | —              |
| 8160DD      | DMER8160DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                             | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 8160E0      | DMER8160E0: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                            | Execute again after the Migration is completed.                                             | —              |
| 8160E5      | DMER8160E5: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                       | Retry after the status becomes Normal.                                                      | —              |
| 8160EA      | DMER8160EA: The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                         | Specify an LU other than the LU created in DP pool.                                         | —              |
| 817022      | DMER817022: The process is in progress. Retry after waiting for a while.                                                                                                                                                                  | Retry after waiting for a while.                                                            | —              |
| 817023      | DMER817023: The process is in progress. Retry after waiting for a while.                                                                                                                                                                  | Retry after waiting for a while.                                                            | —              |
| 817024      | DMER817024: The process is in progress. Retry after waiting for a while.                                                                                                                                                                  | Retry after waiting for a while.                                                            | —              |
| 817025      | DMER817025: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                                                                        | Retry after waiting for a while.                                                            | —              |
| 817026      | DMER817026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                   | Retry after the pseudo deliberate shutdown is completed.                                    | —              |
| 817027      | DMER817027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                           | Retry after waiting for a while.                                                            | —              |
| 817028      | DMER817028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                       | Wait a while and execute again.                                                             | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                 | Recovery methods                                                                   | Reference page |
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| 817029      | DMER817029: A command error occurred. Retry after waiting for a while.                                                                                                                         | Retry after waiting for a while.                                                   | —              |
| 81702A      | DMER81702A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.                                                             | Unlock and enable the optional feature.                                            | —              |
| 81702B      | DMER81702B: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                         | Check the status of the path.                                                      | —              |
| 81702C      | DMER81702C: The process is in progress. Retry after waiting for a while.                                                                                                                       | Retry after waiting for a while.                                                   | —              |
| 81702D      | DMER81702D: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                             | Retry after waiting for a while.                                                   | —              |
| 81702E      | DMER81702E: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                        | Retry after the pseudo deliberate shutdown is completed.                           | —              |
| 81702F      | DMER81702F: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                | Retry after waiting for a while.                                                   | —              |
| 817030      | DMER817030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                             | Check the attribute of the LU.                                                     | —              |
| 817031      | DMER817031: The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.                                                                                                        | Check the remote subsystem WWN.                                                    | —              |
| 817032      | DMER817032: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                            | Wait a while and execute again.                                                    | —              |
| 817033      | DMER817033: The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                               | Retry after waiting for a while.                                                   | —              |
| 817035      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER817035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. | Unlock and validate the optional feature.                                          | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER817035: The optional feature of Remote Replication of the remote array is invalid. Unlock and enable the optional feature.     | Unlock and enable the optional feature.                                            | —              |
| 817038      | DMER817038: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                         | Check the status of the path.                                                      | —              |
| 817041      | DMER817041: The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.                                                                                   | Retry after waiting for a while.                                                   | —              |
| 817042      | DMER817042: The capacity is beyond the limits of support. Delete unnecessary pairs of the remote subsystem.                                                                                    | Delete unnecessary pairs of the remote subsystem.                                  | —              |
| 817086      | DMER817086: The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.                             | Specify a volume other than a command device of the remote subsystem as the S-VOL. | —              |
| 817087      | DMER817087: The S-VOL of the remote subsystem is executing format. Check the status of the remote subsystem and retry after waiting for a while.                                               | Check the status of the remote subsystem and retry after waiting for a while.      | —              |
| 817088      | DMER817088: The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.                                           | Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                      | Recovery methods                                                                                                                        | Reference page |
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| 817089      | DMER817089: The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.                                                                                                                                                          | Check the status of the remote subsystem and cancel the access attribute.                                                               | —              |
| 81708A      | DMER81708A: The S-VOL in the remote subsystem cannot be allocated the differential bit of Remote Replication. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                                                              | Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                | —              |
| 81708B      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER81708B: The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                            | Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                        | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER81708B: This operation cannot be executed due to lack of resources within the remote array. Retry after deleting unnecessary pairs.                                                                                                                 | Retry after deleting unnecessary pairs.                                                                                                 | —              |
| 81708C      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER81708C: The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                    | Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                   | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER81708C: This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.                                                                                                      | Try the operation again after waiting for a while.                                                                                      | —              |
| 81708D      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER81708D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the Remote Replication User's Guide. | Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the Remote Replication User's Guide. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER81708D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the LU in the remote array.                                                                                           | Check the status of the LU in the remote array.                                                                                         | —              |
| 81708E      | DMER81708E: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                       | Check the LU status of the remote subsystem.                                                                                            | —              |
| 817091      | DMER817091: The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.                                                                                                                                                                                                 | Check the Array ID of the remote subsystem.                                                                                             | —              |
| 817094      | DMER817094: The RAID level of the S-VOL in the remote array is RAID 0. Make the RAID level of the remote array other than RAID 0.                                                                                                                                                                                   | Make the RAID level of the remote array other than RAID 0.                                                                              | —              |
| 817095      | DMER817095: The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                             | Check the status of the remote subsystem and retry after waiting for a while.                                                           | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                                                                                                        | Reference page |
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| 817096      | DMER817096: The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                                   | Check the LU status of the remote subsystem.                                                                                                                                                                            | —              |
| 817097      | DMER817097: The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.                                                                                                                                                                                                                                                                                                                                                                                             | Check the status of the remote subsystem.                                                                                                                                                                               | —              |
| 817098      | DMER817098: The S-VOL in the remote array is changing the cache partition. Check the status of the remote array and retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                             | Check the status of the remote array and retry after waiting for a while.                                                                                                                                               | —              |
| 81709A      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER81709A: The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the LU status of the remote subsystem.                                                                                                                                                                                                                                                                                                     | Check the LU status of the remote subsystem.                                                                                                                                                                            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more, less than Ver.7.00.<br>DMER81709A: The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.                                                                         | Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMER81709A: The status of the LU that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal or the LU is created in DP pool. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify an LU other than an LU created in DP pool to S-VOL. | Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify an LU other than an LU created in DP pool to S-VOL. | —              |
|             | DMER81709B: The S-VOL in the remote subsystem is a unified LU consists of 17 or more LUs. Make the number of the unified LUs that constitute the unified LU of the remote subsystem 16 or less.                                                                                                                                                                                                                                                                                                                  | Make the number of the unified LUs that constitute the unified LU of the remote subsystem 16 or less.                                                                                                                   | —              |
|             | DMER81709C: The LU capacity of the S-VOL in the remote subsystem is not the same as the P-VOL capacity. Make the LU capacity of the remote subsystem the same as that of the P-VOL.                                                                                                                                                                                                                                                                                                                              | Make the LU capacity of the remote subsystem the same as that of the P-VOL.                                                                                                                                             | —              |
| 81709D      | DMER81709D: The S-VOL in the remote array is set to a Cache Residency LU. Specify an LU other than a Cache Residency LU of the remote array.                                                                                                                                                                                                                                                                                                                                                                     | Specify an LU other than a Cache Residency LU of the remote array.                                                                                                                                                      | —              |
| 81709E      | DMER81709E: An LU with a capacity less than 1 GB is included in the LUs in which the S-VOL is unified in the remote subsystem. Check the status of the unified LU of the remote subsystem.                                                                                                                                                                                                                                                                                                                       | Check the status of the unified LU of the remote subsystem.                                                                                                                                                             | —              |
| 81709F      | DMER81709F: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                                                               | Retry after waiting for a while.                                                                                                                                                                                        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                       | Recovery methods                                                                                         | Reference page |
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| 8170A0      | DMER8170A0: The remote subsystem has no pool LU. Make a pool LU for the remote subsystem.                                                                                                                                                            | Make a pool LU for the remote subsystem.                                                                 | —              |
| 8170A1      | DMER8170A1: The LU specified as the S-VOL in the remote subsystem is a pool LU. The pool LU cannot be set to an S-VOL. Check the pool LU status of the remote subsystem.                                                                             | Check the pool LU status of the remote subsystem.                                                        | —              |
| 8170A2      | DMER8170A2: The LU status of the pool LU in the remote subsystem is normal or other than regressed. Check the pool LU status of the remote subsystem.                                                                                                | Check the pool LU status of the remote subsystem.                                                        | —              |
| 8170A3      | DMER8170A3: The pool LU in the remote subsystem is undergoing the forced parity correction. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                    | Check the pool LU status of the remote subsystem and retry after waiting for a while.                    | —              |
| 8170A4      | DMER8170A4: The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.         | Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem. | —              |
| 8170A5      | DMER8170A5: The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.                                                                                    | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170A6      | DMER8170A6: The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.                                                                             | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170A7      | DMER8170A7: The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.                                                         | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170A8      | DMER8170A8: The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.                                                                  | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170A9      | DMER8170A9: The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                    | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170AA      | DMER8170AA: The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.                                                                                      | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170AB      | DMER8170AB: The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                | Check the Remote Replication pair status of the remote subsystem.                                        | —              |
| 8170B4      | DMER8170B4: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.        | Check the status of the remote subsystem and retry after waiting for a while.                            | —              |
| 8170B5      | DMER8170B5: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU change for it has been started. Check the status of the remote subsystem and retry after waiting for a while. | Check the status of the remote subsystem and retry after waiting for a while.                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                 | Recovery methods                                                              | Reference page |
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| 8170B6      | DMER8170B6: The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote subsystem and retry after waiting for a while.                       | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8170B7      | DMER8170B7: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while. | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8170B8      | DMER8170B8: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.                         | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8170B9      | DMER8170B9: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.                                              | —              |
| 8170BA      | DMER8170BA: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it has pinned data. Contact the service personnel.                                                                                       | Contact the service personnel.                                                | —              |
| 8170BB      | DMER8170BB: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.                                              | —              |
| 8170BC      | DMER8170BC: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                   | Retry after waiting for a while.                                              | —              |
| 8170BD      | DMER8170BD: The S-VOL in the remote subsystem cannot change an ownership of LU and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.                                                          | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8170BE      | DMER8170BE: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, the group# is illegal. Check the status of the remote subsystem.                                                                         | Check the status of the remote subsystem.                                     | —              |
| 8170C0      | DMER8170C0: The S-VOL in the remote array does not exist on the default owner controller and, at the same time, its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.                   | Check the status of the remote array and retry after waiting for a while.     | —              |
| 8170C1      | DMER8170C1: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.                | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8170C2      | DMER8170C2: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.      | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 8170C5      | DMER8170C5: The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                                                      | Check the cycle time that has been set for the remote subsystem.              | —              |
| 8170D2      | DMER8170D2: The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.                                                                   | Confirm the indicated pool number in the remote subsystem.                    | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                      | Recovery methods                                                                            | Reference page |
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| 8170DD      | DMER8170DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                       | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 8170E0      | DMER8170E0: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                      | Execute again after the Migration is completed.                                             | —              |
| 8170E5      | DMER8170E5: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal. | Retry after the status becomes Normal.                                                      | —              |
| 8170EA      | DMER8170EA: The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                   | Specify an LU other than the LU created in DP pool.                                         | —              |
| 819022      | DMER819022: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                                            | —              |
| 819023      | DMER819023: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                                            | —              |
| 819024      | DMER819024: The process is in progress. Retry after waiting for a while.                                                                                                            | Retry after waiting for a while.                                                            | —              |
| 819025      | DMER819025: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.                                                                                  | Retry after waiting for a while.                                                            | —              |
| 819026      | DMER819026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                             | Retry after the pseudo deliberate shutdown is completed.                                    | —              |
| 819027      | DMER819027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                     | Retry after waiting for a while.                                                            | —              |
| 819028      | DMER819028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                 | Wait a while and execute again.                                                             | —              |
| 819029      | DMER819029: A command error occurred. Retry after waiting for a while.                                                                                                              | Retry after waiting for a while.                                                            | —              |
| 81902A      | DMER81902A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.                                                  | Unlock and enable the optional feature.                                                     | —              |
| 81902B      | DMER81902B: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                              | Check the status of the path.                                                               | —              |
| 8190DE      | DMER8190DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                      | Execute again after the Migration is completed.                                             | —              |
| 81A022      | DMER81A022: Now executing. Wait a while and execute again.                                                                                                                          | Wait a while and execute again.                                                             | —              |
| 81A023      | DMER81A023: Now executing. Wait a while and execute again.                                                                                                                          | Wait a while and execute again.                                                             | —              |
| 81A024      | DMER81A024: Now executing. Wait a while and execute again.                                                                                                                          | Wait a while and execute again.                                                             | —              |
| 81A025      | DMER81A025: The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.                                                                               | Wait a while and execute again.                                                             | —              |
| 81A026      | DMER81A026: The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.                                                  | Execute again after the pseudo deliberate shutdown.                                         | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                     | Recovery methods                                                                                                     | Reference page |
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| 81A027      | DMER81A027: The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.                                                                                                                          | Wait a while and execute again.                                                                                      | —              |
| 81A028      | DMER81A028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                | Wait a while and execute again.                                                                                      | —              |
| 81A029      | DMER81A029: Command error was occurred. Wait a while and execute again.                                                                                                                                                            | Wait a while and execute again.                                                                                      | —              |
| 81A02A      | DMER81A02A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                               | Unlock and validate the optional feature.                                                                            | —              |
| 81A02B      | DMER81A02B: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                             | Check the status of the path.                                                                                        | —              |
| 81A02C      | DMER81A02C: Now executing. Wait a while and execute again.                                                                                                                                                                         | Wait a while and execute again.                                                                                      | —              |
| 81A02D      | DMER81A02D: The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.                                                                                                                              | Wait a while and execute again.                                                                                      | —              |
| 81A02E      | DMER81A02E: The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.                                                                                                 | Execute again after the pseudo deliberate shutdown.                                                                  | —              |
| 81A02F      | DMER81A02F: The remote subsystem is undergoing the pseudo deliberate shutdown. Wait a while and execute again.                                                                                                                     | Wait a while and execute again.                                                                                      | —              |
| 81A030      | DMER81A030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                 | Check the attribute of the LU.                                                                                       | —              |
| 81A032      | DMER81A032: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.                                                                                                                | Wait a while and execute again.                                                                                      | —              |
| 81A033      | DMER81A033: The remote subsystem is undergoing hot replacement of the firmware. Wait a while and execute again.                                                                                                                    | Wait a while and execute again.                                                                                      | —              |
| 81A035      | DMER81A035: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                               | Unlock and validate the optional feature.                                                                            | —              |
| 81A038      | DMER81A038: Both of the two paths of the remote subsystem were detached. Check the status of the path.                                                                                                                             | Check the status of the path.                                                                                        | —              |
| 81A041      | DMER81A041: Now executing. Wait a while and execute again.                                                                                                                                                                         | Wait a while and execute again.                                                                                      | —              |
| 81A089      | DMER81A089: The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.                                                                         | Check the status of the remote subsystem and cancel the access attribute.                                            | —              |
| 81A08B      | DMER81A08B: The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                         | Check the pool LU status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.     | —              |
| 81A08C      | DMER81A08C: The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                 | Check the pool LU status of the remote subsystem and retry after waiting for a while.                                | —              |
| 81A08D      | DMER81A08D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the User's Guide. | Retry after checking the LU status of the remote subsystem and satisfying the conditions stated in the User's Guide. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                          | Recovery methods                                                                                                                                            | Reference page |
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| 81A090      | DMER81A090: Now executing. Wait a while and execute again.                                                                                                                                                                                                                                                                                                                                              | Wait a while and execute again.                                                                                                                             | —              |
| 81A091      | DMER81A091: The indicated Array ID is not same as the actual one for remote subsystem. Confirm the Array ID for the remote subsystem.                                                                                                                                                                                                                                                                   | Confirm the Array ID for the remote subsystem.                                                                                                              | —              |
| 81A095      | DMER81A095: The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                                 | Check the status of the remote subsystem and retry after waiting for a while.                                                                               | —              |
| 81A097      | DMER81A097: The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.                                                                                                                                                                                                                                                                                    | Check the status of the remote subsystem.                                                                                                                   | —              |
| 81A099      | DMER81A099: The array can not execute the operation because the target P-VOL of the specified LU does not exist. Delete the pair regarding the P-VOL in the remote array and create a remote replication pair.                                                                                                                                                                                          | Delete the pair regarding the P-VOL in the remote array and create a remote replication pair.                                                               | —              |
| 81A09A      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER81A09A: The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the LU status of the remote subsystem.                                                                                                                                                                                            | Check the LU status of the remote subsystem.                                                                                                                | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER81A09A: The LU status of the S-VOL in the remote array is normal or other than regressed or the RAID group to which the LU is belongs indicates a status other than Normal. Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. | Check the LU status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. | —              |
| 81A09F      | DMER81A09F: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.                                                                                                                                                                                                                                                                      | Retry after waiting for a while.                                                                                                                            | —              |
| 81A0A0      | DMER81A0A0: The remote subsystem has no pool LU. Make a pool LU for the remote subsystem.                                                                                                                                                                                                                                                                                                               | Make a pool LU for the remote subsystem.                                                                                                                    | —              |
| 81A0A1      | DMER81A0A1: The LU specified as the S-VOL in the remote subsystem is a pool LU. The pool LU cannot be set to an S-VOL. Check the pool LU status of the remote subsystem.                                                                                                                                                                                                                                | Check the pool LU status of the remote subsystem.                                                                                                           | —              |
| 81A0A2      | DMER81A0A2: The LU status of the S-VOL in the remote subsystem is normal or other than regressed. Check the pool LU status of the remote subsystem.                                                                                                                                                                                                                                                     | Check the pool LU status of the remote subsystem.                                                                                                           | —              |
| 81A0A3      | DMER81A0A3: The pool LU in the remote subsystem is undergoing the forced parity correction. Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                                                                                                                                                                       | Check the pool LU status of the remote subsystem and retry after waiting for a while.                                                                       | —              |
| 81A0A4      | DMER81A0A4: The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                                                                                                                            | Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.                                                    | —              |
| 81A0A5      | DMER81A0A5: The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.                                                                                                                                                                                                                                       | Check the Remote Replication pair status of the remote subsystem.                                                                                           | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                       | Recovery methods                                                              | Reference page |
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| 81A0A6      | DMER81A0A6: The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.                                                                             | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 81A0A7      | DMER81A0A7: The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.                                                         | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 81A0A8      | DMER81A0A8: The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.                                                                  | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 81A0A9      | DMER81A0A9: The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                    | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 81A0AA      | DMER81A0AA: The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.                                                                                      | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 81A0AB      | DMER81A0AB: The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.                                                                                | Check the Remote Replication pair status of the remote subsystem.             | —              |
| 81A0B4      | DMER81A0B4: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.        | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 81A0B5      | DMER81A0B5: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU change for it has been started. Check the status of the remote subsystem and retry after waiting for a while. | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 81A0B6      | DMER81A0B6: The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote subsystem and retry after waiting for a while.                             | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 81A0B7      | DMER81A0B7: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of LU to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.       | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 81A0B8      | DMER81A0B8: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.                               | Check the status of the remote subsystem and retry after waiting for a while. | —              |
| 81A0B9      | DMER81A0B9: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         | Retry after waiting for a while.                                              | —              |
| 81A0BA      | DMER81A0BA: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, it has pinned data. Contact the service personnel.                                                                                             | Contact the service personnel.                                                | —              |
| 81A0BB      | DMER81A0BB: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                                         | Retry after waiting for a while.                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                            | Recovery methods                                                                            | Reference page |
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| 81A0BC      | DMER81A0BC: The S-VOL in the remote subsystem cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                              | Retry after waiting for a while.                                                            | —              |
| 81A0BD      | DMER81A0BD: The S-VOL in the remote subsystem cannot change an ownership of LU and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.                                                     | Check the status of the remote subsystem and retry after waiting for a while.               | —              |
| 81A0BE      | DMER81A0BE: The S-VOL in the remote subsystem cannot change an ownership of LU and, at the same time, the group# is illegal.                                                                                                              | Check the status of the remote subsystem.                                                   | —              |
| 81A0C1      | DMER81A0C1: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.           | Check the status of the remote subsystem and retry after waiting for a while.               | —              |
| 81A0C2      | DMER81A0C2: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while. | Check the status of the remote subsystem and retry after waiting for a while.               | —              |
| 81A0D2      | DMER81A0D2: The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.                                                              | Confirm the indicated pool number in the remote subsystem.                                  | —              |
| 81A0D3      | DMER81A0D3: The license validity of the remote subsystem is expired. Purchase the license.                                                                                                                                                | Purchase the license.                                                                       | —              |
| 81A0DD      | DMER81A0DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                             | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 81A0E0      | DMER81A0E0: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                            | Execute again after the Migration is completed.                                             | —              |
| 81A0E5      | DMER81A0E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                    | Retry after the status becomes Normal.                                                      | —              |
| 820005      | DMER820005: The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                               | Retry after waiting for a while.                                                            | —              |
| 820006      | DMER820006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                       | Retry after the pseudo deliberate shutdown is completed.                                    | —              |
| 820007      | DMER820007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                               | Retry after waiting for a while.                                                            | —              |
| 820008      | DMER820008: The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                           | Check the status of the LU.                                                                 | —              |
| 820009      | DMER820009: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                              | Check the equipment WWN.                                                                    | —              |
| 82000B      | DMER82000B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                              | Retry after waiting for a while.                                                            | —              |
| 82000C      | DMER82000C: A command error occurred. Retry after waiting for a while.                                                                                                                                                                    | Retry after waiting for a while.                                                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                         | Recovery methods                                                                                                                                         | Reference page |
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| 82000D      | DMER82000D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                       | Unlock and validate the optional feature.                                                                                                                | —              |
| 82000E      | DMER82000E: The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                         | —              |
| 820011      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER820011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                    | Check the pair status of the LU and Array ID.                                                                                                            | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER820011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the LU and Array ID or number of the connected arrays.                                 | Check the pair status of the LU and Array ID or number of the connected arrays.                                                                          | —              |
| 820012      | DMER820012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                                                                                                                     | Check the number of Remote Replication pairs.                                                                                                            | —              |
| 820015      | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>DMER820015: The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                             | Make the status of the LU normal or regressive.                                                                                                          | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMER820015: The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP pool or a volume of ShadowImage pair that includes the LU created in DP pool. Make the status of the LU normal or regressive and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of. | Make the status of the LU normal or regressive and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                       | —              |
| 820017      | DMER820017: The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                                                                                                                               | Check the RAID level of the specified LU.                                                                                                                | —              |
| 820019      | DMER820019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                                                                                                                          | Equalize the capacities of the P-VOL and S-VOL.                                                                                                          | —              |
| 82001A      | DMER82001A: The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                                                                          | Check the status of the LU.                                                                                                                              | —              |
| 82001C      | DMER82001C: The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                                                                              | Specify an LU other than a command device.                                                                                                               | —              |
| 82001D      | DMER82001D: The change of the default owner controller is reserved for the object LU. Cancel the reservation for changing the default owner controller or specify the LU for which the change of the default owner controller is not reserved.                                                                                                                                                         | Cancel the reservation for changing the default owner controller or specify the LU for which the change of the default owner controller is not reserved. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                              | Recovery methods                                                                                                                                                             | Reference page |
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| 82001E      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82001E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                 | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82001E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 820021      | DMER820021: The object LU has already been cascaded with a ShadowImage pair. Check the pair status of the LU and check that its pair attribute is P-VOL.                                                                                                                                                                                                                                                    | Check the pair status of the LU and check that its pair attribute is P-VOL.                                                                                                  | —              |
| 820032      | DMER820032: The remote array is receiving a command. Retry after waiting.                                                                                                                                                                                                                                                                                                                                   | Retry after waiting.                                                                                                                                                         | —              |
| 82003D      | DMER82003D: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                         | Confirm the pair status of LU and the other side's LUN.                                                                                                                      | —              |
| 82003F      | DMER82003F: The LU assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the LU.                                                                                                                                                                                                                                                                           | Check the pair status of the LU.                                                                                                                                             | —              |
| 820040      | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>DMER820040: The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                                                                         | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more, less than Ver.8.00.<br>DMER820040: The object LU of the remote array is a volume of ShadowImage that status is Reverse Synchronizing/Split Pending/Paired Internally Synchronizing or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                      | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.<br>DMER820040: The S-VOL of the specified pair cannot accept Read/Write instructions or is a part of ShadowImage whose status is Reverse Synchronizing. Check the status of the S-VOL or the pair status of the ShadowImage pair.                                                                                                                  | Check the status of the S-VOL or the pair status of the ShadowImage pair.                                                                                                    | —              |
| 820041      | DMER820041: The process is in progress. Retrying after waiting.                                                                                                                                                                                                                                                                                                                                             | Retrying after waiting.                                                                                                                                                      | —              |
| 820045      | DMER820045: The stripe size of the object LU of the remote array is other than 64KB. Make the stripe size of the LU of the remote array 64KB.                                                                                                                                                                                                                                                               | Make the stripe size of the LU of the remote array 64KB.                                                                                                                     | —              |
| 820046      | DMER820046: The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                                                                                                                  | Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                     | —              |
| 820048      | DMER820048: The specified LU is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises an LU of the remote array.                                                                                                                                                                                                                                                                               | Split the ShadowImage pair that comprises an LU of the remote array.                                                                                                         | —              |
| 820049      | DMER820049: The object LU of the remote array is being formatted. Create the pair again after the formatting is completed.                                                                                                                                                                                                                                                                                  | Create the pair again after the formatting is completed.                                                                                                                     | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                   | Recovery methods                                                                                                            | Reference page                 |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 82004A      | DMER82004A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote array.                                                                                                                                                           | Cancel the S-VOL Disable specified for the LU of the remote array.                                                          | —                              |
| 820050      | DMER820050: The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the LU of the remote array to Restored or Skip. | Make the status which concerns the forced restoration by means of parity of the LU of the remote array to Restored or Skip. | —                              |
| 820053      | DMER820053: The number of unified LUs of the remote array is 17 or more. Make the number of unified LUs of the remote array 16 or less.                                                                                                                                          | Make the number of unified LUs of the remote array 16 or less.                                                              | —                              |
| 820054      | DMER820054: The V-VOL which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is an LU of the remote array.                                      | Split the Remote Replication pair comprising a SnapShot V-VOL that is an LU of the remote array.                            | —                              |
| 820055      | DMER820055: The object LU of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote array to a volume other than a V-VOL of SnapShot.                                                                                           | Specify the LU of the remote array to a volume other than a V-VOL of SnapShot.                                              | —                              |
| 820058      | DMER820058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                    | Contact the service personnel.                                                                                              | —                              |
| 820059      | DMER820059: The license validity of the remote array is expired. Purchase the license.                                                                                                                                                                                           | Purchase the license.                                                                                                       | —                              |
| 82005A      | DMER82005A: The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                           | Retry after setting the DM-LU or check the status of the LU.                                                                | —                              |
| 82005B      | DMER82005B: The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                      | Check the status of the LU.                                                                                                 | —                              |
| 82005C      | DMER82005C: The specified S-VOL is the NAS LU. Check the status of the LU.                                                                                                                                                                                                       | Check the status of the LU.                                                                                                 | —                              |
| 8200C6      | DMER8200C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                      | Perform the migration after deleting the pair.                                                                              | —                              |
| 8200C7      | DMER8200C7: The specified S-VOL is the reserved LU. Re-execute the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                          | Re-execute the migration specifying an LU other than the reserved LU for the S-VOL.                                         | —                              |
| 8200CF      | DMER8200CF: The disk drives that configure a RAID group to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                       | Perform the operation again after spinning up the disk drives that configure the RAID group.                                | —                              |
| 8200D4      | DMER8200D4: The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                | Confirm the LU status in the remote array.                                                                                  | —                              |
| 8200D9      | DMER8200D9: The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.                        | Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.       | <a href="#">"User's Guide"</a> |
| 8200DE      | DMED8200DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                | Execute again after the Migration is completed.                                                                             | —                              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                        | Recovery methods                                                                | Reference page |
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| 8200E2      | DMER8200E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                | Retry after the Auto Migration is completed.                                    | —              |
| 8200E3      | DMER8200E3: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                   | Retry after the status becomes Normal.                                          | —              |
| 8200E9      | DMER8200E9: The specified S-VOL is an LU created in DP pool or a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                                                                                                                                  | Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of. | —              |
| 821005      | DMER821005: The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                | —              |
| 821006      | DMER821006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                   | Retry after the pseudo deliberate shutdown is completed.                        | —              |
| 821007      | DMER821007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                           | Retry after waiting for a while.                                                | —              |
| 821008      | DMER821008: The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                                       | Check the status of the LU.                                                     | —              |
| 821009      | DMER821009: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                          | Check the equipment WWN.                                                        | —              |
| 82100B      | DMER82100B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                          | Retry after waiting for a while.                                                | —              |
| 82100C      | DMER82100C: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                | Retry after waiting for a while.                                                | —              |
| 82100D      | DMER82100D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                      | Unlock and validate the optional feature.                                       | —              |
| 82100E      | DMER82100E: The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                               | Retry after waiting for a while.                                                | —              |
| 821011      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER821011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                   | Check the pair status of the LU and Array ID.                                   | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER821011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the LU and Array ID or number of the connected Array. | Check the pair status of the LU and Array ID or number of the connected Array.  | —              |
| 821012      | DMER821012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                                                                                    | Check the number of Remote Replication pairs.                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                         | Recovery methods                                                                                                                                                             | Reference page |
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| 821015      | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>DMER821015: The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                             | Make the status of the LU normal or regressive.                                                                                                                              | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMER821015: The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP Pool or a volume of ShadowImage pair that includes the LU created in DP pool. Make the status of the LU normal or regressive and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of. | Make the status of the LU normal or regressive and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                           | —              |
| 821017      | DMER821017: The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                                                                                                                               | Check the RAID level of the specified LU.                                                                                                                                    | —              |
| 821019      | DMER821019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                                                                                                                          | Equalize the capacities of the P-VOL and S-VOL.                                                                                                                              | —              |
| 82101A      | DMER82101A: The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                                                                          | Check the status of the LU.                                                                                                                                                  | —              |
| 82101C      | DMER82101C: The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                                                                              | Specify an LU other than a command device.                                                                                                                                   | —              |
| 82101D      | DMER82101D: The change of the default owner controller is reserved for the object LU. Cancel the reservation for changing the default owner controller or specify the LU for which the change of the default owner controller is not reserved.                                                                                                                                                         | Cancel the reservation for changing the default owner controller or specify the LU for which the change of the default owner controller is not reserved.                     | —              |
| 82101E      | DMER82101E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.                                                        | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 821021      | DMER821021: The object LU has already been cascaded with a ShadowImage pair. Check the pair status of the LU and check that its pair attribute is P-VOL.                                                                                                                                                                                                                                               | Check the pair status of the LU and check that its pair attribute is P-VOL.                                                                                                  | —              |
| 821032      | DMER821032: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                  | Retry after waiting for a while.                                                                                                                                             | —              |
| 82103F      | DMER82103F: The LU assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the LU.                                                                                                                                                                                                                                                                      | Check the pair status of the LU.                                                                                                                                             | —              |
| 821040      | DMER821040: The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                                                                                                                                  | Check the pair status of the LU.                                                                                                                                             | —              |
| 821041      | DMER821041: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                               | Retry after waiting for a while.                                                                                                                                             | —              |
| 821045      | DMER821045: The stripe size of the object LU of the remote array is other than 64KB. Make the stripe size of the LU of the remote array 64KB.                                                                                                                                                                                                                                                          | Make the stripe size of the LU of the remote array 64KB.                                                                                                                     | —              |
| 821046      | DMER821046: The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                                                                                                            | Place the SnapShot pair, which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                    | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                     | Recovery methods                                                                                                              | Reference page |
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| 821048      | DMER821048: The specified LU is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises an LU of the remote array.                                                                                                                                                      | Split the ShadowImage pair that comprises an LU of the remote array.                                                          | —              |
| 821049      | DMER821049: The object LU of the remote array is being quick formatted. Create the pair again after the quick formatting is completed.                                                                                                                                             | Create the pair again after the quick formatting is completed.                                                                | —              |
| 82104A      | DMER82104A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote array.                                                                                                                                                             | Cancel the S-VOL Disable specified for the LU of the remote array.                                                            | —              |
| 821050      | DMER821050: The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote array to Restored or Skip. | Make the status, which concerns the forced restoration by means of parity, of the LU of the remote array to Restored or Skip. | —              |
| 821053      | DMER821053: The number of unified Lus of the remote array is 17 or more. Make the number of unified Lus of the remote array 16 or less.                                                                                                                                            | Make the number of unified Lus of the remote array 16 or less.                                                                | —              |
| 821054      | DMER821054: The V-VOL, which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is an LU of the remote array.                                       | Split the Remote Replication pair comprising a SnapShot V-VOL that is an LU of the remote array.                              | —              |
| 821055      | DMER821055: The object LU of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote array to a volume other than a V-VOL of SnapShot.                                                                                             | Specify the LU of the remote array to a volume other than a V-VOL of SnapShot.                                                | —              |
| 821058      | DMER821058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.                                                                                                                                                      | Contact the service personnel.                                                                                                | —              |
| 82105A      | DMER82105A: The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                             | Retry after setting the DM-LU or check the status of the LU.                                                                  | —              |
| 82105B      | DMER82105B: The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                        | Check the status of the LU.                                                                                                   | —              |
| 82105C      | DMER82105C: The specified S-VOL is the NAS LU. Check the status of the LU.                                                                                                                                                                                                         | Check the status of the LU.                                                                                                   | —              |
| 8210C6      | DMER8210C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                        | Perform the migration after deleting the pair.                                                                                | —              |
| 8210C7      | DMER8210C7: The specified S-VOL is the reserved LU. Re-execute the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                            | Re-execute the migration specifying an LU other than the reserved LU for the S-VOL.                                           | —              |
| 8210CF      | DMER8210CF: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                        | Perform the operation again after spinning up the disk drives that configure the RAID group.                                  | —              |
| 8210D4      | DMER8210D4: The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                  | Confirm the LU status in the remote array.                                                                                    | —              |
| 8210DE      | DMER8210DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                                                                                  | Execute again after the Migration is completed.                                                                               | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                              | Recovery methods                                                                                                                                                             | Reference page |
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| 8210E2      | DMER8210E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                                                                                                                                                                                                      | Retry after the Auto Migration is completed.                                                                                                                                 | —              |
| 8210E3      | DMER8210E3: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                                                                                                                         | Retry after the status becomes Normal.                                                                                                                                       | —              |
| 8210E9      | DMER8210E9: The specified S-VOL is an LU created in DP pool or a volume of ShadowImage pair that includes the LU created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                                                                                                                                                                        | Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.                                                                                              | —              |
| 822005      | DMER822005: The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                 | Retry after waiting for a while.                                                                                                                                             | —              |
| 822006      | DMER822006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                         | Retry after the pseudo deliberate shutdown is completed.                                                                                                                     | —              |
| 822007      | DMER822007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                 | Retry after waiting for a while.                                                                                                                                             | —              |
| 822008      | DMER822008: The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                                                                                                                                                             | Check the status of the LU.                                                                                                                                                  | —              |
| 822009      | DMER822009: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                | Check the equipment WWN.                                                                                                                                                     | —              |
| 82200B      | DMER82200B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                | Retry after waiting for a while.                                                                                                                                             | —              |
| 82200C      | DMER82200C: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                      | Retry after waiting for a while.                                                                                                                                             | —              |
| 82200D      | DMER82200D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                            | Unlock and validate the optional feature.                                                                                                                                    | —              |
| 82200E      | DMER82200E: The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                     | Retry after waiting for a while.                                                                                                                                             | —              |
| 822011      | DMER822011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                                                                                       | Check the pair status of the LU and Array ID.                                                                                                                                | —              |
| 822014      | DMER822014: The current Array ID differs from the number that was set initially. Check the Array ID.                                                                                                                                                                                                                                                                                                        | Check the Array ID.                                                                                                                                                          | —              |
| 822015      | DMER822015: The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                                                                                                | Make the status of the LU normal or regressive.                                                                                                                              | —              |
| 82201E      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82201E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                 | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82201E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                     | Recovery methods                                                                                                              | Reference page |
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| 822020      | DMER822020: The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                              | Check the pair status of the LU.                                                                                              | —              |
| 822032      | DMER822032: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                              | Retry after waiting for a while.                                                                                              | —              |
| 82203D      | DMER82203D: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                | Confirm the pair status of LU and the other side's LUN.                                                                       | —              |
| 822041      | DMER822041: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                           | Retry after waiting for a while.                                                                                              | —              |
| 822046      | DMER822046: The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote array, in the Simplex status once and then operate the pair.                       | Place the SnapShot pair, which comprises the LU of the remote array, in the Simplex status once and then operate the pair.    | —              |
| 82204A      | DMER82204A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote array.                                                                                                                                                             | Cancel the S-VOL Disable specified for the LU of the remote array.                                                            | —              |
| 822050      | DMER822050: The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote array to Restored or Skip. | Make the status, which concerns the forced restoration by means of parity, of the LU of the remote array to Restored or Skip. | —              |
| 822059      | DMER822059: The license validity of the remote array is expired. Purchase the license.                                                                                                                                                                                             | Purchase the license.                                                                                                         | —              |
| 8220CF      | DMER8220CF: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                        | Perform the operation again after spinning up the disk drives that configure the RAID group.                                  | —              |
| 8220D4      | DMER8220D4: The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                                  | Confirm the LU status in the remote array.                                                                                    | —              |
| 8220D7      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER8220D7: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                                         | Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                               | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER8220D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                                 | Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                  | —              |
| 8220D8      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER8220D8: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                               | Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                  | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER8220D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                                           | Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                               | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                         | Recovery methods                                | Reference page |
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| 8220DE      | DMER8220DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                      | Execute again after the Migration is completed. | —              |
| 8220E2      | DMER8220E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                 | Retry after the Auto Migration is completed.    | —              |
| 8220E3      | DMER8220E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal. | Retry after the status becomes Normal.          | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                               | Recovery methods                                                                                                           | Reference page |
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| 823005      | DMER823005: The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                  | Retry after waiting for a while.                                                                                           | —              |
| 823006      | DMER823006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                          | Retry after the pseudo deliberate shutdown is completed.                                                                   | —              |
| 823007      | DMER823007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                  | Retry after waiting for a while.                                                                                           | —              |
| 823008      | DMER823008: The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                              | Check the status of the LU.                                                                                                | —              |
| 823009      | DMER823009: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                 | Check the equipment WWN.                                                                                                   | —              |
| 82300B      | DMER82300B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                 | Retry after waiting for a while.                                                                                           | —              |
| 82300C      | DMER82300C: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                       | Retry after waiting for a while.                                                                                           | —              |
| 82300D      | DMER82300D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                             | Unlock and validate the optional feature.                                                                                  | —              |
| 82300E      | DMER82300E: The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                      | Retry after waiting for a while.                                                                                           | —              |
| 823011      | DMER823011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                        | Check the pair status of the LU and Array ID.                                                                              | —              |
| 82301E      | DMER82301E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                | Check the pair status of the LU.                                                                                           | —              |
| 823032      | DMER823032: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                        | Retry after waiting for a while.                                                                                           | —              |
| 823041      | DMER823041: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                     | Retry after waiting for a while.                                                                                           | —              |
| 823046      | DMER823046: The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote array, in the Simplex status once and then operate the pair. | Place the SnapShot pair, which comprises the LU of the remote array, in the Simplex status once and then operate the pair. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                            | Recovery methods                                                                                                      | Reference page                 |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 8230D4      | DMER8230D4: The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                         | Confirm the LU status in the remote array.                                                                            | —                              |
| 8230D7      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER8230D7: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                | Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                       | —                              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER8230D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                        | Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                          | —                              |
| 8230D8      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER8230D8: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                      | Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                          | —                              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER8230D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                  | Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                       | —                              |
| 8230D9      | DMER8230D9: The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information. | Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information. | <a href="#">"User's Guide"</a> |
| 824005      | DMER824005: The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                               | Retry after waiting for a while.                                                                                      | —                              |
| 824006      | DMER824006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                       | Retry after the pseudo deliberate shutdown is completed.                                                              | —                              |
| 824007      | DMER824007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                               | Retry after waiting for a while.                                                                                      | —                              |
| 824008      | DMER824008: The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                           | Check the status of the LU.                                                                                           | —                              |
| 824009      | DMER824009: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                              | Check the equipment WWN.                                                                                              | —                              |
| 82400B      | DMER82400B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                              | Retry after waiting for a while.                                                                                      | —                              |
| 82400C      | DMER82400C: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                    | Retry after waiting for a while.                                                                                      | —                              |
| 82400D      | DMER82400D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                          | Unlock and validate the optional feature.                                                                             | —                              |
| 82400E      | DMER82400E: The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                   | Retry after waiting for a while.                                                                                      | —                              |
| 824011      | DMER824011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                     | Check the pair status of the LU and Array ID.                                                                         | —                              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                     | Recovery methods                                                                                                                                   | Reference page |
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| 82401E      | DMER82401E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                      | Check the pair status of the LU.                                                                                                                   | —              |
| 824032      | DMER824032: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                              | Retry after waiting for a while.                                                                                                                   | —              |
| 824041      | DMER824041: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                           | Retry after waiting for a while.                                                                                                                   | —              |
| 824046      | DMER824046: The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.         | Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                           | —              |
| 8240D4      | DMER8240D4: The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                                                                  | Confirm the LU status in the remote array.                                                                                                         | —              |
| 8240D7      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER8240D7: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                         | Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER8240D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                 | Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                                       | —              |
| 8240D8      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER8240D8: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                               | Execute again after having the SnapShot pair status in the remote array be Split or Simplex.                                                       | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER8240D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                           | Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.                                                    | —              |
| 8240D9      | DMER8240D9: The status the remote array is in an inappropriate condition to create the Remote Replication pair. Confirm the Array ID, pair status of Remote Replication and status of SnapShot and ShadowImage. See the User's Guide for their detail information. | Confirm the Array ID, pair status of Remote Replication and status of SnapShot and ShadowImage. See the User's Guide for their detail information. | —              |
| 825005      | DMER825005: The LU of the remote array is being formatted. Retry after waiting for a while.                                                                                                                                                                        | Retry after waiting for a while.                                                                                                                   | —              |
| 825006      | DMER825006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                | Retry after the pseudo deliberate shutdown is completed.                                                                                           | —              |
| 825007      | DMER825007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                        | Retry after waiting for a while.                                                                                                                   | —              |
| 825008      | DMER825008: The S-VOL is undefined. Check the status of the LU.                                                                                                                                                                                                    | Check the status of the LU.                                                                                                                        | —              |
| 825009      | DMER825009: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                       | Check the equipment WWN.                                                                                                                           | —              |
| 82500B      | DMER82500B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.                                                                                                                                                       | Retry after waiting for a while.                                                                                                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                              | Recovery methods                                                                                                                                                             | Reference page |
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| 82500C      | DMER82500C: A command error occurred. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                      | Retry after waiting for a while.                                                                                                                                             | —              |
| 82500D      | DMER82500D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                            | Unlock and validate the optional feature.                                                                                                                                    | —              |
| 82500E      | DMER82500E: The status of the S-VOL cannot be changed. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                     | Retry after waiting for a while.                                                                                                                                             | —              |
| 825011      | DMER825011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the LU and Array ID.                                                                                                                                                                                                       | Check the pair status of the LU and Array ID.                                                                                                                                | —              |
| 825014      | DMER825014: The current Array ID differs from the number that was set initially. Check the Array ID.                                                                                                                                                                                                                                                                                                        | Check the Array ID.                                                                                                                                                          | —              |
| 825015      | DMER825015: The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                                                                                                | Make the status of the LU normal or regressive.                                                                                                                              | —              |
| 82501E      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82501E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                 | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82501E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 825020      | DMER825020: The object LU of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the LU.                                                                                                                                                                                                                                       | Check the pair status of the LU.                                                                                                                                             | —              |
| 825032      | DMER825032: The remote array is receiving a command. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                       | Retry after waiting for a while.                                                                                                                                             | —              |
| 82503D      | DMER82503D: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                                                                                                                                                                                                                         | Confirm the pair status of LU and the other side's LUN.                                                                                                                      | —              |
| 825041      | DMER825041: The process is in progress. Retry after waiting for a while.                                                                                                                                                                                                                                                                                                                                    | Retry after waiting for a while.                                                                                                                                             | —              |
| 825046      | DMER825046: The object LU of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                                                                                                                  | Place the SnapShot pair which comprises the LU of the remote array in the Simplex status once and then operate the pair.                                                     | —              |
| 825047      | DMER825047: The specified LU is an S-VOL of ShadowImage. Specify an LU other than a ShadowImage S-VOL that comprises the LU of the remote array.                                                                                                                                                                                                                                                            | Specify an LU other than a ShadowImage S-VOL that comprises the LU of the remote array.                                                                                      | —              |
| 82504B      | DMER82504B: Check the pair status of the LU. Cancel the S-VOL Disable specified for the LU of the remote array (at the time of a swap).                                                                                                                                                                                                                                                                     | Cancel the S-VOL Disable specified for the LU of the remote array (at the time of a swap).                                                                                   | —              |
| 825050      | DMER825050: The object LU of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the LU of the remote array to Restored or Skip.                                                                                                                            | Make the status which concerns the forced restoration by means of parity of the LU of the remote array to Restored or Skip.                                                  | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                              | Recovery methods                                                                             | Reference page |
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| 825056      | DMER825056: The target LU of the remote array is a V-VOL of SnapShot (at the time of swap). Specify the LU of the remote array other than a V-VOL of SnapShot.                                                              | Specify the LU of the remote array other than a V-VOL of SnapShot.                           | —              |
| 825059      | DMER825059: The license validity of the remote array is expired. Purchase the license.                                                                                                                                      | Purchase the license.                                                                        | —              |
| 8250CF      | DMER8250CF: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group. | Perform the operation again after spinning up the disk drives that configure the RAID group. | —              |
| 8250D4      | DMER8250D4: The LU which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the LU status in the remote array.                                                                                           | Confirm the LU status in the remote array.                                                   | —              |
| 8250D7      | DMER8250D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status Split or Simplex.                                                                             | Execute again after having the SnapShot pair status Split or Simplex.                        | —              |
| 8250D8      | DMER8250D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status Split or Simplex.                                                                       | Execute again after having the ShadowImage pair status Split or Simplex.                     | —              |
| 8250DE      | DMER8250DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.                                                                                                           | Execute again after the Migration is completed.                                              | —              |
| 8250E2      | DMER8250E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.                                                                                                                      | Retry after the Auto Migration is completed.                                                 | —              |
| 8250E3      | DMER8250E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                      | Retry after the status becomes Normal.                                                       | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                              | Recovery methods                                                                                                                                                             | Reference page |
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| 826011      | DMER826011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the LU and Array ID.                                                                                                                                                                                                   | Check the pair status of the LU and Array ID.                                                                                                                                | —              |
| 826012      | DMER826012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                                                                                                                          | Check the number of Remote Replication pairs.                                                                                                                                | —              |
| 826015      | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>DMER826015: The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                                                                                                                  | Make the status of the LU normal or regressive.                                                                                                                              | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMER826015: The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP pool. Make the status of the LU normal or regressive and specify an LU other than an LU created in DP pool to S-VOL.                                                                                                  | Make the status of the LU normal or regressive and specify an LU other than an LU created in DP pool to S-VOL.                                                               | —              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                              |                |
| 826017      | DMER826017: The S-VOL resides in the RAID group of RAID 0. Choose a RAID group of RAID level other than RAID 0.                                                                                                                                                                                                                                                                                             | Choose a RAID group of RAID level other than RAID 0.                                                                                                                         | —              |
| 826019      | DMER826019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                                                                                                                               | Equalize the capacities of the P-VOL and S-VOL.                                                                                                                              | —              |
| 82601A      | DMER82601A: The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                                                                               | Check the status of the LU.                                                                                                                                                  | —              |
| 82601C      | DMER82601C: The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                                                                                   | Specify an LU other than a command device.                                                                                                                                   | —              |
| 82601E      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82601E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                 | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82601E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
|             |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                              |                |
| 826026      | DMER826026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                     | Retry after the pseudo deliberate shutdown is completed.                                                                                                                     | —              |
| 826027      | DMER826027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                             | Retry after waiting for a while.                                                                                                                                             | —              |
| 82602A      | DMER82602A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                                                                                        | Unlock and validate the optional feature.                                                                                                                                    | —              |
| 826040      | DMER826040: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                               | The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                              | —              |
| 826045      | DMER826045: The stripe size of the object LU of the remote subsystem is other than 64KB. Make the stripe size of the LU of the remote subsystem 64KB.                                                                                                                                                                                                                                                       | Make the stripe size of the LU of the remote subsystem 64KB.                                                                                                                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                             | Recovery methods                                                                                                                  | Reference page |
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| 826046      | DMER826046: The object LU of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote subsystem, in the Simplex status once and then operate the pair.                       | Place the SnapShot pair, which comprises the LU of the remote subsystem, in the Simplex status once and then operate the pair.    | —              |
| 826049      | DMER826049: The object LU of the remote subsystem is being formatted. Create the pair again after the formatting is completed.                                                                                                                                                             | Create the pair again after the formatting is completed.                                                                          | —              |
| 82604A      | DMER82604A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote subsystem.                                                                                                                                                                 | Cancel the S-VOL Disable specified for the LU of the remote subsystem.                                                            | —              |
| 826050      | DMER826050: The object LU of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote subsystem to Restored or Skip. | Make the status, which concerns the forced restoration by means of parity, of the LU of the remote subsystem to Restored or Skip. | —              |
| 826053      | DMER826053: The number of unified LUs of the remote subsystem is 17 or more. Make the number of unified LUs of the remote subsystem 16 or less.                                                                                                                                            | Make the number of unified LUs of the remote subsystem 16 or less.                                                                | —              |
| 826055      | DMER826055: The object LU of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote subsystem to a volume other than a V-VOL of SnapShot.                                                                                             | Specify the LU of the remote subsystem to a volume other than a V-VOL of SnapShot.                                                | —              |
| 826059      | DMER826059: The license validity of the remote subsystem is expired. Purchase the license.                                                                                                                                                                                                 | Purchase the license.                                                                                                             | —              |
| 82605A      | DMER82605A: The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                                 | Retry after setting the DM-LU or check the status of the LU.                                                                      | —              |
| 82605B      | DMER82605B: The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                                | Check the status of the LU.                                                                                                       | —              |
| 8260B3      | DMER8260B3: The specified S-VOL is a unified LU including a SubLU with a capacity less than 1 GB. Check whether the LU with a capacity less than 1 GB is included in each LU of the specified unified LU.                                                                                  | Check whether the LU with a capacity less than 1 GB is included in each LU of the specified unified LU.                           | —              |
| 8260C4      | DMER8260C4: When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                   | Check the cycle time that has been set for the remote subsystem.                                                                  | —              |
| 8260C6      | DMER8260C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                | Perform the migration after deleting the pair.                                                                                    | —              |
| 8260C7      | DMER8260C7: The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                       | Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                  | —              |
| 8260CA      | DMER8260CA: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                | Perform the migration after deleting the pair.                                                                                    | —              |
| 8260CB      | DMER8260CB: The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                       | Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                  | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                             | Recovery methods                                                                                               | Reference page |
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| 8260CF      | DMER8260CF: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                                | Perform the operation again after spinning up the disk drives that configure the RAID group.                   | —              |
| 8260D1      | DMER8260D1: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                                | Perform the operation again after spinning up the disk drives that configure the RAID group.                   | —              |
| 8260D2      | DMER8260D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.                                                                                                                         | Confirm the indicated data pool number in the remote array.                                                    | —              |
| 8260DB      | DMER8260DB: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                                                                                       | Check the partition number.                                                                                    | —              |
| 8260DD      | DMER8260DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                                                                                              | Retry after waiting for a while. If an error occurred again, contact the service personnel.                    | —              |
| 8260DE      | DMER8260DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                                                                                                                             | Execute again after the Migration is completed.                                                                | —              |
| 8260E1      | DMER8260E1: The operation to change LU has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.                                                                                                                                   | Retry the operation after the controller is recovered.                                                         | —              |
| 8260E3      | DMER8260E3: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                                                                                                                        | Retry after the status becomes Normal.                                                                         | —              |
| 8260E9      | DMER8260E9: The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                                                                                                                          | Specify an LU other than the LU created in DP pool.                                                            | —              |
| 827011      | DMER827011: The object LU has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the LU and Array ID.                                                                                                  | Check the pair status of the LU and Array ID.                                                                  | —              |
| 827012      | DMER827012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.                                                                                                                                                         | Check the number of Remote Replication pairs.                                                                  | —              |
| 827015      | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>DMER827015: The status of the object LU is other than normal and regressive. Make the status of the LU normal or regressive.                                                                                                                 | Make the status of the LU normal or regressive.                                                                | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMER827015: The status of the object LU is other than normal and regressive or the specified S-VOL is an LU created in DP pool. Make the status of the LU normal or regressive and specify an LU other than an LU created in DP pool to S-VOL. | Make the status of the LU normal or regressive and specify an LU other than an LU created in DP pool to S-VOL. | —              |
| 827017      | DMER827017: The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.                                                                                                                                                                                                                   | Check the RAID level of the specified LU.                                                                      | —              |
| 827019      | DMER827019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.                                                                                                                                                                                              | Equalize the capacities of the P-VOL and S-VOL.                                                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                              | Recovery methods                                                                                                                                                             | Reference page |
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| 82701A      | DMER82701A: The S-VOL is a Cache Residency LU or has been set to the reserved Cache Residency LU. Check the status of the LU.                                                                                                                                                                                                                                                                               | Check the status of the LU.                                                                                                                                                  | —              |
| 82701C      | DMER82701C: The object LU is a command device. Specify an LU other than a command device.                                                                                                                                                                                                                                                                                                                   | Specify an LU other than a command device.                                                                                                                                   | —              |
| 82701E      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82701E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                                                                                                                                                                 | Check the pair status of the LU.                                                                                                                                             | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82701E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 827026      | DMER827026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                                                                                                                                                                                                                                     | Retry after the pseudo deliberate shutdown is completed.                                                                                                                     | —              |
| 827027      | DMER827027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                                                                                                                                                                                                                             | Retry after waiting for a while.                                                                                                                                             | —              |
| 82702A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER82702A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.                                                                                                                                                                                                          | Unlock and validate the optional feature.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER82702A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.                                                                                                                                                                                                              | Unlock and enable the optional feature.                                                                                                                                      | —              |
| 827040      | DMER827040: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                                                                                                                                                                               | The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the LU status of the remote subsystem.                                              | —              |
| 827045      | DMER827045: The stripe size of the object LU of the remote subsystem is other than 64KB. Make the stripe size of the LU of the remote subsystem 64KB.                                                                                                                                                                                                                                                       | Make the stripe size of the LU of the remote subsystem 64KB.                                                                                                                 | —              |
| 827046      | DMER827046: The object LU of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the LU of the remote subsystem, in the Simplex status once and then operate the pair.                                                                                                                                        | Place the SnapShot pair, which comprises the LU of the remote subsystem, in the Simplex status once and then operate the pair.                                               | —              |
| 827049      | DMER827049: The object LU of the remote subsystem is being formatted. Create the pair again after the formatting is completed.                                                                                                                                                                                                                                                                              | Create the pair again after the formatting is completed.                                                                                                                     | —              |
| 82704A      | DMER82704A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the LU of the remote subsystem.                                                                                                                                                                                                                                                                                  | Cancel the S-VOL Disable specified for the LU of the remote subsystem.                                                                                                       | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                             | Recovery methods                                                                                                                  | Reference page |
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| 827050      | DMER827050: The object LU of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the LU of the remote subsystem to Restored or Skip. | Make the status, which concerns the forced restoration by means of parity, of the LU of the remote subsystem to Restored or Skip. | —              |
| 827053      | DMER827053: The number of unified LUs of the remote subsystem is 17 or more. Make the number of unified LUs of the remote subsystem 16 or less.                                                                                                                                            | Make the number of unified LUs of the remote subsystem 16 or less.                                                                | —              |
| 827055      | DMER827055: The object LU of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the LU of the remote subsystem to a volume other than a V-VOL of SnapShot.                                                                                             | Specify the LU of the remote subsystem to a volume other than a V-VOL of SnapShot.                                                | —              |
| 827059      | DMER827059: The license validity of the remote subsystem is expired. Purchase the license.                                                                                                                                                                                                 | Purchase the license.                                                                                                             | —              |
| 82705A      | DMER82705A: The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the LU.                                                                                                                                 | Retry after setting the DM-LU or check the status of the LU.                                                                      | —              |
| 82705B      | DMER82705B: The specified S-VOL is the pool LU. Check the status of the LU.                                                                                                                                                                                                                | Check the status of the LU.                                                                                                       | —              |
| 8270B3      | DMER8270B3: The specified S-VOL is a unified LU including a SubLU with a capacity less than 1 GB. Check whether the LU with a capacity less than 1 GB is included in each LU of the specified unified LU.                                                                                  | Check whether the LU with a capacity less than 1 GB is included in each LU of the specified unified LU.                           | —              |
| 8270C4      | DMER8270C4: When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.                                   | Check the cycle time that has been set for the remote subsystem.                                                                  | —              |
| 8270C6      | DMER8270C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                | Perform the migration after deleting the pair.                                                                                    | —              |
| 8270C7      | DMER8270C7: The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                       | Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                  | —              |
| 8270CA      | DMER8270CA: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.                                                                                                                                                                                | Perform the migration after deleting the pair.                                                                                    | —              |
| 8270CB      | DMER8270CB: The specified S-VOL is the reserved LU. Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                                                                                                                       | Perform the migration specifying an LU other than the reserved LU for the S-VOL.                                                  | —              |
| 8270CF      | DMER8270CF: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                | Perform the operation again after spinning up the disk drives that configure the RAID group.                                      | —              |
| 8270D1      | DMER8270D1: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.                                                                | Perform the operation again after spinning up the disk drives that configure the RAID group.                                      | —              |
| 8270D2      | DMER8270D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.                                                                                                         | Confirm the indicated data pool number in the remote array.                                                                       | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                     | Recovery methods                                                                            | Reference page |
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| 8270DB      | DMER8270DB: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                               | Check the partition number.                                                                 | —              |
| 8270DD      | DMER8270DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                      | Retry after waiting for a while. If an error occurred again, contact the service personnel. | —              |
| 8270DE      | DMER8270DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                                                     | Execute again after the Migration is completed.                                             | —              |
| 8270E1      | DMER8270E1: The operation to change LU has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.                           | Retry the operation after the controller is recovered.                                      | —              |
| 8270E3      | DMER8270E3: The RAID group to which the LU that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                | Retry after the status becomes Normal.                                                      | —              |
| 8270E9      | DMER8270E9: The LU created in DP pool was specified as S-VOL. Specify an LU other than the LU created in DP pool.                                                                                  | Specify an LU other than the LU created in DP pool.                                         | —              |
| 82901E      | DMER82901E: The object LU has been organized into a Remote Replication pair. Check the pair status of the LU.                                                                                      | Check the pair status of the LU.                                                            | —              |
| 829026      | DMER829026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.                                                            | Retry after the pseudo deliberate shutdown is completed.                                    | —              |
| 829027      | DMER829027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.                                                                                    | Retry after waiting for a while.                                                            | —              |
| 82902A      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER82902A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature. | Unlock and validate the optional feature.                                                   | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER82902A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.     | Unlock and enable the optional feature.                                                     | —              |
| 82903D      | DMER82903D: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                | Confirm the pair status of LU and the other side's LUN.                                     | —              |
| 82905E      | DMER82905E: Pair status of corresponding LU does not match. Confirm the pair status of LU and the other side's LUN.                                                                                | Confirm the pair status of LU and the other side's LUN.                                     | —              |
| 82905F      | DMER82905F: There is no pair, which is in the Paired status, in the target group. Check the pair status of each LU in the target group.                                                            | Check the pair status of each LU in the target group.                                       | —              |
| 8290DE      | DMER8290DE: Auto Migration is being executed in the remote array just now. Execute again after the Migration is completed.                                                                         | Execute again after the Migration is completed.                                             | —              |
| 82A011      | DMER82A011: The indicated LU is in the Remote Replication pair for another subsystem. Confirm the pair status for the LU and also the Array ID.                                                    | Confirm the pair status for the LU and also the Array ID.                                   | —              |
| 82A015      | DMER82A015: The status of the object LU is other than normal and regressive. Make the LU status be normal or regressive.                                                                           | Make the LU status be normal or regressive.                                                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                              | Recovery methods                                                                                                                                                             | Reference page |
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| 82A01E      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82A01E: The indicated LU has already been set as the Remote Replication pair. Confirm the pair status for the LU.                                                                                                                                                                                                                         | Confirm the pair status for the LU.                                                                                                                                          | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82A01E: The object LU has been organized into a Remote Replication pair or the RAID group to which the object LU belongs indicates a status other than Normal. Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | Check the pair status of the LU and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. | —              |
| 82A026      | DMER82A026: The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.                                                                                                                                                                                                                                                                          | Execute again after the pseudo deliberate shutdown.                                                                                                                          | —              |
| 82A027      | DMER82A027: The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.                                                                                                                                                                                                                                                                                                   | Wait a while and execute again.                                                                                                                                              | —              |
| 82A02A      | DMER82A02A: The optional feature of Remote Replication of the remote array is disabled. Unlock and enable the optional feature.                                                                                                                                                                                                                                                                             | Unlock and enable the optional feature.                                                                                                                                      | —              |
| 82A02B      | DMER82A02B: Both of the two remote paths of the local array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                    | Check the status of the path.                                                                                                                                                | —              |
| 82A030      | DMER82A030: The S-VOL is undefined. Check the attribute of the LU.                                                                                                                                                                                                                                                                                                                                          | Check the attribute of the LU.                                                                                                                                               | —              |
| 82A031      | DMER82A031: The WWN of the remote array is illegal. Check the equipment WWN.                                                                                                                                                                                                                                                                                                                                | Check the equipment WWN.                                                                                                                                                     | —              |
| 82A035      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMER82A035: The optional feature of Remote Replication of the remote array is locked. Unlock and validate the optional feature.                                                                                                                                                                                                               | Unlock and validate the optional feature.                                                                                                                                    | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMER82A035: The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature.                                                                                                                                                                                                                   | Unlock and enable the optional feature.                                                                                                                                      | —              |
| 82A038      | DMER82A038: Both of the two paths of the remote array were detached. Check the status of the path.                                                                                                                                                                                                                                                                                                          | Check the status of the path.                                                                                                                                                | —              |
| 82A046      | DMER82A046: The indicated LU in the remote subsystem is being restored for SnapShot or can not be executed the Read and Write command for the SnapShot pair. Execute again after having the SnapShot pair status in the remote subsystem be Simplex.                                                                                                                                                        | Execute again after having the SnapShot pair status in the remote subsystem be Simplex.                                                                                      | —              |
| 82A04A      | DMER82A04A: The S-VOL is 'S-VOL Disable' status. Release the indication for the 'S-VOL Disable' in the remote subsystem.                                                                                                                                                                                                                                                                                    | Release the indication for the 'S-VOL Disable' in the remote subsystem.                                                                                                      | —              |
| 82A050      | DMER82A050: The indicated LU in the remote subsystem is in the forced parity correction, or has not executed the forced parity correction yet. Make the LU status for the forced parity correction in remote subsystem be Restored or Skip.                                                                                                                                                                 | Make the LU status for the forced parity correction in remote subsystem be Restored or Skip.                                                                                 | —              |
| 82A059      | DMER82A059: The license of the remote subsystem expires. Purchase the license.                                                                                                                                                                                                                                                                                                                              | Purchase the license.                                                                                                                                                        | —              |
| 82A05D      | DMER82A05D: Now executing. Wait a while and execute again.                                                                                                                                                                                                                                                                                                                                                  | Wait a while and execute again.                                                                                                                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                     | Recovery methods                                                                                              | Reference page                 |
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| 82A089      | DMER82A089: The S-VOL of the remote array is in the status of S-VOL Disable. Check the status of the remote array and cancel the access attribute.                                                                                                                                 | Check the status of the remote array and cancel the access attribute.                                         | —                              |
| 82A08B      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER82A08B: The S-VOL in the remote array has no SnapShot cache block available. Check the data pool LU status of the remote array. In addition, delete unnecessary pairs of the remote array.                       | Check the data pool LU status of the remote array. In addition, delete unnecessary pairs of the remote array. | —                              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER82A08B: This operation cannot be executed due to lack of resources within the remote array. Try the operation again after deleting unnecessary pairs.                                                              | Try the operation again after deleting unnecessary pairs.                                                     | —                              |
| 82A08C      | Hitachi Storage Navigator Modular 2 is less than Ver.5.00.<br>DMER82A08C: The SnapShot cache block for the S-VOL in the remote array is being deleted. Check the data pool LU status of the remote array and retry after waiting for a while.                                      | Check the data pool LU status of the remote array and retry after waiting for a while.                        | —                              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.00 or more.<br>DMER82A08C: This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.                                                                     | Try the operation again after waiting for a while.                                                            | —                              |
| 82A08D      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82A08D: The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array. See the User's Guide for their detail information. | Check the status of the LU in the remote array. See the User's Guide for their detail information.            | —                              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82A08D: The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array.                                                      | Check the status of the LU in the remote array.                                                               | —                              |
| 82A090      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMER82A090: The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array. See the User's Guide for their detail information. | Check the status of the LU in the remote array. See the User's Guide for their detail information.            | <a href="#">"User's Guide"</a> |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMER82A090: The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the LU in the remote array.                                                      | Check the status of the LU in the remote array.                                                               | —                              |
| 82A091      | DMER82A091: The indicated Array ID is not same as the actual one for remote array. Confirm the Array ID for the remote array.                                                                                                                                                      | Confirm the Array ID for the remote array.                                                                    | —                              |
| 82A095      | DMER82A095: The S-VOL in the remote array is undergoing the forced parity correction. Check the status of the remote array and retry after waiting for a while.                                                                                                                    | Check the status of the remote array and retry after waiting for a while.                                     | —                              |
| 82A097      | DMER82A097: The S-VOL in the remote array received an illegal command. Check the status of the remote array.                                                                                                                                                                       | Check the status of the remote array.                                                                         | —                              |
| 82A09A      | DMER82A09A: The LU status of the S-VOL in the remote array is normal or other than regressed. Check the LU status of the remote array.                                                                                                                                             | Check the LU status of the remote array.                                                                      | —                              |
| 82A09F      | DMER82A09F: Splitting or deleting SnapShot pair is in progress. Retry after waiting for a while.                                                                                                                                                                                   | Retry after waiting for a while.                                                                              | —                              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                             | Recovery methods                                                                                 | Reference page |
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| 82A0A0      | DMER82A0A0: The remote array has no data pool. Create a data pool in the remote array.                                                                                                                                                     | Create a data pool in the remote array.                                                          | —              |
| 82A0A1      | DMER82A0A1: The LU specified as the S-VOL in the remote array is a data pool LU. The data pool LU cannot be set to an S-VOL. Check the data pool LU status of the remote array.                                                            | Check the data pool LU status of the remote array.                                               | —              |
| 82A0A2      | DMER82A0A2: The LU status of the S-VOL in the remote array is normal or other than regressed. Check the pool LU status of the remote array                                                                                                 | Check the pool LU status of the remote array                                                     | —              |
| 82A0A3      | DMER82A0A3: The data pool LU in the remote array is undergoing the forced parity correction. Check the pool LU status of the remote array and retry after waiting for a while.                                                             | Check the pool LU status of the remote array and retry after waiting for a while.                | —              |
| 82A0A4      | DMER82A0A4: The S-VOL in the remote array exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote array. In addition, delete unnecessary pairs of the remote array.           | Check the status of the remote array. In addition, delete unnecessary pairs of the remote array. | —              |
| 82A0A5      | DMER82A0A5: The Remote Replication pair status of the S-VOL in the remote array is Failure. Check the Remote Replication pair status of the remote array.                                                                                  | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0A6      | DMER82A0A6: The Remote Replication pair status of the S-VOL in the remote array is Pool Full. Check the Remote Replication pair status of the remote array.                                                                                | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0A7      | DMER82A0A7: The Remote Replication pair status of the S-VOL in the remote array is Split (no read/write allowed). Check the Remote Replication pair status of the remote array.                                                            | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0A8      | DMER82A0A8: The Remote Replication pair status of the S-VOL in the remote array is Takeover (including Busy). Check the Remote Replication pair status of the remote array.                                                                | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0A9      | DMER82A0A9: The Remote Replication pair status of the S-VOL in the remote array is Simplex. Check the Remote Replication pair status of the remote array.                                                                                  | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0AA      | DMER82A0AA: The Remote Replication pair status of the S-VOL in the remote array is Split. Check the Remote Replication pair status of the remote array.                                                                                    | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0AB      | DMER82A0AB: The Remote Replication pair status of the S-VOL in the remote array is not Simplex. Check the Remote Replication pair status of the remote array.                                                                              | Check the Remote Replication pair status of the remote array.                                    | —              |
| 82A0B4      | DMER82A0B4: The S-VOL in the remote array does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote array and retry after waiting for a while.      | Check the status of the remote array and retry after waiting for a while.                        | —              |
| 82A0B5      | DMER82A0B5: The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of LU change for it has been started. Check the status of the remote array and retry after waiting for a while. | Check the status of the remote array and retry after waiting for a while.                        | —              |
| 82A0B6      | DMER82A0B6: The S-VOL in the remote array does not exist on the default owner controller and it has started an ownership of LU change. Check the status of the remote array and retry after waiting for a while.                           | Check the status of the remote array and retry after waiting for a while.                        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                       | Recovery methods                                                                             | Reference page |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------|
| 82A0B7      | DMER82A0B7: The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of LU to be changed is blocked. Check the status of the remote array and retry after waiting for a while. | Check the status of the remote array and retry after waiting for a while.                    | —              |
| 82A0B8      | DMER82A0B8: The S-VOL in the remote array cannot change an ownership of LU and at the same time it is using the sequential buffer. Check the status of the remote array and retry after waiting for a while.                         | Check the status of the remote array and retry after waiting for a while.                    | —              |
| 82A0B9      | DMER82A0B9: The S-VOL in the remote array cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                             | Retry after waiting for a while.                                                             | —              |
| 82A0BA      | DMER82A0BA: The S-VOL in the remote array cannot change an ownership of LU and at the same time it has pinned data. Contact the service personnel.                                                                                   | Contact the service personnel.                                                               | —              |
| 82A0BB      | DMER82A0BB: The S-VOL in the remote array cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                             | Retry after waiting for a while.                                                             | —              |
| 82A0BC      | DMER82A0BC: The S-VOL in the remote array cannot change an ownership of LU temporarily. Retry after waiting for a while.                                                                                                             | Retry after waiting for a while.                                                             | —              |
| 82A0BD      | DMER82A0BD: The S-VOL in the remote array cannot change an ownership of LU and a time-out occurred. Check the status of the remote array and retry after waiting for a while.                                                        | Check the status of the remote array and retry after waiting for a while.                    | —              |
| 82A0BE      | DMER82A0BE: The S-VOL in the remote array cannot change an ownership of LU, and the group number is illegal. Check the status of the remote array.                                                                                   | Check the status of the remote array.                                                        | —              |
| 82A0C0      | DMER82A0C0: The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.                           | Check the status of the remote array and retry after waiting for a while.                    | —              |
| 82A0C1      | DMER82A0C1: The S-VOL in the remote array does not exist on the default owner controller, and the array is performing the system copy. Check the status of the remote array and retry after waiting for a while.                     | Check the status of the remote array and retry after waiting for a while.                    | —              |
| 82A0C2      | DMER82A0C2: The S-VOL in the remote array does not exist on the default owner controller, and the array is writing the configuration information. Check the status of the remote array and retry after waiting for a while.          | Check the status of the remote array and retry after waiting for a while.                    | —              |
| 82A0D1      | DMER82A0D1: The disk drives that configure a RAID group, to which a target LU in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.          | Perform the operation again after spinning up the disk drives that configure the RAID group. | —              |
| 82A0D2      | DMER82A0D2: The S-VOL pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.                                                            | Confirm the indicated data pool number in the remote array.                                  | —              |
| 82A0D3      | DMER82A0D3: The license has expired. Purchase the license.                                                                                                                                                                           | Purchase the license.                                                                        | —              |
| 82A0DB      | DMER82A0DB: The partition or pair partition to which the target LU belongs is incorrect. Check the partition number.                                                                                                                 | Check the partition number.                                                                  | —              |
| 82A0DD      | DMER82A0DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.                                                                                        | Retry after waiting for a while. If an error occurred again, contact the service personnel.  | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                           | Recovery methods                                       | Reference page |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------|
| 82A0DE      | DMER82A0DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.                                           | Execute again after the Migration is completed.        | —              |
| 82A0E1      | DMER82A0E1: The operation to change LU has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered. | Retry the operation after the controller is recovered. | —              |
| 82A0E3      | DMER82A0E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.                   | Retry after the status becomes Normal.                 | —              |

### 9.3 List of Detail Codes of Sense Code (5/9FFF)

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                | Recovery methods                                                                                                                                                | Reference page |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 010001      | DMED010001: The same host group name exists in a port. Confirm the host group name and then try again.                                                                        | Check if the host group name that has been entered is correct.                                                                                                  | —              |
| 010002      | DMED010002: The same WWN name exists in a port. Confirm the WWN name and then try again.                                                                                      | Check if the WWN nickname that has been entered is correct.                                                                                                     | —              |
| 010003      | DMED010003: WWN cannot be assigned to an undefined host group. Specify a defined host group and try again.                                                                    | Check if the host group name to which the WWN has been assigned is actually the same as that to which you want to assign the WWN.                               | —              |
| 010004      | DMED010004: The function cannot be executed because host group security on some port is set to enabled. Set host group security to disable on all ports and try again.        | Disable the host group security of the LUN Manager function for all ports, and then lock or disable the LUN Manager function.                                   | —              |
| 010005      | DMED010005: The process cannot be performed because the target security on some port is set to enabled. Please set the target security to disable on all ports and try again. | Lock the LUN Manager function or disable the status after disabling all the Enable/Disable flags of the LUN Manager per iSCSI port in the LUN Manager function. | —              |
| 010006      | DMED010006: The process cannot be performed because the specified name is default name of host group 0. Please confirm the name and try again.                                | Give the name other than G000 to the host group 1 or later.                                                                                                     | —              |
| 020001      | DMED020001: The value of Dirty Data Opportunity is outside the effective range. Specify the value in the effective range and try again.                                       | Specify the trigger for de-staging dirty data as one of integers ranging from 1 to 50 and smaller than a trigger for stopping the de-staging of the dirty data. | —              |
| 020002      | DMED020002: The value of Dirty Data Stop Opportunity is outside the effective range. Specify the value in the effective range and try again.                                  | Specify the trigger for stopping the de-staging of dirty data as one of integers ranging from 0 to 49 and larger than a trigger for de-staging the dirty data.  | —              |
| 020003      | DMED020003: The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.                               | Set the value of Dirty Data Opportunity to be the value of Dirty Data Stop Opportunity or more.                                                                 | —              |
| 020004      | DMED020004: Prefetch Starting Opportunity is outside the effective range. Specify the value of effective range and try again.                                                 | Specify the trigger for starting the pre-fetch as one of integers ranging from 0 to 100.                                                                        | —              |
| 020005      | DMED020005: LU number is outside the effective range. Specify the LU number of effective range and try again.                                                                 | Specify the default LUN of the performance tuning parameter as one of integers ranging from 0 to 2047.                                                          | —              |
| 020006      | DMED020006: Reserved Random Simple Buffer Size is outside the effective range. Specify the value of effective range and try again.                                            | Specify the size of the Reserved Random Simple Buffer as one of integers ranging from 0 to 100.                                                                 | —              |
| 020007      | DMED020007: The process failed due to an invalid parameter of Random Simple Buffer Size 0% Mode. Confirm the specified parameter.                                             | Specify the size within the effective range.                                                                                                                    | —              |
| 020008      | DMED020008: Prefetch Count is outside the effective range. Specify the value in the effective range and try again.                                                            | Specify the size within the effective range.                                                                                                                    | —              |
| 020009      | DMED020009: Prefetch Size is outside the effective range. Specify the value in the effective range and try again.                                                             | Specify the size within the effective range.                                                                                                                    | —              |
| 02000A      | DMED02000A: The process failed due to an invalid parameter of Next Prefetch Opportunity Mode. Confirm the specified parameter.                                                | Specify the size within the effective range.                                                                                                                    | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                              | Recovery methods                                                                                | Reference page |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------|
| 02000B      | DMED02000B: The process cannot be performed because the Multiple Stream Mode of system parameter is disabled. Please set the Multiple Stream Mode to enable then try again. | Please set the Multiple Stream Mode to enable then try again.                                   | —              |
| 020010      | DMED020010: Count of Judgment Sequential is outside the effective range. Specify the value in the effective range and try again.                                            | Specify a value that falls within a valid range.                                                | —              |
| 020011      | DMED020011: Prefetch Size of Base is outside the effective range. Specify the value in the effective range and try again.                                                   | Specify a value that falls within a valid range.                                                | —              |
| 020012      | DMED020012: Prefetch Size of Fixed is outside the effective range. Specify the value in the effective range and try again.                                                  | Specify a value that falls within a valid range.                                                | —              |
| 020013      | DMED020013: The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.                             | Set the value of Dirty Data Opportunity to be the value of Dirty Data Stop Opportunity or more. | —              |
| 020014      | DMED020014: The process cannot be performed because the specified Load Balancing value is outside the effective range. Please set up an effective value.                    | Set an effective value.                                                                         | —              |
| 020015      | DMED020015: The process cannot be performed because the specified Load Balancing Monitoring Time is outside the effective range. Please set up an effective value.          | Please set up an effective value.                                                               | —              |
| 030001      | DMED030001: The specified LU is already invalid. Confirm the LU status and try again.                                                                                       | Confirm the LU status and try again.                                                            | —              |
| 030002      | DMED030002: The number of LU reached the maximum. Delete unnecessary LUs and try again.                                                                                     | Delete unnecessary LUs and try again.                                                           | —              |
| 030003      | DMED030003: The specified LU is not invalid. Specify the invalid LU and try again.                                                                                          | Specify the invalid LU and try again.                                                           | —              |
| 030004      | DMED030004: The specified LU capacity is equal to or more than the capacity of original LU. Confirm the LU capacity and try again.                                          | Confirm the LU capacity and try again.                                                          | —              |
| 030006      | DMED030006: The specified LU is not invalid. Specify the invalid LU and try again.                                                                                          | Specify the invalid LU and try again.                                                           | —              |
| 030007      | DMED030007: The specified LU is unformatted. Specify a formatted LU and try again.                                                                                          | Specify a formatted LU and try again.                                                           | —              |
| 030008      | DMED030008: The number of LU reached the maximum. Delete unnecessary LUs and try again.                                                                                     | Delete unnecessary LUs and try again.                                                           | —              |
| 030009      | DMED030009: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                         | Disable the LU, and then try again.                                                             | —              |
| 03000A      | DMED03000A: The specified LU capacity is equal to or less than the minimum capacity of an LU. Specify a larger capacity than the minimum capacity and try again.            | Specify a larger capacity than the minimum capacity and try again.                              | —              |
| 03000B      | DMED03000B: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.     | Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.         | —              |
| 040001      | DMED040001: The specified LUs contain Sub LU. Confirm the LU status and try again.                                                                                          | When formatting the unified LU, specify the Main LU.                                            | —              |
| 040003      | DMED040003: The specified LUs contain regressed or detached LU. Confirm the LU status and try again.                                                                        | Confirm the LU status and try again.                                                            | —              |
| 040004      | DMED040004: The specified LUs contain an un-mounted drive. Confirm the drive status and try again.                                                                          | Confirm the drive status and try again.                                                         | —              |
| 040005      | DMED040005: The specified LUs contains an invalid LU. Confirm the LU status and try again.                                                                                  | Confirm the LU status and try again.                                                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                  | Recovery methods                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                          |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 040006      | DMED040006: Someone already logged in. Set password protection function to disabled and try again.                                                                                                                                                                                                                                                              | Set password protection function to disabled and try again.                                                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 040007      | DMED040007: There is no LU entered to format.                                                                                                                                                                                                                                                                                                                   | —                                                                                                                                                                                                                                                                                                                                                                                         | —                                                                                       |
| 040008      | DMED040008: Format of the logical unit cannot be performed under drive blockage mode. Please turn off the drive blockade mode system parameter.                                                                                                                                                                                                                 | Please turn off the drive blockade mode system parameter.                                                                                                                                                                                                                                                                                                                                 | —                                                                                       |
| 040009      | DMED040009: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.                                                                                                                                                                                         | Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.                                                                                                                                                                                                                                                                                                   | —                                                                                       |
| 050001      | DMED050001: The process cannot be performed, because the specified LU is having PIN data or is in a PIN exceeded state. Restore PIN data and try again.                                                                                                                                                                                                         | The processing cannot be executed because PIN exists or the number of PIN segments exceeded the PIN threshold value. Execute the processing again after deleting the PIN segments of the specified LUs.                                                                                                                                                                                   | —                                                                                       |
| 050002      | MED050002: The process cannot be performed because cache segment is insufficient. Wait for a while and then try again.                                                                                                                                                                                                                                          | Perform the same operation again after waiting for a while.                                                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 050003      | DMED050003: The process cannot be performed because the specified LU is receiving the Write command continuously from the host. Wait for a while and then try again.                                                                                                                                                                                            | Perform the same operation again after waiting for a while.                                                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 050004      | DMED050004: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                                                                                                                                                                             | Retry after eliminating the Turbo or reserved Turbo LU.                                                                                                                                                                                                                                                                                                                                   | —                                                                                       |
| 050005      | DMED050005: The process cannot be performed because the partition of necessary conditions for LU changing does not exist. Please confirm the partition definition and try again.                                                                                                                                                                                | Check the partition number that was specified.<br>Check if the capacity of the specified partition is larger than that of the LU.<br>Check if the segment size is the same.<br>Retry after eliminating the pinned segment of the specified LU or the partition to which the switching was made referring to <a href="#">Troubleshooting "Chapter 6. Details of Recovery Procedures"</a> . | <a href="#">Troubleshooting "Chapter 6. Details of Recovery Methods" (TRBL 06-0000)</a> |
| 050006      | DMED050006: The process cannot be performed because the directory configuration is changing. Please wait for a while and then try again.                                                                                                                                                                                                                        | Perform the operation again after determining the Cache partition change (the re-start-up).                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 050007      | DMED050007: The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                                                                                                                   | Perform the operation again.                                                                                                                                                                                                                                                                                                                                                              | —                                                                                       |
| 050008      | DMED050008: The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                                                                                                                   | Perform the operation again                                                                                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 050009      | DMED050009: The LU change could not be performed.                                                                                                                                                                                                                                                                                                               | Perform the same operation again after waiting for a while.                                                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 05000A      | DMED05000A: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                                                                                                                                                                        | Perform the operation again                                                                                                                                                                                                                                                                                                                                                               | —                                                                                       |
| 05000B      | DMED05000B: The process cannot be performed because the controller of logical unit partition does not match or the partition number of logical unit is not same. Please specify the logical unit which uses the same controller's partition, or the same partition. When the partition of a logical unit is set as 0 or 1, please set a pair partition as auto. | It cannot be executed because a partition to which the target LU belongs or a pair partition is set to a sub-partition.<br>Check the partition to which the target LU belongs and the setting of the partition, and execute it again.                                                                                                                                                     | —                                                                                       |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                                                                            | Recovery methods                                                                                      | Reference page |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------|
| 05000C      | DMED05000C: An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.                                                                                                                                                                                                                                                                                                  | If the problem cannot be solved, contact the maintenance personnel.                                   | —              |
| 05000D      | DMED05000D: The time out occurred by the LU changing during controller recovery. Please wait for a while and then try again.                                                                                                                                                                                                                                                                                                                              | Please wait for a while and then try again.                                                           | —              |
| 05000E      | DMED05000E: The process cannot be performed because Remote Replication is in progress. Please retry after replacement completes.                                                                                                                                                                                                                                                                                                                          | Please retry after replacement completes.                                                             | —              |
| 05000F      | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>DMED05000F: The operation to change the controllers that controls LU cannot be performed because the specified LU is a part of a ShadowImage pair and its pair status is Synchronizing or Reverse Synchronizing. Execute the operation when the pair status is neither Synchronizing nor Reverse Synchronizing.                                                                             | Execute the operation when the pair status is neither Synchronizing nor Reverse Synchronizing.        | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>DMED05000F: The operation to change the controllers that control logical unit cannot be performed because the status of the ShadowImage pair that the specified logical unit is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing or Reverse Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure. | Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure. | —              |
| 050010      | DMED050010: The operation to change the controllers that controls LU cannot be performed because the specified LU is a part of a Volume Migration pair and its pair status is COPY. Execute the operation when the pair status is not COPY.                                                                                                                                                                                                               | Execute the operation when the pair status is not COPY.                                               | —              |
| 050011      | DMED050011: The operation to change the controllers that controls LU cannot be performed because Auto Migration is in progress. Execute the operation after Auto Migration is completed.                                                                                                                                                                                                                                                                  | Execute the operation after Auto Migration is completed.                                              | —              |
| 050012      | DMED050012: The operation to change the controllers that control logical unit cannot be performed because the status of the ShadowImage pair that the specified logical unit is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing, Reverse Synchronizing, Split Pending or Paired Internally Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.             | Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure. | —              |
| 070001      | DMED070001: Cannot set dual ID success because either mounted numbers or types of the host interface boards are different between controllers. Confirm the interface boards status and try again.                                                                                                                                                                                                                                                         | Confirm the interface boards status and try again.                                                    | —              |
| 070002      | DMED070002: The specified IP address is incorrect. Please specify a right IP address                                                                                                                                                                                                                                                                                                                                                                      | Set a correct IP address.                                                                             | —              |
| 070004      | DMED070004: The High-speed Sequential Write Mode cannot be disabled because process of Write command from the hosts is not completed. Please wait for a while and then try again, or use the system parameter setting with reboot.                                                                                                                                                                                                                        | Please wait for a while and then try again, or use the system parameter setting with reboot.          | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                   | Recovery methods                                                                                               | Reference page |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------|
| 070005      | DMED070005: The Multiple Stream Mode and the High-speed Sequential Write Mode cannot be specified at the same time.                                                                                              | Since the multi stream mode and the high-speed sequential write mode are both ON, set only one mode.           | —              |
| 070006      | DMED070006: When the ShadowImage pair of a S-VOL Switch status exists the ShadowImage I/O Switch Mode cannot be disabled. Please retry after solving the error.                                                  | Turn off the ShadowImage I/O Switching mode after the pair in the special PSUE status disappears.              | —              |
| 070007      | DMED070007: The configuration of single or dual controller system cannot be changed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again. | Perform the operation after invalidating or locking the of Cache Partition Manager which is an onerous option. | —              |
| 070008      | DMED070008: The process cannot be performed because the specified port number is outside the effective range. Please confirm the port number.                                                                    | Specify the correct (enable) TCP/IP port number.                                                               | —              |
| 070009      | DMED070009: The port number of other controller cannot be set up. Please confirm the controller number.                                                                                                          | Connect it to the Control Unit side which wants to be updated, and execute it again.                           | —              |
| 070010      | DMED070010: The process cannot be performed because the specified secure port number is outside the effective range. Please confirm the secure port number.                                                      | Please confirm the secure port number.                                                                         | —              |
| 070011      | DMED070011: The secure port number of other controller cannot be set up. Please confirm the controller number.                                                                                                   | Please confirm the controller number.                                                                          | —              |
| 070012      | DMED070012: The process cannot be performed because the non-secure port and secure port are same port number. Please set the different port number.                                                              | Please set the different port number.                                                                          | —              |
| 070013      | DMED070013: The process cannot be performed because the non-secure port status is changed by the non-secure port. Please retry by the secure port.                                                               | Please retry by the secure port.                                                                               | —              |
| 070014      | DMED070014: The process cannot be performed because the port number and the non-secure port status are changed at the same time. Please confirm the operation and try again.                                     | Please confirm the operation and try again.                                                                    | —              |
| 070015      | DMED070015: The process cannot be performed because the non-secure port status of other controller is changed. Please confirm the controller number.                                                             | Please confirm the controller number.                                                                          | —              |
| 070016      | DMED070016: The process cannot be performed because the specified port number is reserved. Please set the unreserved port number.                                                                                | Please set the unreserved port number.                                                                         | —              |
| 080001      | DMED080001: The data pool cannot be used. Please restart the subsystem.                                                                                                                                          | Restart the disk array subsystem.                                                                              | —              |
| 080002      | DMED080002: The process cannot be performed because the logical unit under restoration. Wait for a while and try again.                                                                                          | Wait for a while and try again.                                                                                | —              |
| 080003      | DMED080003: The process cannot be performed because the logical unit added to the data pool is not specified.                                                                                                    | —                                                                                                              | —              |
| 080004      | DMED080004: The process cannot be performed because the same logical unit number has been specified more than twice. Confirm the logical unit number and try again.                                              | Confirm the logical unit number and try again.                                                                 | —              |
| 080005      | DMED080005: The specified logical unit number is outside of the effective range. Specify the logical unit number within the range and try again.                                                                 | Specify an integer within the range of 0 to 2047 for the number of the LU to be assigned to the data pool.     | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                 | Recovery methods                                                                                                                                 | Reference page |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 080006      | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.<br>DMED080006: The process cannot be performed because the specified logical unit is neither in normal nor in regressed state. Specify the logical unit of normal or regressed state and try again. | The status of the specified LU is neither normal nor regressed. Correct the status of the specified LU, and then assign the LU to the data pool. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.<br>DMED080006: This process cannot be performed. The status of the specified logical unit must be in either normal or regressed state. Please verify the status of the logical unit and try again.    | Please verify the status of the logical unit and try again.                                                                                      | —              |
| 080007      | DMED080007: The process cannot be performed because the RAID level or HDU combination of the specified logical unit is not supported. Confirm the RAID level and the HDU combination currently supported and try again.                                        | Confirm the RAID level and the HDU combination currently supported and try again.                                                                | —              |
| 080008      | DMED080008: The process cannot be performed because the number of logical units in the data pool reached the maximum. Delete the logical units in the data pool and then try again.                                                                            | Delete the logical units in the data pool and then try again.                                                                                    | —              |
| 080009      | DMED080009: The process cannot be performed because the specified logical unit is a unified LU. Separate the unified LU and try again.                                                                                                                         | Dissolve the unification of the specified LU, and then assign the LU to the data port.                                                           | —              |
| 08000A      | DMED08000A: The process cannot be performed because the specified logical unit is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.                                                                                                       | Split the specified LU from the ShadowImage in-system replication pair, and then assign it to the data pool.                                     | —              |
| 08000B      | DMED08000B: The process cannot be performed because the specified logical unit is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.                                                                                         | Cancel the Remote Replication pair and try again.                                                                                                | —              |
| 08000C      | DMED08000C: The process cannot be performed because the specified logical unit is a command device. Cancel the command device and try                                                                                                                          | Release the specified LU from the command device, and then assign it to the data pool.                                                           | —              |
| 08000D      | DMED08000D: The process cannot be performed because the specified logical unit has been invalidated. Restore the logical unit and try again.                                                                                                                   | Restoration the specified LU, and then assign it to the data pool.                                                                               | —              |
| 08000E      | DMED08000E: The process cannot be performed because the specified logical unit is a part of SnapShot pair or a SnapShot logical unit. Cancel the SnapShot pair or specify another logical unit and try again.                                                  | Cancel the SnapShot pair or specify another logical unit and try again.                                                                          | —              |
| 08000F      | DMED08000F: The process cannot be performed because the specified logical unit is defined as a SnapShot logical unit. Specify another logical unit and try again.                                                                                              | Specify another logical unit and try again.                                                                                                      | —              |
| 080010      | DMED080010: The process cannot be performed because the specified logical unit is added to a data pool. Specify another logical unit and try again.                                                                                                            | The specified LU has already been assigned to the data pool. Check the LU structure.                                                             | —              |
| 080012      | DMED080012: The process cannot be performed because the owner controller is different between the specified logical unit and the data pool. Confirm the logical unit owner controller and try again.                                                           | Change the controller that controls the specified LU, and then assign the LU to the data pool again.                                             | —              |
| 080013      | DMED080013: The process cannot be performed because the specified logical unit has been receiving the Write command continuously from the hosts. Wait for a while and then try again.                                                                          | Wait for a while and then try again.                                                                                                             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                            | Recovery methods                                                                                                                                                      | Reference page |
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| 080014      | DMED080014: The process cannot be performed because there is other logical unit changing the Default Controller. Wait for a while and then try again.                                     | Wait for a while and then try again.                                                                                                                                  | —              |
| 080015      | DMED080015: The process cannot be performed because the specified logical unit is in the PIN exceeded state. Restore PIN data and try again.                                              | Restore PIN data and try again.                                                                                                                                       | —              |
| 080016      | DMED080016: The process cannot be performed because the specified logical unit is not enough for sufficient cache blocks. Specify another logical unit and try again.                     | The size of the specified LU is too large. Check the LU structure and specify an LU whose size is appropriate and enables the LU to be assigned to the data pool.     | —              |
| 080017      | DMED080017: The process cannot be performed because no logical units in data pool.                                                                                                        | Check if the specified data pool is the one from which you want to eliminate all the LUs. Also check whether all the LUs have already been eliminated from it or not. | —              |
| 080018      | DMED080018: The process cannot be performed because the Snapshot pair exists in the specified data pool. Cancel the Snapshot pair and try again.                                          | Perform the elimination after eliminating all the Snapshot images.                                                                                                    | —              |
| 080019      | DMED080019: The process cannot be performed because data pool deleted is not specified.                                                                                                   | —                                                                                                                                                                     | —              |
| 08001A      | DMED08001A: The process cannot be performed because the threshold of usage rate in the data pool is not specified.                                                                        | —                                                                                                                                                                     | —              |
| 08001B      | DMED08001B: The specified threshold is outside of the effective range. Specify the value of effective range and try again.                                                                | Specify the threshold value for the data pool as an integer within a range of 50 to 80 %.                                                                             | —              |
| 08001C      | DMED08001C: The process cannot be performed because the specified logical unit is capacity equal to or less than 2GB. Specify the logical unit of bigger capacity than 2GB and try again. | Specify the logical unit of bigger capacity than 2GB and try again.                                                                                                   | —              |
| 08001D      | DMED08001D: The process cannot be performed because S-VOL mode of the specified logical unit is disabled. Set S-VOL mode to enable then try again.                                        | Invalidate the S-Vol disable mode and make the setting again.                                                                                                         | —              |
| 08001F      | DMED08001F: The number of specified logical units is over 64. Please specify the logical units in 64 or less.                                                                             | Specify LUs less than the maximum number 64 of the pool LUs.                                                                                                          | —              |
| 080020      | DMED080020: The process cannot be performed because the drive type of specified logical unit is different from the data pool. Please confirm the drive type and try again.                | Specify the LU on the drive of the same type and execute it again.                                                                                                    | —              |
| 080021      | DMED080021: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                       | Release the Turbo LU of the LU specified for the pool LU, and execute it again.                                                                                       | —              |
| 080022      | DMED080022: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                       | Release the Turbo LU of the LU specified for the pool LU, and execute it again.                                                                                       | —              |
| 080023      | DMED080023: The logical units in the data pool cannot be mixed with ones in Unit0 or in the latter units.                                                                                 | —                                                                                                                                                                     | —              |
| 080024      | DMED080024: The process cannot be performed because DM-LU is not defined. Please define DM-LU and then try again.                                                                         | Retry after setting the DM-LU.                                                                                                                                        | —              |
| 080025      | DMED080025: The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please specify another logical unit and try again.           | Retry after settling the cache partition change (rebooting the subsystem).                                                                                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                        | Recovery methods                                                                                                                            | Reference page |
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| 080026      | DMED080026: The process cannot be performed because the number of logical units reached the system maximum. Please delete logical units in the data pool and try again.                                                                               | Please delete logical units in the data pool and try again.                                                                                 | —              |
| 080027      | DMED080027: The process cannot be performed because the number of logical units will reach the system maximum. Please delete logical units in the data pool and try again.                                                                            | Please delete logical units in the data pool and try again.                                                                                 | —              |
| 090001      | DMED090001: The logical unit number of specified P-VOL is outside of the effective range. Specify the logical unit number of effective range and try again.                                                                                           | Specify the LUN for the P-VOL as an integer within a range of 0 to 2047.                                                                    | —              |
| 090003      | DMED090003: The logical unit number of specified SnapShot logical unit is outside of the effective range. Specify the logical unit number of effective range and try again.                                                                           | Specify the logical unit number of effective range and try again.                                                                           | —              |
| 090004      | DMED090004: The process cannot be performed because the logical unit number of the SnapShot logical unit created or deleted is not specified.                                                                                                         | —                                                                                                                                           | —              |
| 090005      | DMED090005: The process cannot be performed because the same logical unit number has been specified as a SnapShot logical unit more than twice. Confirm the logical unit number and try again.                                                        | Confirm the logical unit number and try again.                                                                                              | —              |
| 090006      | DMED090006: The process cannot be performed because the specified logical unit of the P-VOL is neither in normal nor in regressed state. Specify the logical unit of normal or regressed state and try again.                                         | A status of the LU assigned to the P-VOL is neither normal or regressed. Correct the status of the LU, and then assign the LU to the P-VOL. | —              |
| 090007      | DMED090007: The process cannot be performed because no logical unit exists in the data pool by the side of the controller of specified P-VOL. Add the logical unit to the data pool and try again.                                                    | Set the Snapshot image again after changing the Controller that controls the LU assigned to the P-VOL.                                      | —              |
| 090008      | DMED090008: The process cannot be performed because the RAID level or HDU combination of the specified logical unit differs from the logical unit is not supported. Confirm the RAID level and the HDU combination currently supported and try again. | Confirm the RAID level and the HDU combination currently supported and try again.                                                           | —              |
| 090009      | DMED090009: The process cannot be performed because the number of created SnapShot logical unit for the specified P-VOL has reached its maximum. Delete unnecessary SnapShot logical unit and try again.                                              | Delete unnecessary SnapShot logical unit and try again.                                                                                     | —              |
| 09000A      | DMED09000A: The logical unit number has already been defined. Specify a new number.                                                                                                                                                                   | The specified LUN already exists. Check the LU structure, and set the Snapshot image.                                                       | —              |
| 09000B      | DMED09000B: The process cannot be performed because the specified P-VOL is a unified LU. Separate the unified LU and try again.                                                                                                                       | Dissolve the unification of the LU assigned to the P-VOL, and then set the Snapshot image.                                                  | —              |
| 09000C      | DMED09000C: The process cannot be performed because the specified P-VOL is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.                                                                                                     | Split the LU assigned to the P-VOL from the ShadowImage in-system replication pair, and then set the Snapshot image.                        | —              |
| 09000D      | DMED09000D: The process cannot be performed because the specified P-VOL is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.                                                                                       | Cancel the Remote Replication pair and try again.                                                                                           | —              |
| 09000E      | DMED09000E: The process cannot be performed because the specified P-VOL is a part of Snapshot pair. Cancel the Copy-on-write Snapshot pair and try again.                                                                                             | Split the LU assigned to the P-VOL from the Snapshot pair, and then set the Snapshot image.                                                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                    | Recovery methods                                                                                                                                                        | Reference page |
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| 09000F      | DMED09000F: The process cannot be performed because the specified P-VOL is a command device. Cancel the command device and try again.                                                             | Release the LU assigned to the P-VOL from the command device, and then set the Snapshot image.                                                                          | —              |
| 090010      | DMED090010: The process cannot be performed because the specified P-VOL is invalid. Restore the LU and try again.                                                                                 | Set the Snapshot image after restoring the LU assigned to the P-VOL.                                                                                                    | —              |
| 090011      | DMED090011: The process cannot be performed because the specified P-VOL has already been added to a data pool. Specify another LU number and try again.                                           | Check the LU structure and specify an LU that has not been assigned to the data pool as the P-VOL.                                                                      | —              |
| 090012      | DMED090012: The process cannot be performed because the specified P-VOL is not enough for sufficient cache capacity. Check cache capacity and try again.                                          | A size of the LU assigned to the P-VOL is too large. Check the LU structure and specify an LU whose size is appropriate and enables the LU to be assigned to the P-VOL. | —              |
| 090013      | DMED090013: The process cannot be performed because the HDU combination of the specified P-VOL differs from registered logical units to the data pool. Confirm the HDU combination and try again. | Confirm the HDU combination and try again.                                                                                                                              | —              |
| 090014      | DMED090014: The process cannot be performed because the specified P-VOL has been receiving the Write command continuously from the hosts. Wait for a while and then try again.                    | Wait for a while and then try again.                                                                                                                                    | —              |
| 090015      | DMED090015: The process cannot be performed because there is other logical unit changing the Default Controller. Wait for a while and then try again.                                             | Wait for a while and then try again.                                                                                                                                    | —              |
| 090016      | DMED090016: The process cannot be performed because the specified P-VOL is in the PIN exceeded state. Restore PIN data and try again.                                                             | Restore PIN data and try again.                                                                                                                                         | —              |
| 090017      | DMED090017: The process cannot be performed because the specified P-VOL is not defined. Specify a defined logical unit and try again.                                                             | Specify a defined logical unit and try again.                                                                                                                           | —              |
| 090018      | DMED090018: The process cannot be performed because the specified SnapShot logical unit has been creating the pair. Cancel the SnapShot pair and try again.                                       | Cancel the SnapShot pair and try again.                                                                                                                                 | —              |
| 090019      | DMED090019: The process cannot be performed because P-VOL is under deletion. Wait for a while and then try again.                                                                                 | Eliminate the Snapshot image again after waiting for a while.                                                                                                           | —              |
| 09001A      | DMED09001A: The process cannot be performed because the specified set of P-VOL and SnapShot logical unit is not a pair. Confirm the pair status and try again.                                    | Confirm the pair status and try again.                                                                                                                                  | —              |
| 09001B      | DMED09001B: The process cannot be performed because the number of SnapShot pair reached the maximum. Delete unnecessary SnapShot pair(s) and try again.                                           | Delete unnecessary SnapShot pair(s) and try again.                                                                                                                      | —              |
| 09001C      | DMED09001C: The process cannot be performed because the unified LU is composed of 17 or more sub logical units. Specify another logical unit and try again.                                       | Specify a unified LU number of whose sub-LUs is 16 or less.                                                                                                             | —              |
| 09001D      | DMED09001D: The process cannot be performed because the unified LU contains a sub logical unit whose size is under 1GB.                                                                           | Specify a unified LU consisting of main and sub-LUs whose respective size is 1 Gbyte or larger.                                                                         | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                               | Recovery methods                                                                                                                                                                                                                                         | Reference page |
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| 09001E      | DMED09001E: The process cannot be performed because a management area of Snapshot is shortage. Delete unnecessary Snapshot pair(s) and try again.                                                            | Delete V-VOL after performing pairsplit-S when VOL, which is using the differential bit map, is a Copy-on-write SnapShot pair. Perform pairsplit-S when VOL, which is using the differential bit map, is ShadowImage in-system replication or Simple DR. | —              |
| 09001F      | DMED09001F: The process cannot be performed because the drive type of specified logical unit is different from the V-VOL. Please confirm the drive type and try again.                                       | Please confirm the drive type and try again.                                                                                                                                                                                                             | —              |
| 090020      | DMED090020: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                          | Release the Turbo LU of the LU specified for the P-VOL, and execute it again.                                                                                                                                                                            | —              |
| 090021      | DMED090021: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                          | Release the Turbo LU of the LU specified for the P-VOL, and execute it again.                                                                                                                                                                            | —              |
| 090022      | DMED090022: The process cannot be performed because the specified SnapShot logical unit is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.                              | Cancel the Remote Replication pair and try again.                                                                                                                                                                                                        | —              |
| 090023      | DMED090023: The process cannot be performed because the specified SnapShot logical unit is a part of Hi-Copy pair. Cancel the Hi-Copy pair and try again.                                                    | Cancel the Hi-Copy pair and try again.                                                                                                                                                                                                                   | —              |
| 090024      | DMED090024: The process cannot be performed because the P-VOL of specified SnapShot logical unit is reserved for cache partition modification. Please retry after cache partition modification is completed. | Please retry after cache partition modification is completed.                                                                                                                                                                                            | —              |
| 090025      | DMED090025: The process cannot be performed because the specified V-VOL size will exceed the maximum of logical unit size. Please confirm the specified V-VOL size.                                          | Set a V-VOL specification LU size to 128 T bytes or less.                                                                                                                                                                                                | —              |
| 090026      | DMED090026: The specified logical unit is not V-VOL. Please specify the logical unit number of V-VOL and try again.                                                                                          | Specify an LU of the V-VOL attribute.                                                                                                                                                                                                                    | —              |

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| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                             | Recovery methods                                                                                | Reference page |
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| 0A0001      | DMED0A0001: The process cannot be performed because the specified LU is invalid. Restore the LU and try again.                                                                                                                             | Specify a correct (valid) LU.                                                                   | —              |
| 0A0002      | DMED0A0002: The process cannot be performed because the specified LU is a Sub LU of the unifying LUs. Separate the unified LU and try again.                                                                                               | Specify a correct (valid) LU.                                                                   | —              |
| 0A0003      | DMED0A0003: The process cannot be performed because the specified LU is S-VOL of ShadowImage. Specify another logical unit and try again.                                                                                                  | Specify a correct (valid) LU.                                                                   | —              |
| 0A0004      | DMED0A0004: The process cannot be performed because the specified LU is S-VOL of Remote Replication. Specify another logical unit and try again.                                                                                           | Specify another logical unit and try again.                                                     | —              |
| 0A0005      | DMED0A0005: The process cannot be performed because the specified LU is SnapShot logical unit. Specify another logical unit and try again.                                                                                                 | Specify another logical unit and try again.                                                     | —              |
| 0A0006      | DMED0A0006: The process cannot be performed in the retention term. The retention term expires and try again.                                                                                                                               | Make the setting of the access level again after canceling the setting of the retention period. | —              |
| 0A0007      | DMED0A0007: The process cannot be performed because ShadowImage is in progress. Please wait a moment and then try again.                                                                                                                   | Make the setting of the access level again after the restore is completed.                      | —              |
| 0A0008      | DMED0A0008: The process cannot be performed because Snapshot is in progress. Please wait a moment and then try again.                                                                                                                      | Make the setting of the access level again after the restore is completed.                      | —              |
| 0A0009      | DMED0A0009 : The retention term cannot be shortened. Specify the retention term is equal to or more than current value and try again.                                                                                                      | Make the setting of the access level again after specifying the correct retention period.       | —              |
| 0A000A      | DMED0A000A : The process cannot be performed because expiration lock is enabled. Set expiration lock to disable and try again.                                                                                                             | Make the setting of the access level again after invalidating the Audit Lock.                   | —              |
| 0A000B      | DMED0A000B: The process cannot be performed because the status of ShadowImage pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.                                                                    | Please retry after changing the status of pair.                                                 | —              |
| 0A000C      | DMED0A000C: The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.                                                             | Please retry after changing the status of pair.                                                 | —              |
| 0A000D      | DMED0A000D: The process cannot be performed because the status of SnapShot pair is not Split(PSUS). Please retry after changing the status of pair.                                                                                        | Please retry after changing the status of pair.                                                 | —              |
| 0A000E      | DMED0A000E: The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.                                                             | Please retry after changing the status of pair.                                                 | —              |
| 0B0001      | DMED0B0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. | Make the Command device registration again after changing the access level to the normal mode.  | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                      | Recovery methods                                                                                                                                                                                                                                                                    | Reference page |
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| 0C0001      | DMED0C0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.          | Make the integration of LU again after changing the access level to the normal mode.                                                                                                                                                                                                | —              |
| 0C0002      | DMED0C0002: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.          | Make the separation of LU again after changing the access level to the normal mode.                                                                                                                                                                                                 | —              |
| 0C0003      | DMED0C0003: The unification cannot be performed because the drive type is different. Please confirm the drive type and try again.                                                                                                                   | Specify the LU on the drive of the same type and execute it again.                                                                                                                                                                                                                  | —              |
| 0C0004      | DMED0C0004: The logical unit in Unit0 cannot be unified with the latter units.                                                                                                                                                                      | —                                                                                                                                                                                                                                                                                   | —              |
| 0C0005      | DMED0C0005: The process cannot be performed because the unified LU reached the maximum.                                                                                                                                                             | The number of unified LUs cannot be more than 128.                                                                                                                                                                                                                                  | —              |
| 0C0006      | DMED0C0006: The unification cannot be performed because the cache partition is different. Please confirm the cache partition of the specified logical unit.                                                                                         | LUs that belong to different partitions cannot be unified.                                                                                                                                                                                                                          | —              |
| 0C0007      | DMED0C0007: The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please retry after changing the cache partition, or specify another logical unit.                                      | Perform the operation after fixing a partition to which the logical unit belongs.                                                                                                                                                                                                   | —              |
| 0C0008      | DMED0C0008: The total count of Main LU and Sub LU is over the maximum. Please specify 128 or fewer LUs.                                                                                                                                             | Please specify 128 or fewer LUs.                                                                                                                                                                                                                                                    | —              |
| 0D0001      | DMED0D0001: The process cannot be performed because the access level is set up to ReadOnly or Protect. Please change the attribute to Read/Write, and try again.                                                                                    | Make the setting of Priced Optional Features again after changing the access level to the normal mode.                                                                                                                                                                              | —              |
| 0D0002      | DMED0D0002: The process cannot be performed because the temporary key cannot be used for the next 180 days after it is locked or expired.                                                                                                           | Retry 180 days later.                                                                                                                                                                                                                                                               | —              |
| 0D0003      | DMED0D0003: The specified function has already been unlocked.                                                                                                                                                                                       | The unlocking cannot be done with the temporary key.                                                                                                                                                                                                                                | —              |
| 0E0001      | DMED0E0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.          | Retry after changing the access level to the normal mode.                                                                                                                                                                                                                           | —              |
| 0E0002      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMED0E0002: The process cannot be performed because the specified logical unit is a unified LU, and belongs to two or more RAID groups. Please separate the unified LU and try again. | Separate the sub-logical unit, which is created in the RAID Group different from the RAID Group of the main logical unit, from the main logical unit for the sub-logical unit where the specified main logical unit is integrated. Then, execute the setting for each logical unit. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMED0E0002: The process cannot be performed because the unified LU which belongs to two or more RAID groups exists. Please separate the unified LU and try again.                       | Please separate the unified LU and try again.                                                                                                                                                                                                                                       | —              |
| 0E0003      | DMED0E0003: The process cannot be performed because the specified logical unit is a Sub LU. Please specify a Main LU and try again.                                                                                                                 | Specify the main logical unit where the sub-logical unit is integrated.                                                                                                                                                                                                             | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                 | Recovery methods                                                                                                              | Reference page |
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| 0E0004      | DMED0E0004: The process cannot be performed because the logical units number of the specified RAID group reach the maximum. Please confirm the RAID group and try again.                                                                                       | Since the maximum number of logical units is set in the specified RAID Group, specify other RAID Group.                       | —              |
| 0E0005      | DMED0E0005: The process cannot be performed because the specified logical unit is DM-LU. Please specify another logical unit and try again.                                                                                                                    | In case of DM-LU, specify an X core.                                                                                          | —              |
| 0E0006      | DMED0E0006: The process cannot be performed because the specified logical unit is V-VOL of SnapShot. Please specify the P-VOL and try again.                                                                                                                   | Since a V-VOL cannot be specified directly, specify a P-VOL of the Snapshot pair.                                             | —              |
| 0E0007      | DMED0E0007: The logical unit number for free area has already been used. Please specify unused logical unit number.                                                                                                                                            | Please specify unused logical unit number.                                                                                    | —              |
| 0E0008      | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>DMED0E0008: The logical unit number for free area is not assigned. Please confirm the specified logical unit number, or do not specify the logical unit number for free area and then try again. | Please confirm the specified logical unit number, or do not specify the logical unit number for free area and then try again. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMED0E0008: The logical unit cannot be created. Please delete unnecessary logical units or specify automatically for free area and then try again.                                                 | Please delete unnecessary logical units or specify automatically for free area and then try again.                            | —              |
|             |                                                                                                                                                                                                                                                                |                                                                                                                               |                |
| 0E0009      | DMED0E0009: The logical unit of RAID0 cannot be created by multiple free areas. Please confirm the specified area and then try again.                                                                                                                          | Please confirm the specified area and then try again.                                                                         | —              |
| 0E000A      | DMED0E000A: The free area does not exist. Please delete unnecessary logical units and then try again.                                                                                                                                                          | Please delete unnecessary logical units and then try again.                                                                   | —              |
| 0E000B      | Hitachi Storage Navigator Modular 2 is less than Ver.5.20.<br>DMED0E000B: The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                      | Please confirm the capacity and then try again.                                                                               | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.5.20 or more.<br>DMED0E000B: The capacity of specified area is insufficient or the logical unit number to show the position of the free area is invalid. Please confirm the area and try again.                     | Please confirm the area and try again.                                                                                        | —              |
|             |                                                                                                                                                                                                                                                                |                                                                                                                               |                |
| 0E000C      | DMED0E000C: The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                                                                                    | Please confirm the capacity and then try again.                                                                               | —              |
| 0E000D      | DMED0E000D: The logical units are over maximum. Please confirm the specified capacity or area number, or delete unnecessary logical units and then try again.                                                                                                  | Please confirm the specified capacity or area number, or delete unnecessary logical units and then try again.                 | —              |
| 0E000E      | DMED0E000E: The logical units of RAID group are over maximum. Please confirm the specified capacity or area number, or delete unnecessary logical units and then try again.                                                                                    | Please confirm the specified capacity or area number, or delete unnecessary logical units and then try again.                 | —              |
| 0E000F      | DMED0E000F: The specified area number is outside of the effective range. Please specify the area number within the range and try again.                                                                                                                        | Please specify the area number within the range and try again.                                                                | —              |
| 0E0010      | DMED0E0010: The specified area does not exist. Please confirm the area number and then try again.                                                                                                                                                              | Please confirm the area number and then try again.                                                                            | —              |
| 0E0011      | DMED0E0011: The logical unit number to show the position of the free area is outside of the effective range. Please specify the logical unit number within the range and then try again.                                                                       | Please specify the logical unit number within the range and then try again.                                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                | Recovery methods                                                            | Reference page |
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| 0E0012      | DMED0E0012: The logical unit number to show the position of the free area is outside of the effective range. Please specify the logical unit number within the range and then try again.      | Please specify the logical unit number within the range and then try again. | —              |
| 0E0013      | DMED0E0013: The logical unit number to show the position of the free area is not defined. Please specify a defined logical unit and then try again.                                           | Please specify a defined logical unit and then try again.                   | —              |
| 0E0014      | DMED0E0014: The logical unit number to show the position of the free area is not defined. Please specify a defined logical unit and then try again.                                           | Please specify a defined logical unit and then try again.                   | —              |
| 0E0015      | DMED0E0015: The logical unit number to show the position of the free area is not defined in specified RAID group. Please confirm the logical unit of specified RAID group and then try again. | Please confirm the logical unit of specified RAID group and then try again. | —              |
| 0E0016      | DMED0E0016: The logical unit number to show the position of the free area is not defined in specified RAID group. Please confirm the logical unit of specified RAID group and then try again. | Please confirm the logical unit of specified RAID group and then try again. | —              |
| 0E0017      | DMED0E0017: The logical unit number to show the position of the free area is invalid. Please confirm the logical unit and then try again.                                                     | Please confirm the logical unit and then try again.                         | —              |
| 0E0018      | DMED0E0018: The specified area is overlapped. Please confirm the area and then try again.                                                                                                     | Please confirm the area and then try again.                                 | —              |
| 0E0019      | DMED0E0019: The unused area is specified. Please confirm the area and then try again.                                                                                                         | Please confirm the area and then try again.                                 | —              |
| 0E001A      | DMED0E001A: The unified LU reached the maximum. Please confirm the capacity or area number and then try again.                                                                                | Please confirm the capacity or area number and then try again.              | —              |
| 0E001B      | DMED0E001B: The unified LU reached the maximum. Please confirm the capacity or area number and then try again.                                                                                | Please confirm the capacity or area number and then try again.              | —              |
| 0E001C      | DMED0E001C: The RAID group is invalid. Please confirm the RAID group and then try again.                                                                                                      | Please confirm the RAID group and then try again.                           | —              |
| 0E001D      | DMED0E001D: The process cannot be performed because RAID level of specified logical unit is RAID0. Please specify another logical unit and then try again.                                    | Please specify another logical unit and then try again.                     | —              |
| 0E001E      | DMED0E001E: The capacity of logical unit is over maximum. Please confirm the capacity and then try again.                                                                                     | Please confirm the capacity and then try again.                             | —              |
| 0E001F      | DMED0E001F: The specified capacity is invalid. Please confirm the capacity and then try again.                                                                                                | Please confirm the capacity and then try again.                             | —              |
| 0E0020      | DMED0E0020: The unified LU reached the maximum. Please confirm the capacity or area number and then try again.                                                                                | Please confirm the capacity or area number and then try again.              | —              |
| 0E0021      | DMED0E0021: The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                   | Please confirm the capacity and then try again.                             | —              |
| 0E0022      | DMED0E0022: The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                   | Please confirm the capacity and then try again.                             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                             | Recovery methods                                                                                               | Reference page                                                              |
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| 0E0023      | Hitachi Storage Navigator Modular 2 is less than Ver.8.30.<br>DMED0E0023: The preparations of quick formatting are incomplete. Please retry after waiting for a while.                                                                     | Please retry after waiting for a while.                                                                        | —                                                                           |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.30 or more.<br>DMED0E0023: The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.        | Please retry after that specified quick format size is decreased or current executed quick format is finished. | <a href="#">System Parameter "3.3 [Note on LU setting]" (SYSPR 03-0130)</a> |
| 0E0024      | DMED0E0024: The logical unit number is not defined. Please specify a defined logical unit and then try again.                                                                                                                              | Please specify a defined logical unit and then try again.                                                      | —                                                                           |
| 0E0025      | DMED0E0025: The capacity of specified area is insufficient. Please confirm the capacity and then try again.                                                                                                                                | Please confirm the capacity and then try again.                                                                | —                                                                           |
| 0E0026      | DMED0E0026: The specified capacity is over the logical unit capacity. Please confirm the capacity and then try again.                                                                                                                      | Please confirm the capacity and then try again.                                                                | —                                                                           |
| 0E0027      | DMED0E0027: The process cannot be performed because the specified logical unit is not normal state. Please recover the status and then try again.                                                                                          | Please recover the status and then try again.                                                                  | —                                                                           |
| 0E0028      | DMED0E0028: The process cannot be performed because the specified logical unit contains an un-mounted drive or a blocked drive. Confirm the drive status and try again.                                                                    | Confirm the drive status and try again.                                                                        | —                                                                           |
| 0E0029      | DMED0E0029: The process cannot be performed because the over provisioning threshold of the specified DP pool is equal to or more than the limit. Please add DP pool capacity and then try again.                                           | Please add DP pool capacity and then try again.                                                                | —                                                                           |
| 0E002A      | DMED0E002A: The process cannot be performed because the over provisioning threshold of the DP pool that has the specified logical unit is equal to or more than the limit. Please add DP pool capacity and then try again.                 | Please add DP pool capacity and then try again.                                                                | —                                                                           |
| 0F0001      | DMED0F0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. | Make the delete of RAID group again after changing the access level to the normal mode.                        | —                                                                           |
| 0F0002      | DMED0F0002: The process cannot be performed because the drives of Unit0 and the latter units are contained within the range of the specified RAID group.                                                                                   | Execute again by specifying the drive of the same type.                                                        | —                                                                           |
| 0F0003      | DMED0F0003: The process cannot be performed because the non-supported drive on this subsystem are contained within the range of the specified RAID group.                                                                                  | Specify the drive for the subsystem concerned.                                                                 | —                                                                           |
| 0F0005      | DMED0F0005: The process cannot be performed because the number of drive is incorrect. Please confirm the mounted drive and try again.                                                                                                      | Retry after specifying the RAID width as the number of installed drives.                                       | —                                                                           |
| 0F0007      | DMED0F0007: The number of defined RAID group reached the maximum. Delete unnecessary RAID groups and then try again.                                                                                                                       | No more RAID groups can be defined because the number of defined RAID groups has reached the maximum.          | —                                                                           |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                             | Recovery methods                                                                                                    | Reference page                                                              |
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| 100001      | DMED100001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. | Retry after changing the access level to the normal mode.                                                           | —                                                                           |
| 100002      | DMED100002: The process cannot be performed because the RAID level of the specified logical unit is not supported. Confirm the RAID level currently supported and try again.                                                               | Confirm the RAID level currently supported and try again.                                                           | —                                                                           |
| 100003      | DMED100003: The process cannot be performed because the specified logical unit is a unified LU. Separate the unified LU and try again, or please execute online/offline formatting.                                                        | Separate the unified LU and try again, or please execute online/offline formatting.                                 | —                                                                           |
| 100004      | DMED100004: The process cannot be performed because the specified logical unit is extended and not formatted. Please execute online/offline formatting.                                                                                    | Please execute online/offline formatting.                                                                           | —                                                                           |
| 100005      | Hitachi Storage Navigator Modular 2 is less than Ver.8.30.<br>DMED100005: The preparations of quick formatting are incomplete. Please retry after waiting for a while.                                                                     | Execute it again after waiting for a while.                                                                         | —                                                                           |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.30 or more.<br>DMED100005: The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.        | Please retry after that specified quick format size is decreased or current executed quick format is finished.      | <a href="#">System Parameter "3.3 [Note on LU setting]" (SYSPR 03-0130)</a> |
| 100006      | DMED100006: The process cannot be performed because the specified logical unit contain an un-mounted drive or a blocked drive. Confirm the drive status and try again.                                                                     | Execute the quick format after installing or normalizing the drive in the RAID Group belonging to the specified LU. | —                                                                           |
| 100007      | DMED100007: Format of the logical unit cannot be performed under drive blockage mode. Please turn off the drive blockade mode system parameter.                                                                                            | Execute the quick format after turning off the drive blockade mode of the system parameter.                         | —                                                                           |
| 100008      | DMED100008: The process cannot be performed because the specified logical unit is not formatted and set the access level other than S-VOL mode. Please change the attribute to Read/Write and try again.                                   | Please change the attribute to Read/Write and try again.                                                            | —                                                                           |
| 110001      | DMED100001: The mapping mode cannot be changed because the mapping guard LU exists.                                                                                                                                                        | When changing the mapping mode to OFF, take all the LU mapping guards OFF.                                          | —                                                                           |
| 110002      | DMED100002: The mapping information cannot be changed because the mapping guard LU exists.                                                                                                                                                 | Change the LU mapping after the LU mapping guard is taken OFF.                                                      | —                                                                           |
| 120001      | DMED120001: The specified drive cannot be defined as a spare drive because it is not supported on this subsystem.                                                                                                                          | Specify the drive for the subsystem concerned.                                                                      | —                                                                           |
| 130001      | DMED130001: The process cannot be performed because the path is not set up.                                                                                                                                                                | Set the time-out value after the path is defined.                                                                   | —                                                                           |
| 130002      | DMED130002: The process cannot be performed because the specified port is iSCSI port. Please confirm the port type and try again.                                                                                                          | Specify the FC port.                                                                                                | —                                                                           |
| 130003      | DMED130003: The process cannot be performed because remote ports of path0 and path1 are set to the same controller of the remote subsystem. Please set one of the remote ports to the other controller and try again.                      | Please set one of the remote ports to the other controller and try again.                                           | —                                                                           |
| 130004      | DMED130004: The process cannot be performed because the specified Timeout Period is outside the effective range. Please confirm the Timeout Period and try again.                                                                          | Check the other's serial number of the subsystem and set a time-out value within the support range.                 | —                                                                           |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                            | Recovery methods                                                     | Reference page |
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| 130005      | DMED130005: The process cannot be performed because the specified bandwidth is outside the effective range. Please confirm the bandwidth and try again.                                   | Please confirm the bandwidth and try again.                          | —              |
| 130006      | DMED130006: The process cannot be performed because the path status is normal. Please confirm the status of path.                                                                         | Please confirm the status of path.                                   | —              |
| 130007      | DMED130007: The process cannot be performed because the path does not exist. Please setting the path and try again.                                                                       | Please setting the path and try again.                               | —              |
| 130008      | DMED130008: The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.                                              | Please confirm the status of path and try again.                     | —              |
| 130009      | DMED130009: The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.                                              | Please confirm the status of path and try again.                     | —              |
| 130010      | DMED130010: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                  | Please recover the controller status and then try again.             | —              |
| 130011      | DMED130011: The process cannot be performed because the path does not exist. Please setting the path and try again.                                                                       | Please setting the path and try again.                               | —              |
| 130012      | DMED130012: The process cannot be performed because the path does not exist. Please setting the path and try again.                                                                       | Please setting the path and try again.                               | —              |
| 130013      | DMED130013: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                  | Please recover the controller status and then try again.             | —              |
| 130014      | DMED130014: The process cannot be performed because port are physically unequipped. Please confirm the port type and the subsystem status and try again.                                  | Please confirm the port type and the subsystem status and try again. | —              |
| 130015      | DMED130015: The process cannot be performed because the specified path is already defined. Please confirm the status of path and try again.                                               | Please confirm the status of path and try again.                     | —              |
| 130016      | DMED130016: The process cannot be performed because the Hosts is logging out. Please wait a moment and try again.                                                                         | Please wait a moment and try again.                                  | —              |
| 130017      | DMED130017: The same array ID as a self subsystem is specified. Please specify the array ID of connected subsystem.                                                                       | Please specify the array ID of connected subsystem.                  | —              |
| 130018      | DMED130018: The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.                                                   | Please confirm the port type and try again.                          | —              |
| 130019      | DMED130019: The process cannot be performed because Remote Replication pair of Synchronizing or Paired exists. Please confirm the status of pair and try again.                           | Please confirm the status of pair and try again.                     | —              |
| 13001A      | DMED13001A: The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.                                                      | Please confirm the port type and try again.                          | —              |
| 13001B      | DMED13001B: The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.                                                        | Please change Distributed Mode to Edge and try again.                | —              |
| 13001C      | DMED13001C: The process cannot be performed because the remote path or remote port CHAP information (Target information) is defined. Please change Distributed Mode to Hub and try again. | Please change Distributed Mode to Hub and try again.                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                            | Recovery methods                                                                                                             | Reference page |
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| 13001D      | DMED13001D: The specified array ID is already registered. Please specify another array ID and then try again.                                                                                                                                                             | Please specify another array ID and then try again.                                                                          | —              |
| 13001E      | DMED13001E: The process cannot be performed because the remote path or remote port CHAP information (Target information) is specified. Please change Hub array unit and then try again.                                                                                   | Please change Hub array unit and then try again.                                                                             | —              |
| 13001F      | DMED13001F: The number of defined remote path reached the maximum. Please delete unnecessary remote path and try again.                                                                                                                                                   | Please delete unnecessary remote path and try again.                                                                         | —              |
| 130020      | DMED130020: The specified remote path name is already registered. Please specify another remote path name and then try again.                                                                                                                                             | Please specify another remote path name and then try again.                                                                  | —              |
| 130021      | DMED130021: The specified remote array ID cannot be set because Distributed Mode is Hub. Please change Distributed Mode to Edge, or specify array ID of remote subsystem that Distributed mode is Edge and try again.                                                     | Please change Distributed Mode to Edge, or specify array ID of remote subsystem that Distributed mode is Edge and try again. | —              |
| 130022      | DMED130022: The specified array ID does not exist. Please specify a right array ID.                                                                                                                                                                                       | Please specify a right array ID.                                                                                             | —              |
| 130023      | DMED130023: The process cannot be performed because Distributed Mode is not supported. Please confirm the subsystem and try again.                                                                                                                                        | Please confirm the subsystem and try again.                                                                                  | —              |
| 130024      | DMED130024: The process cannot be performed because the remote path to two or more are defined. Please delete unnecessary remote path and try again.                                                                                                                      | Please delete unnecessary remote path and try again.                                                                         | —              |
| 130025      | DMED130025: The process cannot be performed because the remote port CHAP information (Target information) to two or more is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.                                           | Please delete unnecessary remote port CHAP information (Target information) and try again.                                   | —              |
| 130026      | DMED130026: The process cannot be performed because the Remote Replication pair exists to two or more subsystems. Please cancel the Remote Replication pair and try again.                                                                                                | Please cancel the Remote Replication pair and try again.                                                                     | —              |
| 130027      | DMED130027: The process cannot be performed because the remote path is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote path and try again.                                                                             | Please delete unnecessary remote path and try again.                                                                         | —              |
| 130028      | DMED130028: The process cannot be performed because the remote port CHAP information (Target information) is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote port CHAP information (Target information) and try again. | Please delete unnecessary remote port CHAP information (Target information) and try again.                                   | —              |
| 130029      | DMED130029: The process cannot be performed because Remote Replication pair exists on the subsystem whose Distributed Mode is not supported. Please cancel unnecessary Remote Replication pair and try again.                                                             | Please cancel unnecessary Remote Replication pair and try again.                                                             | —              |
| 13002A      | DMED13002A: The process cannot be performed because the remote path is defined. Please delete remote path and try again.                                                                                                                                                  | Please delete remote path and try again.                                                                                     | —              |
| 13002B      | DMED13002B: The process cannot be performed because the remote port CHAP information (Target information) is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.                                                          | Please delete unnecessary remote port CHAP information (Target information) and try again.                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                           | Recovery methods                                                                                                                                                             | Reference page                                                                                                  |
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| 13002C      | DMED13002C: The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.                                                                                       | Please change Distributed Mode to Edge and try again.                                                                                                                        | —                                                                                                               |
| 140001      | DMED140001: The process cannot be performed because the term of the temporary key or emergency key is expired.                                                                                                           | Unlock with the permanent key.                                                                                                                                               | —                                                                                                               |
| 140002      | DMED140002: The process cannot be performed because the DM-LU has already been set. Please cancel the DM-LU and try again.                                                                                               | Retry after specifying an LU other than the DM-LU.                                                                                                                           | —                                                                                                               |
| 140003      | DMED140003: The process cannot be performed because the specified operation mode is outside the effective range or two or more operation is specified at the same time. Please confirm the operation mode and try again. | Please confirm the operation mode and try again.                                                                                                                             | —                                                                                                               |
| 140004      | DMED140004: The process cannot be performed because DC power supply is physically unequipped. Please confirm the subsystem status and try again.                                                                         | Please confirm the subsystem status and try again.                                                                                                                           | —                                                                                                               |
| 140005      | DMED140005: The function cannot be executed for this subsystem. Please confirm the subsystem.                                                                                                                            | Please confirm the subsystem.                                                                                                                                                | —                                                                                                               |
| 140006      | DMED140006: The process cannot be performed because cache memory size is insufficient. Please increase a larger cache memory and then try again.                                                                         | Please increase a larger cache memory and then try again.                                                                                                                    | —                                                                                                               |
| 140007      | DMED140007: The specified value is outside the effective range. Please specify the value in the effective range and try again.                                                                                           | Please specify the value in the effective range and try again.                                                                                                               | —                                                                                                               |
| 150001      | DMED150001: The process cannot be performed because the cache partition is not initial status. Please change the cache partition to initial status and try again.                                                        | Retry after returning the partition into the initial status.                                                                                                                 | —                                                                                                               |
| 150004      | DMED150004: The process cannot be performed because the cache partition is less than minimum size. Please confirm the cache partition size and try again.                                                                | Change the partition size to an appropriate one.                                                                                                                             | —                                                                                                               |
| 150005      | DMED150005: The process cannot be performed because the PIN is exceeded state. Please restore PIN data and try again.                                                                                                    | Retry after eliminating a pinned segment of the specified LU referring to <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)"</a> . | <a href="#">Troubleshooting "6.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 06-0690)</a> |
| 150006      | DMED150006: The segment size of cache partition (0 or 1) cannot be changed.                                                                                                                                              | A segment size of the master partition cannot be changed.                                                                                                                    | —                                                                                                               |
| 150007      | DMED150007: The process cannot be performed because ShadowImage is in use. Please cancel the ShadowImage pair and try again.                                                                                             | Retry after dissolving the pair. (*1)                                                                                                                                        | —                                                                                                               |
| 150009      | DMED150009: The process cannot be performed because SnapShot is in use. Please cancel the SnapShot pair and try again.                                                                                                   | Retry after dissolving the pair.                                                                                                                                             | —                                                                                                               |
| 15000B      | DMED15000B: The process cannot be performed because process of Write command from the hosts is not completed. Please wait for a while and then try again, or delete the logical unit.                                    | Retry after eliminating the unwritten LU(s).                                                                                                                                 | —                                                                                                               |

\*1 : When this is displayed at the time of the firmware download, the factor of "Since both P-Vol and S-Vol of one ShadowImage pair are P-Vol or S-Vol of TrueCopy, the downgrade cannot be performed" is considered.  
In this case, release the target Shadow Image pair or True Copy pair, and execute it again.

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                   | Recovery methods                                                                                          | Reference page |
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| 15000C      | DMED15000C: The function cannot be executed because a Cache Residency LU or a reserved one exists. Disable the LU, and then try again.                                                                                           | Cancel the specification of the LU residence.                                                             | —              |
| 15000D      | DMED15000D: The specified segment size is incorrect. Please confirm the segment size and try again.                                                                                                                              | Check the specified segment size.                                                                         | —              |
| 15000E      | DMED15000E: The process cannot be performed because the LU change is in progress. Please wait a moment and try again.                                                                                                            | Retry after the change of the LU unit is completed.                                                       | —              |
| 15000F      | DMED15000F: The specified cache partition number is incorrect. Please confirm the cache partition number and try again.                                                                                                          | Specify Dir 0 for the partition #0 and Dir 1 for the partition #1.                                        | —              |
| 150010      | DMED150010: The controller of current cache partition cannot be changed. Please delete the cache partition, and set up again.                                                                                                    | Define the LU again after eliminating it.                                                                 | —              |
| 150011      | DMED150011: The process cannot be performed because the total size of cache partition is over the cache capacity. Please confirm the cache partition size and try again.                                                         | Change the partition size to an appropriate one.                                                          | —              |
| 150012      | DMED150012: The cache partition with which the logical unit is set up, or the cache partition of 0 or 1 cannot be deleted. Please confirm the cache partition number.                                                            | Change the partition size to an appropriate one.                                                          | —              |
| 150013      | DMED150013: The process cannot be performed because the specified cache partition is not defined. Please specify a defined cache partition and try again.                                                                        | Specify a partition that exists.                                                                          | —              |
| 150014      | DMED150014: The process cannot be performed because the stripe size of logical unit is not 64KB. Please delete the logical unit and try again.                                                                                   | Execute it again after deleting the LU concerned.                                                         | —              |
| 150015      | DMED150015: The process cannot be performed because the specified logical unit is a part of Remote Replication pair. Please cancel the Remote Replication pair and try again.                                                    | Please cancel the Remote Replication pair and try again.                                                  | —              |
| 150016      | DMED150016: The process cannot be performed because the total cache partition capacity using the segment size of 4KB or 8KB is over the system limit. Please confirm the cache partition size or the segment size and try again. | Review the small segment size of the partition and the partition size.                                    | —              |
| 160002      | DMED160002: The process cannot be performed because the specified logical unit is a Sub LU of the unifying LUs. Please separate the unified LU and try again.                                                                    | Please separate the unified LU and try again.                                                             | —              |
| 160011      | DMED160011: The logical unit cannot be allocated the specified cache partition. Please specify another cache partition number and try again.                                                                                     | Check a number of the specified partition.<br>A capacity of the partition is smaller than that of the LU. | —              |
| 160012      | DMED160012: The process cannot be performed because the Cache Partition Manager is not installed, locked, or disabled.                                                                                                           | Execute it again after unlocking the PP.                                                                  | —              |
| 160013      | DMED160013: The process cannot be performed because the specified logical unit is SnapShot logical unit. Please specify another logical unit number and try again.                                                               | Please specify another logical unit number and try again.                                                 | —              |
| 160014      | DMED160014: The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.                                                                              | Specify the enable partition.                                                                             | —              |
| 160015      | DMED160015: The process cannot be performed because Cache Partition Manager is not installed, locked, or disabled. Please install Cache Partition Manager and try again.                                                         | Execute it again after unlocking the PP.                                                                  | —              |
| 160016      | DMED160016: The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.                                                                              | Specify the enable partition.                                                                             | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                 | Recovery methods                                                                                                                                            | Reference page                                                                          |
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| 160017      | DMED160017: The process cannot be performed because the specified cache partition is set to the different controller. Please confirm the cache partition and try again.                                                                                        | Match the directory number.                                                                                                                                 | —                                                                                       |
| 160018      | DMED160018: The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition, and try again.                                                                      | Change it to the partition to which the stripe size or the segment size adapts.                                                                             | —                                                                                       |
| 160019      | DMED160019: The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.                                                                                                      | Change it to the partition whose partition size is sufficient.                                                                                              | —                                                                                       |
| 16001E      | DMED16001E: The process cannot be performed because the pair cache partition and the cache partition are set to the same controller. Please confirm the cache partition and try again.                                                                         | Change the directory number.                                                                                                                                | —                                                                                       |
| 16001F      | DMED16001F: The process cannot be performed because the segment size does not match. Please confirm the segment size of cache partition and try again.                                                                                                         | Change it to the partition whose segment size is equal.                                                                                                     | —                                                                                       |
| 160020      | DMED160020: The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.                                                                                                      | Change it to the partition whose partition size is sufficient.                                                                                              | —                                                                                       |
| 160021      | DMED160021: The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                  | Execute it again after completing the LU unit switching.                                                                                                    | —                                                                                       |
| 160022      | DMED160022: The process cannot be performed because PIN data exists. Please restore PIN data and try again.                                                                                                                                                    | Execute it again after deleting the PIN segment of the specified LU referring to <a href="#">“Troubleshooting Chapter 6. Details of Recovery Methods”</a> . | <a href="#">Troubleshooting “Chapter 6. Details of Recovery Methods” (TRBL 06-0000)</a> |
| 170001      | DMED170001: The process cannot be performed because the specified logical unit is capacity less than 5GB. Specify the logical unit is equal to or more than 5GB and try again.                                                                                 | Specify an LU whose capacity is 5 Gbytes or larger.                                                                                                         | —                                                                                       |
| 170002      | DMED170002: The process cannot be performed because the specified logical unit is RAID level 0. Specify another logical unit and try again.                                                                                                                    | Retry after specifying an LU whose RAID level is other than RAID 0.                                                                                         | —                                                                                       |
| 170003      | Hitachi Storage Navigator Modular 2 is less than Ver.7.20.<br>DMED170003: The process cannot be performed because the specified logical unit is neither in normal nor in regressed state. Specify the logical unit of normal or regressed state and try again. | Set the specified LU as an object of the differential control after relieving it of command device.                                                         | —                                                                                       |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.20 or more.<br>DMED170003: This process cannot be performed. The status of the specified logical unit must be in either normal or regressed state. Please verify the status of the logical unit and try again.    | Please verify the status of the logical unit and try again.                                                                                                 | —                                                                                       |
| 170004      | DMED170004: The process cannot be performed because the specified logical unit is a unified LU. Separate the unified LU and try again.                                                                                                                         | Specify an LU other than a unified LU.                                                                                                                      | —                                                                                       |
| 170005      | DMED170005: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again.                                                                                                            | Specify an LU other than a Turbo LU (reserved Turbo LU).                                                                                                    | —                                                                                       |
| 170006      | DMED170006: The process cannot be performed because the specified logical unit is a command device. Cancel the command device and try again.                                                                                                                   | Specify an LU that is not a command device.                                                                                                                 | —                                                                                       |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                  | Recovery methods                                                                                                        | Reference page |
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| 170007      | DMED170007: The process cannot be performed because the specified logical unit is capacity less than 10GB. Specify the logical unit is equal to or more than 10GB and try again.                                                                | Specify the logical unit is equal to or more than 10GB and try again.                                                   | —              |
| 170008      | DMED170008: The process cannot be performed because the capacity of DP pool is insufficient. Please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.                                          | Please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.               | —              |
| 170009      | DMED170009: The process cannot be set to DM-LU because specified logical unit is mapped. Please delete mapping and then try again.                                                                                                              | Please delete mapping and then try again.                                                                               | —              |
| 180001      | DMED180001: The specified logical unit cannot be set as Cache Residency LU because its cache partition is not 0 or 1. Please try again after changing a cache partition into 0 or 1, or specify the logical unit of the cache partition 0 or 1. | Retry after specifying an LU that belongs to the master partition or changing the specified LU to the master partition. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                        | Recovery methods                                                                        | Reference page                                                                                  |
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| 190001      | DMED190001: The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                               | Specify a correct IP address.                                                           | —                                                                                               |
| 190002      | DMED190002: The same IP address as the management LAN cannot be set up. Please specify a correct IP address.                                                                                                          | Specify a correct IP address.                                                           | —                                                                                               |
| 190003      | DMED190003: The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.                                                                                         | Make the setting again after waiting for a while.                                       | —                                                                                               |
| 190004      | DMED190004: The same IP address as the maintenance LAN cannot be set up. Please specify a correct IP address.                                                                                                         | Specify a correct IP address.                                                           | —                                                                                               |
| 190005      | DMED190005: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                                                              | Execute the process again after restoring the Control Unit of the other system.         | —                                                                                               |
| 190006      | DMED190006: The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.                                                                                         | Make the setting again after waiting for a while.                                       | —                                                                                               |
| 190007      | DMED190007: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                                | Make the setting again after waiting for a while.                                       | —                                                                                               |
| 190008      | DMED190008: The same IP address as the NNC LAN cannot be set up. Please specify a correct IP address.                                                                                                                 | Specify a correct IP address.                                                           | —                                                                                               |
| 190009      | DMED190009: The maintenance LAN cannot be changed automatically because the same network address is specified as a maintenance LAN when NNC is connected. Please confirm the specified network address and try again. | Please confirm the specified network address and try again.                             | —                                                                                               |
| 19000B      | DMED19000B: The specified host address of the maintenance LAN is incorrect. Please specify a correct IP address.                                                                                                      | Please specify a correct IP address.                                                    | —                                                                                               |
| 19000C      | DMED19000C: The process cannot be performed because the subnet mask of the management LAN is incorrect. Please set up the correct subnet mask and try again.                                                          | Please set up the correct subnet mask and try again.                                    | —                                                                                               |
| 19000D      | DMED19000D: The process cannot be performed because the default gateway of the management LAN is incorrect. Please set up the correct default gateway and try again.                                                  | Please set up the correct default gateway and try again.                                | —                                                                                               |
| 19000E      | DMED19000E: The DHCP and the maintenance LAN automatic change cannot be specified at the same time. Please confirm the operation and try again.                                                                       | Please confirm the operation and try again.                                             | —                                                                                               |
| 19000F      | DMED19000F: The specified host address of the management LAN is incorrect. Please specify a correct IP address.                                                                                                       | Please specify a correct IP address.                                                    | —                                                                                               |
| 190010      | DMED190010: The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.                                                     | Please specify a correct IP address.                                                    | —                                                                                               |
| 190011      | DMED190011: The process cannot be performed because the maintenance LAN automatic change mode is enabled. Please set this mode to disable and try again.                                                              | Turn off the "Maintenance Port IP Address Automatic Change Mode", and execute it again. | <a href="#">System Parameter "4.2 Configuration Settings (3) Setting of LAN" (SYPR 04-0120)</a> |
| 190012      | DMED190012: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                                | Make the setting again after waiting for a while.                                       | —                                                                                               |
| 190013      | DMED190013: The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                               | Set an IP address with a valid numerical value.                                         | —                                                                                               |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                             | Recovery methods                                                                         | Reference page |
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| 1A0001      | DMED1A0001: The process cannot be performed because NNC is not connected. Please connect NNC and try again.                                                                                                                                | Check the Interface Board.                                                               | —              |
| 1A0002      | DMED1A0002: The specified logical unit is not defined. Please specify a defined logical unit.                                                                                                                                              | Specify an LU that has been defined.                                                     | —              |
| 1A0003      | DMED1A0003: The process cannot be performed because the specified logical unit is less than minimum size of System LU. Please confirm the logical unit size and try again.                                                                 | Specify an LU whose size is larger than the minimum indispensable size to the system LU. | —              |
| 1A0004      | DMED1A0004: The process cannot be performed because the specified logical unit is already assigned. Please specify a logical unit that is not assigned and try again.                                                                      | Specify an LU that has not been mapped.                                                  | —              |
| 1A0005      | DMED1A0005: The process cannot be performed because the specified logical unit is S-VOL of ShadowImage. Please specify another logical unit and try again.                                                                                 | Specify an LU other than the S-VOL of the ShadowImage in-system replication.             | —              |
| 1A0006      | DMED1A0006: The process cannot be performed because the specified logical unit is S-VOL of Remote Replication. Please specify another logical unit and try again.                                                                          | Please specify another logical unit and try again.                                       | —              |
| 1A0007      | DMED1A0007: The process cannot be performed because the specified logical unit is defined as a SnapShot logical unit. Please specify another logical unit and try again.                                                                   | Please specify another logical unit and try again.                                       | —              |
| 1A0008      | DMED1A0008: The process cannot be performed because the specified logical unit is added to a data pool. Please specify another logical unit and try again.                                                                                 | Specify an LU other than the POOL of the Copy-on-write SnapShot.                         | —              |
| 1A0009      | DMED1A0009: The process cannot be performed because the specified logical unit is a Sub LU of the unifying LUs. Please specify another logical unit and try again.                                                                         | Specify an LU other than the sub-LU of a unified LU.                                     | —              |
| 1A000A      | DMED1A000A: The process cannot be performed because the specified logical unit is the mapping guard LU. Please specify another logical unit and try again.                                                                                 | Specify an LU that is not guarded from the mapping.                                      | —              |
| 1A000B      | DMED1A000B: The process cannot be performed because the specified logical unit is a command device. Please specify another logical unit and try again.                                                                                     | Specify an LU other than the command device.                                             | —              |
| 1A000C      | DMED1A000C: The specified logical unit is not defined as a command device. Please specify a logical unit that is already defined to a command device.                                                                                      | For the system LU, HLU5, specify an LU other than the command device.                    | —              |
| 1A000D      | DMED1A000D: The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.                                                                                                                | Check the status of the NAS OS.                                                          | —              |
| 1A000E      | DMED1A000E: The process cannot be performed because the specified logical unit is DM-LU. Please specify another logical unit and try again.                                                                                                | Specify an LU other than the DM-LU.                                                      | —              |
| 1A000F      | DMED1A000F: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. | For the system LU, specify an LU whose access level is the normal mode.                  | —              |
| 1A0010      | DMED1A0010: The process cannot be performed because all ports are used for NAS. Please confirm the port type.                                                                                                                              | Please confirm the port type.                                                            | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                   | Recovery methods                                                                                     | Reference page |
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| 1A0020      | DMED1A0020: The process cannot be performed because System LU exists.                                                                                                                                                                            | Specify an LU other than the system LU.                                                              | —              |
| 1A0021      | DMED1A0021: The process cannot be performed because User LU exists.                                                                                                                                                                              | Specify an LU other than the user LU.                                                                | —              |
| 1A0022      | DMED1A0022: The process cannot be performed because the specified logical unit is System LU. Please release System LU and try again.                                                                                                             | Perform an LU unification/dissolution after removing the LU from being the system LU.                | —              |
| 1A0023      | DMED1A0023: The process cannot be performed because the specified logical unit is User LU. Please specify another logical unit and try again.                                                                                                    | Specify an LU other than the user LU for the sub-LU.                                                 | —              |
| 1A0024      | DMED1A0024: The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.                                                                                                                      | Check the status of the NAS OS.                                                                      | —              |
| 1A0025      | DMED1A0025: The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.                                                                                                                      | Check the status of the NAS OS.                                                                      | —              |
| 1A0026      | DMED1A0026: The specified port is used for NAS. Please specify another port.                                                                                                                                                                     | Specify an LU other than the NAS Port.                                                               | —              |
| 1A0027      | DMED1A0027: The unification cannot be performed because the stripe size does not match. Please confirm the stripe size of logical unit and try again.                                                                                            | Specify the LU of the same stripe size.                                                              | —              |
| 1A0028      | DMED1A0028: The process cannot be performed because the specified logical unit is P-VOL or V-VOL of SnapShot. Please specify another logical unit and try again.                                                                                 | Specify the LU other than the P-VOL or the V-VOL of the Copy-on-write SnapShot.                      | —              |
| 1A0029      | DMED1A0029: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write. When the mode is set up, please reset the mode using RAID Manager. And try again.                                     | Specify the LU of the normal mode and S-VOL Disable of the access level for the user LU.             | —              |
| 1A002A      | DMED1A002A: The process cannot be performed because the specified logical unit is being used as ShadowImage pair with more than 2 S-VOL. Please delete S-VOL and make the pair into one-to-one relation, or cancel the pair, and then try again. | Execute it again after setting the number of mirrors of the S-VOL to 1.                              | —              |
| 1A0030      | DMED1A0030: The Command Device(secondary) cannot set to the NNctype1.                                                                                                                                                                            | Check the types of the NAS heads.                                                                    | —              |
| 1A0031      | DMED1A0031: The Working Area for Dump cannot set to this NNctype2.                                                                                                                                                                               | Check the types of the NAS heads.                                                                    | —              |
| 1A0032      | DMED1A0032: The process cannot be performed because the Command Device is not set by system LU. Please set the Command Device and try again.                                                                                                     | Check the setting status of the NAS Command Device, and then set the NAS Command Device (secondary). | —              |
| 1A0033      | DMED1A0033: The process cannot be performed because the Command Device(secondary) is set by system LU. Please release the Command Device(secondary) and try again.                                                                               | Release it from the NAS Command Device (secondary).                                                  | —              |
| 1A0034      | DMED1A0034: The process cannot be performed because the equipped NNC is unknown or mixture.                                                                                                                                                      | Check the configuration status of the connection NAS heads.                                          | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                           | Recovery methods                                                                                              | Reference page |
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| 1A0070      | DMED1A0070: The process cannot be performed because the equipped NNC is NNCtype2.                                                        | Check the configuration status of the connection NAS heads.                                                   | —              |
| 1A0071      | DMED1A0071: The process cannot be performed because the NAS OS is not installed. Please install the NAS OS and try again.                | Check the installation status of the NAS OS.                                                                  | —              |
| 1A0072      | DMED1A0072: The process cannot be performed because the controller is detached. Please recover the controller status and then try again. | Recover the Control Unit, and then execute it again.                                                          | —              |
| 1A0073      | DMED1A0073: The process cannot be performed because the NNC is not stopped. Please stop the NNC and try again.                           | Put the NNC status of both NNCs (NAS Units) into the stop status, and then execute it again.                  | —              |
| 1A0074      | DMED1A0074: The process cannot be performed because the equipped NNC is NNCtype1.                                                        | Check the configuration status of the connection NAS heads.                                                   | —              |
| 1A0075      | DMED1A0075: The process cannot be performed because the system LU is not backed up.                                                      | A version downgrade instruction cannot be performed.                                                          | —              |
| 1A0076      | DMED1A0076: The process cannot be performed because the NNC is not stopped or detached.                                                  | Put the NNC status of both NNCs (NAS Units) into the stop status (blocked status), and then execute it again. | —              |
| 1A0077      | DMED1A0077: The process cannot be performed because the system LU is not backed up.                                                      | An instruction to release the version downgrade cannot be performed.                                          | —              |

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| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                       | Recovery methods                                                                            | Reference page                                                                                  |
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| 1B0001      | DMED1B0001: The specified IP address is incorrect. Please specify a correct IP address.                                                                                              | Specify the correct (enabled) IP address.                                                   | —                                                                                               |
| 1B0002      | DMED1B0002: It is impossible to change to specified IP address. Please specify a correct IP address.                                                                                 | Specify the correct (enabled) IP address.                                                   | —                                                                                               |
| 1B0003      | DMED1B0003: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                               | Execute it again after waiting for a while.                                                 | —                                                                                               |
| 1B0004      | DMED1B0004: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                             | Check the status of the subsystem.                                                          | —                                                                                               |
| 1B0005      | DMED1B0005: The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.                                                               | Turn off the DHCP mode.                                                                     | <a href="#">System Parameter "4.2 Configuration Settings (3) Setting of LAN" (SYPR 04-0120)</a> |
| 1B0006      | DMED1B0006: The process cannot be performed during the maintenance LAN setting. Please wait a moment and then try again.                                                             | Execute it again after waiting for a while.                                                 | —                                                                                               |
| 1B0008      | DMED1B0008: The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.                                                               | Turn off the "DHCP Mode", and execute it again.                                             | <a href="#">System Parameter "4.2 Configuration Settings (3) Setting of LAN" (SYPR 04-0120)</a> |
| 1B0009      | DMED1B0009: The process cannot be performed because NNC is equipped. Please confirm the port type and try again.                                                                     | Make all the ports the FC port configuration, and execute it again.                         | —                                                                                               |
| 1B000A      | DMED1B000A: The process cannot be performed because the same address is specified as the maintenance LAN and the management LAN. Please specify the different address and try again. | Specify different addresses for the IP addresses of the user port and the maintenance port. | —                                                                                               |
| 1C0001      | DMED1C0001: The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.                                                 | Specify the iSCSI port.                                                                     | —                                                                                               |
| 1C0002      | DMED1C0002: The process cannot be performed because the authentication method is not specified. Please confirm the authentication method and try again.                              | Specify the authentication method.                                                          | —                                                                                               |
| 1C0003      | DMED1C0003: The process cannot be performed because the specified alias format is invalid. Please confirm the alias and try again.                                                   | Specify the correct Target Nickname.                                                        | —                                                                                               |
| 1C0004      | DMED1C0004: The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.                                                         | Specify the unique Target Nickname in the port.                                             | —                                                                                               |
| 1C0005      | DMED1C0005: The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.                                             | Specify the correct Target iSCSI Name.                                                      | —                                                                                               |
| 1C0006      | DMED1C0006: The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.                                                   | Specify the unique Target iSCSI Name in the port.                                           | —                                                                                               |
| 1C0007      | DMED1C0007: The process cannot be performed because the specified target is not defined. Please confirm the target and try again.                                                    | Specify the correct Target ID.                                                              | —                                                                                               |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                     | Recovery methods                                                         | Reference page |
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| 1C0008      | DMED1C0008: The process cannot be performed because the specified name format is invalid. Please confirm the name and try again.                                                   | Specify the correct Initiator Nickname.                                  | —              |
| 1C0009      | DMED1C0009: The process cannot be performed because the same name exists in a port. Please confirm the name and try again.                                                         | Specify the unique Initiator Nickname in the port.                       | —              |
| 1C000A      | DMED1C000A: The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.                                           | Specify the correct Initiator iSCSI name.                                | —              |
| 1C000B      | DMED1C000B: The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.                                                 | Specify the unique Initiator iSCSI name in the port.                     | —              |
| 1C000C      | DMED1C000C: The process cannot be performed because the term of the temporary key or emergency key is expired.                                                                     | Unlock it with the permanent key.                                        | —              |
| 1C000D      | DMED1C000D: The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.                                                | Specify the Initiator User Name with the characters which can be used.   | —              |
| 1C000E      | DMED1C000E: The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.                                                   | Specify the Initiator Secret with the characters which can be used.      | —              |
| 1C000F      | DMED1C000F: The process cannot be performed because the character length of user name is outside the effective range. Please confirm the user name and try again.                  | Specify the Initiator User Name with the correct number of characters.   | —              |
| 1C0010      | DMED1C0010: The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again. | Specify the Initiator Secret Name with the correct number of characters. | —              |
| 1C0011      | DMED1C0011: The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.                                                    | Specify the correct value.                                               | —              |
| 1C0012      | DMED1C0012: The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.                                                  | Specify the correct value.                                               | —              |
| 1C0013      | DMED1C0013: The process cannot be performed because Keep Alive Timer is outside the effective range. Please specify Keep Alive Timer of 30 to 64800 and try again.                 | Specify the correct value.                                               | —              |
| 1C0014      | DMED1C0014: The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.                                                  | Specify the correct value.                                               | —              |
| 1C0015      | DMED1C0015: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                             | Execute it again after waiting for a while.                              | —              |
| 1C0017      | DMED1C0017: The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.                    | Specify it with the correct number of characters.                        | —              |
| 1C0018      | DMED1C0018: The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.                                                   | Specify it with the characters which can be used.                        | —              |
| 1C0019      | DMED1C0019: The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.                    | Specify it with the correct number of characters.                        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                     | Recovery methods                                                               | Reference page |
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| 1C001A      | DMED1C001A: The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.                                                   | Please confirm iSCSI Name and try again.                                       | —              |
| 1C001B      | DMED1C001B: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.                                           | Specify the correct Port number.                                               | —              |
| 1C001C      | DMED1C001C: The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.                                                    | Specify the correct IP address.                                                | —              |
| 1C001D      | DMED1C001D: The process cannot be performed because the ping is executing. Please try again after the ping is completed.                                                           | Execute it after completing Ping.                                              | —              |
| 1C001E      | DMED1C001E: The process cannot be performed because the specified CHAP algorithm is incorrect. Please specify a correct CHAP algorithm and try again.                              | Specify the correct Target authentication algorithm.                           | —              |
| 1C001F      | DMED1C001F: The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again. | Specify it with the correct number of Target Secret characters.                | —              |
| 1C0020      | DMED1C0020: The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.                                                   | Specify it with the characters which can be used.                              | —              |
| 1C0021      | DMED1C0021: The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.                                                | Specify it with the characters which can be used.                              | —              |
| 1C0022      | DMED1C0022: The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.                                               | Specify the unique Target User Name in the port.                               | —              |
| 1C0023      | DMED1C0023: The process cannot be performed because the LUN Manager is not installed, locked, or disabled. Please install the LUN Manager and then try again.                      | Execute it again after unlocking or enabling the LUN Management priced option. | —              |
| 1C0024      | DMED1C0024: The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.                                       | Execute it again after enabling the port security of the PORT concerned.       | —              |
| 1C0025      | DMED1C0025: The process cannot be performed because the character length of alias is outside the effective range. Please confirm the alias and try again.                          | Specify it with the correct number of characters.                              | —              |
| 1C0026      | DMED1C0026: The process cannot be performed because the invalid character is specified. Please confirm the alias and try again.                                                    | Specify it with the characters which can be used.                              | —              |
| 1C0027      | DMED1C0027: The process cannot be performed because the character length of name is outside the effective range. Please confirm the name and try again.                            | Specify it with the correct number of characters.                              | —              |
| 1C0028      | DMED1C0028: The process cannot be performed because the invalid character is specified. Please confirm the name and try again.                                                     | Specify it with the characters which can be used.                              | —              |
| 1C0029      | DMED1C0029: The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.                                               | Specify the unique Initiator User Name in the port.                            | —              |
| 1C002A      | DMED1C002A: The process cannot be performed because the specified target is not defined. Please confirm the target and try again.                                                  | Check the status of the Target.                                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                      | Recovery methods                                                                                                        | Reference page |
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| 1C002B      | DMED1C002B: The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.                                        | Enable the security.                                                                                                    | —              |
| 1C003A      | DMED1C003A: The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.                                        | Enable the LUN Manager of the port.                                                                                     | —              |
| 1C003B      | DMED1C003B: The process cannot be performed because the specified alias is default name of Target 0. Please confirm the alias and try again.                                        | Specify other Nickname.                                                                                                 | —              |
| 1C003C      | DMED1C003C: The process cannot be performed because the specified iSCSI Name is default name of Target 0. Please confirm iSCSI Name and try again.                                  | Specify other iSCSI name.                                                                                               | —              |
| 1C003D      | DMED1C003D: The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.                                                        | Specify the unique Target Nick name in the port including the Target which cannot be seen because the security is OFF.  | —              |
| 1C003E      | DMED1C003E: The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.                                                  | Specify the unique Target iSCSI name in the port including the Target which cannot be seen because the security is OFF. | —              |
| 1C003F      | DMED1C003F: The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.                                                | Specify the unique Target User name in the port including the Target which cannot be seen because the security is OFF.  | —              |
| 1C0040      | DMED1C0040: The process cannot be performed because the specified host group or target is outside the effective range. Please confirm the host group or target and try again.       | Execute it again after checking the specified Target group numbers.                                                     | —              |
| 1C0041      | DMED1C0041: The information cannot be obtained because iSCSI port is physically unequipped. Please confirm the port status and try again.                                           | Specify the iSCSI port.                                                                                                 | —              |
| 1D0001      | DMED1D0001: The process cannot be performed during the SNMP setting. Please wait a moment and then try again.                                                                       | Execute it again after waiting for a while.                                                                             | —              |
| 1E0001      | DMED1E0001: The process cannot be performed because the cycle time is out of range. Please specify the cycle time of 30 to 3600 and try again.                                      | Set the value within the range.                                                                                         | —              |
| 1E0002      | DMED1E0002: The process cannot be set because the specified cycle time is less than the minimum value. Please confirm the cycle time and try again.                                 | Check the number of the consistency groups (CTGs), and specify the minimum cycle time or more.                          | —              |
| 1E0003      | DMED1E0003: The process cannot be performed because the specified Queuing Inhibition Time is outside the effective range. Please confirm the Queuing Inhibition Time and try again. | Please confirm the Queuing Inhibition Time and try again.                                                               | —              |
| 1E0010      | DMED1E0010: The process cannot be performed because the Remote Replication pair exists. Please cancel the Remote Replication pair and try again.                                    | Please cancel the Remote Replication pair and try again.                                                                | —              |
| 1E0011      | DMED1E0011: The process cannot be performed during the Remote Replication pair deleting. Please wait a moment and then try again.                                                   | Please wait a moment and then try again.                                                                                | —              |
| 1E0012      | DMED1E0012: The process cannot be performed because the specified logical unit is a part of Remote Replication pair. Please specify another logical unit and try again.             | Please specify another logical unit and try again.                                                                      | —              |
| 1E0013      | DMED1E0013: The process cannot be performed because the deallocation of cache blocks for SnapShot is in progress. Please wait a moment and then try again.                          | Execute it again after waiting for a while.                                                                             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                               | Recovery methods                                         | Reference page |
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| 1E0014      | DMED1E0014: The process cannot be performed because the subsystem is not restarted after Remote Replication is installed. Please restart the subsystem and then try again.                                   | Please restart the subsystem and then try again.         | —              |
| 1E0015      | DMED1E0015: The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is installed. Please restart the subsystem and then try again.                       | Please restart the subsystem and then try again.         | —              |
| 1E0016      | DMED1E0016: The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is de-installed. Please restart the subsystem and then try again.                    | Please restart the subsystem and then try again.         | —              |
| 1E0017      | DMED1E0017: The process cannot be performed because the status of Remote Replication pair is improper. Please confirm the status of pair and try again.                                                      | Please confirm the status of pair and try again.         | —              |
| 1F0001      | DMED1F0001: The Spare Drive Operation Mode is fixed and the Applying No Copy Back Mode on All the Units is enabled. This combination is not possible to specify. Please confirm the operation and try again. | Please confirm the operation and try again.              | —              |
| 1F0010      | DMED1F0010: The process failed due to an invalid parameter. Please confirm the specified value.                                                                                                              | Specify the correct value.                               | —              |
| 1F0011      | DMED1F0011: The process cannot be performed because the specified IP address is incorrect. Please confirm the IP address and try again.                                                                      | Specify the correct IP address.                          | —              |
| 1F0012      | DMED1F0012: The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.                                    | Check the IP address and specify a different IP address. | —              |
| 1F0013      | DMED1F0013: The process failed due to an invalid parameter. Please confirm the specified value.                                                                                                              | Specify the correct value.                               | —              |
| 1F0014      | DMED1F0014: The process cannot be performed because the internal log is disabled. Please set the internal log to enable and try again.                                                                       | Check "Internal Log" of the Audit Logging option.        | —              |
| 1F0015      | DMED1F0015: The process cannot be performed because the internal log is being exported. Please wait a moment and then try again.                                                                             | Execute it again after waiting for a while.              | —              |
| 1F0017      | DMED1F0017: The process cannot be performed because the log export failed. Please wait a moment and then try again.                                                                                          | Execute it again after waiting for a while.              | —              |
| 1F0018      | DMED1F0018: The process failed due to an invalid parameter. Please confirm the specified value.                                                                                                              | Specify the correct value.                               | —              |
| 1F0019      | DMED1F0019: The process cannot be performed because the internal log is using. Please confirm the internal log status and try again.                                                                         | Check "Internal Log" of the Audit Logging option.        | —              |
| 1F001A      | DMED1F001A: The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.                                    | Please confirm the IP address and try again.             | —              |
| 1F001B      | DMED1F001B: The process cannot be performed because the IPv6 address is specified to Syslog Server. Please confirm the version of the navigator.                                                             | Please confirm the version of the navigator.             | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                               | Recovery methods                                                                                                                                      | Reference page |
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| 1F0020      | DMED1F0020: The user ID is too short. Please confirm the user ID.                                                                                                            | Specify it with the correct number of characters.                                                                                                     | —              |
| 1F0021      | DMED1F0021: The invalid character is specified in user ID. Please confirm the user ID.                                                                                       | Specify it with the characters which can be used.                                                                                                     | —              |
| 1F0022      | DMED1F0022: The current login session is expired, Please login again.                                                                                                        | Execute it again after logging in.                                                                                                                    | —              |
| 1F0023      | DMED1F0023: You have no permission. Please contact the Account Administrator and confirm your permission.                                                                    | Check the authority                                                                                                                                   | —              |
| 1F0024      | DMED1F0024: The specified user ID has already been registered. Please specify another user ID.                                                                               | The user concerned is already registered.                                                                                                             | —              |
| 1F0025      | DMED1F0025: The specified user ID is not registered. Please confirm the user ID.                                                                                             | Register the user and execute it again.                                                                                                               | —              |
| 1F0026      | DMED1F0026: The role is not assigned. Please assign one or more roles.                                                                                                       | Check the role information and execute it again.                                                                                                      | —              |
| 1F0027      | DMED1F0027: The process cannot be performed for logged in user.                                                                                                              | The account cannot be changed.                                                                                                                        | —              |
| 1F0028      | DMED1F0028: The process cannot be performed for Built-in account.                                                                                                            | The built-in account cannot be changed.                                                                                                               | —              |
| 1F0029      | DMED1F0029: You have no permission to modify. Please contact the Account Administrator and confirm your permission.                                                          | Check the authority.                                                                                                                                  | —              |
| 1F002A      | DMED1F002A: The logged in user reached the maximum. Please wait a moment and then try again.                                                                                 | It cannot log in because it exceeded the number of users who can log in.                                                                              | —              |
| 1F002B      | DMED1F002B: The specified password does not match. Please specify password again.                                                                                            | Check the password.                                                                                                                                   | —              |
| 1F002C      | DMED1F002C: You cannot login because account status is disabled. Please contact Account Administrator, and confirm the account status.                                       | Check it with the account administrator.                                                                                                              | —              |
| 1F002D      | DMED1F002D: The specified password does not match. Please confirm the password.                                                                                              | Check the password before the change.                                                                                                                 | —              |
| 1F002E      | DMED1F002E: The account reached the maximum. Please delete unnecessary account and try again.                                                                                | Check the account information.                                                                                                                        | —              |
| 1F002F      | DMED1F002F: The specified password length is less than minimum. Please confirm the password length.                                                                          | Check the number of characters of the set password.                                                                                                   | —              |
| 1F0030      | DMED1F0030: Password Protection and Account Authentication cannot be used together.                                                                                          | The option which cannot be effective at the same time with the specified option is already effective. Execute it again after locking or invalidating. | —              |
| 1F0031      | DMED1F0031: Account Authentication cannot be installed or be enabled, because NNC is equipped. Please change the subsystem into Fibre or iSCSI configuration, and try again. | Execute it again after making the subsystem the FC or iSCSI configuration.                                                                            | —              |
| 1F0032      | DMED1F0032: The process cannot be performed because the specified session timeout value is outside the effective range. Please confirm the session timeout value.            | Enter a settable value.                                                                                                                               | —              |
| 1F0033      | DMED1F0033: The process cannot be performed because TrueCopy Modular Distributed is installed. Please de-install the option and try again.                                   | Please de-install the option and try again.                                                                                                           | —              |
| 1F0034      | DMED1F0034: The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the TrueCopy function.   | Please retry after installing or enabling the TrueCopy function.                                                                                      | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                           | Recovery methods                                                                                    | Reference page                                                                                                            |
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| 1F0040      | DMED1F0040: The process cannot be performed because the term of the temporary key or emergency key is expired.                                           | Check the pair status.                                                                              | —                                                                                                                         |
| 1F0041      | DMED1F0041: The process cannot be performed because the ShadowImage pair is contained.                                                                   | Check the pair status.                                                                              | —                                                                                                                         |
| 1F0042      | DMED1F0042: The process cannot be performed because the Remote Replication pair is contained.                                                            | Check the pair status.                                                                              | —                                                                                                                         |
| 1F0043      | DMED1F0043: The process cannot be performed because the Remote Replication pair is contained.                                                            | Check the pair status.                                                                              | —                                                                                                                         |
| 1F0044      | DMED1F0044: The process cannot be performed because the SnapShot pair is contained.                                                                      | Check the pair status.                                                                              | —                                                                                                                         |
| 1F0045      | DMED1F0045: The process cannot be performed because the Volume Migration pair is contained.                                                              | Check the pair status.                                                                              | —                                                                                                                         |
| 1F0048      | DMED1F0048: The process cannot be performed because formatting is now occurring. Please try again after it is completed.                                 | Execute it again after completing the quick format.                                                 | —                                                                                                                         |
| 1F0049      | DMED1F0049: The process cannot be performed because parity correction is not completed. Please try again after it is completed.                          | Execute it again after the parity correction.                                                       | —                                                                                                                         |
| 1F004A      | DMED1F004A: The process cannot be performed because the data pool is contained. Please delete the data pool and try again.                               | Release the pool LU and execute it again.                                                           | —                                                                                                                         |
| 1F004B      | DMED1F004B: The process cannot be performed because the DM-LU is contained. Please cancel the DM-LU and try again.                                       | Release the DM-LU and execute it again.                                                             | —                                                                                                                         |
| 1F004C      | DMED1F004C: The process cannot be performed because the command device is contained. Please cancel the command device and try again.                     | Release the command device LU and execute it again.                                                 | —                                                                                                                         |
| 1F004D      | DMED1F004D: The process cannot be performed because the system LU is contained. Please cancel the system LU and try again.                               | Release the NAS system LU and execute it again.                                                     | —                                                                                                                         |
| 1F004E      | DMED1F004E: The process cannot be performed because the LU change is in progress. Please try again after it is completed.                                | Execute it again after completing the LU unit switching.                                            | —                                                                                                                         |
| 1F0051      | DMED1F0051: The process cannot be performed because the system drives is contained.                                                                      | Check the specified RAID Group.                                                                     | —                                                                                                                         |
| 1F0052      | DMED1F0052: The process cannot be performed because the write uncompleted LU is contained. Please recover and then try again.                            | Execute it again after the recovery according to the maintenance procedure of the incomplete write. | <a href="#">Troubleshooting "6.1.14 A Failure Occurred during Operation : Case 4 (Incomplete Writing)" (TRBL 06-0760)</a> |
| 1F0053      | DMED1F0053: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again. | Make it in the normal status and execute it again.                                                  | —                                                                                                                         |
| 1F0054      | DMED1F0054: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again. | Make it in the normal status and execute it again.                                                  | —                                                                                                                         |
| 1F0055      | DMED1F0055: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again. | Make it in the normal status and execute it again.                                                  | —                                                                                                                         |
| 1F0056      | DMED1F0056: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please wait for a while and try again.        | Execute it again after it becomes the normal status.                                                | —                                                                                                                         |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                    | Recovery methods                                                                                    | Reference page |
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| 1F0057      | DMED1F0057: The specified RAID group is not defined. Please specify a defined RAID group.                                                                                                                                         | Check the specified RAID Group.                                                                     | —              |
| 1F0058      | DMED1F0058: The process cannot be performed because the drive recovery is in progress. Please try again after it is completed.                                                                                                    | Make it in the normal status and execute it again.                                                  | —              |
| 1F0059      | DMED1F0059: The process cannot be performed because the health checking is in progress. Please try again after it is completed.                                                                                                   | Make it in the normal status and execute it again.                                                  | —              |
| 1F005A      | DMED1F005A: The process cannot be performed because the user LU is contained. Please cancel the user LU and try again.                                                                                                            | Release the NAS user LU and execute it again.                                                       | —              |
| 1F005B      | DMED1F005B: The process cannot be performed because the SES drives is contained.                                                                                                                                                  | Check the specified RAID Group.                                                                     | —              |
| 1F005C      | DMED1F005C: The process cannot be performed because state of Power Saving is in progress. Please retry after progress is completed.                                                                                               | Please retry after progress is completed.                                                           | —              |
| 1F0080      | DMED1F0080: The process cannot be performed because the external authentication server 1 is not defined. Please confirm the external authentication server 1 and try again.                                                       | Please confirm the external authentication server 1 and try again.                                  | —              |
| 1F0082      | DMED1F0082: The process cannot be performed because the external authentication server 1 is not defined and The user whose user authentication is RADIUS exists. Please change the user authentication to Internal and try again. | Please change the user authentication to Internal and try again.                                    | —              |
| 1F0083      | DMED1F0083: The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                                           | Please specify a correct IP address.                                                                | —              |
| 1F0084      | DMED1F0084: The authentication classification cannot be RADIUS because the user authentication server 1 is not defined. Please setting the external authentication server 1 as RADIUS and try again.                              | Please setting the external authentication server 1 as RADIUS and try again.                        | —              |
| 1F0085      | DMED1F0085: The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the external authentication server 1 setting and the LAN environment, and try again. | Please confirm the external authentication server 1 setting and the LAN environment, and try again. | —              |
| 1F0086      | DMED1F0086: The process cannot be performed because the character length of password is outside the effective range. Please confirm password and try again.                                                                       | Please confirm password and try again.                                                              | —              |
| 1F0087      | DMED1F0087: The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the user ID and password, and try again.                                             | Please confirm the user ID and password, and try again.                                             | —              |
| 1F0088      | DMED1F0088: The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the external authentication server 2 setting and the LAN environment, and try again. | Please confirm the external authentication server 2 setting and the LAN environment, and try again. | —              |
| 1F0089      | DMED1F0089: The password cannot be changed because the user authentication is RADIUS. Please change the password of RADIUS server.                                                                                                | Please change the password of RADIUS server.                                                        | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                             | Recovery methods                                                                                  | Reference page |
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| 1F008A      | DMED1F008A: Cannot login because the user authentication with an external authentication server was time-out. Please confirm the external authentication server setting and the LAN environment, and try again.                                                                            | Please confirm the external authentication server setting and the LAN environment, and try again. | —              |
| 1F008B      | DMED1F008B: Cannot login because the user authentication with an external authentication server was time-out. Or the process cannot be performed because the authentication test failed. Please confirm the external authentication server setting and the LAN environment, and try again. | Please confirm the external authentication server setting and the LAN environment, and try again. | —              |
| 1F008C      | DMED1F008C: Cannot login because the user authentication with an external authentication server was failed. Please confirm the user ID and password, and try again.                                                                                                                        | Please confirm the user ID and password, and try again.                                           | —              |
| 1F008D      | DMED1F008D: The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the user ID and password, and try again.                                                                                                      | Please confirm the user ID and password, and try again.                                           | —              |
| 1F008E      | DMED1F008E: The process cannot be performed because the character length of user ID is outside the effective range. Please confirm user ID and try again.                                                                                                                                  | Please confirm user ID and try again.                                                             | —              |
| 1F008F      | DMED1F008F: The process cannot be performed because the password is not set. Please specify the password, and try again.                                                                                                                                                                   | Please specify the password, and try again.                                                       | —              |
| 1F00A0      | DMED1F00A0: The process cannot be performed because the user is not Built-in account. Please login by Built-in account and try again.                                                                                                                                                      | Please login by Built-in account and try again.                                                   | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                           | Recovery methods                                                                                    | Reference page                                                                        |
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| 200001      | DMED200001: The process cannot be performed because cache memory size 1GB or less. Please increase the cache memory and try again.                                                                       | Please increase the cache memory and try again.                                                     | —                                                                                     |
| 200002      | DMED200002: This function is unsupported in the single-controller system                                                                                                                                 | Review the system configuration.                                                                    | —                                                                                     |
| 200003      | DMED200003: SnapShot cannot be installed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.                                    | Execute it again after locking or invalidating the key of the Cache partition.                      | <a href="#">Addition/Removal/Relocation "1.4.4 Adding a Cache Unit" (ADD 01-0390)</a> |
| 200004      | DMED200004: Cache Partition Manager cannot be installed because the subsystem is not restarted after SnapShot is installed. Please restart the subsystem, and then try again.                            | Retry after executing a reboot.                                                                     | —                                                                                     |
| 200005      | DMED200005: The option cannot be installed or enabled because cache memory size is 512MB or less. Please increase the cache memory and then try again.                                                   | Make the Cache capacity more than 512 M bytes.                                                      | <a href="#">Addition/Removal/Relocation "1.4.4 Adding a Cache Unit" (ADD 01-0390)</a> |
| 200006      | DMED200006: The option cannot be installed or enabled because cache memory size is 2GB or less. Please increase the cache memory and then try again.                                                     | Please increase the cache memory and then try again.                                                | —                                                                                     |
| 200011      | DMED200011: The process cannot be performed because the specified logical unit is not the reserve LU. Please specify the reserve LU and try again.                                                       | Specify the reserved LU.                                                                            | —                                                                                     |
| 200012      | DMED200012: The process cannot be performed because the specified logical unit is the reserve LU. Please delete the reserve LU or specify another logical unit and try again.                            | Specify the normal LU.                                                                              | —                                                                                     |
| 200013      | DMED200013: The process cannot be performed because the capacity is different between the specified P-VOL and S-VOL. Please specify the logical unit of the same capacity and try again.                 | Specify the P-VOL and the S-VOL of the same size.                                                   | —                                                                                     |
| 200014      | DMED200014: The process cannot be performed because the owner controller is different between the specified P-VOL and S-VOL. Please specify the logical unit of the same owner controller and try again. | Specify the P-VOL and the S-VOL of the same owner DIR.                                              | —                                                                                     |
| 200015      | DMED200015: The process cannot be performed the specified P-VOL and S-VOL have same logical unit number. Please specify the different logical unit number.                                               | Specify different LUs for the P-VOL and the S-VOL.                                                  | —                                                                                     |
| 200016      | DMED200016: The process cannot be performed because the Volume Migration pair reached the maximum. Please cancel or split the unnecessary Volume Migration pair and try again.                           | Execute it again after releasing the unnecessary Volume Migration or the SI pair.                   | —                                                                                     |
| 200017      | DMED200017: The process cannot be performed because the specified P-VOL and S-VOL belong to the same RAID group. Please specify the logical units of different RAID group.                               | Specify the P-VOL and the S-VOL which belong to different RAID Groups.                              | —                                                                                     |
| 200018      | DMED200018: The specified pair cannot be canceled because the pair status is not waiting or copying.                                                                                                     | Execute the Volume Migration suspension instruction while the pair status is waiting or migrating.  | —                                                                                     |
| 200019      | DMED200019: The specified pair cannot be split because the pair status is not completed or error.                                                                                                        | Execute the Volume Migration pair release instruction while the pair status is completed or failed. | —                                                                                     |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                    | Recovery methods                                                                                                                                                                                                                                                                                                            | Reference page |
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| 20001A      | DMED20001A: The process cannot be performed because the specified P-VOL and S-VOL are not in pairs. Please specify the P-VOL and S-VOL in pairs and try again.                                    | Specify the P-VOL and the S-VOL which create the same pair.                                                                                                                                                                                                                                                                 | —              |
| 20001B      | DMED20001B: The process cannot be performed because the reserve LU reached the maximum. Please delete the unnecessary reserve LU and try again.                                                   | Execute it again after deleting the reserved LU.                                                                                                                                                                                                                                                                            | —              |
| 20001C      | DMED20001C: The process cannot be performed because the specified logical unit is the S-VOL of the Volume Migration pair. Please specify another logical unit and try again.                      | Specify the LU other than the S-VOL.                                                                                                                                                                                                                                                                                        | —              |
| 20001D      | DMED20001D: The process cannot be performed because the specified logical unit is not the reserve LU. Please specify the reserve LU and try again.                                                | Specify the reserved LU.                                                                                                                                                                                                                                                                                                    | —              |
| 20001E      | DMED20001E: The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair is contained. Please split the pair and try again.                                            | Specify the LU which is not creating the Volume Migration pair (P-VOL/S-VOL).                                                                                                                                                                                                                                               | —              |
| 20001F      | DMED20001F: The process cannot be performed because the reserve LU is contained. Please delete the reserve LU and try again.                                                                      | Specify the LU other than the reserved LU.                                                                                                                                                                                                                                                                                  | —              |
| 200020      | DMED200020: The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair or the reserve LU is contained. Please split the pair or delete the reserve LU and try again. | Release the Volume Migration pair or the reserved LU.                                                                                                                                                                                                                                                                       | —              |
| 200021      | DMED200021: The process cannot be performed because the owner ID is different. Please cancel the pair using the application that created the pair.                                                | Check the owner ID and execute it again from the owner ID concerned.                                                                                                                                                                                                                                                        | —              |
| 200022      | DMED200022: The process cannot be performed because the owner ID is different. Please split the pair using the application that created the pair.                                                 | Check Hitachi Storage Navigator Modular 2 or the owner ID and execute it again from the owner ID concerned.                                                                                                                                                                                                                 | —              |
| 200023      | DMED200023: The process cannot be performed because the specified owner ID is not supported.                                                                                                      | Execute it again from Hitachi Storage Navigator Modular 2 or HiCommand.                                                                                                                                                                                                                                                     | —              |
| 200024      | DMED200024: The process cannot be performed because the reserve LU exists. Please delete the reserve LU and try again.                                                                            | Execute it again after deleting the LU in the reserved status.                                                                                                                                                                                                                                                              | —              |
| 200025      | DMED200025: The process cannot be performed because the Volume Migration pair exists. Please cancel or split the pair and try again.                                                              | Execute it again after releasing the LU in the pair status.                                                                                                                                                                                                                                                                 | —              |
| 200026      | DMED200026: The process cannot be performed because the specified logical unit is reserved for cache partition modification. Please restart the subsystem and then try again.                     | Execute it again after determining (restarting) the Cache partition change.                                                                                                                                                                                                                                                 | —              |
| 200027      | DMED200027: The process cannot be performed because a management area is shortage. Please delete the unnecessary pair(s) and try again.                                                           | When the VOL using the differential bit map is the SnapShot pair, delete the V-VOL after performing pairsplit -S. When the VOL using the differential bit map is ShadowImage in-system replication or Simple DR, perform the pair release from RAID Manager using pairsplit -S or from Hitachi Storage Navigator Modular 2. | —              |
| 200028      | DMED200028: The process cannot be performed because the specified logical unit is not the Volume Migration pair. Please specify another logical unit and try again.                               | Specify the Volume Migration pair and execute it again.                                                                                                                                                                                                                                                                     | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                       | Recovery methods                                                                                                                                                                                              | Reference page |
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| 200029      | DMED200029: The process cannot be performed because the specified logical unit is Volume Migration pair and is copying. Please retry after copy is completed.                                                        | Execute it again after completing the copy of Volume Migration.                                                                                                                                               | —              |
| 20002A      | DMED20002A: The copy pace of specified pair cannot be changed because the pair status is not waiting or copying.                                                                                                     | Execute it while the pair status of the Volume Migration pair is waiting or migrating.                                                                                                                        | —              |
| 20002B      | DMED20002B: The process cannot be performed because the specified owner ID is not supported.                                                                                                                         | The copy priority change instruction of the Volume Migration pair is only supported by Hitachi Storage Navigator Modular 2. Execute the change of the copy priority from Hitachi Storage Navigator Modular 2. | —              |
| 20002C      | DMED20002C: The process cannot be performed because the specified logical unit is not the P-VOL or S-VOL of the Volume Migration pair. Please specify the P-VOL or S-VOL of the Volume Migration pair and try again. | Specify the P-VOL or S-VOL of the Volume Migration pair and execute it again.                                                                                                                                 | —              |
| 20002D      | DMED20002D: The specified P-VOL and S-VOL belong to same DP pool. Please specify a different DP pool and then try again.                                                                                             | Please specify a different DP pool and then try again.                                                                                                                                                        | —              |
| 20002E      | DMED20002E: The capacity of DP pool to which the specified S-VOL belongs is insufficient. Please add DP pool capacity and then try again.                                                                            | Please add DP pool capacity and then try again.                                                                                                                                                               | —              |
| 200030      | DMED200030: The number of iSCSI connecting hosts exceeds the maximum value that can be unlocked or enabled fee-basis option. Please delete unnecessary hosts and try again.                                          | Please delete unnecessary hosts and try again.                                                                                                                                                                | —              |
| 210001      | DMED210001: The process cannot be performed because the mapping information is overlapped within the same host group. Please confirm the mapping information.                                                        | Check the specified LU.                                                                                                                                                                                       | —              |
| 210010      | DMED210010: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                               | Execute it again after waiting for a while.                                                                                                                                                                   | —              |
| 210011      | DMED210011: The process cannot be performed because E-mail Error Report is enabled. Please set E-mail Error Report to disable and try again.                                                                         | Please set E-mail Error Report to disable and try again.                                                                                                                                                      | —              |
| 220001      | DMED220001: The process cannot be performed because the specified battery count is outside the effective range. Please confirm the battery count.                                                                    | Specify the valid number or less of batteries that can be specified or the valid number or more of standard batteries.                                                                                        | —              |
| 220002      | DMED220002: The valid battery count cannot be increased. Please specify the count equal to or less than the current valid battery count.                                                                             | Specify the number or less of batteries currently valid                                                                                                                                                       | —              |
| 220003      | DMED220003: The process cannot be performed in the single-controller system. Please confirm the system configuration.                                                                                                | Please confirm the system configuration.                                                                                                                                                                      | —              |
| 220004      | DMED220004: The new unit cannot be added because the number of units reached the maximum. Please confirm the system configuration.                                                                                   | Please confirm the system configuration.                                                                                                                                                                      | —              |
| 220005      | DMED220005: The process cannot be performed because the controller or ENC is detached. Please recover the status and then try again.                                                                                 | Please recover the status and then try again.                                                                                                                                                                 | —              |
| 220006      | DMED220006: The process cannot be performed because the ENC firmware is being replaced. Please retry after the replacement completes.                                                                                | Please retry after the replacement completes.                                                                                                                                                                 | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                           | Recovery methods                                   | Reference page |
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| 220007      | DMED220007: The process cannot be performed because the subsystem is under diagnosis process. Please retry after a while.                                | Please retry after a while.                        | —              |
| 220008      | DMED220008: The process cannot be performed because the unit is being added. Please retry after the addition of unit completes.                          | Please retry after the addition of unit completes. | —              |
| 220009      | DMED220009: The specified battery count cannot be set. Please specify a right battery count.                                                             | Please specify a right battery count.              | —              |
| 230001      | DMED230001: The process cannot be performed because the migration guard is set up. Please clear the migration guard and try again.                       | Please clear the migration guard and try again.    | —              |
| 230002      | DMED230002: The process cannot be performed because the Migration Status is Checking. Please confirm the Migration Status and try again.                 | Please confirm the Migration Status and try again. | —              |
| 230003      | DMED230003: The process cannot be performed because the Migration Status is Preparing to Create Copy. Please confirm the Migration Status and try again. | Please confirm the Migration Status and try again. | —              |
| 230004      | DMED230004: The process cannot be performed because the Migration Status is Creating Copy. Please confirm the Migration Status and try again.            | Please confirm the Migration Status and try again. | —              |
| 230005      | DMED230005: The process cannot be performed because the Migration Status is Auto Migration Failed. Please confirm the Migration Status and try again.    | Please confirm the Migration Status and try again. | —              |
| 230006      | DMED230006: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.        | Please confirm the Migration Status and try again. | —              |
| 230007      | DMED230007: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.        | Please confirm the Migration Status and try again. | —              |
| 230008      | DMED230008: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.        | Please confirm the Migration Status and try again. | —              |
| 230009      | DMED230009: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.        | Please confirm the Migration Status and try again. | —              |
| 230010      | DMED230010: The process cannot be performed because the Migration Status is Copy Created. Please confirm the Migration Status and try again.             | Please confirm the Migration Status and try again. | —              |
| 230011      | DMED230011: The process cannot be performed because the Migration Status is Switching Array. Please confirm the Migration Status and try again.          | Please confirm the Migration Status and try again. | —              |
| 230012      | DMED230012: The process cannot be performed because the Migration Status is Auto Migration Completed. Please confirm the Migration Status and try again. | Please confirm the Migration Status and try again. | —              |
| 230013      | DMED230013: The process cannot be performed because the Migration Status is Switching Array Failed. Please confirm the Migration Status and try again.   | Please confirm the Migration Status and try again. | —              |
| 230014      | DMED230014: The process cannot be performed because the Migration Status is In Progress. Please confirm the Migration Status and try again.              | Please confirm the Migration Status and try again. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                               | Recovery methods                                                                  | Reference page |
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| 230015      | DMED230015: The process cannot be performed because the Migration Status is Completed. Please confirm the Migration Status and try again.                                                                    | Please confirm the Migration Status and try again.                                | —              |
| 230016      | DMED230016: The process cannot be performed because the Migration Status is Failed. Please confirm the Migration Status and try again.                                                                       | Please confirm the Migration Status and try again.                                | —              |
| 230017      | DMED230017: The process cannot be performed because the Migration Status is Not Started. Please confirm the Migration Status and try again.                                                                  | Please confirm the Migration Status and try again.                                | —              |
| 230018      | DMED230018: The process cannot be performed because the Migration Status is Creating Copy Failed to Start. Please confirm the Migration Status and try again.                                                | Please confirm the Migration Status and try again.                                | —              |
| 230019      | DMED230019: The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.                                                                            | Please retry after replacement completes.                                         | —              |
| 230020      | DMED230020: The process cannot be performed because the Migration Status is Preparing. Please confirm the Migration Status and try again.                                                                    | Please confirm the Migration Status and try again.                                | —              |
| 230021      | DMED230021: The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again when the pair status is not Split Pending.                                                    | Please try again when the pair status is not Split Pending.                       | —              |
| 231000      | DMED231000: The process cannot be performed because the subsystem is executing the Auto Migration. Please confirm the Migration Status and try again.                                                        | Please confirm the Migration Status and try again.                                | —              |
| 231001      | DMED231001: The process cannot be performed because the subsystem is executing the Auto Migration or the addition of unit. Please confirm the Migration Status while executing Auto Migration and try again. | Please confirm the Migration Status while executing Auto Migration and try again. | —              |
| 231002      | Hitachi Storage Navigator Modular 2 is less than Ver.6.20.<br>DMED231002: The specified equipment ID is incorrect. Please specify a right equipment ID.                                                      | Please specify a right equipment ID.                                              | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.20 or more.<br>DMED231002: The specified array ID is incorrect. Please specify a right array ID.                                                                | Please specify a right array ID.                                                  | —              |
| 231003      | DMED231003: The process cannot be performed because formatting is now occurring. Please retry after formatting completes.                                                                                    | Please retry after formatting completes.                                          | —              |
| 231004      | DMED231004: The process cannot be performed because the specified interface board type is not equipped. Please confirm the interface board type.                                                             | Please confirm the interface board type.                                          | —              |
| 231005      | DMED231005: The process cannot be performed because the PIN exceeded state. Please restore PIN data and try again.                                                                                           | Please restore PIN data and try again.                                            | —              |
| 231006      | DMED231006: The process cannot be performed because the write uncompleted LU exists. Please recover and then try again.                                                                                      | Please recover and then try again.                                                | —              |
| 231007      | DMED231007: The process cannot be performed because the DM-LU is not defined. Please define DM-LU and try again.                                                                                             | Please define DM-LU and try again.                                                | —              |
| 231008      | DMED231008: The process cannot be performed because the Auto Migration is executing or is failed. Please confirm the Migration Status and try again.                                                         | Please confirm the Migration Status and try again.                                | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                                                                                   | Recovery methods                                                                           | Reference page |
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| 240001      | DMED240001: The certificate and the secret key cannot be checked. Please restart the subsystem and then try again.                                                                                                                                                                                                                                                                               | Please restart the subsystem and then try again.                                           | —              |
| 240002      | DMED240002: The process cannot be performed because the certificate is invalid. Please confirm the certificate and try again.                                                                                                                                                                                                                                                                    | Please confirm the certificate and try again.                                              | —              |
| 240003      | DMED240003: The process cannot be performed because the secret key is invalid. Please confirm the certificate and try again.                                                                                                                                                                                                                                                                     | Please confirm the certificate and try again.                                              | —              |
| 241001      | Hitachi Storage Navigator Modular 2 is less than Ver.6.00.<br>DMED241001: The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed.                                                                                                                                                                                          | Please retry after expansion is completed.                                                 | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.00 or more.<br>DMED241001: The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed. And, the specified operation may not be performed even if the RAID group expansion is completed. When the RAID group expansion is completed, please retry after waiting 2 minutes or more. | Please retry after expansion is completed.                                                 | —              |
| 241002      | DMED241002: The 'cancel' operation cannot be performed because the RAID group does not execute the expansion. Please confirm the RAID group and then try again.                                                                                                                                                                                                                                  | Please confirm the RAID group and then try again.                                          | —              |
| 241003      | DMED241003: The 'cancel' operation cannot be performed because the RAID group is executing expansion or has been executed the expansion and waiting. Please confirm the RAID group status and try again.                                                                                                                                                                                         | Please confirm the RAID group status and try again.                                        | —              |
| 241004      | DMED241004: The 'forcibly cancel' operation cannot be performed because the RAID group does not execute the expansion and waiting. Please specify a 'cancel' operation.                                                                                                                                                                                                                          | Please specify a 'cancel' operation.                                                       | —              |
| 241005      | DMED241005: The process cannot be performed because RAID group is RAID0. Please confirm RAID level and then try again.                                                                                                                                                                                                                                                                           | Please confirm RAID level and then try again.                                              | —              |
| 241006      | DMED241006: The process cannot be performed because the number of parity groups is not 1. Please confirm the RAID group and try again.                                                                                                                                                                                                                                                           | Please confirm the RAID group and try again.                                               | —              |
| 241007      | DMED241007: The process cannot be performed because the specified drives contain an un-mounted drive or a blocked drive. Please confirm the drive status and try again.                                                                                                                                                                                                                          | Please confirm the drive status and try again.                                             | —              |
| 241008      | DMED241008: The specified drive is already defined as a spare drive, or is already being used in the RAID group. Please confirm the drive status and try again.                                                                                                                                                                                                                                  | Please confirm the drive status and try again.                                             | —              |
| 241009      | DMED241009: The process cannot be performed because the number of drive is incorrect. Please specify it by an even number, when RAID level is RAID1 or RAID1+0.                                                                                                                                                                                                                                  | Please specify it by an even number, when RAID level is RAID1 or RAID1+0.                  | —              |
| 24100A      | DMED24100A: The process cannot be performed because the number of drive is incorrect. Please specify the number of drives within the range of the combination at the RAID level.                                                                                                                                                                                                                 | Please specify the number of drives within the range of the combination at the RAID level. | —              |
| 24100B      | DMED24100B: The process cannot be performed because the drive type of the RAID group is different. Please confirm the drive type and try again.                                                                                                                                                                                                                                                  | Please confirm the drive type and try again.                                               | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                   | Recovery methods                                         | Reference page |
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| 24100C      | DMED24100C: The process cannot be performed because the capacity of specified drive is less than the minimum capacity of the RAID group drives. Please confirm the drive capacity and try again.                                                                                                 | Please confirm the drive capacity and try again.         | —              |
| 24100D      | DMED24100D: The process cannot be performed because ShadowImage pair or Remote Replication pair is not Simplex or Split, or SnapShot pair is not Simplex or Paired. Please retry after copy is completed.                                                                                        | Please retry after copy is completed.                    | —              |
| 24100E      | DMED24100E: The process cannot be performed because SnapShot pair is not Paired or Remote Replication pair is not Split. Please retry after copy is completed.                                                                                                                                   | Please retry after copy is completed.                    | —              |
| 24100F      | DMED24100F: The process cannot be performed because some logical unit are under quick formatting. Please retry after quick formatting is completed.                                                                                                                                              | Please retry after quick formatting is completed.        | —              |
| 241010      | DMED241010: The process cannot be performed because some logical unit is under parity correction. Please retry after parity correction is completed.                                                                                                                                             | Please retry after parity correction is completed.       | —              |
| 241011      | DMED241011: The process cannot be performed because the write uncompleted LU is contained. Please recover and then try again.                                                                                                                                                                    | Please recover and then try again.                       | —              |
| 241012      | DMED241012: The process cannot be performed because the Volume Migration pair is contained. Please split the pair and try again.                                                                                                                                                                 | Please split the pair and try again.                     | —              |
| 241013      | DMED241013: The process cannot be performed because the reserve LU of the Volume Migration is contained. Please delete the reserve LU and try again.                                                                                                                                             | Please delete the reserve LU and try again.              | —              |
| 241014      | DMED241014: The process cannot be performed because the Cache Residency LU or a reserved one exists. Please delete the Cache Residency LU and then try again.                                                                                                                                    | Please delete the Cache Residency LU and then try again. | —              |
| 241016      | DMED241016: The process cannot be performed because the LU change is in progress. Please wait for a while and then try again.                                                                                                                                                                    | Please wait for a while and then try again.              | —              |
| 241017      | DMED241017: The process cannot be performed because the size of LU is over 120TB or the unified LU exists. Please shrink the LU capacity and try again.                                                                                                                                          | Please shrink the LU capacity and try again.             | —              |
| 241019      | DMED241019: The process cannot be performed because the subsystem is not restarted, when Cache Partition Manager and SnapShot or Remote Replication is enabled. Or the process cannot be performed because cache partition modification is reserved. Please restart the subsystem and try again. | Please restart the subsystem and try again.              | —              |
| 24101A      | DMED24101A: The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again after status is changed to Split.                                                                                                                                                 | Please try again after status is changed to Split.       | —              |
| 24101B      | DMED24101B: The process cannot be performed because the logical unit in regressed state is contained. Please change the state to normal and try again.                                                                                                                                           | Please change the state to normal and try again.         | —              |
| 241050      | DMED241050: The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed.                                                                                                                                                        | Please retry after expansion is completed.               | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                             | Recovery methods                                                    | Reference page |
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| 241051      | DMED241051: The process cannot be performed because the LU changing occurred by the RAID group expansion. Please retry after expansion is completed.                                                       | Please retry after expansion is completed.                          | —              |
| 250001      | DMED250001: The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                    | Please specify a correct IP address.                                | —              |
| 250002      | DMED250002: The specified default gateway address is incorrect. Please specify a right default gateway address.                                                                                            | Please specify a right default gateway address.                     | —              |
| 250003      | DMED250003: The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.                                          | Please specify a correct IP address.                                | —              |
| 250004      | DMED250004: The process cannot be performed because the specified management LAN is same address as the linklocal management LAN. Please specify the different address and try again.                      | Please specify the different address and try again.                 | —              |
| 250005      | DMED250005: The process cannot be performed because the specified management LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.                     | Please specify the different address and try again.                 | —              |
| 250006      | DMED250006: The process cannot be performed because the specified management LAN is same address as the maintenance LAN. Please specify the different address and try again.                               | Please specify the different address and try again.                 | —              |
| 250007      | DMED250007: The process cannot be performed because the specified maintenance LAN is same address as the management LAN. Please specify the different address and try again.                               | Please specify the different address and try again.                 | —              |
| 250008      | DMED250008: The process cannot be performed because the specified maintenance LAN is same address as the linklocal management LAN. Please specify the different address and try again.                     | Please specify the different address and try again.                 | —              |
| 250009      | DMED250009: The process cannot be performed because the specified maintenance LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.                    | Please specify the different address and try again.                 | —              |
| 25000A      | DMED25000A: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                     | Please wait a moment and then try again.                            | —              |
| 25000B      | DMED25000B: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.                                                                                     | Please wait a moment and then try again.                            | —              |
| 25000C      | DMED25000C: The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                    | Please specify a correct IP address.                                | —              |
| 25000D      | DMED25000D: The specified IP address is incorrect. Please specify a correct IP address.                                                                                                                    | Please specify a correct IP address.                                | —              |
| 25000E      | DMED25000E: The protocol version (IPv4/IPv6) is different between IP address of subsystem and the specified IP address of mail server. Please confirm the protocol version of the subsystem and try again. | Please confirm the protocol version of the subsystem and try again. | —              |
| 25000F      | DMED25000F: The protocol version (IPv4/IPv6) is different between IP address of subsystem and the set IP address of mail server. Please confirm the protocol version of the subsystem and try again.       | Please confirm the protocol version of the subsystem and try again. | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                  | Recovery methods                                                 | Reference page |
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| 260001      | DMED260001: The specified drive is already defined as a spare drive, or is already being used in the RAID group or DP pool. Please confirm the drive status and try again.                                                      | Please confirm the drive status and try again.                   | —              |
| 260002      | DMED260002: The process cannot be performed because the DP pool exists. Please delete the DP pool and try again.                                                                                                                | Please delete the DP pool and try again.                         | —              |
| 260003      | DMED260003: The process cannot be performed because the specified logical unit is a logical unit in the DP pool. Please specify another logical unit and try again.                                                             | Please specify another logical unit and try again.               | —              |
| 260004      | DMED260004: The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed. Please restart the subsystem and then try again. | Please restart the subsystem and then try again.                 | —              |
| 260005      | DMED260005: The number of defined logical unit reached the maximum. Please delete unnecessary logical unit and try again.                                                                                                       | Please delete unnecessary logical unit and try again.            | —              |
| 260006      | DMED260006: The process cannot be performed because the specified RAID group is a RAID group in the DP pool. Please confirm the RAID group and try again.                                                                       | Please confirm the RAID group and try again.                     | —              |
| 260007      | DMED260007: The process cannot be performed because the logical unit which belongs to the DP pool is not normal state. Please recover the status and then try again.                                                            | Please recover the status and then try again.                    | —              |
| 260008      | DMED260008: The specified DP pool number has already been defined. Please specify a new number.                                                                                                                                 | Please specify a new number.                                     | —              |
| 260009      | DMED260009: The process cannot be performed because the specified RAID level is not supported. Please specify the RAID level currently supported and try again.                                                                 | Please specify the RAID level currently supported and try again. | —              |
| 26000A      | DMED26000A: The specified RAID group is already defined or used by DP pool. Please specify a new RAID group.                                                                                                                    | Please specify a new RAID group.                                 | —              |
| 26000B      | DMED26000B: The process cannot be performed because the specified DP pool is neither in normal nor in regressed state. Please recover the status and then try again.                                                            | Please recover the status and then try again.                    | —              |
| 26000C      | Hitachi Storage Navigator Modular 2 is less than Ver.8.00.                                                                                                                                                                      |                                                                  |                |
|             | DMED26000C: The process cannot be performed because the specified drive type is unknown. Please replace the drive with SAS or SATA drive and try again.                                                                         | Please replace the drive with SAS or SATA drive and try again.   | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.8.00 or more.                                                                                                                                                                        |                                                                  |                |
|             | DMED26000C: The process cannot be performed because the non-supported drive is mounted. Please replace the drive and then try again.                                                                                            | Please replace the drive and then try again.                     | —              |
| 26000D      | DMED26000D: The process cannot be performed because the capacity of specified drive is not supported. Please replace the drive currently supported and try again.                                                               | Please replace the drive currently supported and try again.      | —              |
| 26000E      | DMED26000E: The specified DP pool cannot be deleted. Please specify another DP pool.                                                                                                                                            | Please specify another DP pool.                                  | —              |
| 26000F      | DMED26000F: The number of defined RAID group reached the maximum. Please delete unnecessary RAID group and try again.                                                                                                           | Please delete unnecessary RAID group and try again.              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                               | Recovery methods                                                                   | Reference page |
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| 260010      | DMED260010: The process cannot be performed because the subsystem is not restarted after Dynamic Provisioning is installed. Please restart the subsystem and then try again.                                 | Please restart the subsystem and then try again.                                   | —              |
| 260011      | DMED260011: The process cannot be performed because combination of the RAID level and the number of drive does not match. Please confirm combination of the RAID level or the number of drive and try again. | Please confirm combination of the RAID level or the number of drive and try again. | —              |
| 260012      | DMED260012: The specified DP pool is not defined. Please specify a defined DP pool and then try again.                                                                                                       | Please specify a defined DP pool and then try again.                               | —              |
| 260013      | DMED260013: The process cannot be performed because the specified DP pool is neither in normal state. Please recover the status and then try again.                                                          | Please recover the status and then try again.                                      | —              |
| 260014      | DMED260014: The number of drives reach the maximum. Please confirm the number of drives.                                                                                                                     | Please confirm the number of drives.                                               | —              |
| 260015      | DMED260015: The process cannot be performed because the logical unit exists in the DP pool. Please delete the logical unit in the DP pool and then try again.                                                | Please delete the logical unit in the DP pool and then try again.                  | —              |
| 260016      | DMED260016: The process cannot be performed because the drive recovery is in progress. Please retry after drive recovery completes.                                                                          | Please retry after drive recovery completes.                                       | —              |
| 260017      | DMED260017: The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.                                                                          | Please retry after replacement completes.                                          | —              |
| 260018      | DMED260018: The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again.                                                        | Please confirm the values and try again.                                           | —              |
| 260019      | DMED260019: The warning of over provisioning threshold is equal to or more than the limit. Please confirm the values and try again.                                                                          | Please confirm the values and try again.                                           | —              |
| 26001A      | DMED26001A: The process cannot be performed because the combination of drive type and drive capacity does not match. Please confirm the drive type or the drive capacity, and try again.                     | Please confirm the drive type or the drive capacity, and try again.                | —              |
| 26001B      | DMED26001B: There is no drive which can be used. Please confirm the number of drives and try again.                                                                                                          | Please confirm the number of drives and try again.                                 | —              |
| 26001C      | DMED26001C: The process cannot be performed because specified logical unit is not a logical unit in the DP pool. Please specify an logical unit in the DP pool and then try again.                           | Please specify an logical unit in the DP pool and then try again.                  | —              |
| 26001D      | DMED26001D: The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.                                                     | Please increase a larger cache memory than 4GB and then try again.                 | —              |
| 26001E      | DMED26001E: The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.                                                     | Please increase a larger cache memory than 4GB and then try again.                 | —              |
| 26001F      | DMED26001F: The process cannot be performed because the status of DP pool consumed capacity is depletion alert over or capacity depleted. Please confirm the DP pool consumed capacity and then try again.   | Please confirm the DP pool consumed capacity and then try again.                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                     | Recovery methods                                                                                                                                           | Reference page |
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| 260020      | DMED260020: The process cannot be performed because the DP pool consumed capacity is not normal state. Please confirm the DP pool consumed capacity and then try again.                                                                                                                                                            | Please confirm the DP pool consumed capacity and then try again.                                                                                           | —              |
| 260021      | DMED260021: The process cannot be performed because the combination of RAID level and number of drives does not match. Please confirm the number of drives and then try again.                                                                                                                                                     | Please confirm the number of drives and then try again.                                                                                                    | —              |
| 260022      | DMED260022: The process cannot be performed because different drives are specified. Please confirm the drive type and then try again.                                                                                                                                                                                              | Please confirm the drive type and then try again.                                                                                                          | —              |
| 260023      | DMED260023: The process cannot be performed because there are some logical units that are not normal or skip state of the parity correction. Please retry after changing to normal state.                                                                                                                                          | Please retry after changing to normal state.                                                                                                               | —              |
| 260024      | DMED260024: The process cannot be performed because the drive type of the DP pool is different. Please confirm the drive type and then try again.                                                                                                                                                                                  | Please confirm the drive type and then try again.                                                                                                          | —              |
| 260025      | DMED260025: The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition and then try again.                                                                                                                                      | Please confirm the stripe size or the cache partition and then try again.                                                                                  | —              |
| 260026      | DMED260026: The process cannot be performed because the combination of the number of drives and the combination does not match. Please confirm the number of drives and the combination and then try again.",                                                                                                                      | Please confirm the number of drives and the combination and then try again.",                                                                              | —              |
| 260027      | DMED260027: The process cannot be performed because the capacity of DP pool will exceed the maximum. Please delete unnecessary DP pools and then try again.                                                                                                                                                                        | Please delete unnecessary DP pools and then try again.                                                                                                     | —              |
| 260028      | DMED260028: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.                                                                                         | Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again. | —              |
| 260029      | DMED260029: The process cannot be performed because the DP optimization state of the specified logical unit in DP pool or the logical units in DP pool that has specified logical unit is neither in Normal state nor in Failed state. Please wait for completion of DP optimization or cancel DP optimization and then try again. | Please wait for completion of DP optimization or cancel DP optimization and then try again.                                                                | —              |
| 26002A      | DMED26002A: The process cannot be performed because the DP optimization state of logical unit in DP pool is not Normal. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.                                                              | Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.              | —              |
| 26002B      | DMED26002B: The process cannot be performed because the capacity of DP pool for performing DP optimization is insufficient. Please add capacity of DP pool for performing DP optimization and then try again.                                                                                                                      | Please add capacity of DP pool for performing DP optimization and then try again.                                                                          | —              |
| 26002C      | DMED26002C: The process cannot be performed because specified logical unit in DP pool or the logical units in DP pool that has specified logical unit contains the write uncompleted logical unit. Please recover and then try again.                                                                                              | Please recover and then try again.                                                                                                                         | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                               | Recovery methods                                                                        | Reference page |
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| 26002D      | DMED26002D: It is not necessary to cancel because DP optimization state of the logical unit in specified DP pool or the logical unit in DP pool containing specified logical unit is already optimizing or canceling.                                                        | —                                                                                       | —              |
| 26002E      | DMED26002E: The process cannot be performed because DP optimization state of the logical unit in DP pool is not normal. Please confirm DP optimization state of the logical unit in DP pool and then try again.                                                              | Please confirm DP optimization state of the logical unit in DP pool and then try again. | —              |
| 26002F      | DMED26002F: The process cannot be performed because specified logical unit in DP pool contains the write uncompleted logical unit. Please recover and then try again.                                                                                                        | Please recover and then try again.                                                      | —              |
| 260030      | DMED260030: The process cannot be performed because status of the logical unit in specified DP pool or the logical unit in DP pool containing specified logical unit is neither in Normal state nor in Regression state. Please recover the logical unit and then try again. | Please recover the logical unit and then try again.                                     | —              |
| 260031      | DMED260031: The process cannot be performed because ShadowImage pair of Simplex state exists in specified DP pool. Please release the pair and then try again.                                                                                                               | Please release the pair and then try again.                                             | —              |
| 260032      | DMED260032: The process cannot be performed because specified logical unit in DP pool or the logical units in DP pool that has specified logical unit is in the PIN exceeded state. Please recover and then try again.                                                       | Please recover and then try again.                                                      | —              |
| 260033      | DMED260033: The process cannot be performed because state of the DP pool which contains the specified logical unit is Detached. Please recover and then try again.                                                                                                           | Please recover and then try again.                                                      | —              |
| 260034      | DMED260034: The process cannot be performed because status the logical unit in the specified DP pool is in Normal state nor in Regression state. Please recover the logical unit and then try again.                                                                         | Please recover the logical unit and then try again.                                     | —              |
| 260035      | DMED260035: The process cannot be performed because specified logical unit in DP pool is in the PIN exceeded state. Please recover and then try again.                                                                                                                       | Please recover and then try again.                                                      | —              |
| 260036      | DMED260036: The process cannot be performed because the updating of DP management information is in progress. Please wait a moment and then try again.                                                                                                                       | Please wait a moment and then try again.                                                | —              |
| 260037      | DMED260037: The capacity of DP pool to which the specified P-VOL belongs is insufficient. Please add DP pool capacity and then try again.                                                                                                                                    | Please add DP pool capacity and then try again.                                         | —              |
| 260038      | DMED260038: The process cannot be performed because the subsystem is not restarted after DP capacity mode is changed. Please restart the subsystem and then try again.                                                                                                       | Please restart the subsystem and then try again.                                        | —              |
| 260039      | DMED260039: The process cannot be performed because the capacity of DP pool will exceed the maximum. Please restart the subsystem and then try again.                                                                                                                        | Please restart the subsystem and then try again.                                        | —              |
| 26003A      | DMED26003A: The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed, or Advanced Security Mode is changed. Please restart the subsystem and then try again.        | Please restart the subsystem and then try again.                                        | —              |

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| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                | Recovery methods                                                    | Reference page |
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| 300001      | DMED300001: The serial number or equipment ID cannot be changed because the path and pair information does not exist.                                                                                                                                         | Serial number or device ID changes are not required.                | —              |
| 300002      | DMED300002: The serial number or equipment ID cannot be changed because the path and pair information does not exist.                                                                                                                                         | Serial number or device ID changes are not required.                | —              |
| 300005      | DMED300005: The specified serial number or equipment ID is incorrect. Please specify it in 0-9.                                                                                                                                                               | Specify the range between zero and nine.                            | —              |
| 300006      | DMED300006: The specified serial number is incorrect. Please specify a right serial number.                                                                                                                                                                   | Specify the serial number for the other system.                     | —              |
| 300007      | DMED300007: The specified serial number is incorrect. Please specify a right serial number.                                                                                                                                                                   | Specify the serial number for the other system.                     | —              |
| 300008      | DMED300008: 0 is specified as 6 figures of low order of the serial number. Please specify a right serial number.                                                                                                                                              | Specify the serial number for the other system.                     | —              |
| 300009      | DMED300009: The same serial number as a self subsystem is specified. Please specify the serial number of connected subsystem.                                                                                                                                 | Specify the serial number for the other system.                     | —              |
| 30000A      | DMED30000A: The same equipment ID as a self subsystem is specified. Please specify the equipment ID of connected subsystem.                                                                                                                                   | Specify the equipment ID for the other system.                      | —              |
| 30000B      | DMED30000B: The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.                                                                                                                       | Check the subsystem environment.                                    | —              |
| 30000C      | DMED30000C: A value differs from current value is specified as 1 figures of high order of the serial number or equipment ID. Please specify a right serial number or equipment ID.                                                                            | Please specify a right serial number or equipment ID.               | —              |
| 30000D      | DMED30000D: The process cannot be performed because the specified array ID is not set to Remote Replication pair, remote path or remote port CHAP information (Target information). Please confirm the array ID and try again.                                | Please confirm the array ID and try again.                          | —              |
| 30000E      | DMED30000E: The array ID before and behind change is the same. Please specify a right array ID.                                                                                                                                                               | Please specify a right array ID.                                    | —              |
| 3B0011      | Hitachi Storage Navigator Modular 2 is less than Ver.4.3.                                                                                                                                                                                                     |                                                                     |                |
|             | DMED3B0011: The firmware cannot be downgraded because the interface board of iSCSI is equipped. Please change the interface boards to fibre channel and try again.                                                                                            | Please change the interface boards to fibre channel and try again.  | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.4.3 or more.<br>DMED3B0011: The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board. | Please retry by using firmware in relation to this interface board. | —              |
| 3B0012      | DMED3B0012: The firmware cannot be downgraded because the segment size of 64KB or more is set up. Please confirm the cache partition and try again.                                                                                                           | Please confirm the cache partition and try again.                   | —              |
| 3B0013      | DMED3B0013: The firmware cannot be downgraded because the stripe size other than 64KB is set up. Please confirm the stripe size of logical unit and try again.                                                                                                | Please confirm the stripe size of logical unit and try again.       | —              |
| 3B0014      | DMED3B0014: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.                                                                                                        | Please change Remote Replication to de-installed and try again.     | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                       | Recovery methods                                                    | Reference page |
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| 3B0015      | DMED3B0015: The firmware cannot be downgraded because the subsystem is not restarted after the option using data pool is unlocked or enabled. Please restart the subsystem and then try again.                                       | Please restart the subsystem and then try again.                    | —              |
| 3B0016      | DMED3B0016: The firmware cannot be downgraded because the target(s) or CHAP user(s) is not initialized. Please initialize the target(s) and CHAP user(s) and try again.                                                              | Please initialize the target(s) and CHAP user(s) and try again.     | —              |
| 3B0018      | DMED3B0018: The firmware cannot be downgraded because the pair with MU number other than 0 exists in S-VOL of ShadowImage. Please cancel the pair with MU number other than 0 and try again.                                         | Please cancel the pair with MU number other than 0 and try again.   | —              |
| 3B0019      | DMED3B0019: The firmware cannot be downgraded because the pair with MU number of 14 or more exists in SnapShot logical unit. Please cancel the pair with MU number of 14 or more and try again.                                      | Please cancel the pair with MU number of 14 or more and try again.  | —              |
| 3B001A      | DMED3B001A: The firmware cannot be downgraded because P-VOL with 15 or more SnapShot logical unit exists. Please delete SnapShot logical unit to 14 or less, and try again.                                                          | Please delete SnapShot logical unit to 14 or less, and try again.   | —              |
| 3B001B      | DMED3B001B: The firmware cannot be downgraded because the user LU is being used as the pair of Remote Replication. Please cancel the pair and try again.                                                                             | Please cancel the pair and try again.                               | —              |
| 3B001C      | DMED3B001C: The firmware cannot be downgraded because the migrated logical unit exists. Please migrate again.                                                                                                                        | Please migrate again.                                               | —              |
| 3B001D      | DMED3B001D: The firmware cannot be downgraded because Volume Migration is installed. Please de-install the option and try again.                                                                                                     | Please de-install the option and try again.                         | —              |
| 3B001E      | DMED3B001E: The firmware cannot be downgraded because Remote Replication is unlocked. Please lock the option and try again.                                                                                                          | Please lock the option and try again.                               | —              |
| 3B001F      | DMED3B001F: The firmware cannot be downgraded because Account Authentication is installed. Please de-install the option and try again.                                                                                               | Please de-install the option and try again.                         | —              |
| 3B0020      | DMED3B0020: The firmware cannot be downgraded because Power Saving is installed. Please de-install the option and try again.                                                                                                         | Please de-install the option and try again.                         | —              |
| 3B0021      | DMED3B0021: The firmware cannot be downgraded because the NNCtype2 is equipped. Please confirm the configuration.                                                                                                                    | Please confirm the configuration.                                   | —              |
| 3B0022      | DMED3B0022: The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.                                                      | Please delete the remote path and try again.                        | —              |
| 3B0023      | Hitachi Storage Navigator Modular 2 is less than Ver.7.00.<br>DMED3B0023: The firmware cannot be downgraded because the 8Gbps fibre interface board is equipped. Please retry by using firmware in relation to this interface board. | Please retry by using firmware in relation to this interface board. | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.7.00 or more.<br>DMED3B0023: The firmware cannot be downgraded because the 8Gbps fibre interface board is equipped. Please retry by using firmware in relation to this interface board.   | Please retry by using firmware in relation to this interface board. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                                                                                                   | Recovery methods                                                                                                                                                                                                                 | Reference page |
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| 3B0100      | DMED3B0100: The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.                                                                                                                                                                                                     | Please wait a moment and then try again.                                                                                                                                                                                         | —              |
| 3B0101      | DMED3B0101: The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.                                                                                                                                                                                                     | Please wait a moment and then try again.                                                                                                                                                                                         | —              |
| 3B0102      | DMED3B0102: The process cannot be performed because the system drive type is unknown. Please replace the system drive with SAS or SATA drive and try again.                                                                                                                                                                      | Please replace the system drive with SAS or SATA drive and try again.                                                                                                                                                            | —              |
| 3B0103      | DMED3B0103: The firmware replacement cannot be performed because the controller 1 is specified. Please replace the firmware from the controller 0. Or the subsystem may have been rebooted during the firmware replacement. Please replace the firmware again, if the firmware revision is not matched between both controllers. | Please replace the firmware from the controller 0. Or the subsystem may have been rebooted during the firmware replacement. Please replace the firmware again, if the firmware revision is not matched between both controllers. | —              |
| 3B0104      | DMED3B0104: The firmware replacement cannot be performed because firmware replacement of another controller is not completed and the access from hosts is not received. Please perform firmware replacement of this controller again after performing firmware replacement of another controller and completing.                 | Please perform firmware replacement of this controller again after performing firmware replacement of another controller and completing.                                                                                         | —              |
| 3B0201      | DMED3B0201: The process cannot be performed because Data Retention Utility is installed. Please de-install the option and try again.                                                                                                                                                                                             | Please de-install the option and try again.                                                                                                                                                                                      | —              |
| 3C1101      | DMED3C1101: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.                                                                                                                                                                           | Please change Remote Replication to de-installed and try again.                                                                                                                                                                  | —              |
| 3C1164      | DMED3C1164: The firmware cannot be downgraded because the non-supported controller is equipped on the downgraded version. Please retry by using firmware in relation to this controller.                                                                                                                                         | Please retry by using firmware in relation to this controller.                                                                                                                                                                   | —              |
| 3C1211      | DMED3C1211: The firmware cannot be downgraded because the RAID group expansion is now occurring or the RAID group containing unified LU is executed expansion. Please retry after expansion is completed.                                                                                                                        | Please retry after expansion is completed.                                                                                                                                                                                       | —              |
| 3C1212      | Hitachi Storage Navigator Modular 2 is less than Ver.6.10.<br>DMED3C1212: The firmware cannot be downgraded because ShadowImage pair is undergoing resynchronization with Quick Mode. Please retry after the resynchronization is completed.                                                                                     | Please retry after the resynchronization is completed.                                                                                                                                                                           | —              |
|             | Hitachi Storage Navigator Modular 2 is Ver.6.10 or more.<br>DMED3C1212: The firmware cannot be downgraded because ShadowImage pair of Split Pending or Paired Internally Synchronizing exists. Please retry after status is changed to Split or Paired.                                                                          | Please retry after status is changed to Split or Paired.                                                                                                                                                                         | —              |
| 3C1214      | DMED3C1214: The firmware cannot be downgraded because the Dense Units are connected. Please retry after removing the Dense units or by using another firmware.                                                                                                                                                                   | Please retry after removing the Dense units or by using another firmware.                                                                                                                                                        | —              |
| 3C1215      | DMED3C1215: The firmware cannot be downgraded because S-VOL of ShadowImage pair is under formatting. Please retry after formatting is completed.                                                                                                                                                                                 | Please retry after formatting is completed.                                                                                                                                                                                      | —              |



| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                                                                                  | Recovery methods                                                                                                                              | Reference page |
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| 3C1216      | DMED3C1216: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.                                                                                          | Please change Remote Replication to de-installed and try again.                                                                               | —              |
| 3C1217      | DMED3C1217: The firmware cannot be downgraded because Distributed Mode is Hub. Please change the Distributed Mode to Edge and try again.                                                                                                        | Please change the Distributed Mode to Edge and try again.                                                                                     | —              |
| 3C1218      | DMED3C1218: The firmware cannot be downgraded because Dynamic Provisioning is installed. Please change Dynamic Provisioning to de-installed and try again.                                                                                      | Please change Dynamic Provisioning to de-installed and try again.                                                                             | —              |
| 3C1219      | DMED3C1219: The firmware cannot be downgraded because the user whose user authentication is RADIUS exists. Please delete the user whose user authentication is RADIUS and try again.                                                            | Please delete the user whose user authentication is RADIUS and try again.                                                                     | —              |
| 3C121A      | DMED3C121A: The firmware cannot be downgraded because the number of registered account exceeded the maximum value that can be supported on the downgraded version. Please confirm the number of registered account and try again.               | Please confirm the number of registered account and try again.                                                                                | —              |
| 3C121B      | DMED3C121B: The firmware cannot be downgraded because the command device that uses the logical unit in the DP pool exists. Please release the command device that uses the logical unit in the DP pool and try again.                           | Please release the command device that uses the logical unit in the DP pool and try again.                                                    | —              |
| 3C121C      | DMED3C121C: The firmware cannot be downgraded because the DM-LU that uses the logical unit in the DP pool exists. Please release the DM-LU that uses the logical unit in the DP pool and try again.                                             | Please release the DM-LU that uses the logical unit in the DP pool and try again.                                                             | —              |
| 3C121F      | DMED3C121F: The firmware cannot be downgraded because the number of connected subsystem exceeded the maximum value that can be supported on the downgraded version. Please remove drives or use another firmware and then try again.            | Please remove drives or use another firmware and then try again.                                                                              | —              |
| 3C1220      | DMED3C1220: The firmware cannot be downgraded because the volume migration pair that uses the logical unit in the DP pool exists. Please release the pair and try again.                                                                        | Please release the pair and try again.                                                                                                        | —              |
| 3C1221      | DMED3C1221: The firmware cannot be downgraded because the state of DP optimization is optimizing. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again. | Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again. | —              |
| 3C1222      | DMED3C1222: The firmware cannot be downgraded because SSD is mounted. Please remove SSD or use another firmware and then try again.                                                                                                             | Please remove SSD or use another firmware and then try again.                                                                                 | —              |
| 3C1223      | DMED3C1223: The firmware cannot be downgraded because the number of connected Dense units exceeded the maximum value that can be supported on the downgraded version. Please remove the Dense units or use another firmware and then try again. | Please remove the Dense units or use another firmware and then try again.                                                                     | —              |
| 3C1224      | DMED3C1224: The firmware cannot be downgraded because the updating of DP management information is in progress. Please wait a moment and then try again.                                                                                        | Please wait a moment and then try again.                                                                                                      | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                | Recovery methods                                                                                                                                                                                                                                                                                                                                                                                        | Reference page |
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| 3C1225      | DMED3C1225: The firmware cannot be downgraded because Advanced Security Mode is enabled. Please change Advanced Security Mode to disabled and try again.                      | Please change Advanced Security Mode to disabled and try again.                                                                                                                                                                                                                                                                                                                                         | —              |
| 3C1227      | DMED3C1227: The firmware cannot be downgraded because the SAS drives are mounted in the Dense Units. Please remove the SAS drives or use another firmware and then try again. | Please remove the SAS drives or use another firmware and then try again.                                                                                                                                                                                                                                                                                                                                | —              |
| 3C1228      | DMED3C1228: The firmware cannot be downgraded because remote paths are set to an array whose H/W revision is 0200. Please delete remote paths and try again.                  | Please delete remote paths and try again.                                                                                                                                                                                                                                                                                                                                                               | —              |
| 3C12FF      | DMED3C12FF: The firmware cannot be downgraded because tape group targeted differential backup or backed up differential exists. Please delete tape groups, and try again.     | Please delete tape groups, and try again.                                                                                                                                                                                                                                                                                                                                                               | —              |
| 3D0001      | DMED3D0001: The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.                                           | Please retry after replacement completes.                                                                                                                                                                                                                                                                                                                                                               | —              |
| 400001      | DMED400001: The process cannot be performed because the specified logical units contain an unformatted LU. Confirm the logical unit status and try again.                     | None (No forced parity correction is required.)                                                                                                                                                                                                                                                                                                                                                         | —              |
| 400002      | DMED400002: The process cannot be performed because the specified logical units contain V-VOL of Snapshot. Confirm the logical unit status and try again.                     | Retry it specifying a POOL LU.                                                                                                                                                                                                                                                                                                                                                                          | —              |
| 400003      | DMED400003: The process cannot be performed because some logical units are under quick formatting. Confirm the logical unit status and try again.                             | None (No forced parity correction is required.)                                                                                                                                                                                                                                                                                                                                                         | —              |
| 400004      | DMED400004: The process cannot be performed because the specified logical units contain a Sub LU of the unifying LUs. Confirm the logical unit status and try again.          | Instruct again to make a parity correction specifying a parent LU of a unified LU.                                                                                                                                                                                                                                                                                                                      | —              |
| 400005      | DMED400005: The process cannot be performed because the specified logical units contain an invalid LU. Confirm the logical unit status and try again.                         | Confirm the logical unit status and try again.                                                                                                                                                                                                                                                                                                                                                          | —              |
| 400006      | DMED400006: The specified LUs contain regressed LU. Confirm the LU status and try again.                                                                                      | Issue an instruction to make the parity correction after the drive is recovered.                                                                                                                                                                                                                                                                                                                        | —              |
| 400007      | DMED400007: The process cannot be performed because ShadowImage, Remote Replication, or SnapShot is in progress. Please wait a moment and then try again.                     | Please wait a moment and then try again.                                                                                                                                                                                                                                                                                                                                                                | —              |
| 400008      | DMED400008: The operation of 'start' or 'skip', and 'cancel' is specified at the same time. Confirm the operation and try again.                                              | Give instructions to restore, skip, and abort separately.                                                                                                                                                                                                                                                                                                                                               | —              |
| 400009      | DMED400009: The process cannot be performed because the specified logical units contain an undefined LU. Confirm the logical unit status and try again.                       | Retry it specifying a correct LU.                                                                                                                                                                                                                                                                                                                                                                       | —              |
| 400011      | DMED400011: The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                                              | As to an LU for which the parity correction is being made or standing by, instruct to wait for the completion of the restoration or abort the restoration.<br>As to an LU the restoration for which by means of parity is undone or undone 2, instruct to skip the restoration or make the parity correction and wait for completion of the restoration.<br>Retry after performing the operation above. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                      | Recovery methods                                                                                                                                      | Reference page |
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| 400012      | DMED400012: The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.       | Instruct to skip the restoration or make the parity correction and wait for completion of the restoration.                                            | —              |
| 400013      | DMED400013: The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                    | Please try again, after it is completed.                                                                                                              | —              |
| 400014      | DMED400014: The process cannot be performed because parity correction is not completed. Please try again, after it is completed.                    | Please try again, after it is completed.                                                                                                              | —              |
| 400015      | DMED400015: The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.       | Issue an instruction to make or skip the parity correction and wait for completion of the restoration.<br>Retry after performing the operation above. | —              |
| 400021      | DMED400021: The 'cancel' operation cannot be specified to the uncorrected logical units. Confirm the parity correction status and try again.        | Instruct to make a parity correction or skip the restoration.                                                                                         | —              |
| 400022      | DMED400022: The 'start' operation cannot be specified to the aborted logical units. Confirm the parity correction status and try again.             | None (Only a skip can be instructed.)                                                                                                                 | —              |
| 400023      | DMED400023: The 'cancel' operation cannot be specified to the aborted logical units. Confirm the parity correction status and try again.            | None (Only a skip can be instructed.)                                                                                                                 | —              |
| 400024      | DMED400024: The 'start' operation cannot be specified to the correcting logical units. Confirm the parity correction status and try again.          | Instruct again to make the parity correction after an instruction to abort has been given.                                                            | —              |
| 400025      | DMED400025: The 'skip' operation cannot be specified to the correcting logical units. Confirm the parity correction status and try again.           | Give an instruction to abort.                                                                                                                         | —              |
| 400026      | DMED400026: The 'start' operation cannot be specified to the waiting logical units. Confirm the parity correction status and try again.             | Instruct again to make the parity correction after an instruction to abort has been given.                                                            | —              |
| 400027      | DMED400027: The 'skip' operation cannot be specified to the waiting logical units. Confirm the parity correction status and try again.              | Instruct again to make the parity correction after an instruction to abort has been given.                                                            | —              |
| 400028      | DMED400028: The 'cancel' operation cannot be specified to the skipped logical units. Confirm the parity correction status and try again.            | None (No instruction to abort is required.)                                                                                                           | —              |
| 400029      | DMED400029: The 'cancel' operation cannot be specified to the corrected logical units. Confirm the parity correction status and try again.          | None (No instruction to abort is required.)                                                                                                           | —              |
| 40002A      | DMED40002A: The logical units are under quick formatting. Please the parity correction status and try again.                                        | Please the parity correction status and try again.                                                                                                    | —              |
| 500001      | DMED500001: The command device is not registered. Please register the command device and try again.                                                 | Set up the command device.                                                                                                                            | —              |
| 600001      | DMED600001: The process cannot be performed because the specified LU is a Cache Residency LU or a reserved one. Disable the LU, and then try again. | Disable the LU, and then try again.                                                                                                                   | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                         | Recovery methods                                                                                                                                                                                               | Reference page |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 700001      | DMED700001: The specified logical unit is not defined. Specify a defined logical unit.                                                                                 | Specify the correct (enable) LU.                                                                                                                                                                               | —              |
| 700002      | DMED700002: The process cannot be performed because the status of pair is Simplex(SMPL). Confirm the LU status and try again.                                          | Confirm the LU status and try again.                                                                                                                                                                           | —              |
| 800002      | DMED800002: A parameter error occurred. Please confirm the specified parameter.                                                                                        | Contact the Technical Support Center.                                                                                                                                                                          | —              |
| 800004      | DMED800004: The specified NNC number is not NAS port. Please confirm the port type.                                                                                    | Check if the NAS interface has been set.                                                                                                                                                                       | —              |
| 800005      | DMED800005: The process cannot be performed because BIOS is being updated. The updating is completed, then try again.                                                  | Wait until the update of the BIOS is completed.                                                                                                                                                                | —              |
| 800006      | DMED800006: The process cannot be performed because NAS OS is not ready or booting, or it is not in shutdown process. Please confirm NAS OS status and then try again. | Wait until the NNC (NAS Unit) becomes the operation status.                                                                                                                                                    | —              |
| 800007      | DMED: The process cannot be performed because BIOS is being updated. The updating is completed, then try again.                                                        | Wait until the update of the BIOS is completed.                                                                                                                                                                | —              |
| 800008      | DMED800008: The process cannot be performed because the install of the NAS OS is not completed. Please try again after install is completed.                           | When the NAS OS is being installed, wait until the installation is completed.<br>If it is after the installation of the NAS OS failed, reinstall it, and execute it again after the installation is completed. | —              |
| 800009      | DMED800009: The process cannot be performed because the alternative NNC is not active. Please confirm NNC status and try again.                                        | Wait until the other node will be in the ACTIVE status.                                                                                                                                                        | —              |
| 800011      | DMED800011: The process cannot be performed because NAS OS is loading. Please stop NAS OS, then try again.                                                             | Retry after stopping the NNC (NAS Unit).                                                                                                                                                                       | —              |
| 800013      | DMED800013: The process cannot be performed because NAS OS is in shutdown process. Shutdown process is completed, then try again.                                      | Retry after waiting for completion of the shutdown.                                                                                                                                                            | —              |
| 800014      | DMED800014: The process cannot be performed because NAS dump is being collected. The collection is completed, then try again.                                          | Retry after waiting for the completion of the NAS Dump collection.                                                                                                                                             | —              |
| 800015      | DMED800015: The process cannot be performed because System LU is not defined. Please define System LU and then try again.                                              | Retry after defining the system LU.                                                                                                                                                                            | —              |
| 800016      | DMED800016: The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.                                                          | ① Turn off the NNC (NAS Unit).<br>② Retry after turning it on again.                                                                                                                                           | —              |
| 800017      | DMED800017: The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.                                                          | ① Turn off NNC (NAS Unit).<br>② Retry after turning it on again.                                                                                                                                               | —              |
| 800019      | DMED800019: The process cannot be performed because NAS OS is not in stopped state. Please stop NAS OS, then try again.                                                | Retry after stopping the NNC (NAS Unit).                                                                                                                                                                       | —              |
| 80001A      | DMED80001A: The process cannot be performed because BIOS is being updated. The updating is completed, then try again.                                                  | Wait until the update of the BIOS is completed.                                                                                                                                                                | —              |
| 80001B      | DMED80001B: The process cannot be performed because NAS OS is detached. Please recover NAS OS status and then try again.                                               | Retry after releasing the OS from the detachment.                                                                                                                                                              | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                        | Recovery methods                                                                                                                          | Reference page |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 800020      | DMED800020: The specified IP address is incorrect. Please specify a correct IP address.                                                                                               | Specify a correct IP address.                                                                                                             | —              |
| 800021      | DMED800021: The specified number is incorrect. Please specify a correct number.                                                                                                       | Specify the number of the time zone correctly.                                                                                            | —              |
| 800022      | DMED800022: The specified MTU is incorrect. Please specify a correct MTU.                                                                                                             | Specify the correct MTU.                                                                                                                  | —              |
| 800023      | DMED800023: The specified negotiation is incorrect. Please specify a correct negotiation.                                                                                             | Specify the number of the negotiation correctly.                                                                                          | —              |
| 800024      | DMED800024: The process cannot be performed because NAS OS is not ready. Please confirm NAS OS status and then try again.                                                             | Check the status of the NAS OS.                                                                                                           | —              |
| 800025      | DMED800025: The process cannot be performed during NNC LAN setting. Please confirm NAS OS status and then try again.                                                                  | Check the status of the NAS OS.                                                                                                           | —              |
| 800026      | DMED800026: The same IP address as the management LAN of the subsystem cannot be set up. Please specify a correct IP address.                                                         | Specify a correct IP address.                                                                                                             | —              |
| 800027      | DMED800027: The specified time zone does not have daylight saving time. Please confirm the time zone.                                                                                 | Make sure whether the daylight saving time is used or not.                                                                                | —              |
| 800029      | DMED800029: The process cannot be performed because the MTU value of NNC does not match. Please set up the same MTU value.                                                            | Specify the same MTU value in the NNC (NAS Unit) 0 side and the NNC (NAS Unit) 2 side (or the NNC <NAS Unit> 1 and the NNC <NAS Unit> 3). | —              |
| 800030      | DMED800030: The process cannot be performed because specified IP address is same as the current IP address of alternative NNC. Please specify another IP address and try again.       | Check the IP address and specify a different IP address.                                                                                  | —              |
| 800099      | DMED800099: The error occurred during install. Please reboot NAS Setup, then try again.                                                                                               | ① Stop the NAS Setup.<br>② Retry after restarting the NAS.<br>③ If not recovered yet, contact the Technical Support Center.               | —              |
| 901101      | DMED901101: The process cannot be performed because the copy or restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.      | Please confirm the status of the tape group in the backup group.                                                                          | —              |
| 901102      | DMED901102: The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group. | Please confirm the status of the tape group in the backup group.                                                                          | —              |
| 909113      | DMED909113: The process cannot be performed because the version is unmatch between the micro program and the Storage Navigator Modular. Please match the version.                     | Please match the version.                                                                                                                 | —              |
| 909134      | DMED909134: The tape group detail information is invalid.                                                                                                                             | —                                                                                                                                         | —              |
| 909135      | DMED909135: The tape group detail information is invalid.                                                                                                                             | —                                                                                                                                         | —              |
| 909136      | DMED909136: The tape group detail information is invalid.                                                                                                                             | —                                                                                                                                         | —              |
| 909137      | DMED909137: The tape group detail information is invalid.                                                                                                                             | —                                                                                                                                         | —              |
| 909138      | DMED909138: The tape group detail information is invalid.                                                                                                                             | —                                                                                                                                         | —              |
| 909139      | DMED909139: The tape group detail information is invalid.                                                                                                                             | —                                                                                                                                         | —              |
| 90B018      | DMED90B018: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                                       | Please confirm the pair status of logical unit.                                                                                           | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                            | Recovery methods                                                   | Reference page |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------|
| 90B02A      | DMED90B02A: The process cannot be performed because the tape group is not backed up. Please specify tape group which is backed up and try again.                          | Please specify tape group which is backed up and try again.        | —              |
| 90B066      | DMED90B066: The process cannot be performed because the TR constitution restoration is in progress. Please try again, after it is completed.                              | Please try again, after it is completed.                           | —              |
| 90B0C8      | DMED90B0C8: The process failed due to an invalid parameter. Confirm the specified value.                                                                                  | Confirm the specified value.                                       | —              |
| 90B0C9      | DMED90B0C9: The process cannot be performed because the logical unit is not targeted differential backup. Please confirm the logical unit.                                | Please confirm the logical unit.                                   | —              |
| 90B0CC      | DMED90B0CC: The process cannot be performed because the logical unit is not used by this differential backup. Please confirm the logical unit.                            | Please confirm the logical unit.                                   | —              |
| 90B0D2      | DMED90B0D2: The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape group.             | Please increase the cache memory or delete unnecessary tape group. | —              |
| 90B0D3      | DMED90B0D3: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                           | Please confirm the pair status of logical unit.                    | —              |
| 90B0D4      | DMED90B0D4: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                           | Please confirm the pair status of logical unit.                    | —              |
| 90B0D5      | DMED90B0D5: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                           | Please confirm the pair status of logical unit.                    | —              |
| 90B0D6      | DMED90B0D6: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                           | Please confirm the pair status of logical unit.                    | —              |
| 90B0D7      | DMED90B0D7: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                           | Please confirm the pair status of logical unit.                    | —              |
| 90B0D8      | DMED90B0D8: The process cannot be performed because the pair status of logical unit is illegal. Please confirm the pair status of logical unit.                           | Please confirm the pair status of logical unit.                    | —              |
| 90B0D9      | DMED90B0D9: The process cannot be performed because the number of differential backup to the specified logical unit reached the maximum. Please confirm the backup group. | Please confirm the backup group.                                   | —              |
| 90B0DA      | DMED90B0DA: The process failed due to an invalid parameter. Confirm the specified value.                                                                                  | Confirm the specified value.                                       | —              |
| 90B0DB      | DMED90B0DB: The process cannot be performed because the logical unit is not used by this differential backup. Please confirm the logical unit.                            | Please confirm the logical unit.                                   | —              |
| 90B0E3      | DMED90B0E3: The process cannot be performed because the full backup tape group does not exist. Please confirm the tape group.                                             | Please confirm the tape group.                                     | —              |
| 90B0E5      | DMED90B0E5: The process cannot be performed because the status of the full backup tape group is illegal. Please confirm the status of differential source tape group.     | Please confirm the status of differential source tape group.       | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                                                                                        | Recovery methods                                                                         | Reference page |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------|
| 90B0E7      | DMED90B0E7: The process cannot be performed because the restoration of the full backup tape group is in progress. Please try again, after it is completed.                            | Please try again, after it is completed.                                                 | —              |
| 90B0EC      | DMED90B0EC: The process failed due to an invalid parameter. Confirm the specified value.                                                                                              | Confirm the specified value.                                                             | —              |
| 90B0ED      | DMED90B0ED: The process cannot be performed because the cache memory size is insufficient. Please try again, after other restoration is completed.                                    | Please try again, after other restoration is completed.                                  | —              |
| 90B0EE      | DMED90B0EE: The process cannot be performed because the logical unit at restoring destination is not a part of ShadowImage pair. Please confirm the pair status of the logical unit.  | Please confirm the pair status of the logical unit.                                      | —              |
| 90B0F1      | DMED90B0F1: The process cannot be performed because the restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.              | Please confirm the status of the tape group in the backup group.                         | —              |
| 90B0F4      | DMED90B0F4: The process cannot be performed because the copy is in progress in the backup group. Please confirm the status of the tape group in the backup group.                     | Please confirm the status of the tape group in the backup group.                         | —              |
| 90B0F5      | DMED90B0F5: The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group. | Please confirm the status of the tape group in the backup group.                         | —              |
| 90B0F6      | DMED90B0F6: The process cannot be performed because the access level is set to the logical unit. Please confirm the logical unit.                                                     | Please confirm the logical unit.                                                         | —              |
| 910072      | DMED910072: The process cannot be performed because the specified tape group is impossible to import. Please confirm the tape group.                                                  | Please confirm the tape group.                                                           | —              |
| 91100C      | DMED91100C: The process cannot be performed because differential bit map is insufficient. Please delete unnecessary pairs or increase the cache memory.                               | Please delete unnecessary pairs or increase the cache memory.                            | —              |
| C00001      | DMEDC00001: The process cannot be performed because the specified group number is outside the effective range. Please confirm the group number.                                       | Check the specified consistency group (CTG) number.                                      | —              |
| C00002      | DMEDC00002: The process cannot be performed because the specified logical unit number is outside the effective range. Please confirm the logical unit number.                         | Check the configuration.                                                                 | —              |
| C00003      | DMEDC00003: The specified group is not used. Please confirm the group number.                                                                                                         | Check the specified consistency group (CTG) number.                                      | —              |
| C00004      | DMEDC00004: The specified logical unit is not pair. Please confirm the logical unit number.                                                                                           | Check the configuration.                                                                 | —              |
| C00005      | DMEDC00005: The specified logical unit is V-VOL. Please specify another logical unit and try again.                                                                                   | Check the configuration.                                                                 | —              |
| C00006      | DMEDC00006: The specified logical unit is not V-VOL. Please specify the logical unit number of V-VOL and try again.                                                                   | Check the configuration.                                                                 | —              |
| C00007      | DMEDC00007: The process cannot be performed because the number of pairs reached the maximum. Please confirm the settings of pairs.                                                    | Since a pair cannot be created any more in the specified P-VOL, review the set contents. | —              |

| Detail code | Hitachi Storage Navigator Modular 2 indication                                                                               | Recovery methods                                   | Reference page |
|-------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------|
| C00008      | DMEDC00008: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.   | Please confirm the Pair Name and try again.        | —              |
| C00009      | DMEDC00009: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.   | Please confirm the Pair Name and try again.        | —              |
| C0000A      | DMEDC0000A: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.   | Please confirm the Pair Name and try again.        | —              |
| C0000B      | DMEDC0000B: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.   | Please confirm the Pair Name and try again.        | —              |
| C0000C      | DMEDC0000C: The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again. | Please confirm the Group Name and try again.       | —              |
| C0000D      | DMEDC0000D: The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again. | Please confirm the Group Name and try again.       | —              |
| C0000E      | DMEDC0000E: The specified logical unit is Volume Migration pair. Please specify another logical unit and try again.          | Please specify another logical unit and try again. | —              |



## Chapter 10. Failure Factor Codes of the Modular Volume Migration

| Failure factor codes | Factors of the abnormal termination                                                                                                                                                                                                                                                                                                                                           | Recovery method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference page                                                                                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 258                  | A hardware failure of the Control Unit was detected during the execution of the Modular Volume Migration.                                                                                                                                                                                                                                                                     | ① Replace the blocked Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                     |
| 260                  | The incomplete write was detected in the P-VOL during the execution of the Modular Volume Migration.                                                                                                                                                                                                                                                                          | ① 1. Check that the message, "W0L000 (or W0M000) Unreadable PIN detected", "I15300 Data recovery partial" or "I63000 Write uncompleted block detected", is displayed.<br>2. Remove the incomplete write according to the recovery method of the displayed message code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —<br>—                                                                                                                                                                                                                                                       |
| 262                  | The access to the Disk Drive timed out during the execution of the Modular Volume Migration.                                                                                                                                                                                                                                                                                  | ① Replace the blocked Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                     |
| 263                  | The DMA transfer timed out during the execution of the Modular Volume Migration.                                                                                                                                                                                                                                                                                              | ① Replace the blocked Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                                                                                                     |
| 265                  | The DMA transfer terminated abnormally in the generation of the parity data during the execution of the Modular Volume Migration.                                                                                                                                                                                                                                             | ① 1. Replace the Cache memory installed in the blocked Control Unit.<br>2. Replace the blocked Control Unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                                                           |
| 268                  | The LU executing the Modular Volume Migration was blocked. Or one Disk Drive which configures the LU executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Disk Drive failure among the Disk Drives which configure the same RAID Group, so that R/W to the LU became difficult. | ① 1. Check if the LU of the P-VOL or the S-VOL is blocked (two Disk Drives which configure the LU are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6).<br>2. When the LU of the P-VOL or the S-VOL was blocked, recover the LU to "Formatted Logical Unit" referring to <a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation: Case 3 (LU Blockade)"</a> .<br>② 1. Check that one Disk Drive which configures the LU of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Disk Drive failure "I30100 (or I301AT) HDU error" among the Disk Drives which configure the same RAID Group.<br>2. Recover the failure of the Disk Drive referring to <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally: Case 2 (Disk Drive Failure)"</a> . | —<br><a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation: Case 3 (LU Blockade)" (TRBL 06-0740)</a><br>—<br><a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally: Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a> |

| Failure factor codes | Factors of the abnormal termination                                                                                                                      | Recovery method                                                                                                                                                                                                                                    | Reference page                                                                                                                                     |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 269                  | The Control Unit was blocked because the internal processing timed out unjustly during the execution of the Modular Volume Migration.                    | ① Replace the blocked Control Unit.                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| 270                  | A data error was detected while executing Modular Volume Migration.                                                                                      | ① The cause of the abnormal termination is because the error of the intermittent data was detected. There is no failed part.                                                                                                                       | —                                                                                                                                                  |
| 274                  | Since the free capacity of the DP pool was depleted while executing Modular Volume Migration, R/W for the LU created in the DP pool cannot be performed. | ① Add the DP pool capacity.                                                                                                                                                                                                                        | —                                                                                                                                                  |
| 275                  | The planned shutdown of the subsystem occurred while executing Modular Volume Migration.                                                                 | ① The cause of the abnormal termination of Modular Volume Migration being executed is because the planned shutdown of the subsystem occurred while executing Modular Volume Migration. There is no failed part.                                    | —                                                                                                                                                  |
| 513                  | The subsystem shut down during the execution of the Modular Volume Migration.                                                                            | ① The cause that the executing Modular Volume Migration terminated abnormally is because the subsystem shut down during the execution of the Modular Volume Migration. There is no failed part.                                                    | —                                                                                                                                                  |
| 514                  | The Control Unit was blocked during the execution of the Modular Volume Migration.                                                                       | ① Replace the blocked Control Unit.                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| 515                  | The internal retry processing occurred in the Control Unit during the execution of the Modular Volume Migration.                                         | ① The cause that the executing Modular Volume Migration terminated abnormally is because the internal retry processing was executed in the Control Unit. There is no failed part.                                                                  | —                                                                                                                                                  |
| 516                  | A time-out occurred in the DMA transfer during the execution of the Modular Volume Migration.                                                            | ① Replace the blocked Control Unit.                                                                                                                                                                                                                | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| 517                  | The DMA transfer terminated abnormally during the execution of the Modular Volume Migration.                                                             | ① Replace the Control Unit where a failure occurred.                                                                                                                                                                                               | <a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a>                                                                           |
| 518                  | The DMA transfer terminated abnormally in the generation of the parity data during the execution of the Modular Volume Migration.                        | ① 1. Replace the Cache memory installed in the blocked Control Unit.<br>2. If not recovered yet, replace the blocked Control Unit.                                                                                                                 | <a href="#">Replacement "2.2.6 Replacing Cache Unit" (REP 02-0640)</a><br><a href="#">Replacement "2.2.5 Replacing Control Unit" (REP 02-0450)</a> |
| 519                  | The resource was not allocated to the LU created in the DP pool while executing Modular Volume Migration                                                 | ① 1. Check the total capacity and the consumed capacity of the DP pool, and if the free capacity of the DP pool is depleted, add the DP pool capacity.<br>2. If there is the free capacity, execute it again after waiting for one minute or more. | —<br>—                                                                                                                                             |

| Failure factor codes | Factors of the abnormal termination                                                                                                         | Recovery method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference page                                                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 520                  | The internal timeout occurred in I/O received while executing Modular Volume Migration.                                                     | <p>① 1. Check that one Disk Drive which configures the LU of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Disk Drive failure "I30100 (or I301AT) HDU error" among the Disk Drives which configure the same RAID Group.</p> <p>2. Recover the failure of the Disk Drive referring to <a href="#">Troubleshooting "6.1.9 Data Recovery does Not Terminate Normally: Case 2 (Disk Drive Failure)"</a>.</p> <p>② Since the I/O load is high, the resource save took time by competition. Reduce the I/O load to the array subsystem.</p> | <p>—</p> <p><a href="#">Troubleshooting "6.1.9 Data Recovery does Not Terminate Normally: Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a></p> <p>—</p> |
| 521                  | I/O received while executing Modular Volume Migration was not able to be processed in time.                                                 | <p>① 1. Check that one Disk Drive which configures the LU of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Disk Drive failure "I30100 (or I301AT) HDU error" among the Disk Drives which configure the same RAID Group.</p> <p>2. Recover the failure of the Disk Drive referring to <a href="#">Troubleshooting "6.1.9 Data Recovery does Not Terminate Normally: Case 2 (Disk Drive Failure)"</a>.</p> <p>② Since the I/O load is high, the resource save took time by competition. Reduce the I/O load to the array subsystem.</p> | <p>—</p> <p><a href="#">Troubleshooting "6.1.9 Data Recovery does Not Terminate Normally: Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a></p> <p>—</p> |
| 769                  | The number of sub-segments of PIN exceeded the threshold to execute the write through during the execution of the Modular Volume Migration. | <p>① 1. Check that the message, "W3G000 (or W3H000) PIN is over directory threshold", "W3J000 (or W3K000) PIN is over partition threshold" or "W49500 (or W3M000) PIN is over RAID group threshold", is displayed.</p> <p>2. Recover the PIN over referring to <a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation: Case 2 (LA/LRC Error)"</a>.</p>                                                                                                                                                                                                                                                   | <p>—</p> <p><a href="#">Troubleshooting "6.1.12 A Failure Occurred during Operation: Case 2 (LA/LRC Error)" (TRBL 06-0720)</a></p>                     |
| 1025                 | The subsystem shut down during the execution of the Modular Volume Migration, and the data on the Cache memory was lost.                    | <p>① Recover the consistency of the parity of the LU or execute the restoration of the user data referring to <a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)"</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                  | <p><a href="#">Troubleshooting "6.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 06-0110)</a></p>            |

| Failure factor codes | Factors of the abnormal termination                                                                                                                                                                                                                                                                                                                                           | Recovery method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference page                                                                                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1026                 | The LU executing the Modular Volume Migration was blocked. Or one Disk Drive which configures the LU executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Disk Drive failure among the Disk Drives which configure the same RAID Group, so that R/W to the LU became difficult. | ① 1. Check if the LU of the P-VOL or the S-VOL is blocked (two Disk Drives which configure the LU are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6).<br>2. When the LU of the P-VOL or the S-VOL was blocked, recover the LU to "Formatted Logical Unit" referring to <a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation: Case 3 (LU Blockade)"</a> .<br>② 1. Check that one Disk Drive which configures the LU of the P-VOL or the S-VOL is blocked in the case other than RAID 6 and two are blocked in the case of RAID 6, and another one becomes a Disk Drive failure "I30100 (or I301AT) HDU error" among the Disk Drives which configure the same RAID Group.<br>2. Recover the failure of the Disk Drive referring to <a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally: Case 2 (Disk Drive Failure)"</a> . | —<br><a href="#">Troubleshooting "6.1.13 A Failure Occurred during Operation: Case 3 (LU Blockade)" (TRBL 06-0740)</a><br>—<br><a href="#">Troubleshooting "6.1.9 Data Recovery does not Terminate Normally: Case 2 (Disk Drive Failure)" (TRBL 06-0650)</a> |
| 1027                 | The data of the DM-LU could not be read because the Disk Drive was blocked at the time of the subsystem start.                                                                                                                                                                                                                                                                | ① 1. Check that "I6EL00 DM-LU read failed" is displayed in the Information Message on WEB.<br>2. Remove the cause that the reading of the DM-LU fails according to the recovery method of the message code "I6EL00 DM-LU read failed".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | —<br><a href="#">"Chapter 4. Progress Messages" (MSG 04-0000)</a>                                                                                                                                                                                            |
| 1028                 | Because the Disk Drive which configures the LU was blocked after executing the Modular Volume Migration for the LU during the execution of the forced parity correction, the status of the forced parity correction changed to "Uncorrected 1" or "Uncorrected 2".                                                                                                            | ① 1. Check that the status of the LU of the P-VOL or the S-VOL is "Uncorrected and Drive Detached" or "Correction Aborted" from the Hitachi Storage Navigator Modular 2.<br>2. Recover the consistency of the parity of the LU or execute the restoration of the user data corresponding to the status of the LU checked in ①-1 referring to <a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —<br><a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;" (TRBL 06-0150)</a>                                                                                                                                              |
| 1793                 | Because the Disk Drive which configures the LU was blocked after executing the Modular Volume Migration for the LU during the execution of the forced parity correction, the status of the forced parity correction changed to "Uncorrected 1" or "Uncorrected 2".                                                                                                            | ① 1. Check that the status of the LU of the P-VOL or the S-VOL is "Uncorrected and Drive Detached" or "Correction Aborted" from the Hitachi Storage Navigator Modular 2.<br>2. Recover the consistency of the parity of the LU or execute the restoration of the user data corresponding to the status of the LU checked in ①-1 referring to <a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;"</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                               | —<br><a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;" (TRBL 06-0150)</a>                                                                                                                                              |

| Failure factor codes | Factors of the abnormal termination                                                                                                                                                                                                      | Recovery method                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference page                                                                                                                                                                                                                                                  |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1794                 | Because only the number that PIN in the LU was near the threshold was detected after executing the Modular Volume Migration for the LU during the execution of the forced parity correction, the forced parity correction was cancelled. | ① 1. Check that "I1GH00 (or I1GJ00, I1GK00) Forced parity correction stopped by too many PINs" is displayed in the Information Message on WEB.<br>2. Recover the PIN over, recover the consistency of the parity of the LU or restore the user data referring to <a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;"</a> and <a href="#">Troubleshooting "6.1.3 [Recovery method-4] Pin over occurred during the forced parity correction"</a> .         | —<br><br><a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;"</a> (TRBL 06-0150)<br><a href="#">Troubleshooting "6.1.3 [Recovery method-4] Pin over occurred during the forced parity correction" (TRBL 06-0250)</a>         |
| 1795                 | The incomplete write was detected after executing the Modular Volume Migration for the LU executing the forced parity correction.                                                                                                        | ① 1. Check that "I1GE00 Forced parity correction is stopped [Too many Unreadable PINs] is displayed in the Information Message on WEB.<br>2. Recover the incomplete write, recover the consistency of the parity of the LU or restore the user data referring to <a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;"</a> and <a href="#">Troubleshooting "6.1.3 [Recovery method-5] Incomplete write occurred during the forced parity correction"</a> . | —<br><br><a href="#">Troubleshooting "6.1.3 &lt; Forced Parity Collection Maintenance Flow &gt;"</a> (TRBL 06-0150)<br><a href="#">Troubleshooting "6.1.3 [Recovery method-5] Incomplete write occurred during the forced parity correction" (TRBL 06-0270)</a> |
| 2049                 | The internal processing to switch the owner right of the LU between the Control Unit operated during the execution of the Modular Volume Migration, but the internal processing timed out because the load of I/O to the LU was heavy.   | ① 1. The cause that the executing Modular Volume Migration terminated abnormally is because the internal processing timed out the heavy load of I/O to the LU of the pair. There is no failed part.<br>2. If the Modular Volume Migration repeatedly terminates abnormally due to this factor, execute the Modular Volume Migration to the LU before releasing the pair when the load of I/O to the LU of the pair becomes light.                                                            | —<br><br>—                                                                                                                                                                                                                                                      |

