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4. Hardware De-Installation

4.1 De-Installation of Disk Adapter, Drive and DEV Interface Cable (DKC-F810I-SCA/ESCA/CC1/CC2/CC4/300KCM/600JCM/600J5M/900JCM/1R2JCM/ 3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/3R2FM)

Table 4.1-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-SCA	WP820-A	5552770-A	2	DKA
2	DKC-F810I-ESCA	WP820-B	5552771-A	2	DKA

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
3	DKC-F810I-CC1	DEV I/F Cable	5552754-A	8	
		Label (Address)	3287113-1	3	
		Label (Address) 2	3287144-1	3	
		Label (Protect)	3287450-1	6	
4	DKC-F810I-CC2	DEV I/F Cable	5552755-A	8	
		Label (Address)	3287113-1	3	
		Label (Address) 2	3287144-1	3	
		Label (Protect)	3287450-1	6	
5	DKC-F810I-CC4	DEV I/F Cable	5552756-A	8	
		Label (Address)	3287113-1	3	
		Label (Address) 2	3287144-1	3	
		Label (Protect)	3287450-1	6	
		Loop Cable Tie	5552567-1	8	

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
6	DKC-F810I-300KCM	HDU800-300KCMSS	5552785-A	1	
7	DKC-F810I-600JCM	HDU800-600JCMSS	5552786-A	1	
8	DKC-F810I-600J5M	HDU800-600J5MSS	5559095-A	1	
9	DKC-F810I-900JCM	HDU800-900JCMSS	5552787-A	1	
10	DKC-F810I-1R2JCM	HDU800-1R2JCMSS	5552789-A	1	
11	DKC-F810I-3R0H3M	HDU800-3R0H3MSS	5552783-A	1	
12	DKC-F810I-4R0H3M	HDU800-4R0H3MSS	5552784-A	1	
13	DKC-F810I-400MCM	HDU800-400MCMSS	5552790-A	1	
14	DKC-F810I-400M5M	HDU800-400M5MSS	5559078-A	1	
15	DKC-F810I-800MCM	HDU800-800MCMSS	5552791-A	1	
16	DKC-F810I-1R6FM	HDU800-1R6FMSS	3286600-A	1	
17	DKC-F810I-3R2FM	HDU800-3R2FMSS	3286601-A	1	

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Table 4.1-2 Working time

		Number of change (set)	Total (minutes)
DKA	Removal	1	10
		2	15
		3	20
		4	25

NOTE: For DKA removal, additional 3600 seconds (60 minutes) is necessary to newly route cable(s) between drives.

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4.1.1 Flowchart

There are three cases (① to ③) of these removal works as shown in the following table. Perform the work referring to the flowchart of each work.

NOTICE: Before performing removal of the encryption EDKA, you have to disable data encryption at all parity groups and then initialize Encryption Environmental Settings.

For more information about this, see “Disabling data encryption at the parity group level” and “Initialize the connection settings to the key management server” in Hitachi Encryption License Key User Guide.

Note that data which is associated to the encrypted parity group will be lost. Before executing this operation, contact customer to confirm the validity of the operation.

Case	Option De-Installation Procedure	Page
①	When performing removal of the data/spare Drive (DKC-F810I-300KCM/600JCM/600J5M/900JCM/1R2JCM/ 3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/3R2FM)	INST04-01-60
②	When performing removal of the DKA and Device Interface Cable (DKC-F810I-SCA/ESCA/CC1/CC2)	INST04-01-60
③	When performing removal of the data/spare Drive and DEV interface cable that accompanies the removal of the DKU (DKC-F810I-CC1/CC2/CC4/300KCM/600JCM/600J5M/900JCM/ 1R2JCM/3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/ 3R2FM)	INST04-01-70

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① When performing removal of the data/spare Drive

----------[INST04-01A-10 through 660]

1. Setting up the New Device Structure Information
↓
2. De-Installation Procedure of Drive
↓
3. SVP post procedure

② When performing removal of the DKA and Device Interface Cable

----------[INST04-01B-10 through 630]

1. Setting up the New Device Structure Information
↓
2. SVP pre procedure (cluster 1)
↓
3. De-Installation Procedure of Disk Adapter for cluster 2
↓
4. Removal Procedure of Device Interface Cable for Cluster 1 (DKC-F810I-CC2)
↓
5. SVP post procedure (cluster 1)
↓
6. SVP pre procedure (cluster 2)
↓
7. De-Installation Procedure of Disk Adapter for cluster 2
↓
8. Removal Procedure of Device Interface Cable for Cluster 2 (DKC-F810I-CC2)
↓
9. SVP post procedure (cluster 2)
↓
10. SVP post procedure

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③ When performing removal of the data/spare Drive and Device Interface Cable that accompanies the removal of the DKU

---------- [INST04-01C-10 through 1690]

1. Storage System Configurations and Required I/F Cable Options

↓

2. Setting up the New Device Structure Information

↓

3. De-Installation Procedure of Drive

↓

4. De-Installation Procedure of Device Interface Cable CC1 (DKC-F810I-CC1)

↓

5. De-Installation Procedure of Device Interface Cable CC2 (DKC-F810I-CC2)

↓

6. De-Installation Procedure of Device Interface Cable CC4 (DKC-F810I-CC4)

↓

7. De-Installation Procedure of Device Interface Cable CC1/CC2 in the Standard Model that Accompanies the Removal of the DKU-00/10 (DKC-F810I-CC1/CC2)

↓

8. De-Installation Procedure of Device Interface Cable CC2 in the High-Performance Model that Accompanies the Removal of the DKU-00/10 (DKC-F810I-CC2)

↓

9. SVP post procedure (Making sure of completion of the removal)

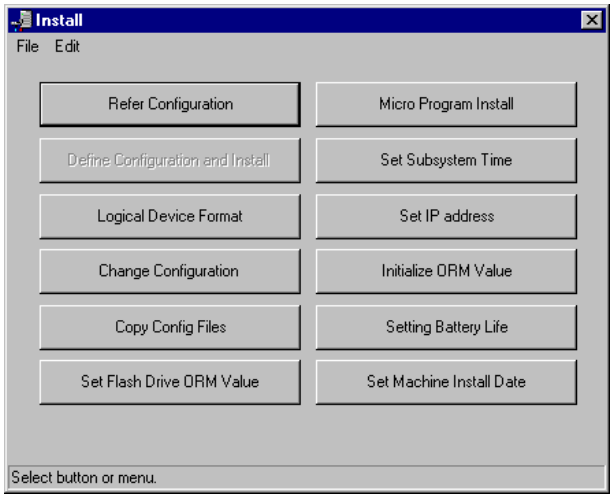
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4.1.2 When performing removal of the data/spare Drive (DKC-F810I-300KCM/600JCM/600J5M/900JCM/1R2JCM/3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/3R2FM)

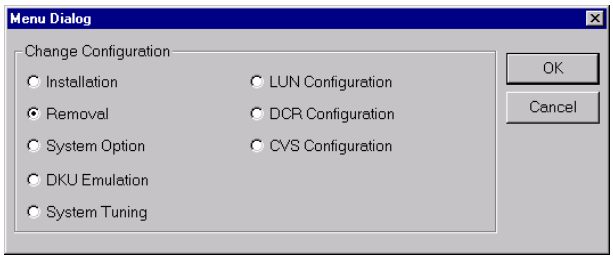
1. Setting up the New Device Structure Information

(1) <Mode Change>
Change the mode to Modify Mode.
Select (CL) [Install].

(2) <Start the 'Menu Dialog' screen>
Select (CL) [Change Configuration].

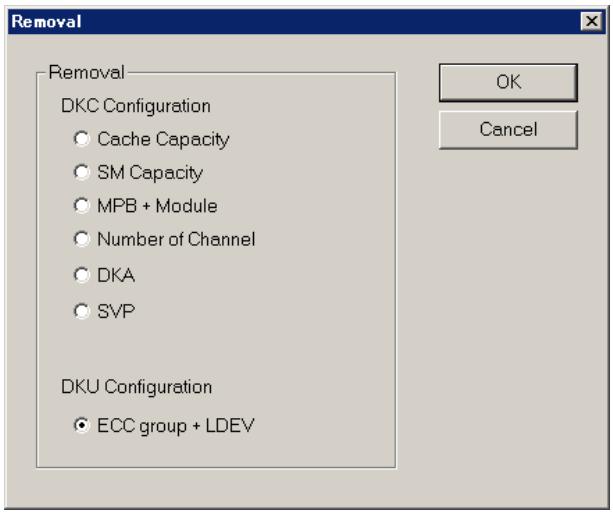


(3) <Start Device Structure Setup screen>
Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].



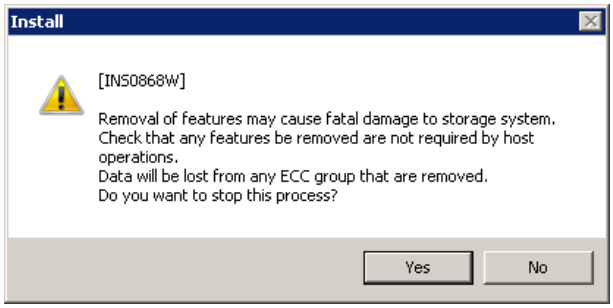
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(4) <Selecting a part to be changed>
Select (CL) [ECC group + LDEV] and select (CL) the [OK].



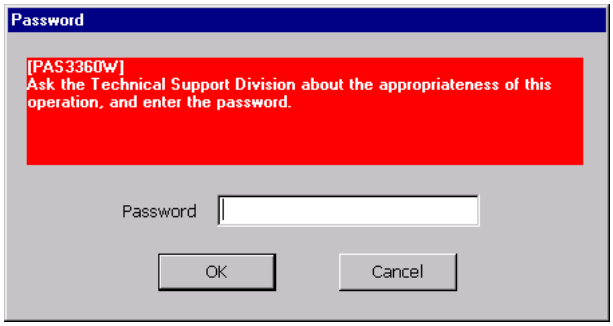
(5)

Select (CL) [No] in response to "Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?".



NOTE: The Alias information which is set to the LDEV included in the ECC to remove is also deleted at the same time.
When the Alias is set, migrate the Alias information to another LDEV before removal or reset it after removal.

(6) <Input password>
Enter the password and select (CL) [OK].

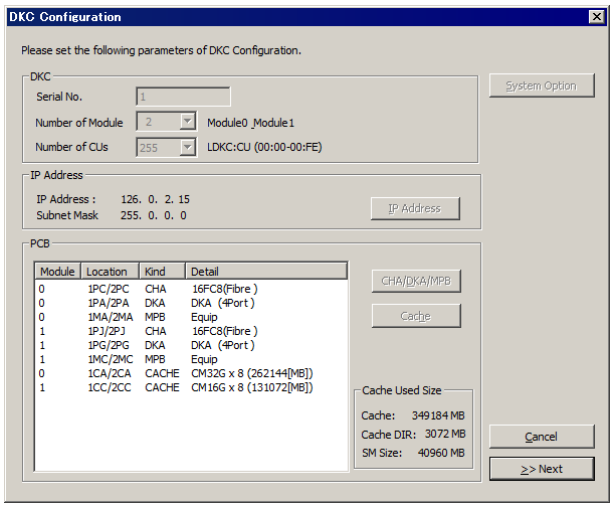


⚠ CAUTION

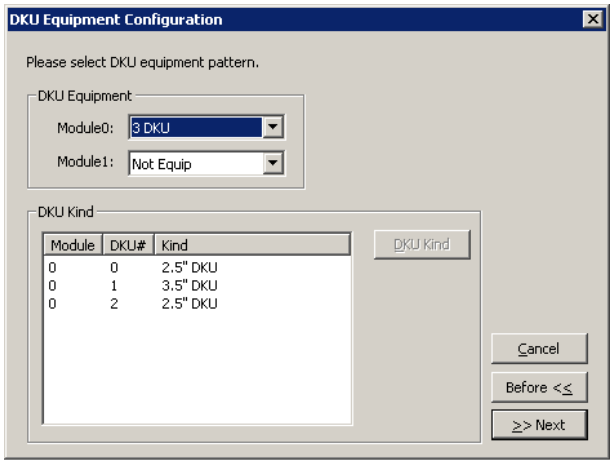
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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(7) <Updating the configuration information>
Select (CL) the [>>Next] in 'DKC Configuration' window.
Go to Step (8).



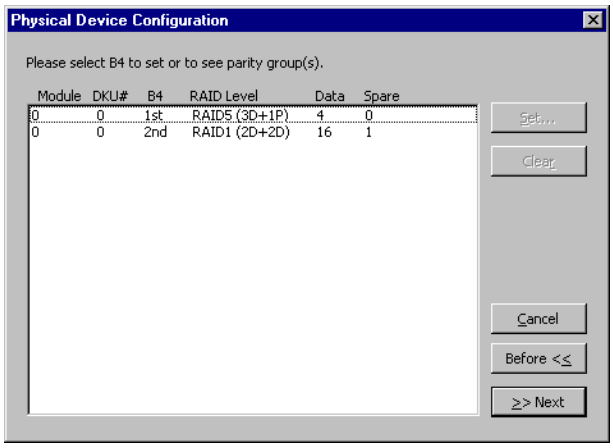
(8) <Setting the DKU frame>
Select (CL) the [>>Next] in 'DKU Equipment Configuration' window.
Go to Step (9).



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(9) <Changing the drive configuration information>
Define the drive configuration according to the 'Physical Drive Configuration' window. The detailed procedure is explained below.
[Set...]: Defines a parity group or a spare disk. The routine goes to Step (9)-1.
[Clear]: Clears the setting of the B4.

After all the settings are made, select (CL) the [>>Next]. Go to Step (10).
When the [Before<<] is selected (CL), the window is returned to Step (8).



• Relation between B4 and HDU Location (Refer to LOC02-40 ~ 80 for Location.)

B4	Location	
	DKU	HDU
1st	DKU-00	HDU-000, 001, 002, 003
2nd	DKU-00	HDU-004, 005, 006, 007
3rd	DKU-10	HDU-100, 101, 102, 103
4th	DKU-10	HDU-104, 105, 106, 107
5th	DKU-01	HDU-010, 011, 012, 013
6th	DKU-01	HDU-014, 015, 016, 017
7th	DKU-11	HDU-110, 111, 112, 113
8th	DKU-11	HDU-114, 115, 116, 117
9th	DKU-02	HDU-020, 021, 022, 023
10th	DKU-02	HDU-024, 025, 026, 027
11th	DKU-12	HDU-120, 121, 122, 123
12th	DKU-12	HDU-124, 125, 126, 127

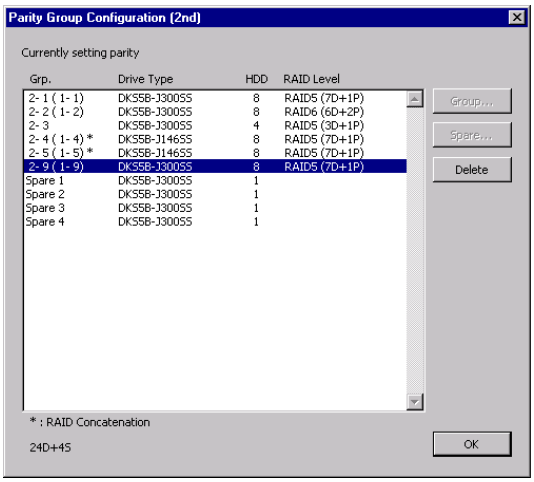
B4	Location	
	DKU	HDU
13th	DKU-03	HDU-030, 031, 032, 033
14th	DKU-03	HDU-034, 035, 036, 037
15th	DKU-13	HDU-130, 131, 132, 133
16th	DKU-13	HDU-134, 135, 136, 137
17th	DKU-04	HDU-040, 041, 042, 043
18th	DKU-04	HDU-044, 045, 046, 047
19th	DKU-14	HDU-140, 141, 142, 143
20th	DKU-14	HDU-144, 145, 146, 147
21st	DKU-05	HDU-050, 051, 052, 053
22nd	DKU-05	HDU-054, 055, 056, 057
23rd	DKU-15	HDU-150, 151, 152, 153
24th	DKU-15	HDU-154, 155, 156, 157

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(9)-1 <Defining the parity group>

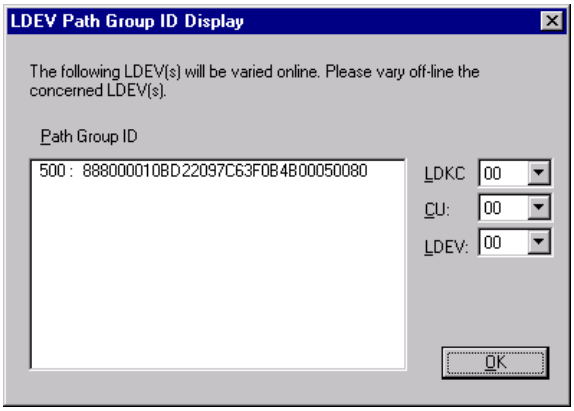
Select (CL) the group to be removed or spare disk, and then select (CL) the [Delete] in the 'Parity Group Configuration' dialog box.
After the setting is made, select (CL) the [OK]. The routine is returned to Step (9).

Grp*: A parity group for which the RAID concatenation is set.



(10) <Display LDEV Path Group ID>

When some of the LDEVs to be uninstalled are connected to hosts because a Vary On-line operation was performed, the "LDEV Path Group ID Display" window appears.



LDKC/CU/LDEV:

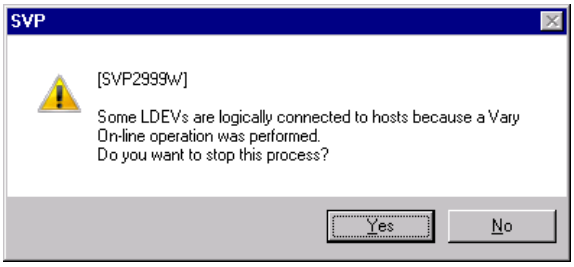
Only the LDEVs to be installed, which are connected to hosts, are displayed

Path Group ID:

List of Path Group IDs of the hosts connected to the LDEVs to be uninstalled. Depending on the host, the LPAR information may be registered in the 4th byte of the Path Group ID (7th and 8th characters on the window. "01" on the window above), and the host serial number may be registered in the 5th and 6th bytes (9th to 12th characters on the window. "0BD2" on the window above).

NOTE: The LPAR information and the HOST serial number may not be registered respectively in the 4th byte and the 5th to 6th byte of Path Group ID depending on the connected host OS. When you cannot specify the target HOST by Path Group ID, execute the Vary Offline operation again from all HOSTs connected to the LDEV to be uninstalled.

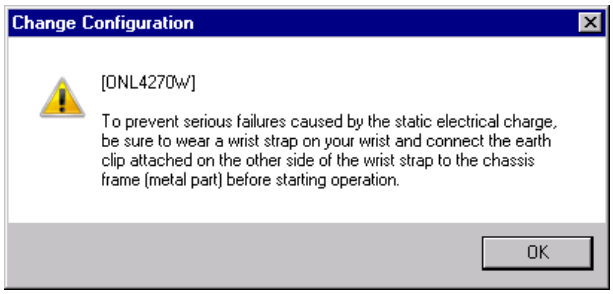
After clicking [OK], click [Yes] for the message, "Some LDEVs are logically connected to hosts because a Vary On-line operation was performed. Do you want to stop this process?" After that, disconnect all the LDEVs to be uninstalled from the host and perform the uninstallation again.



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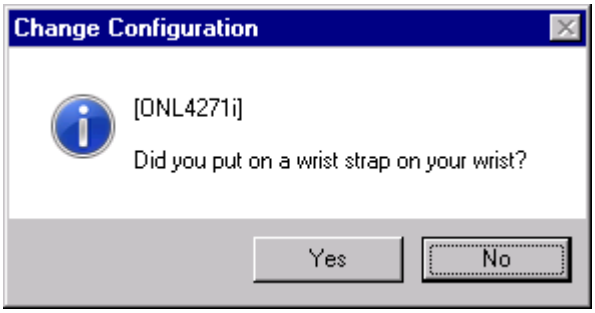
(11) <Wear a wrist strap>

Select (CL) [OK] in response to “To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.”.



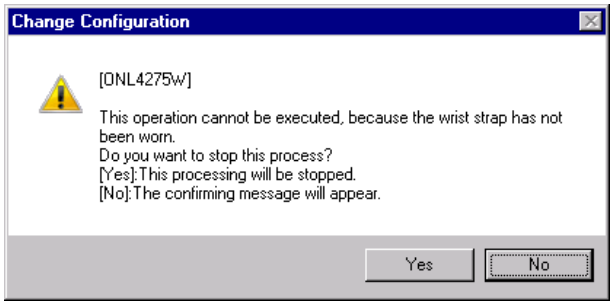
(11)-1 <Confirm wearing wrist strap>

In response to a message, “Did you put on a wrist strap on your wrist?”.
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When the [No] is selected, go to Step (11)-2.



(11)-2

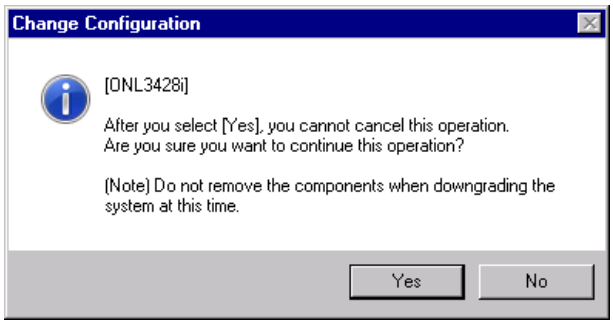
In response to a message, “This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear.”
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-01A-10.
When [No] is selected (CL), returned to Step (11).



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(12) <Starting the removal>

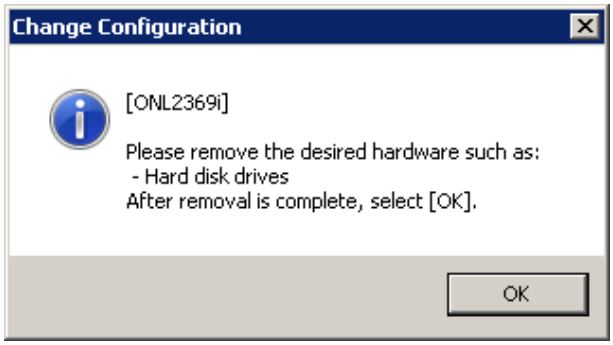
In response to a message, “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components when downgrading the system at this time.” select (CL) [Yes].



When the [No] is selected, the routine is returned to Step (2) on page INST04-01A-10.

(13) <Removing the hardware>

Do not push the [OK] button at this time yet. A message, “Please remove the desired hardware such as:
- Hard disk drives
After removal is complete, select [OK].” is displayed.



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2. De-Installation Procedure of HDD/SSD Canister

2-1 Confirmation of position to de-install HDD/SSD canister

(i) RAID5 (3D+1P) / RAID1 (2D+2D), UBX (DKU for 3.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-1.

Table 4.1.2-1 Relation between drives installation order and RAID group number (3D+1P/2D+2D, UBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	025	5-1	049	9-1	073	13-1	097	17-1	121	21-1
002	2-1	026	6-1	050	10-1	074	14-1	098	18-1	122	22-1
003	1-2	027	5-2	051	9-2	075	13-2	099	17-2	123	21-2
004	2-2	028	6-2	052	10-2	076	14-2	100	18-2	124	22-2
005	1-3	029	5-3	053	9-3	077	13-3	101	17-3	125	21-3
006	2-3	030	6-3	054	10-3	078	14-3	102	18-3	126	22-3
007	1-4	031	5-4	055	9-4	079	13-4	103	17-4	127	21-4
008	2-4	032	6-4	056	10-4	080	14-4	104	18-4	128	22-4
009	1-5	033	5-5	057	9-5	081	13-5	105	17-5	129	21-5
010	2-5	034	6-5	058	10-5	082	14-5	106	18-5	130	22-5
011	1-6	035	5-6	059	9-6	083	13-6	107	17-6	131	21-6
012	2-6	036	6-6	060	10-6	084	14-6	108	18-6	132	22-6
013	1-7	037	5-7	061	9-7	085	13-7	109	17-7	133	21-7
014	2-7	038	6-7	062	10-7	086	14-7	110	18-7	134	22-7
015	1-8	039	5-8	063	9-8	087	13-8	111	17-8	135	21-8
016	2-8	040	6-8	064	10-8	088	14-8	112	18-8	136	22-8
017	1-9	041	5-9	065	9-9	089	13-9	113	17-9	137	21-9
018	2-9	042	6-9	066	10-9	090	14-9	114	18-9	138	22-9
019	1-10	043	5-10	067	9-10	091	13-10	115	17-10	139	21-10
020	2-10	044	6-10	068	10-10	092	14-10	116	18-10	140	22-10
021	1-11	045	5-11	069	9-11	093	13-11	117	17-11	141	21-11
022	2-11	046	6-11	070	10-11	094	14-11	118	18-11	142	22-11
023	1-12 Spare*1	047	5-12 Spare*1	071	9-12 Spare*1	095	13-12 Spare*1	119	17-12 Spare*1	143	21-12 Spare*1
024	2-12 Spare*1	048	6-12 Spare*1	072	10-12 Spare*1	096	14-12 Spare*1	120	18-12 Spare*1	144	22-12 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.2-1 Relation between drives installation order and RAID group (3D+1P/2D+2D, UBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
145	3-1	169	7-1	193	11-1	217	15-1	241	19-1	265	23-1
146	4-1	170	8-1	194	12-1	218	16-1	242	20-1	266	24-1
147	3-2	171	7-2	195	11-2	219	15-2	243	19-2	267	23-2
148	4-2	172	8-2	196	12-2	220	16-2	244	20-2	268	24-2
149	3-3	173	7-3	197	11-3	221	15-3	245	19-3	269	23-3
150	4-3	174	8-3	198	12-3	222	16-3	246	20-3	270	24-3
151	3-4	175	7-4	199	11-4	223	15-4	247	19-4	271	23-4
152	4-4	176	8-4	200	12-4	224	16-4	248	20-4	272	24-4
153	3-5	177	7-5	201	11-5	225	15-5	249	19-5	273	23-5
154	4-5	178	8-5	202	12-5	226	16-5	250	20-5	274	24-5
155	3-6	179	7-6	203	11-6	227	15-6	251	19-6	275	23-6
156	4-6	180	8-6	204	12-6	228	16-6	252	20-6	276	24-6
157	3-7	181	7-7	205	11-7	229	15-7	253	19-7	277	23-7
158	4-7	182	8-7	206	12-7	230	16-7	254	20-7	278	24-7
159	3-8	183	7-8	207	11-8	231	15-8	255	19-8	279	23-8
160	4-8	184	8-8	208	12-8	232	16-8	256	20-8	280	24-8
161	3-9	185	7-9	209	11-9	233	15-9	257	19-9	281	23-9
162	4-9	186	8-9	210	12-9	234	16-9	258	20-9	282	24-9
163	3-10	187	7-10	211	11-10	235	15-10	259	19-10	283	23-10
164	4-10	188	8-10	212	12-10	236	16-10	260	20-10	284	24-10
165	3-11	189	7-11	213	11-11	237	15-11	261	19-11	285	23-11
166	4-11	190	8-11	214	12-11	238	16-11	262	20-11	286	24-11
167	3-12 Spare*1	191	7-12 Spare*1	215	11-12 Spare*1	239	15-12 Spare*1	263	19-12 Spare*1	287	23-12 Spare*1
168	4-12 Spare*1	192	8-12 Spare*1	216	12-12 Spare*1	240	16-12 Spare*1	264	20-12 Spare*1	288	24-12 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 4	LFF Disk Drive	
2	DKC-F810I-400M5M × 4	LFF SSD Drive	

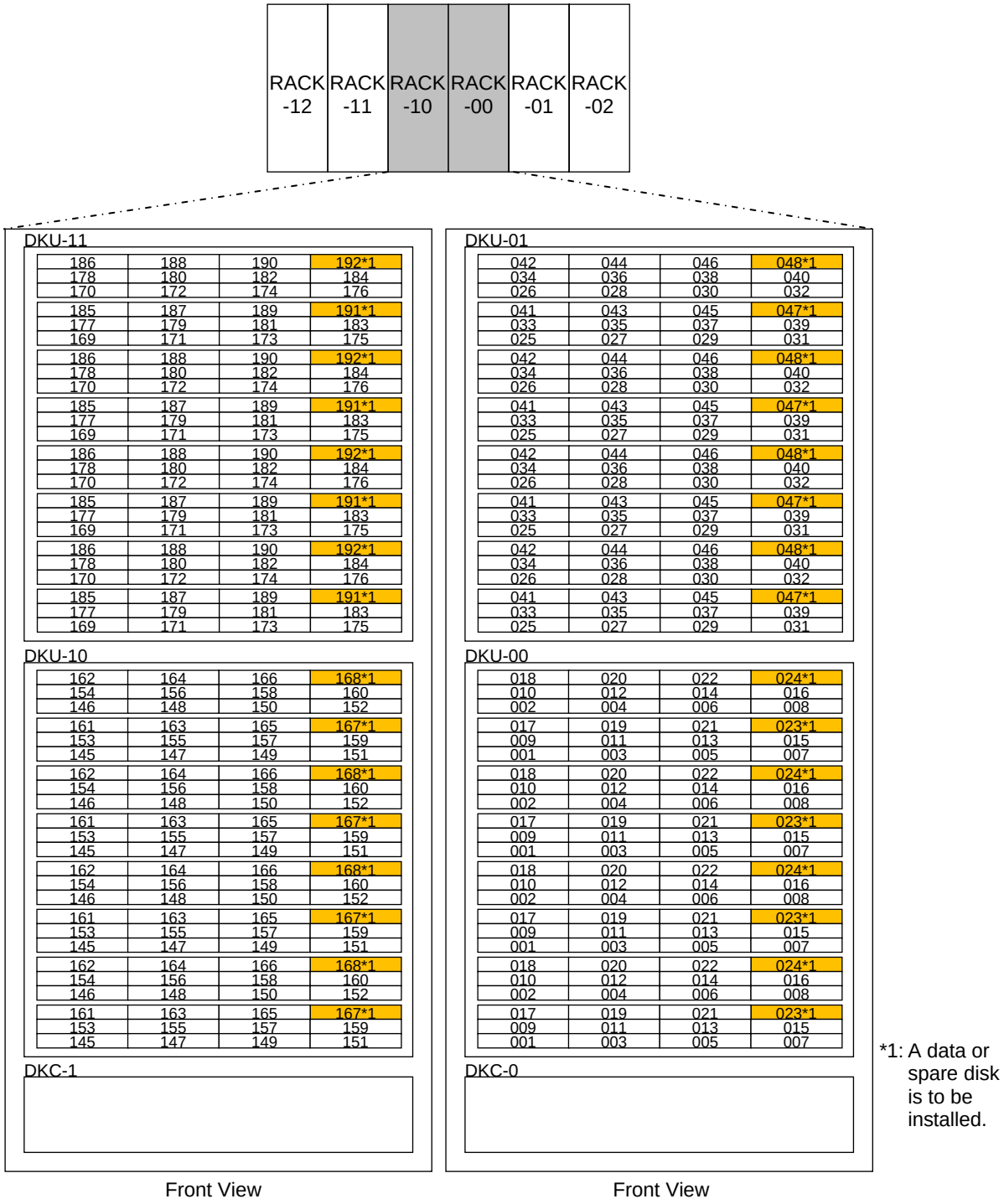


Fig. 4.1.2-1 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-1.

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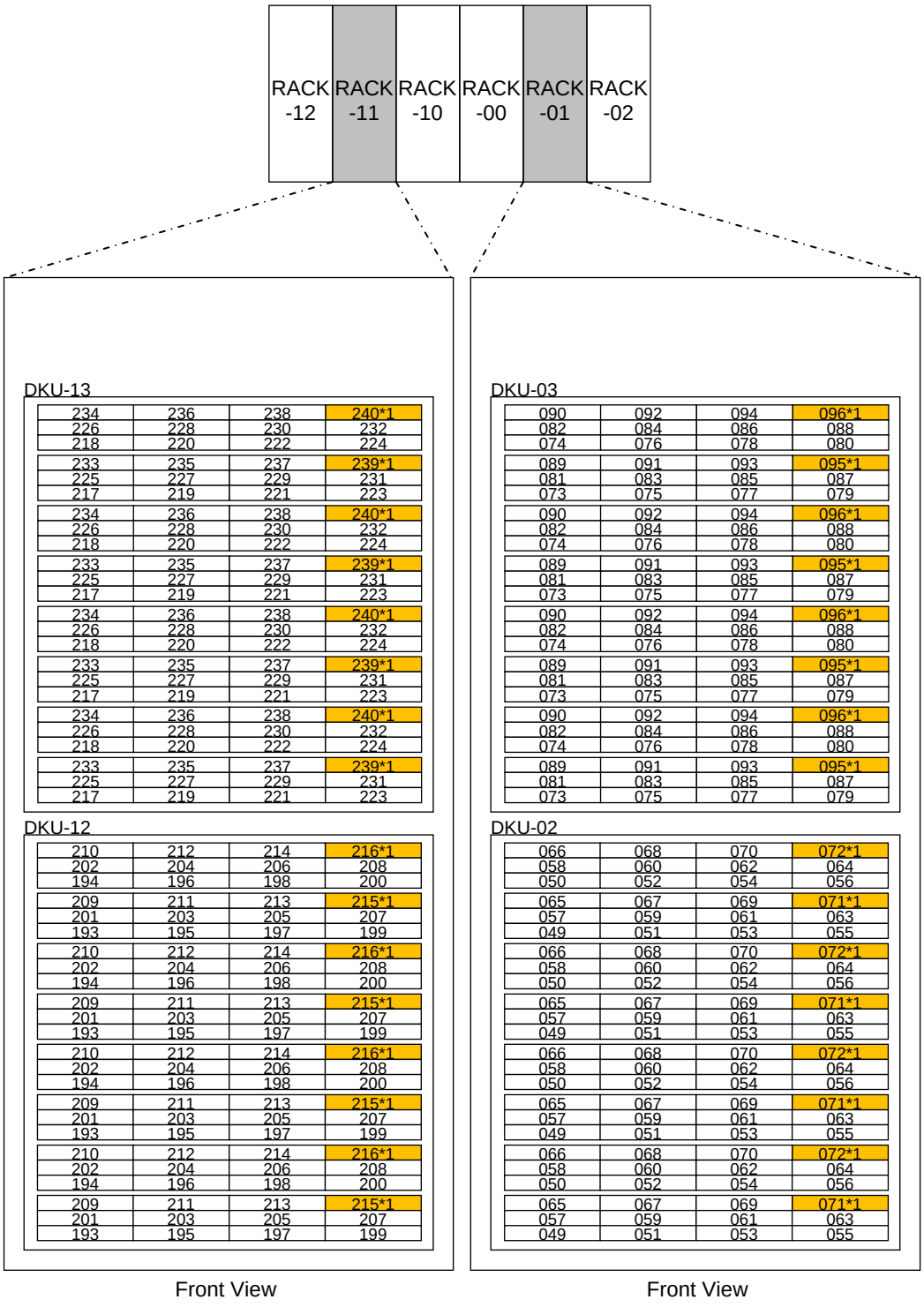


Fig. 4.1.2-1 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-1.

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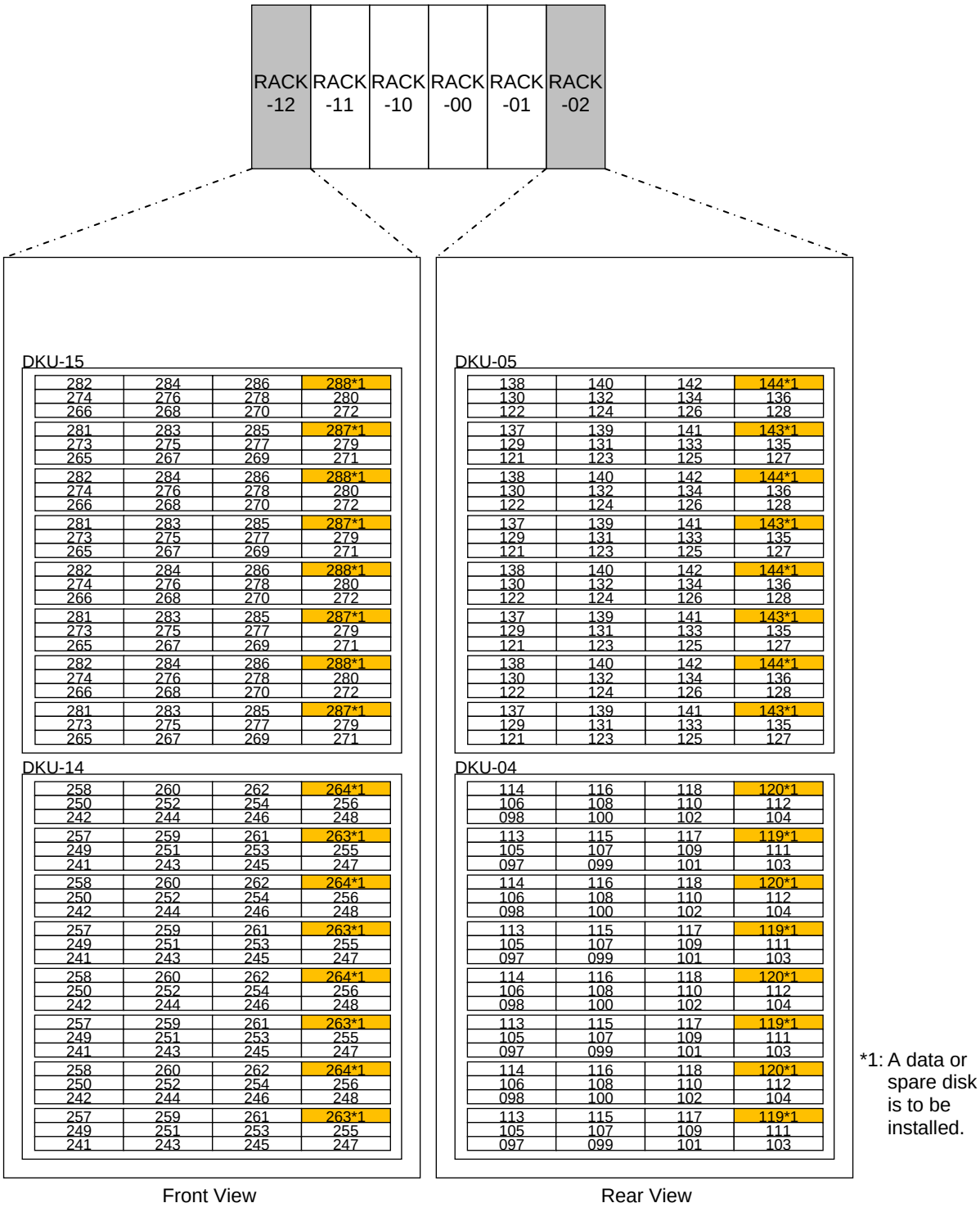


Fig. 4.1.2-1 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-1.

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(ii) RAID5 (3D+1P) / RAID1 (2D+2D), SBX (DKU for 2.5 inch Drive)
Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-2.

Table 4.1.2-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (1/4)

DKU-00				DKU-01				DKU-02			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	025	1-13	049	5-1	073	5-13	097	9-1	121	9-13
002	2-1	026	2-13	050	6-1	074	6-13	098	10-1	122	10-13
003	1-2	027	1-14	051	5-2	075	5-14	099	9-2	123	9-14
004	2-2	028	2-14	052	6-2	076	6-14	100	10-2	124	10-14
005	1-3	029	1-15	053	5-3	077	5-15	101	9-3	125	9-15
006	2-3	030	2-15	054	6-3	078	6-15	102	10-3	126	10-15
007	1-4	031	1-16	055	5-4	079	5-16	103	9-4	127	9-16
008	2-4	032	2-16	056	6-4	080	6-16	104	10-4	128	10-16
009	1-5	033	1-17	057	5-5	081	5-17	105	9-5	129	9-17
010	2-5	034	2-17	058	6-5	082	6-17	106	10-5	130	10-17
011	1-6	035	1-18	059	5-6	083	5-18	107	9-6	131	9-18
012	2-6	036	2-18	060	6-6	084	6-18	108	10-6	132	10-18
013	1-7	037	1-19	061	5-7	085	5-19	109	9-7	133	9-19
014	2-7	038	2-19	062	6-7	086	6-19	110	10-7	134	10-19
015	1-8	039	1-20	063	5-8	087	5-20	111	9-8	135	9-20
016	2-8	040	2-20	064	6-8	088	6-20	112	10-8	136	10-20
017	1-9	041	1-21	065	5-9	089	5-21	113	9-9	137	9-21
018	2-9	042	2-21	066	6-9	090	6-21	114	10-9	138	10-21
019	1-10	043	1-22	067	5-10	091	5-22	115	9-10	139	9-22
020	2-10	044	2-22	068	6-10	092	6-22	116	10-10	140	10-22
021	1-11	045	1-23	069	5-11	093	5-23	117	9-11	141	9-23
022	2-11	046	2-23	070	6-11	094	6-23	118	10-11	142	10-23
023	1-12	047	1-24 Spare*1	071	5-12	095	5-24 Spare*1	119	9-12	143	9-24 Spare*1
024	2-12	048	2-24 Spare*1	072	6-12	096	6-24 Spare*1	120	10-12	144	10-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.2-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (2/4)

DKU-03				DKU-04				DKU-05			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
145	13-1	169	13-13	193	17-1	217	17-13	241	21-1	265	21-13
146	14-1	170	14-13	194	18-1	218	18-13	242	22-1	266	22-13
147	13-2	171	13-14	195	17-2	219	17-14	243	21-2	267	21-14
148	14-2	172	14-14	196	18-2	220	18-14	244	22-2	268	22-14
149	13-3	173	13-15	197	17-3	221	17-15	245	21-3	269	21-15
150	14-3	174	14-15	198	18-3	222	18-15	246	22-3	270	22-15
151	13-4	175	13-16	199	17-4	223	17-16	247	21-4	271	21-16
152	14-4	176	14-16	200	18-4	224	18-16	248	22-4	272	22-16
153	13-5	177	13-17	201	17-5	225	17-17	249	21-5	273	21-17
154	14-5	178	14-17	202	18-5	226	18-17	250	22-5	274	22-17
155	13-6	179	13-18	203	17-6	227	17-18	251	21-6	275	21-18
156	14-6	180	14-18	204	18-6	228	18-18	252	22-6	276	22-18
157	13-7	181	13-19	205	17-7	229	17-19	253	21-7	277	21-19
158	14-7	182	14-19	206	18-7	230	18-19	254	22-7	278	22-19
159	13-8	183	13-20	207	17-8	231	17-20	255	21-8	279	21-20
160	14-8	184	14-20	208	18-8	232	18-20	256	22-8	280	22-20
161	13-9	185	13-21	209	17-9	233	17-21	257	21-9	281	21-21
162	14-9	186	14-21	210	18-9	234	18-21	258	22-9	282	22-21
163	13-10	187	13-22	211	17-10	235	17-22	259	21-10	283	21-22
164	14-10	188	14-22	212	18-10	236	18-22	260	22-10	284	22-22
165	13-11	189	13-23	213	17-11	237	17-23	261	21-11	285	21-23
166	14-11	190	14-23	214	18-11	238	18-23	262	22-11	286	22-23
167	13-12	191	13-24 Spare*1	215	17-12	239	17-24 Spare*1	263	21-12	287	21-24 Spare*1
168	14-12	192	14-24 Spare*1	216	18-12	240	18-24 Spare*1	264	22-12	288	22-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.2-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (3/4)

DKU-10				DKU-11				DKU-12			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
289	3-1	313	3-13	337	7-1	361	7-13	385	11-1	409	11-13
290	4-1	314	4-13	338	8-1	362	8-13	386	12-1	410	12-13
291	3-2	315	3-14	339	7-2	363	7-14	387	11-2	411	11-14
292	4-2	316	4-14	340	8-2	364	8-14	388	12-2	412	12-14
293	3-3	317	3-15	341	7-3	365	7-15	389	11-3	413	11-15
294	4-3	318	4-15	342	8-3	366	8-15	390	12-3	414	12-15
295	3-4	319	3-16	343	7-4	367	7-16	391	11-4	415	11-16
296	4-4	320	4-16	344	8-4	368	8-16	392	12-4	416	12-16
297	3-5	321	3-17	345	7-5	369	7-17	393	11-5	417	11-17
298	4-5	322	4-17	346	8-5	370	8-17	394	12-5	418	12-17
299	3-6	323	3-18	347	7-6	371	7-18	395	11-6	419	11-18
300	4-6	324	4-18	348	8-6	372	8-18	396	12-6	420	12-18
301	3-7	325	3-19	349	7-7	373	7-19	397	11-7	421	11-19
302	4-7	326	4-19	350	8-7	374	8-19	398	12-7	422	12-19
303	3-8	327	3-20	351	7-8	375	7-20	399	11-8	423	11-20
304	4-8	328	4-20	352	8-8	376	8-20	400	12-8	424	12-20
305	3-9	329	3-21	353	7-9	377	7-21	401	11-9	425	11-21
306	4-9	330	4-21	354	8-9	378	8-21	402	12-9	426	12-21
307	3-10	331	3-22	355	7-10	379	7-22	403	11-10	427	11-22
308	4-10	332	4-22	356	8-10	380	8-22	404	12-10	428	12-22
309	3-11	333	3-23	357	7-11	381	7-23	405	11-11	429	11-23
310	4-11	334	4-23	358	8-11	382	8-23	406	12-11	430	12-23
311	3-12	335	3-24 Spare*1	359	7-12	383	7-24 Spare*1	407	11-12	431	11-24 Spare*1
312	4-12	336	4-24 Spare*1	360	8-12	384	8-24 Spare*1	408	12-12	432	12-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.2-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (4/4)

DKU-13				DKU-14				DKU-15			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
433	15-1	457	15-13	481	19-1	505	19-13	529	23-1	553	23-13
434	16-1	458	16-13	482	20-1	506	20-13	530	24-1	554	24-13
435	15-2	459	15-14	483	19-2	507	19-14	531	23-2	555	23-14
436	16-2	460	16-14	484	20-2	508	20-14	532	24-2	556	24-14
437	15-3	461	15-15	485	19-3	509	19-15	533	23-3	557	23-15
438	16-3	462	16-15	486	20-3	510	20-15	534	24-3	558	24-15
439	15-4	463	15-16	487	19-4	511	19-16	535	23-4	559	23-16
440	16-4	464	16-16	488	20-4	512	20-16	536	24-4	560	24-16
441	15-5	465	15-17	489	19-5	513	19-17	537	23-5	561	23-17
442	16-5	466	16-17	490	20-5	514	20-17	538	24-5	562	24-17
443	15-6	467	15-18	491	19-6	515	19-18	539	23-6	563	23-18
444	16-6	468	16-18	492	20-6	516	20-18	540	24-6	564	24-18
445	15-7	469	15-19	493	19-7	517	19-19	541	23-7	565	23-19
446	16-7	470	16-19	494	20-7	518	20-19	542	24-7	566	24-19
447	15-8	471	15-20	495	19-8	519	19-20	543	23-8	567	23-20
448	16-8	472	16-20	496	20-8	520	20-20	544	24-8	568	24-20
449	15-9	473	15-21	497	19-9	521	19-21	545	23-9	569	23-21
450	16-9	474	16-21	498	20-9	522	20-21	546	24-9	570	24-21
451	15-10	475	15-22	499	19-10	523	19-22	547	23-10	571	23-22
452	16-10	476	16-22	500	20-10	524	20-22	548	24-10	572	24-22
453	15-11	477	15-23	501	19-11	525	19-23	549	23-11	573	23-23
454	16-11	478	16-23	502	20-11	526	20-23	550	24-11	574	24-23
455	15-12	479	15-24 Spare*1	503	19-12	527	19-24 Spare*1	551	23-12	575	23-24 Spare*1
456	16-12	480	16-24 Spare*1	504	20-12	528	20-24 Spare*1	552	24-12	576	24-24 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 4	SFF Disk Drive	
2	DKC-F810I-400MCM/800MCM × 4	SFF SSD Drive	

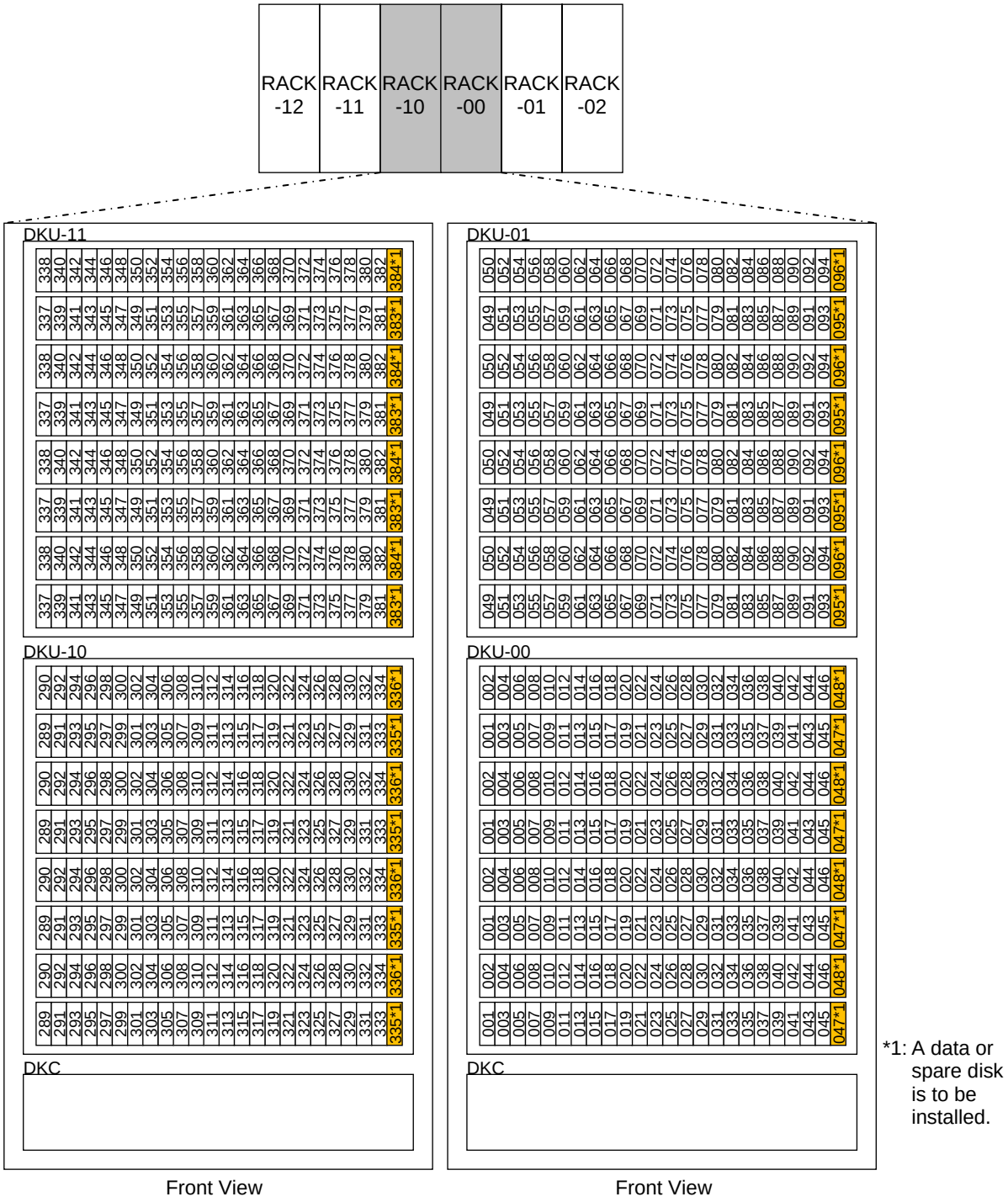


Fig. 4.1.2-2 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-2.

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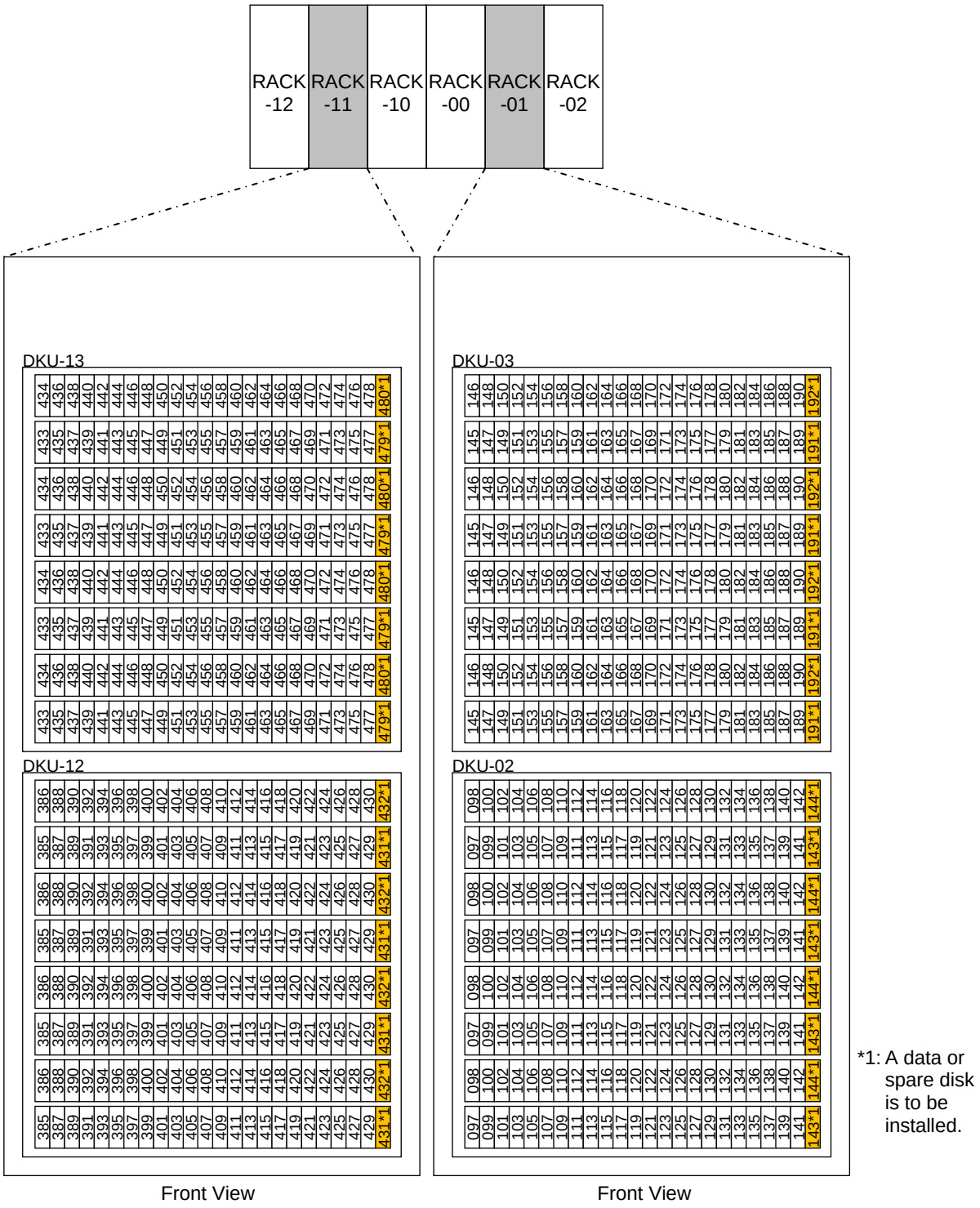


Fig. 4.1.2-2 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-2.

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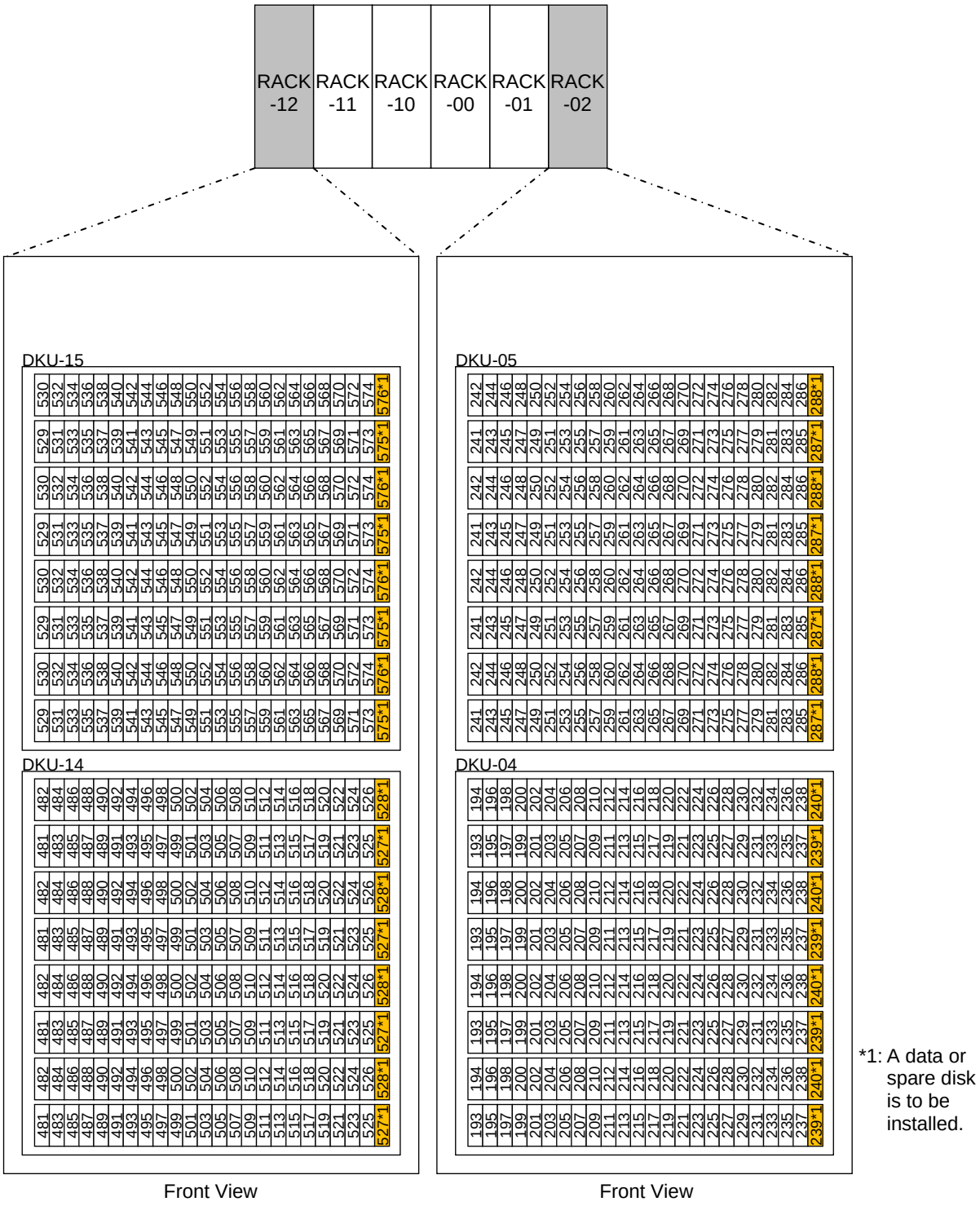


Fig. 4.1.2-2 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-2.

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(iii) RAID5 (3D+1P) / RAID1 (2D+2D), FBX (DKU for FMD)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-3.

Table 4.1.2-3 Relation between drives installation order and RAID group number (3D+1P/2D+2D, FBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	013	5-1	025	9-1	037	13-1	049	17-1	061	21-1
002	2-1	014	6-1	026	10-1	038	14-1	050	18-1	062	22-1
003	1-2	015	5-2	027	9-2	039	13-2	051	17-2	063	21-2
004	2-2	016	6-2	028	10-2	040	14-2	052	18-2	064	22-2
005	1-3	017	5-3	029	9-3	041	13-3	053	17-3	065	21-3
006	2-3	018	6-3	030	10-3	042	14-3	054	18-3	066	22-3
007	1-4	019	5-4	031	9-4	043	13-4	055	17-4	067	21-4
008	2-4	020	6-4	032	10-4	044	14-4	056	18-4	068	22-4
009	1-5	021	5-5	033	9-5	045	13-5	057	17-5	069	21-5
010	2-5	022	6-5	034	10-5	046	14-5	058	18-5	070	22-5
011	1-6 Spare*1	023	5-6 Spare*1	035	9-6 Spare*1	047	13-6 Spare*1	059	17-6 Spare*1	071	21-6 Spare*1
012	2-6 Spare*1	024	6-6 Spare*1	036	10-6 Spare*1	048	14-6 Spare*1	060	18-6 Spare*1	072	22-6 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.2-3 Relation between drives installation order and RAID group number (3D+1P/2D+2D, FBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
073	3-1	085	7-1	097	11-1	109	15-1	121	19-1	133	23-1
074	4-1	086	8-1	098	12-1	110	16-1	122	20-1	134	24-1
075	3-2	087	7-2	099	11-2	111	15-2	123	19-2	135	23-2
076	4-2	088	8-2	100	12-2	112	16-2	124	20-2	136	24-2
077	3-3	089	7-3	101	11-3	113	15-3	125	19-3	137	23-3
078	4-3	090	8-3	102	12-3	114	16-3	126	20-3	138	24-3
079	3-4	091	7-4	103	11-4	115	15-4	127	19-4	139	23-4
080	4-4	092	8-4	104	12-4	116	16-4	128	20-4	140	24-4
081	3-5	093	7-5	105	11-5	117	15-5	129	19-5	141	23-5
082	4-5	094	8-5	106	12-5	118	16-5	130	20-5	142	24-5
083	3-6 Spare*1	095	7-6 Spare*1	107	11-6 Spare*1	119	15-6 Spare*1	131	19-6 Spare*1	143	23-6 Spare*1
084	4-6 Spare*1	096	8-6 Spare*1	108	12-6 Spare*1	120	16-6 Spare*1	132	20-6 Spare*1	144	24-6 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-1R6FM/3R2FM × 4	Flash Module Drive	FMD

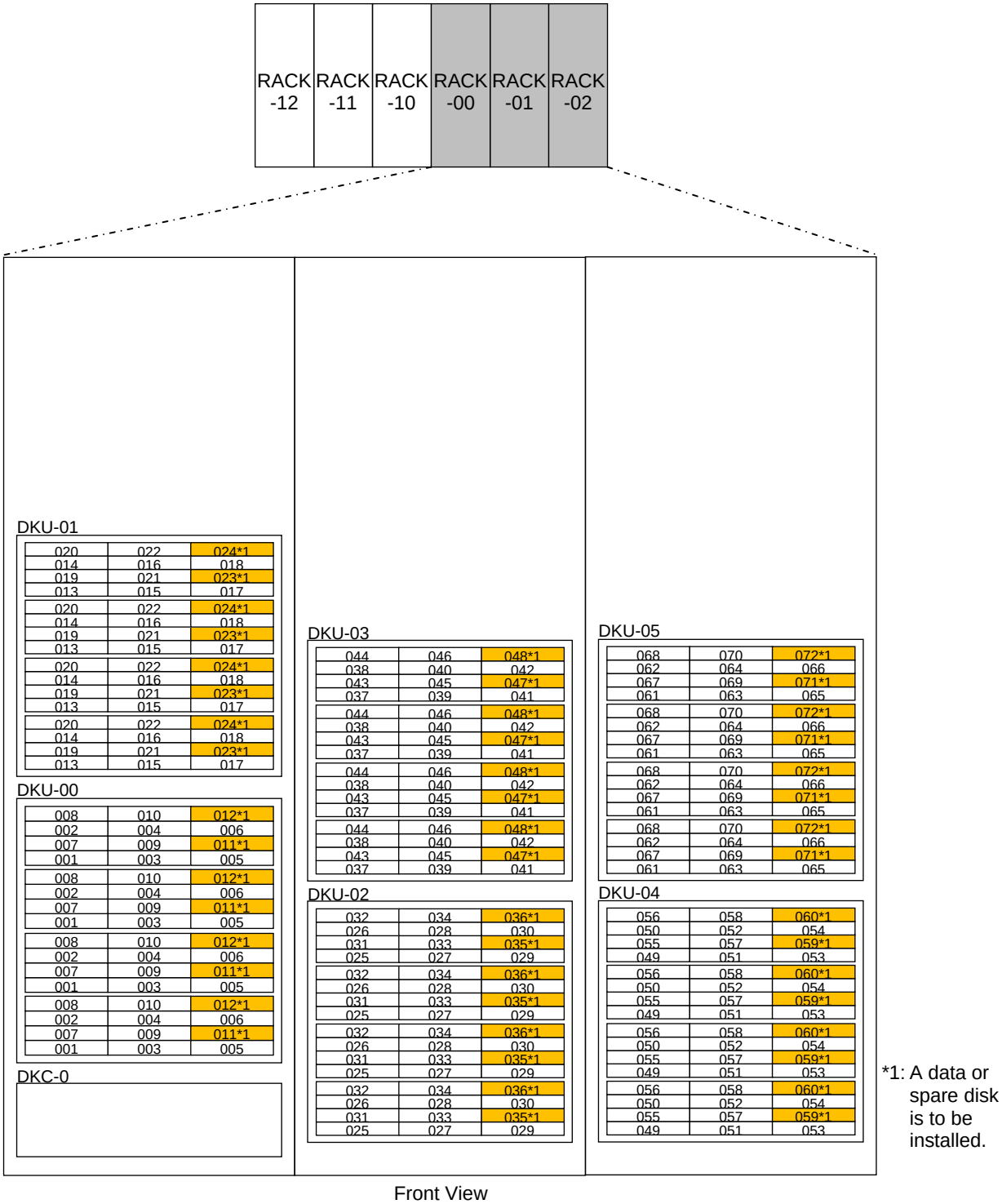


Fig. 4.1.2-3 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (1/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-3.

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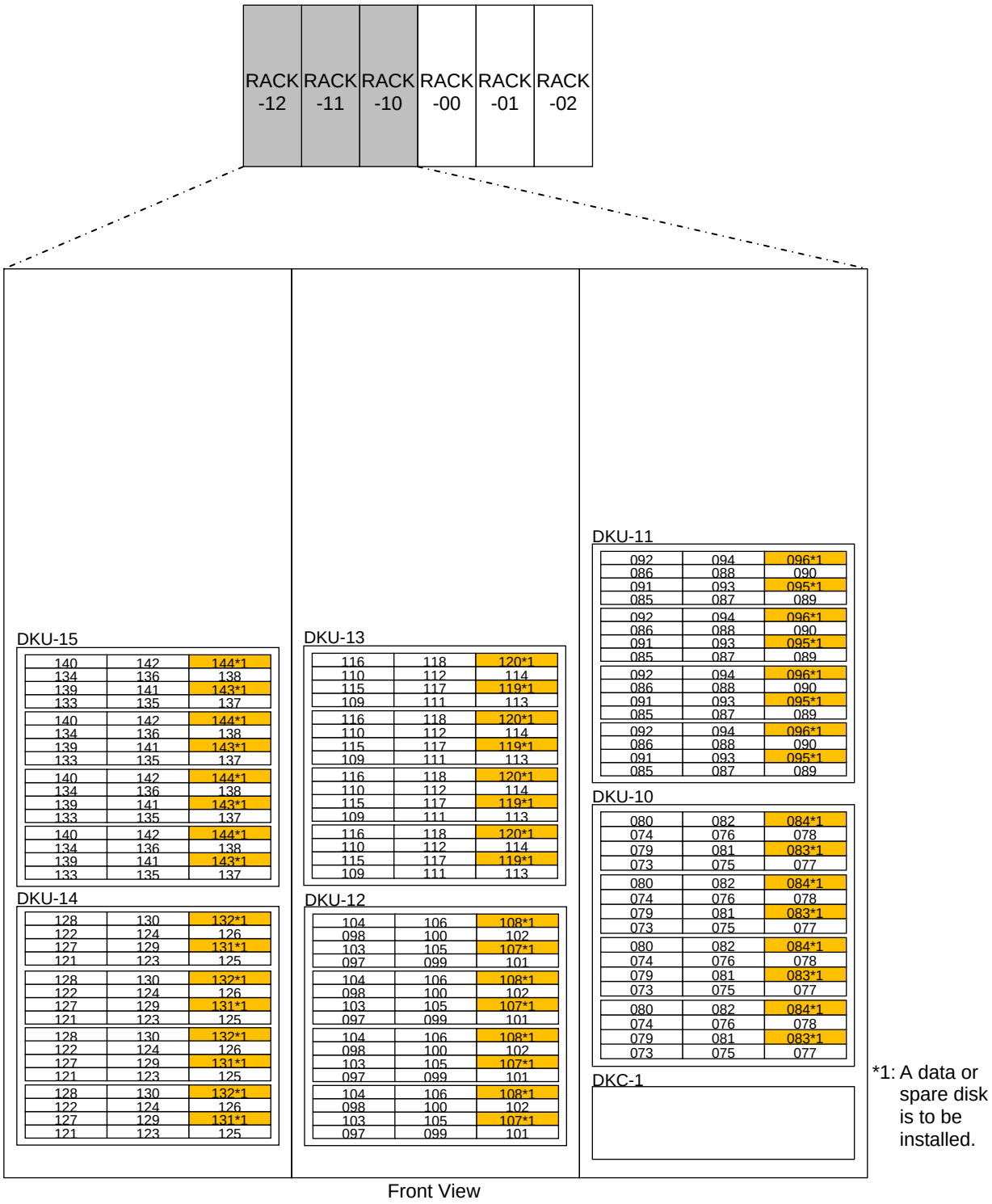


Fig. 4.1.2-3 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (2/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-3.

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(iv) RAID5 (7D+1P) / RAID6 (6D+2P), UBX (DKU for 3.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-4.

Table 4.1.2-4 Relation between drives installation order and RAID group number (7D+1P/6D+2P, UBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	013	5-1	025	9-1	037	13-1	049	17-1	061	21-1
002	1-2	014	5-2	026	9-2	038	13-2	050	17-2	062	21-2
003	1-3	015	5-3	027	9-3	039	13-3	051	17-3	063	21-3
004	1-4	016	5-4	028	9-4	040	13-4	052	17-4	064	21-4
005	1-5	017	5-5	029	9-5	041	13-5	053	17-5	065	21-5
006	1-6	018	5-6	030	9-6	042	13-6	054	17-6	066	21-6
007	1-7	019	5-7	031	9-7	043	13-7	055	17-7	067	21-7
008	1-8	020	5-8	032	9-8	044	13-8	056	17-8	068	21-8
009	1-9	021	5-9	033	9-9	045	13-9	057	17-9	069	21-9
010	1-10	022	5-10	034	9-10	046	13-10	058	17-10	070	21-10
011	1-11	023	5-11	035	9-11	047	13-11	059	17-11	071	21-11
012	1-12 Spare*1	024	5-12 Spare*1	036	9-12 Spare*1	048	13-12 Spare*1	060	17-12 Spare*1	072	21-12 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.2-4 Relation between drives installation order and RAID group number (7D+1P/6D+2P, UBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
073	3-1	085	7-1	097	11-1	109	15-1	121	19-1	133	23-1
074	3-2	086	7-2	098	11-2	110	15-2	122	19-2	134	23-2
075	3-3	087	7-3	099	11-3	111	15-3	123	19-3	135	23-3
076	3-4	088	7-4	100	11-4	112	15-4	124	19-4	136	23-4
077	3-5	089	7-5	101	11-5	113	15-5	125	19-5	137	23-5
078	3-6	090	7-6	102	11-6	114	15-6	126	19-6	138	23-6
079	3-7	091	7-7	103	11-7	115	15-7	127	19-7	139	23-7
080	3-8	092	7-8	104	11-8	116	15-8	128	19-8	140	23-8
081	3-9	093	7-9	105	11-9	117	15-9	129	19-9	141	23-9
082	3-10	094	7-10	106	11-10	118	15-10	130	19-10	142	23-10
083	3-11	095	7-11	107	11-11	119	15-11	131	19-11	143	23-11
084	3-12 Spare*1	096	7-12 Spare*1	108	11-12 Spare*1	120	15-12 Spare*1	132	19-12 Spare*1	144	23-12 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 8	LFF Disk Drive	
2	DKC-F810I-400M5M × 8	LFF SSD Drive	

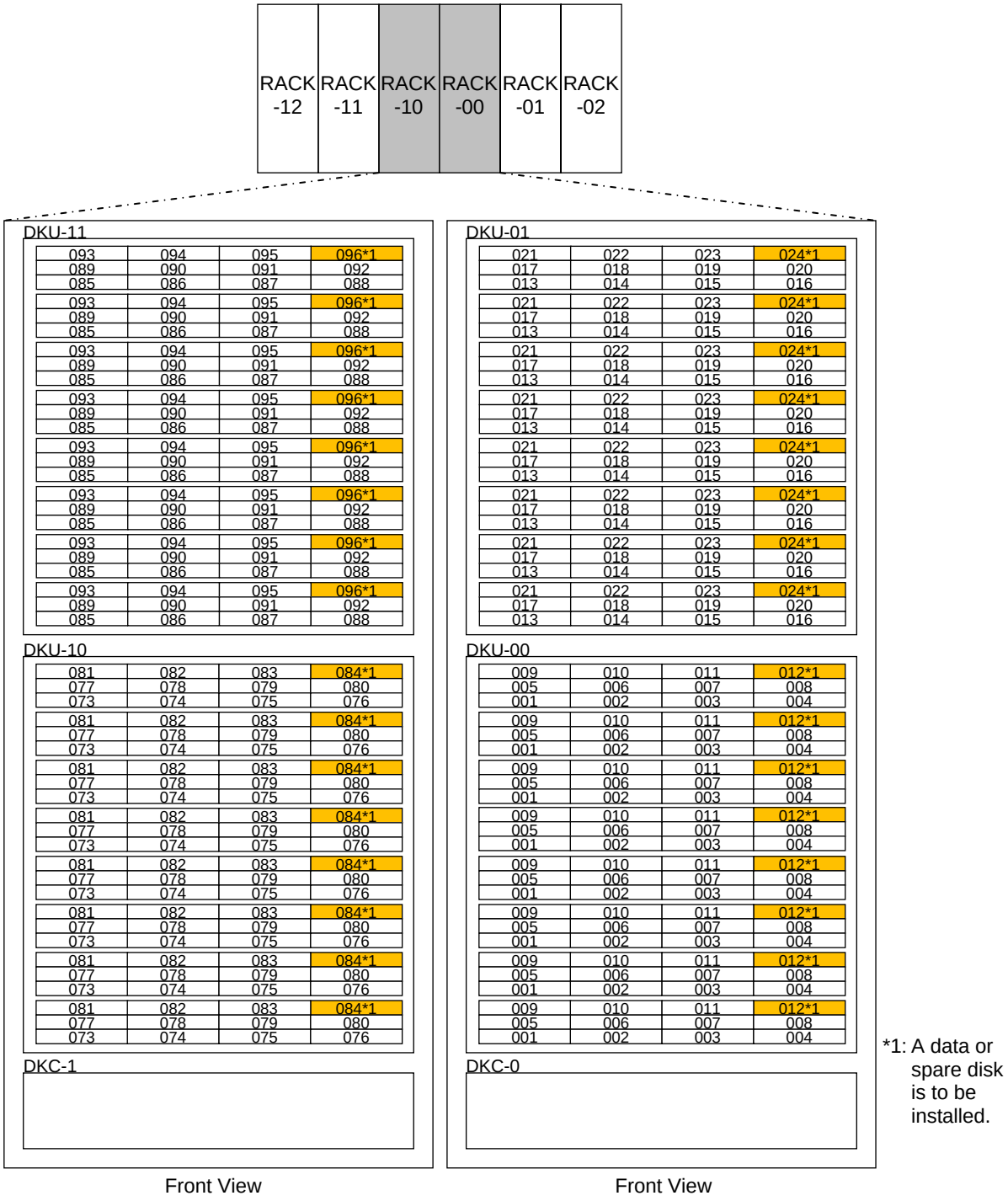


Fig. 4.1.2-4 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-4.

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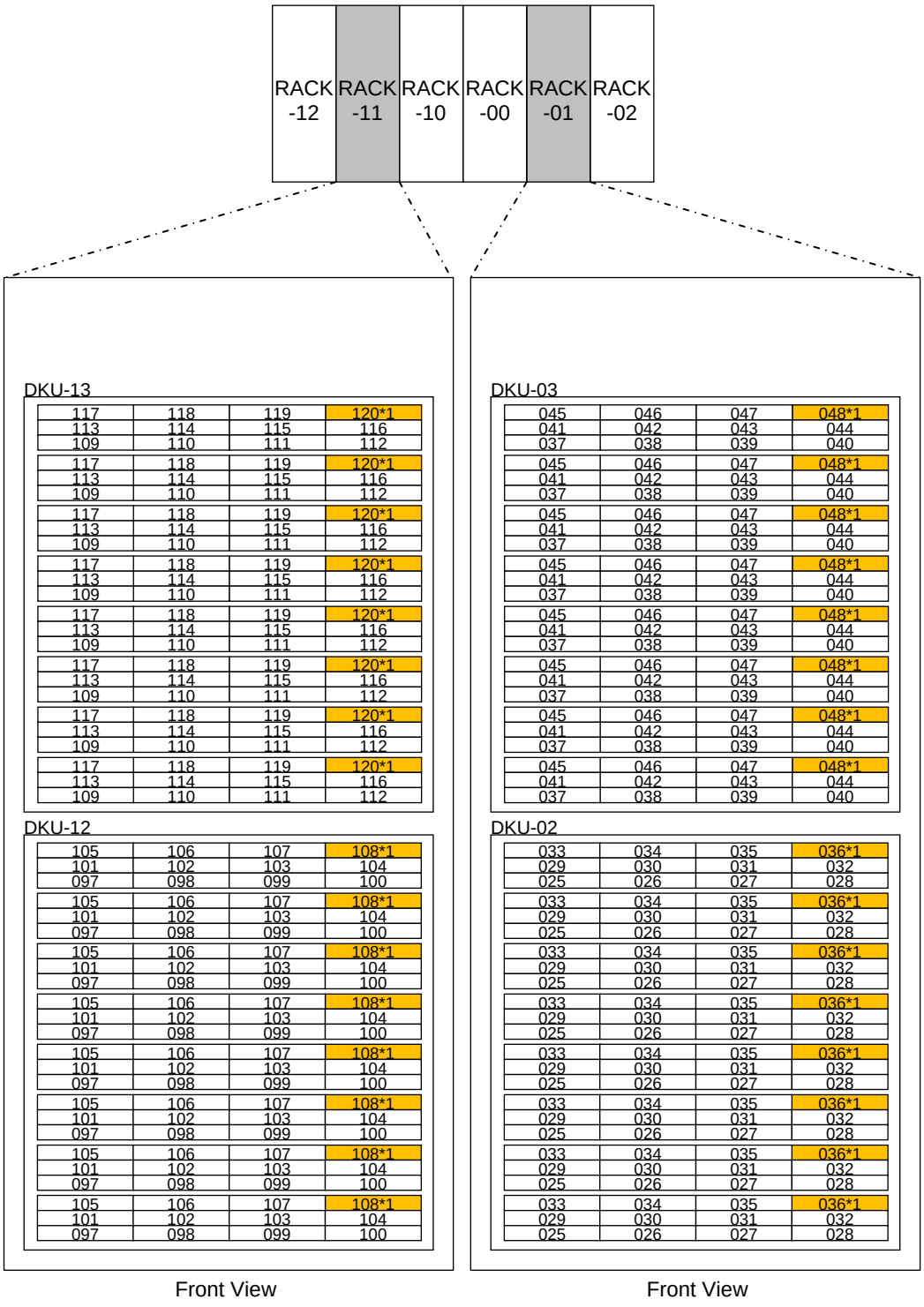


Fig. 4.1.2-4 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-4.

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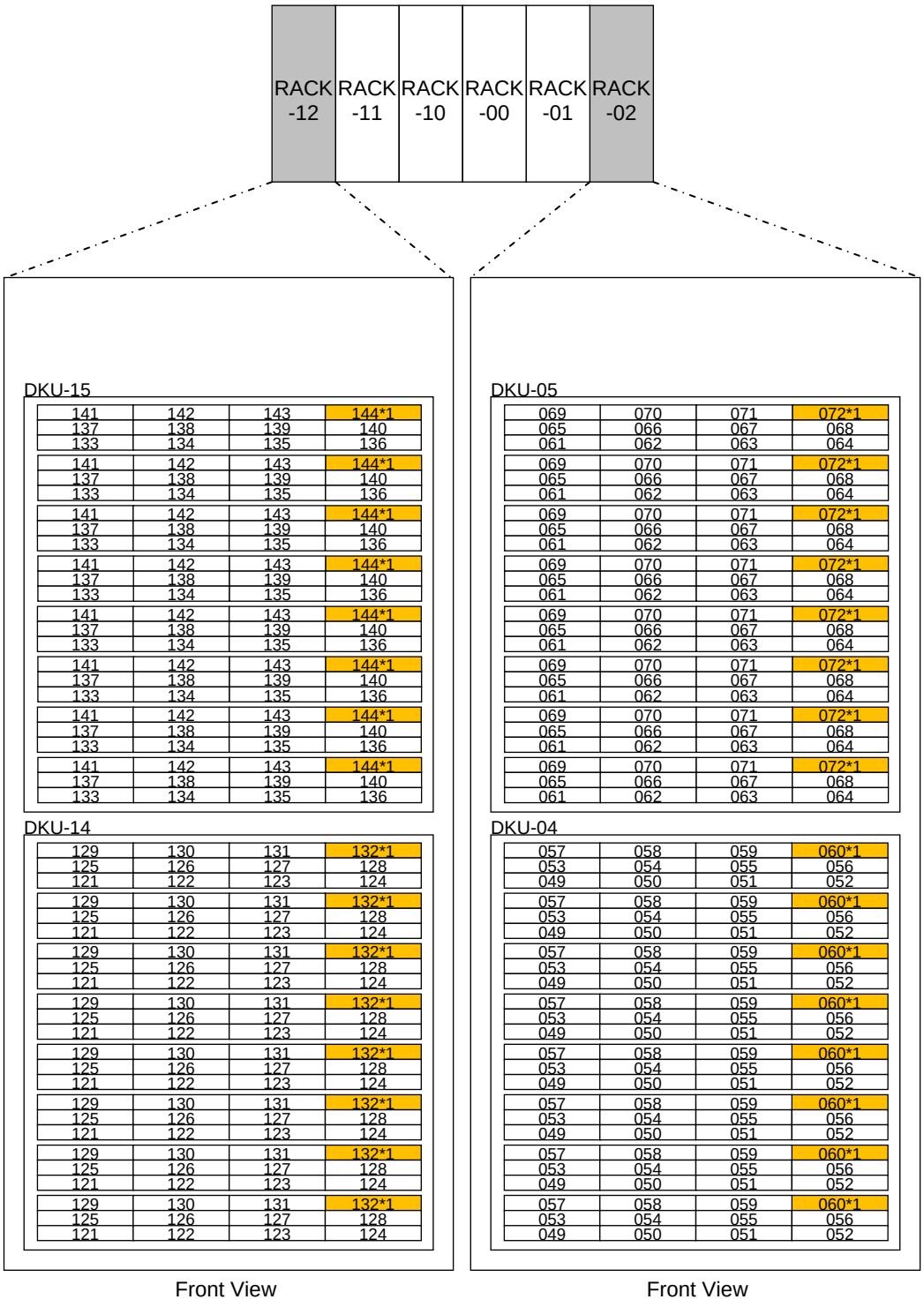


Fig. 4.1.2-4 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-4.

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(v) RAID5 (7D+1P) / RAID6 (6D+2P), SBX (DKU for 2.5 inch Drive)
Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-5.

Table 4.1.2-5 Relation between drives installation order and RAID group number (7D+1P/6D+2P, SBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	025	5-1	049	9-1	073	13-1	097	17-1	121	21-1
002	1-2	026	5-2	050	9-2	074	13-2	098	17-2	122	21-2
003	1-3	027	5-3	051	9-3	075	13-3	099	17-3	123	21-3
004	1-4	028	5-4	052	9-4	076	13-4	100	17-4	124	21-4
005	1-5	029	5-5	053	9-5	077	13-5	101	17-5	125	21-5
006	1-6	030	5-6	054	9-6	078	13-6	102	17-6	126	21-6
007	1-7	031	5-7	055	9-7	079	13-7	103	17-7	127	21-7
008	1-8	032	5-8	056	9-8	080	13-8	104	17-8	128	21-8
009	1-9	033	5-9	057	9-9	081	13-9	105	17-9	129	21-9
010	1-10	034	5-10	058	9-10	082	13-10	106	17-10	130	21-10
011	1-11	035	5-11	059	9-11	083	13-11	107	17-11	131	21-11
012	1-12	036	5-12	060	9-12	084	13-12	108	17-12	132	21-12
013	1-13	037	5-13	061	9-13	085	13-13	109	17-13	133	21-13
014	1-14	038	5-14	062	9-14	086	13-14	110	17-14	134	21-14
015	1-15	039	5-15	063	9-15	087	13-15	111	17-15	135	21-15
016	1-16	040	5-16	064	9-16	088	13-16	112	17-16	136	21-16
017	1-17	041	5-17	065	9-17	089	13-17	113	17-17	137	21-17
018	1-18	042	5-18	066	9-18	090	13-18	114	17-18	138	21-18
019	1-19	043	5-19	067	9-19	091	13-19	115	17-19	139	21-19
020	1-20	044	5-20	068	9-20	092	13-20	116	17-20	140	21-20
021	1-21	045	5-21	069	9-21	093	13-21	117	17-21	141	21-21
022	1-22	046	5-22	070	9-22	094	13-22	118	17-22	142	21-22
023	1-23	047	5-23	071	9-23	095	13-23	119	17-23	143	21-23
024	1-24 Spare*1	048	5-24 Spare*1	072	9-24 Spare*1	096	13-24 Spare*1	120	17-24 Spare*1	144	21-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.2-5 Relation between drives installation order and RAID group number (7D+1P/6D+2P, SBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
145	3-1	169	7-1	193	11-1	217	15-1	241	19-1	265	23-1
146	3-2	170	7-2	194	11-2	218	15-2	242	19-2	266	23-2
147	3-3	171	7-3	195	11-3	219	15-3	243	19-3	267	23-3
148	3-4	172	7-4	196	11-4	220	15-4	244	19-4	268	23-4
149	3-5	173	7-5	197	11-5	221	15-5	245	19-5	269	23-5
150	3-6	174	7-6	198	11-6	222	15-6	246	19-6	270	23-6
151	3-7	175	7-7	199	11-7	223	15-7	247	19-7	271	23-7
152	3-8	176	7-8	200	11-8	224	15-8	248	19-8	272	23-8
153	3-9	177	7-9	201	11-9	225	15-9	249	19-9	273	23-9
154	3-10	178	7-10	202	11-10	226	15-10	250	19-10	274	23-10
155	3-11	179	7-11	203	11-11	227	15-11	251	19-11	275	23-11
156	3-12	180	7-12	204	11-12	228	15-12	252	19-12	276	23-12
157	3-13	181	7-13	205	11-13	229	15-13	253	19-13	277	23-13
158	3-14	182	7-14	206	11-14	230	15-14	254	19-14	278	23-14
159	3-15	183	7-15	207	11-15	231	15-15	255	19-15	279	23-15
160	3-16	184	7-16	208	11-16	232	15-16	256	19-16	280	23-16
161	3-17	185	7-17	209	11-17	233	15-17	257	19-17	281	23-17
162	3-18	186	7-18	210	11-18	234	15-18	258	19-18	282	23-18
163	3-19	187	7-19	211	11-19	235	15-19	259	19-19	283	23-19
164	3-20	188	7-20	212	11-20	236	15-20	260	19-20	284	23-20
165	3-21	189	7-21	213	11-21	237	15-21	261	19-21	285	23-21
166	3-22	190	7-22	214	11-22	238	15-22	262	19-22	286	23-22
167	3-23	191	7-23	215	11-23	239	15-23	263	19-23	287	23-23
168	3-24 Spare*1	192	7-24 Spare*1	216	11-24 Spare*1	240	15-24 Spare*1	264	19-24 Spare*1	288	23-24 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 8	SFF Disk Drive	
2	DKC-F810I-400MCM/800MCM × 8	SFF SSD Drive	

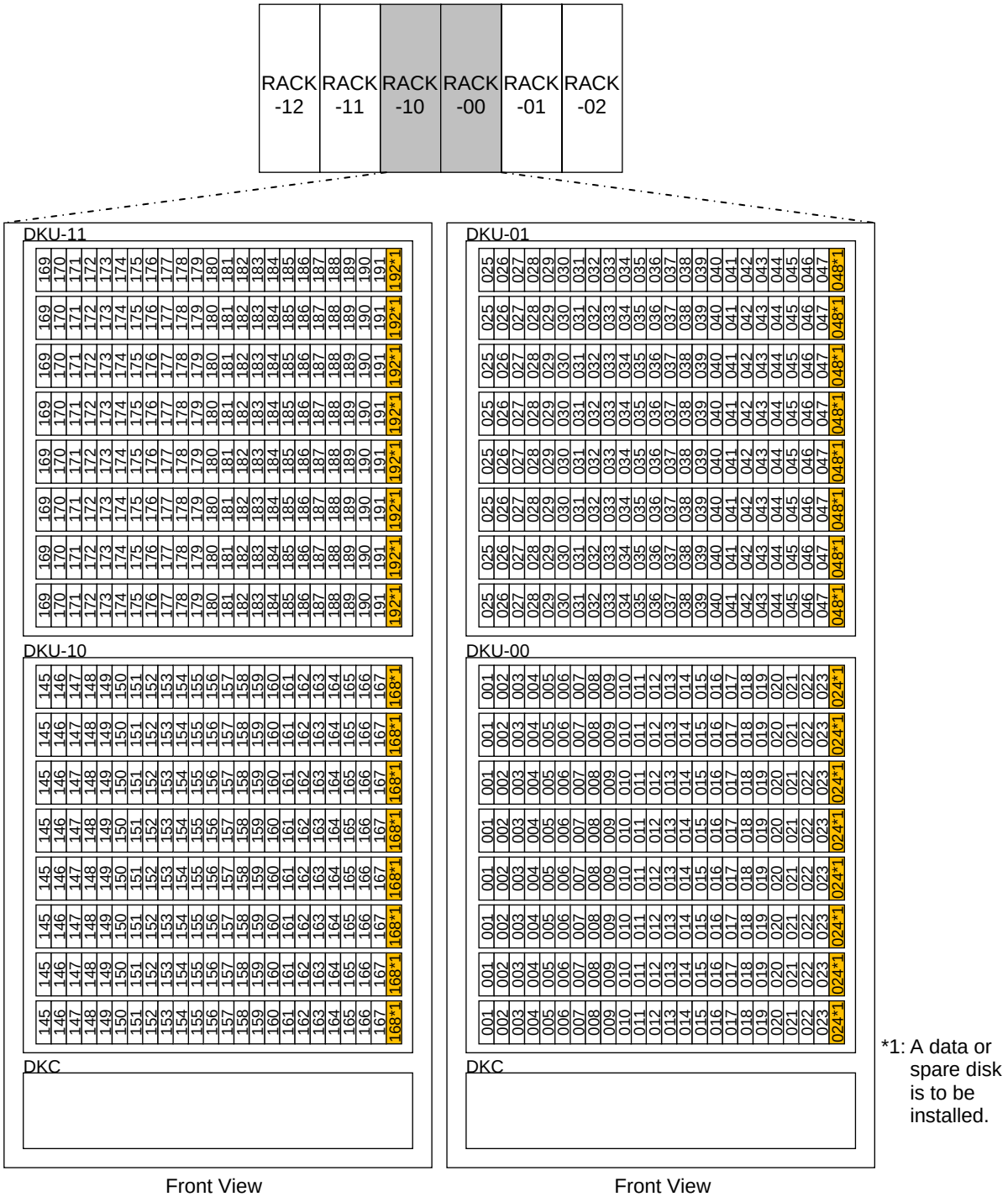


Fig. 4.1.2-5 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-5.

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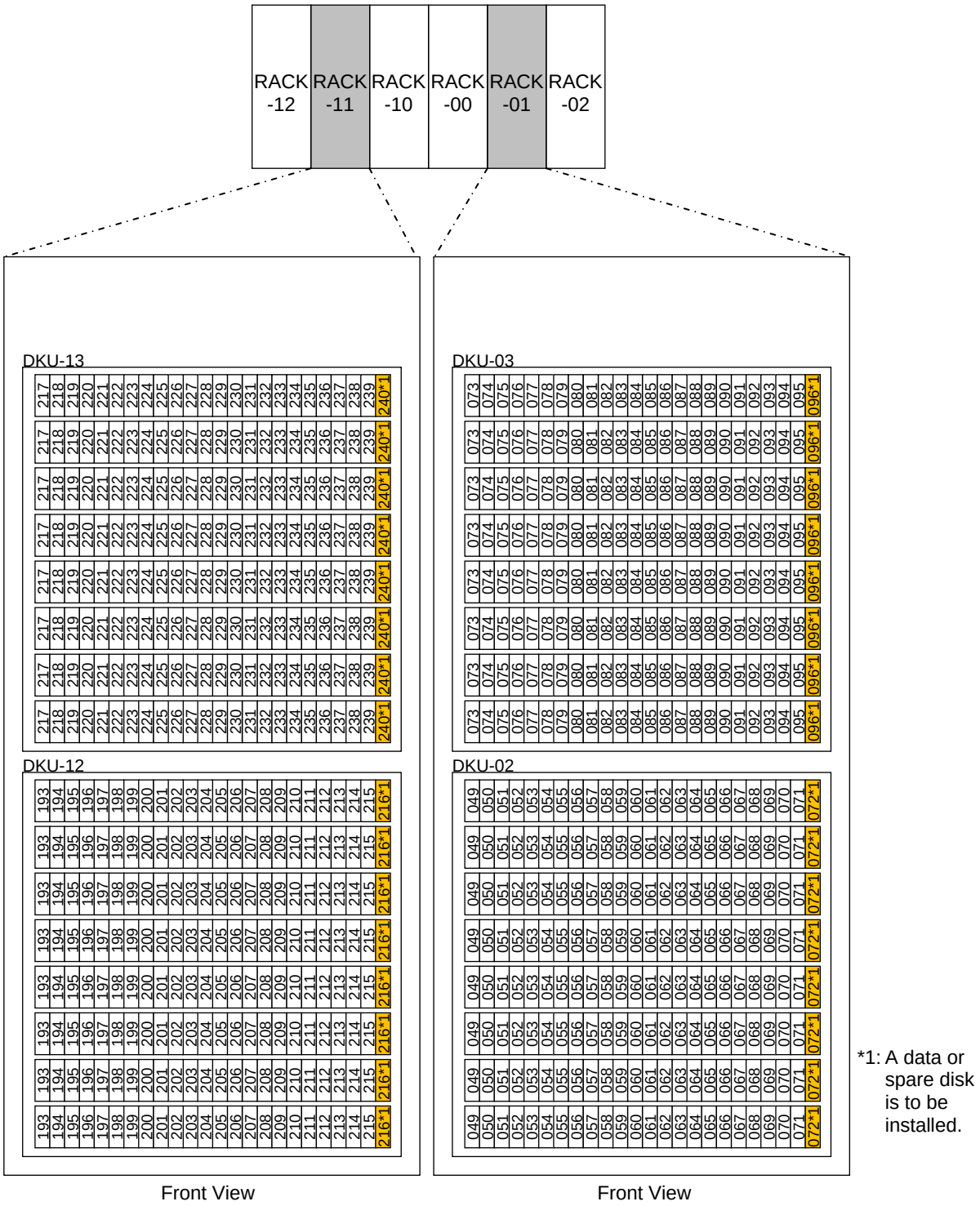


Fig. 4.1.2-5 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-5.

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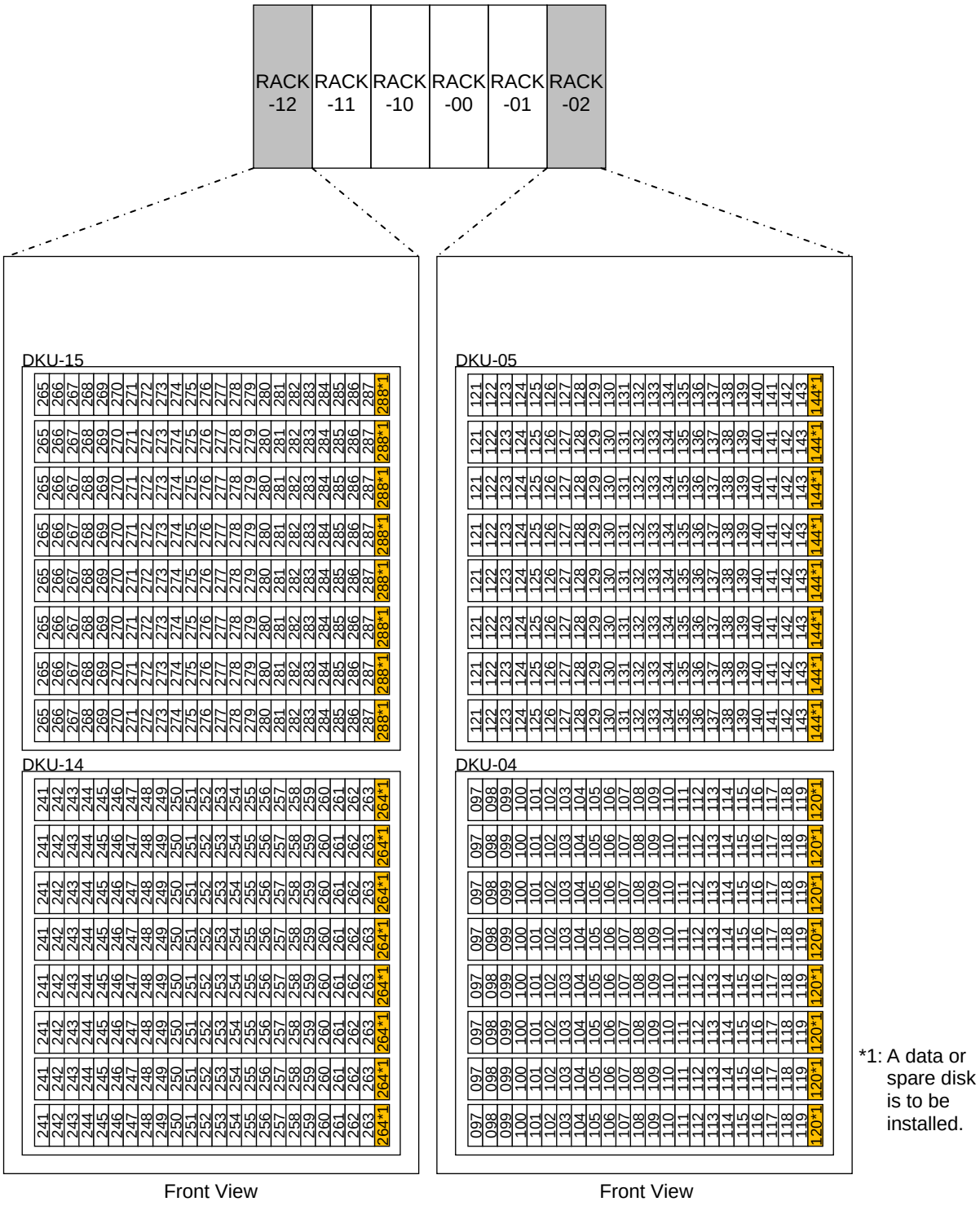


Fig. 4.1.2-5 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-5.

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(vi) RAID5 (7D+1P) / RAID6 (6D+2P), FBX (DKU for FMD)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-6.

Table 4.1.2-6 Relation between drives installation order and RAID group number (7D+1P/6D+2P, FBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	007	5-1	013	9-1	019	13-1	025	17-1	031	21-1
002	1-2	008	5-2	014	9-2	020	13-2	026	17-2	032	21-2
003	1-3	009	5-3	015	9-3	021	13-3	027	17-3	033	21-3
004	1-4	010	5-4	016	9-4	022	13-4	028	17-4	034	21-4
005	1-5	011	5-5	017	9-5	023	13-5	029	17-5	035	21-5
006	1-6 Spare*1	012	5-6 Spare*1	018	9-6 Spare*1	024	13-6 Spare*1	030	17-6 Spare*1	036	21-6 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.2-6 Relation between drives installation order and RAID group number (7D+1P/6D+2P, FBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
037	3-1	043	7-1	049	11-1	055	15-1	061	19-1	067	23-1
038	3-2	044	7-2	050	11-2	056	15-2	062	19-2	068	23-2
039	3-3	045	7-3	051	11-3	057	15-3	063	19-3	069	23-3
040	3-4	046	7-4	052	11-4	058	15-4	064	19-4	070	23-4
041	3-5	047	7-5	053	11-5	059	15-5	065	19-5	071	23-5
042	3-6 Spare*1	048	7-6 Spare*1	054	11-6 Spare*1	060	15-6 Spare*1	066	19-6 Spare*1	072	23-6 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-1R6FM/3R2FM × 8	Flash Module Drive	FMD

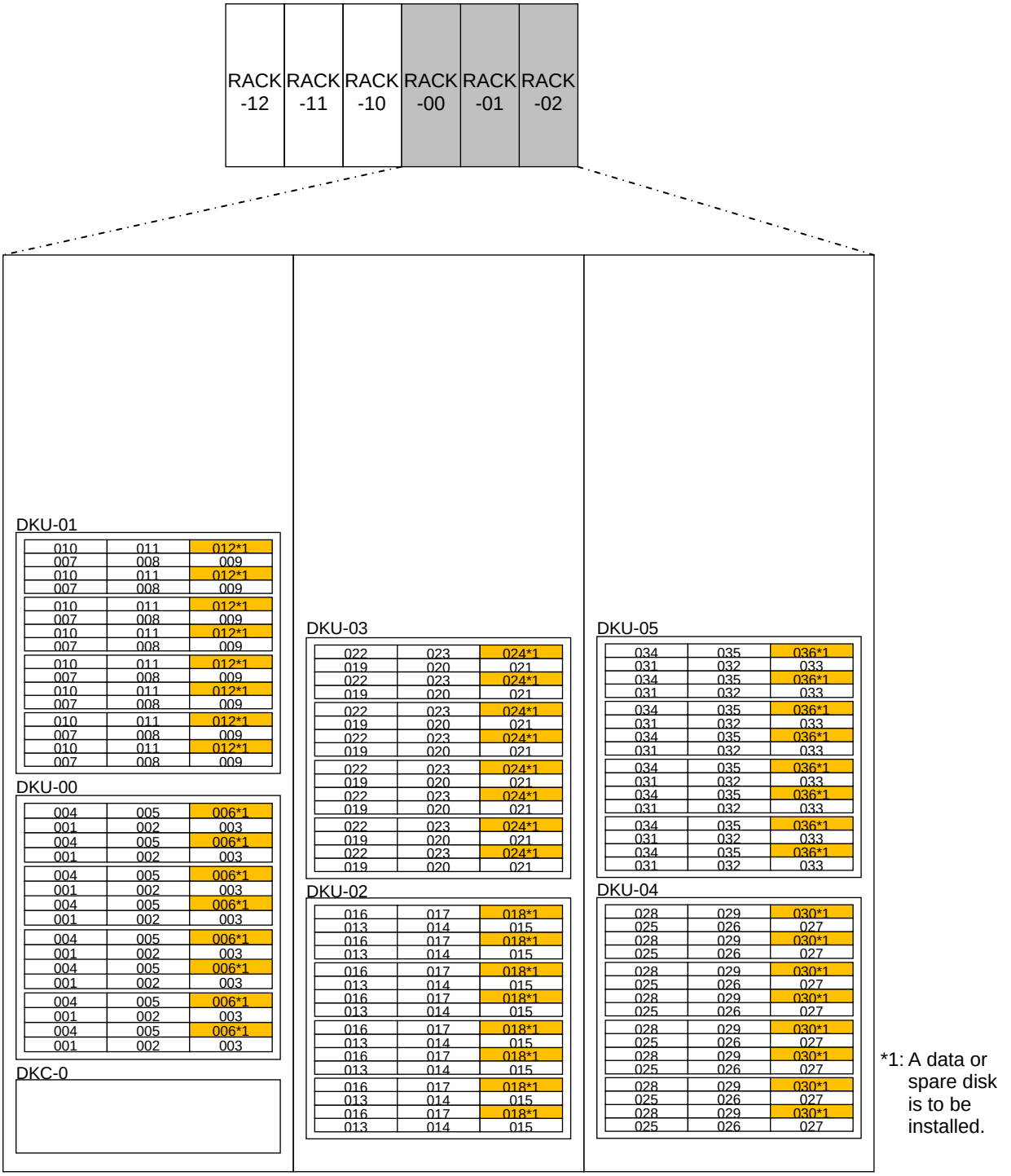


Fig. 4.1.2-6 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (1/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-6.

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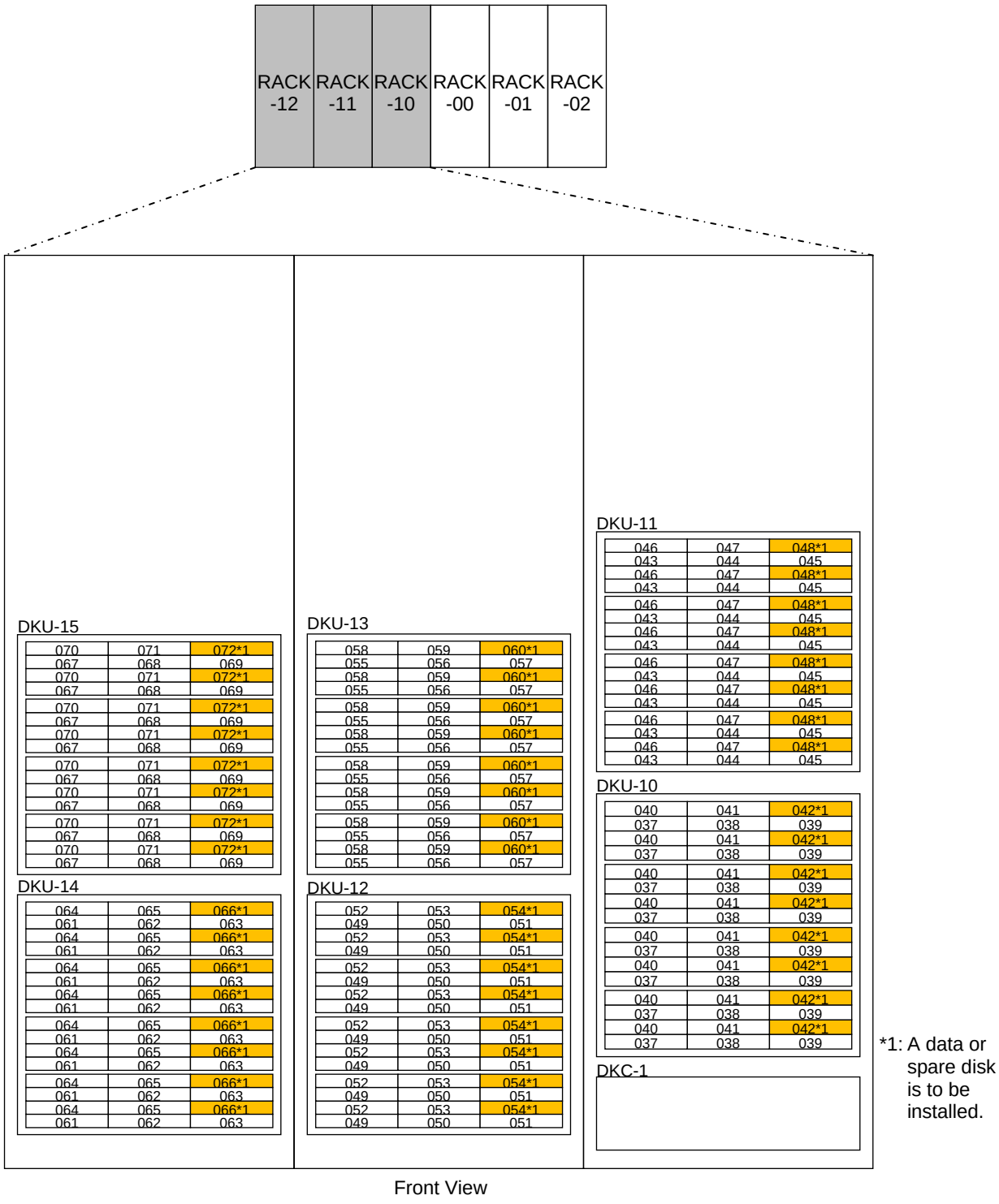


Fig. 4.1.2-6 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (2/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-6.

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(vii) RAID6 (14D+2P), UBX (DKU for 3.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-7.

Table 4.1.2-7 Relation between drives installation order and RAID group number (14D+2P, UBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	007	5-1	013	9-1	019	13-1	025	17-1	031	21-1
002	1-3	008	5-3	014	9-3	020	13-3	026	17-3	032	21-3
003	1-5	009	5-5	015	9-5	021	13-5	027	17-5	033	21-5
004	1-7	010	5-7	016	9-7	022	13-7	028	17-7	034	21-7
005	1-9	011	5-9	017	9-9	023	13-9	029	17-9	035	21-9
006	1-11 Spare*1	012	5-11 Spare*1	018	9-11 Spare*1	024	13-1 Spare*1	030	17-11 Spare*1	036	21-11 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.2-7 Relation between drives installation order and RAID group number (14D+2P, UBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
037	3-1	043	7-1	049	11-1	055	15-1	061	19-1	067	23-1
038	3-3	044	7-3	050	11-3	056	15-3	062	19-3	068	23-3
039	3-5	045	7-5	051	11-5	057	15-5	063	19-5	069	23-5
040	3-7	046	7-7	052	11-7	058	15-7	064	19-7	070	23-7
041	3-9	047	7-9	053	11-9	059	15-9	065	19-9	071	23-9 Spare*1
042	3-11 Spare*1	048	7-11 Spare*1	054	11-11 Spare*1	060	15-11 Spare*1	066	1-11 Spare*1	072	23-11 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 16	LFF Disk Drive	
2	DKC-F810I-400M5M × 16	LFF SSD Drive	

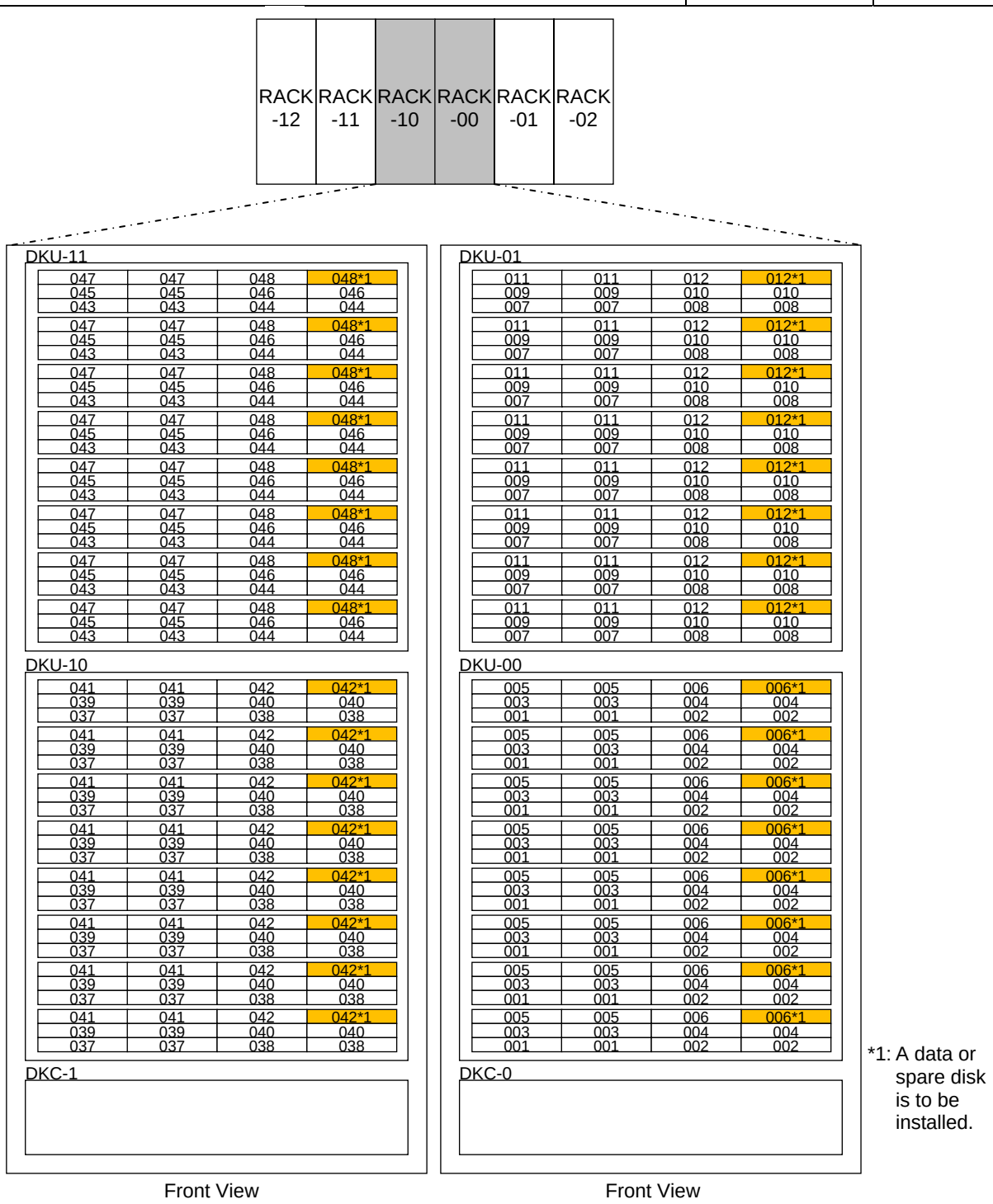


Fig. 4.1.2-7 (14D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-7.

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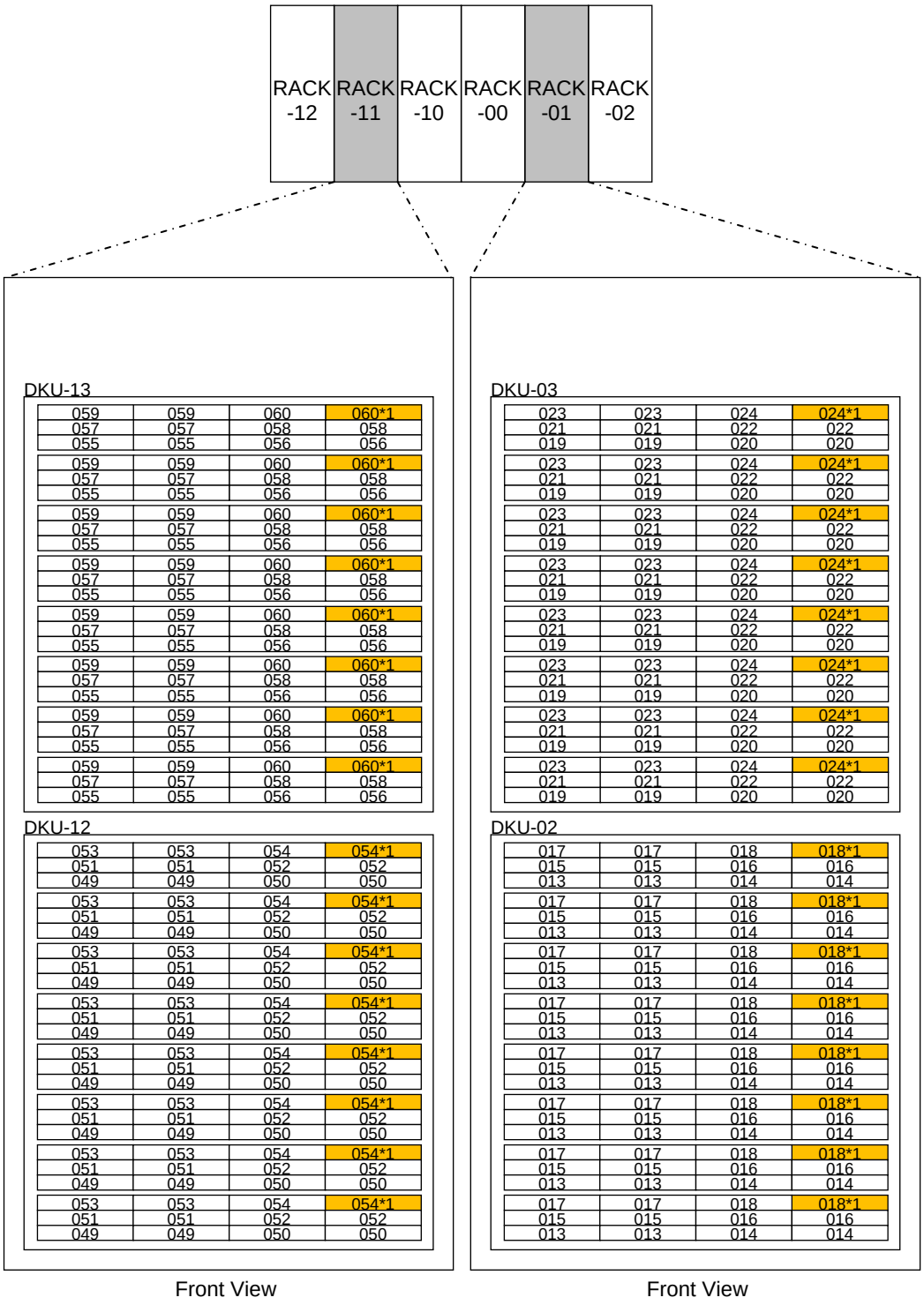


Fig. 4.1.2-7 (14D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-7.

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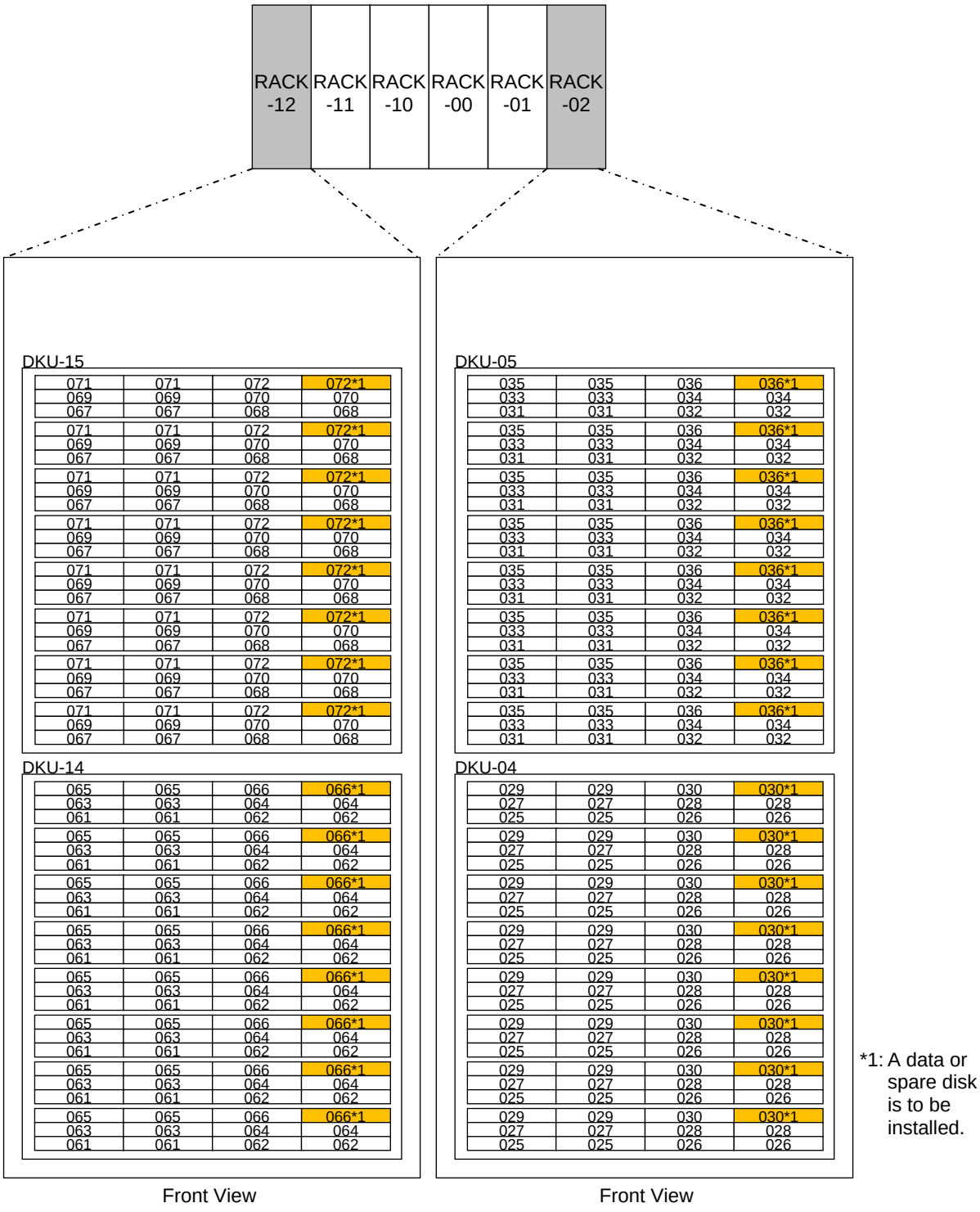


Fig. 4.1.2-7 (14D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-7.

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(viii) RAID6 (14D+2P), SBX (DKU for 2.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-8.

Table 4.1.2-8 Relation between drives installation order and RAID group number (14D+2P, SBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	013	5-1	025	9-1	037	13-1	049	17-1	061	21-1
002	1-3	014	5-3	026	9-3	038	13-3	050	17-3	062	21-3
003	1-5	015	5-5	027	9-5	039	13-5	051	17-5	063	21-5
004	1-7	016	5-7	028	9-7	040	13-7	052	17-7	064	21-7
005	1-9	017	5-9	029	9-9	041	13-9	053	17-9	065	21-9
006	1-11	018	5-11	030	9-11	042	13-11	054	17-11	066	21-11
007	1-13	019	5-13	031	9-13	043	13-13	055	17-13	067	21-13
008	1-15	020	5-15	032	9-15	044	13-15	056	17-15	068	21-15
009	1-17	021	5-17	033	9-17	045	13-17	057	17-17	069	21-17
010	1-19	022	5-19	034	9-19	046	13-19	058	17-19	070	21-19
011	1-21	023	5-21	035	9-21	047	13-21	059	17-21	071	21-21
012	1-23 Spare*1	024	5-23 Spare*1	036	9-23 Spare*1	048	13-23 Spare*1	060	17-23 Spare*1	072	21-23 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.2-8 Relation between drives installation order and RAID group number (14D+2P, SBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
073	3-1	085	7-1	097	11-1	109	15-1	121	19-1	133	23-1
074	3-3	086	7-3	098	11-3	110	15-3	122	19-3	134	23-3
075	3-5	087	7-5	099	11-5	111	15-5	123	19-5	135	23-5
076	3-7	088	7-7	100	11-7	112	15-7	124	19-7	136	23-7
077	3-9	089	7-9	101	11-9	113	15-9	125	19-9	137	23-9
078	3-11	090	7-11	102	11-11	114	15-11	126	19-11	138	23-11
079	3-13	091	7-13	103	11-13	115	15-13	127	19-13	139	23-13
080	3-15	092	7-15	104	11-15	116	15-15	128	19-15	140	23-15
081	3-17	093	7-17	105	11-17	117	15-17	129	19-17	141	23-17
082	3-19	094	7-19	106	11-19	118	15-19	130	19-19	142	23-19
083	3-21	095	7-21	107	11-21	119	15-21	131	19-21	143	23-21
084	3-23 Spare*1	096	7-23 Spare*1	108	11-23 Spare*1	120	15-23 Spare*1	132	19-23 Spare*1	144	23-23 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be added.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 16	SFF Disk Drive	
2	DKC-F810I-400MCM/800MCM × 16	SFF SSD Drive	

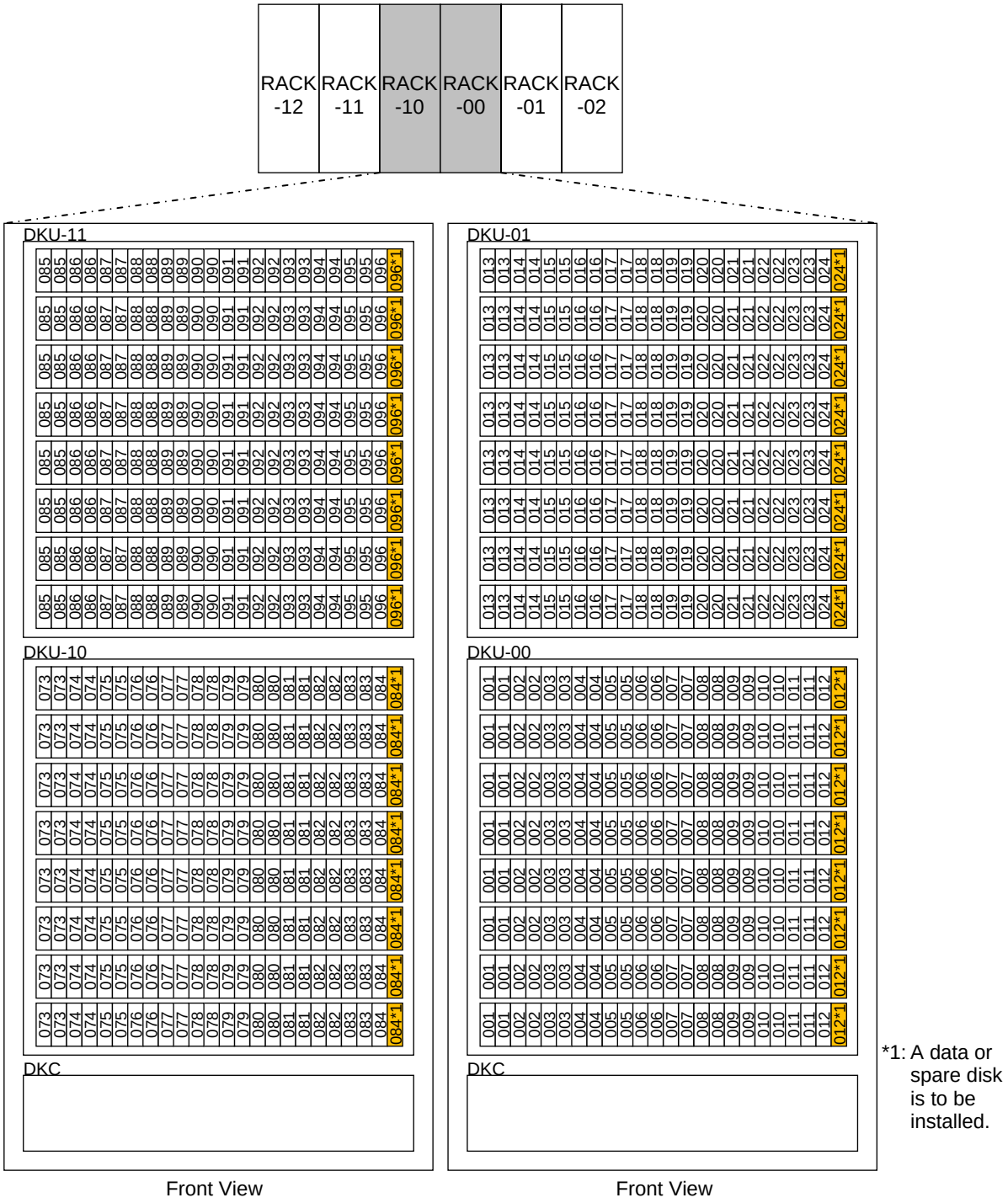


Fig. 4.1.2-8 (14D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-8.

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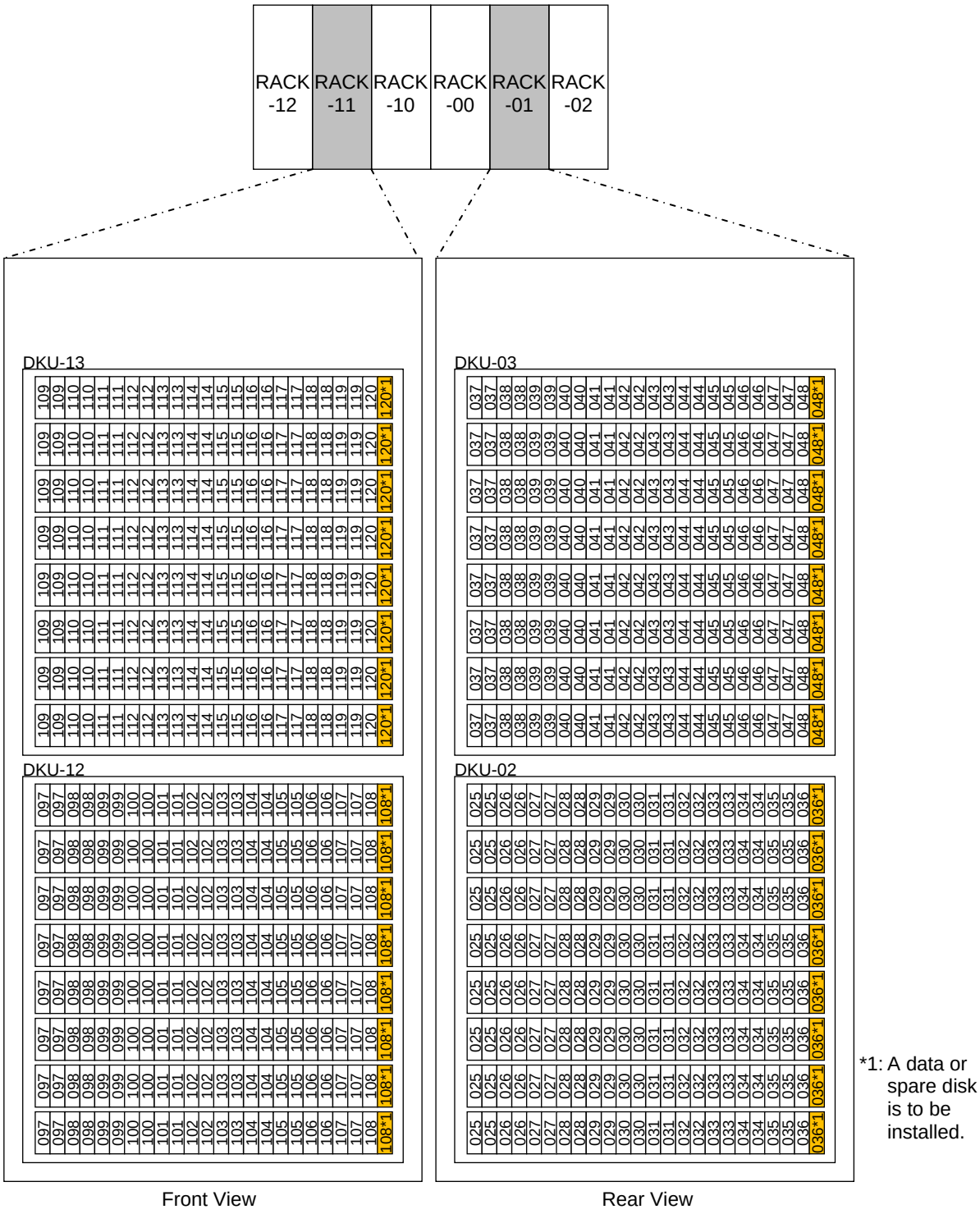


Fig. 4.1.2-8 (14D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-8.

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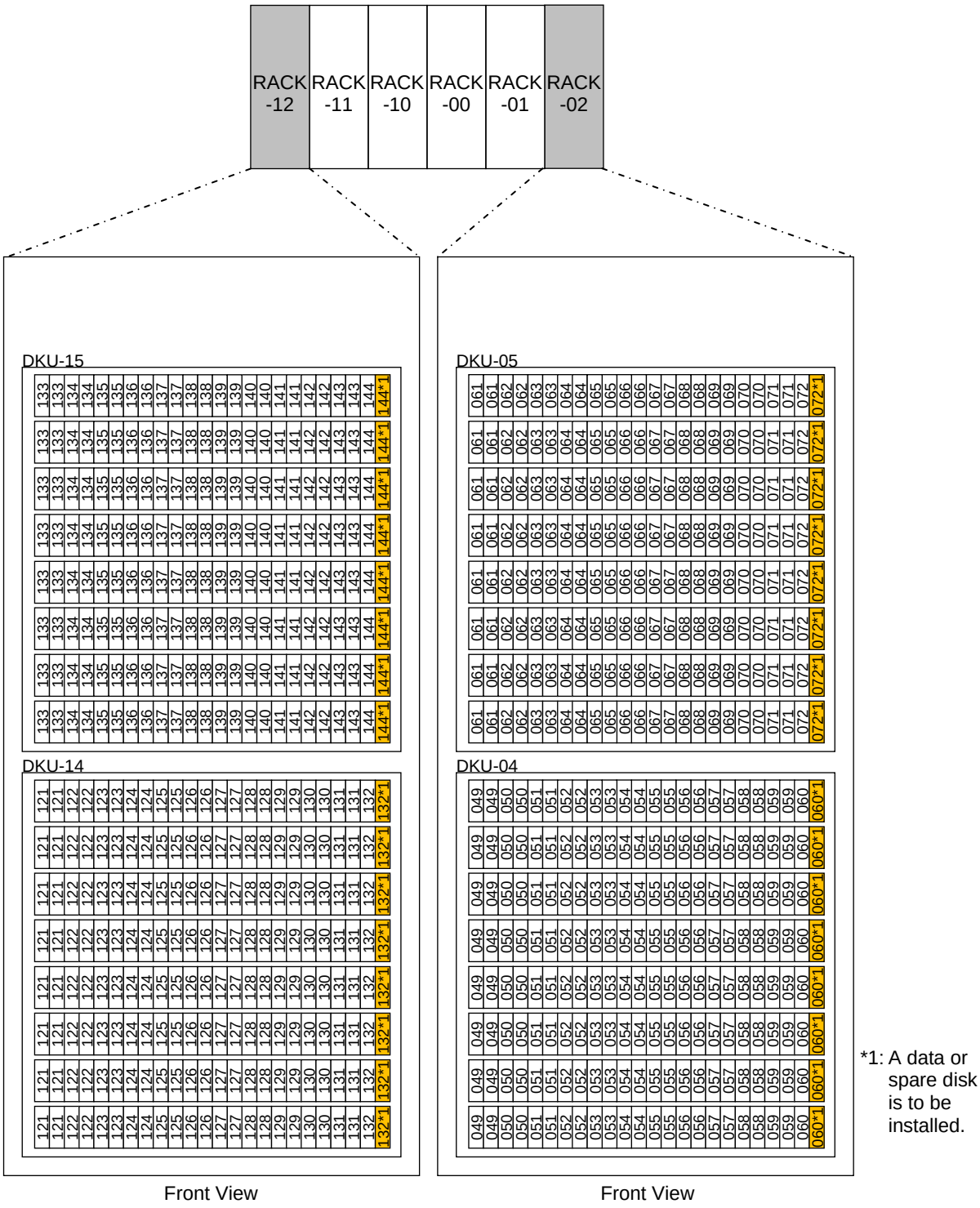


Fig. 4.1.2-8 (14D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-8.

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(ix) RAID6 (14D+2P), FBX (DKU for FMD)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.2-9.

Table 4.1.2-9 Relation between drives installation order and RAID group number (14D+2P, FBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	004	5-1	007	9-1	010	13-1	013	17-1	016	21-1
002	1-3	005	5-3	008	9-3	011	13-3	014	17-3	017	21-3
003	1-5 Spare*1	006	5-5 Spare*1	009	9-5 Spare*1	012	13-5 Spare*1	015	17-5 Spare*1	018	21-5 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.2-9 Relation between drives installation order and RAID group number (14D+2P, FBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
019	3-1	022	7-1	025	11-1	028	15-1	031	19-1	034	23-1
020	3-3	023	7-3	026	11-3	029	15-3	032	19-3	035	23-3
021	3-5 Spare*1	024	7-5 Spare*1	027	11-5 Spare*1	030	15-5 Spare*1	033	19-5 Spare*1	036	23-5 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-1R6FM/3R2FM × 16	Flash Module Drive	FMD

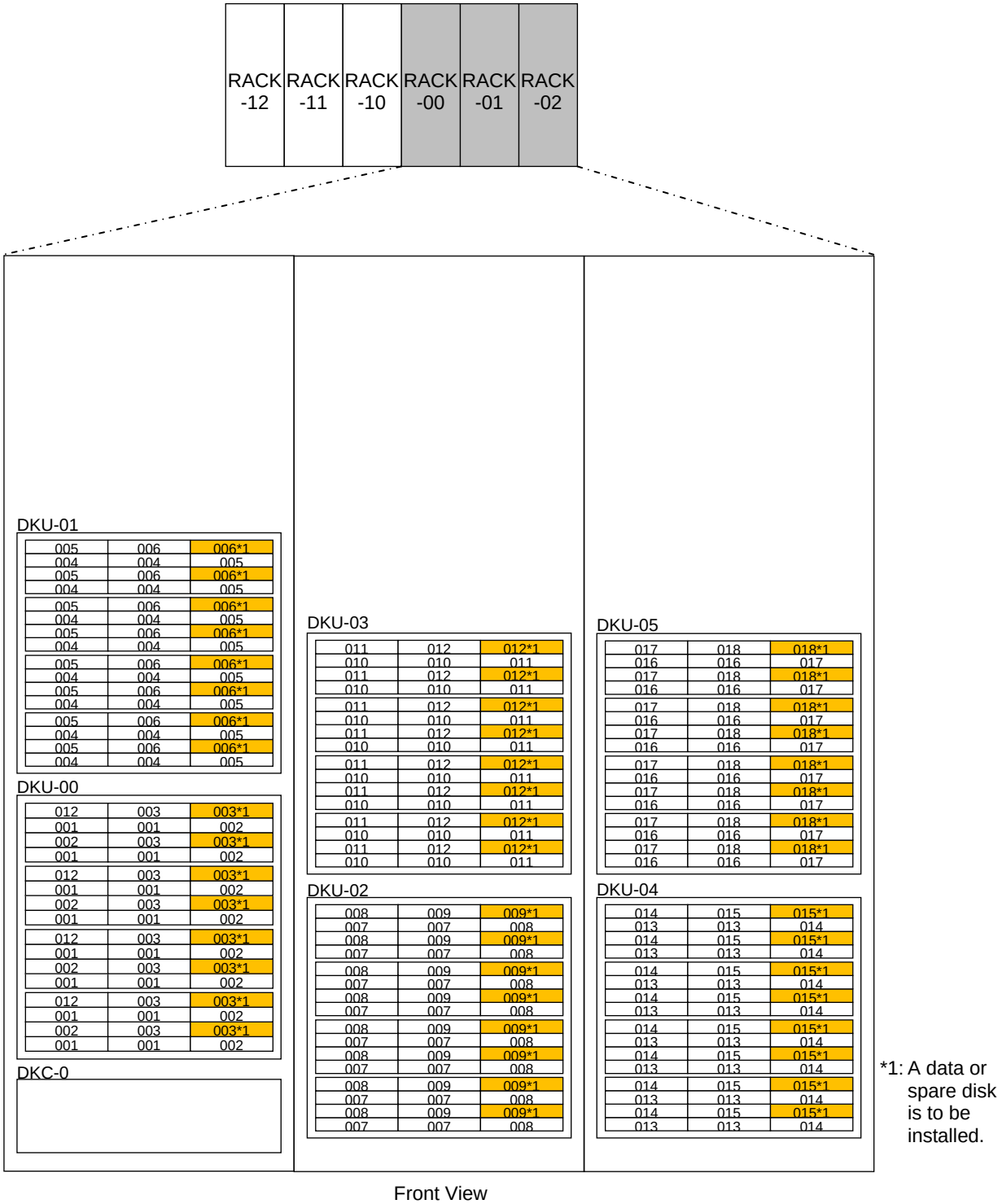


Fig. 4.1.2-9 (14D+2P) Data Drive/Parity Drive Expansion Sequence (1/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-9.

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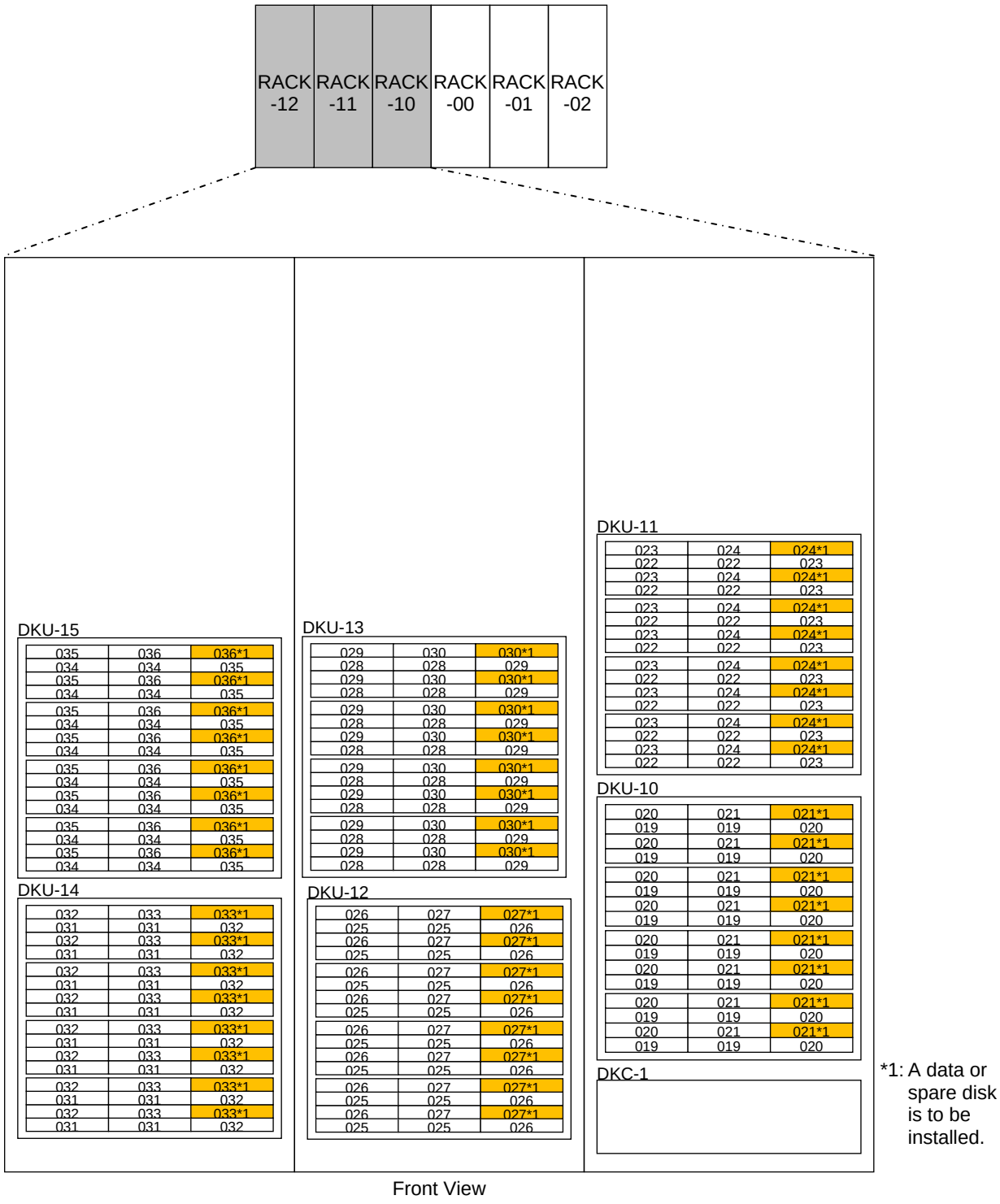


Fig. 4.1.2-9 (14D+2P) Data Drive/Parity Drive Expansion Sequence (2/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.2-9.

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(x) Spare Drive, UBX (DKU for 3.5 inch Drive)

Table 4.1.2-10 Relation between Drive installation order and Spare Drive number (1/4)

DKU-00			DKU-01			DKU-02			DKU-03		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
001	1st	Spare1	009	5th	Spare1	017	9th	Spare1	025	13th	Spare1
002	1st	Spare2	010	5th	Spare2	018	9th	Spare2	026	13th	Spare2
003	1st	Spare3	011	5th	Spare3	019	9th	Spare3	027	13th	Spare3
004	1st	Spare4	012	5th	Spare4	020	9th	Spare4	028	13th	Spare4
005	2nd	Spare1	013	6th	Spare1	021	10th	Spare1	029	14th	Spare1
006	2nd	Spare2	014	6th	Spare2	022	10th	Spare2	030	14th	Spare2
007	2nd	Spare3	015	6th	Spare3	023	10th	Spare3	031	14th	Spare3
008	2nd	Spare4	016	6th	Spare4	024	10th	Spare4	032	14th	Spare4

Table 4.1.2-10 Relation between Drive installation order and Spare Drive number (2/4)

DKU-04			DKU-05		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
033	17th	Spare1	041	21th	Spare1
034	17th	Spare2	042	21th	Spare2
035	17th	Spare3	043	21th	Spare3
036	17th	Spare4	044	21th	Spare4
037	18th	Spare1	045	22th	Spare1
038	18th	Spare2	046	22th	Spare2
039	18th	Spare3	047	22th	Spare3
040	18th	Spare4	048	22th	Spare4

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Table 4.1.2-10 Relation between Drive installation order and Spare Drive number (3/4)

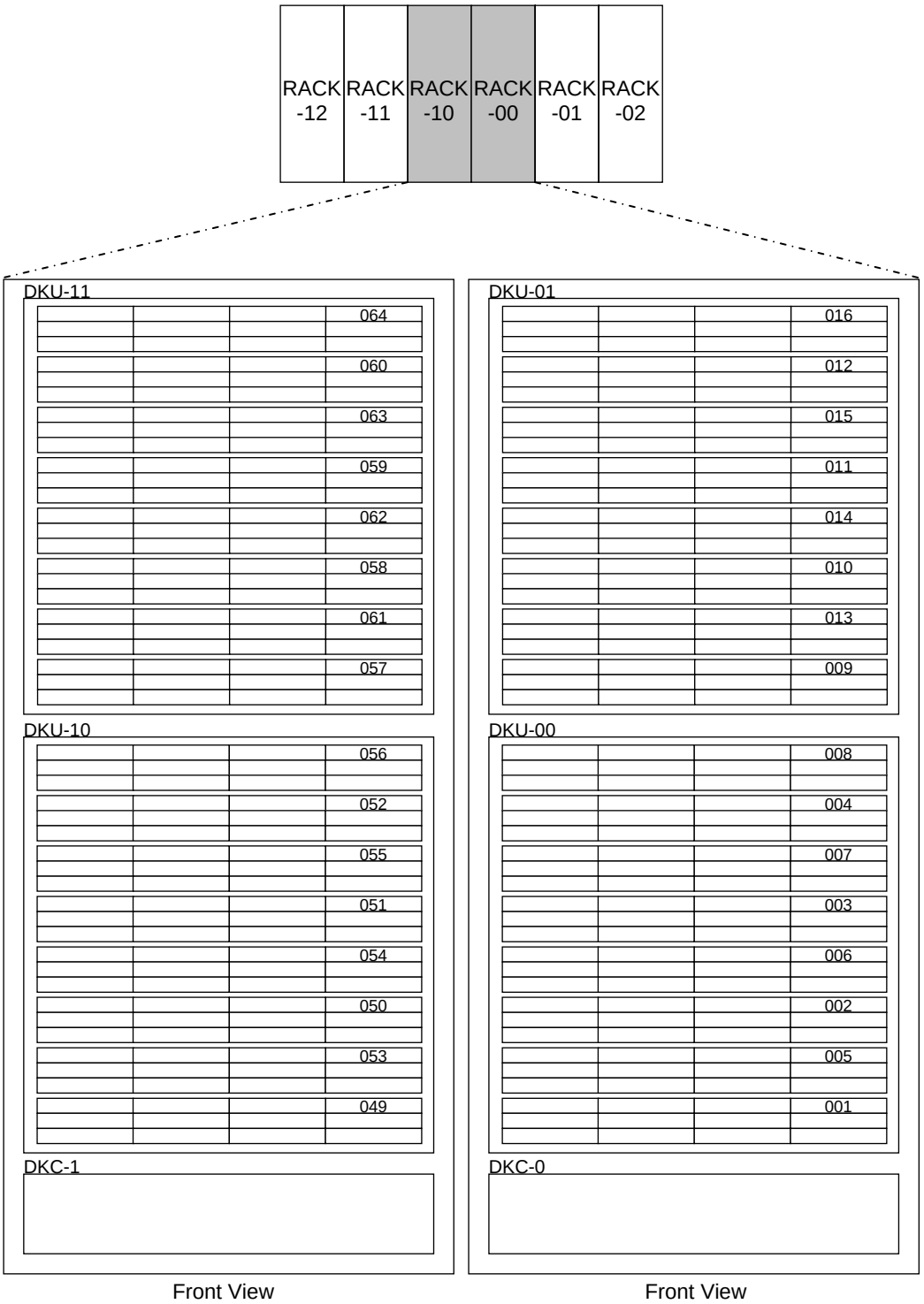
DKU-10			DKU-11			DKU-12			DKU-13		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
049	3rd	Spare1	057	7th	Spare1	065	11th	Spare1	073	15th	Spare1
050	3rd	Spare2	058	7th	Spare2	066	11th	Spare2	074	15th	Spare2
051	3rd	Spare3	059	7th	Spare3	067	11th	Spare3	075	15th	Spare3
052	3rd	Spare4	060	7th	Spare4	068	11th	Spare4	076	15th	Spare4
053	4th	Spare1	061	8th	Spare1	069	12th	Spare1	077	16th	Spare1
054	4th	Spare2	062	8th	Spare2	070	12th	Spare2	078	16th	Spare2
055	4th	Spare3	063	8th	Spare3	071	12th	Spare3	079	16th	Spare3
056	4th	Spare4	064	8th	Spare4	072	12th	Spare4	080	16th	Spare4

Table 4.1.2-10 Relation between Drive installation order and Spare Drive number (4/4)

DKU-14			DKU-15		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
081	19th	Spare1	089	23th	Spare1
082	19th	Spare2	090	23th	Spare2
083	19th	Spare3	091	23th	Spare3
084	19th	Spare4	092	23th	Spare4
085	20th	Spare1	093	24th	Spare1
086	20th	Spare2	094	24th	Spare2
087	20th	Spare3	095	24th	Spare3
088	20th	Spare4	096	24th	Spare4

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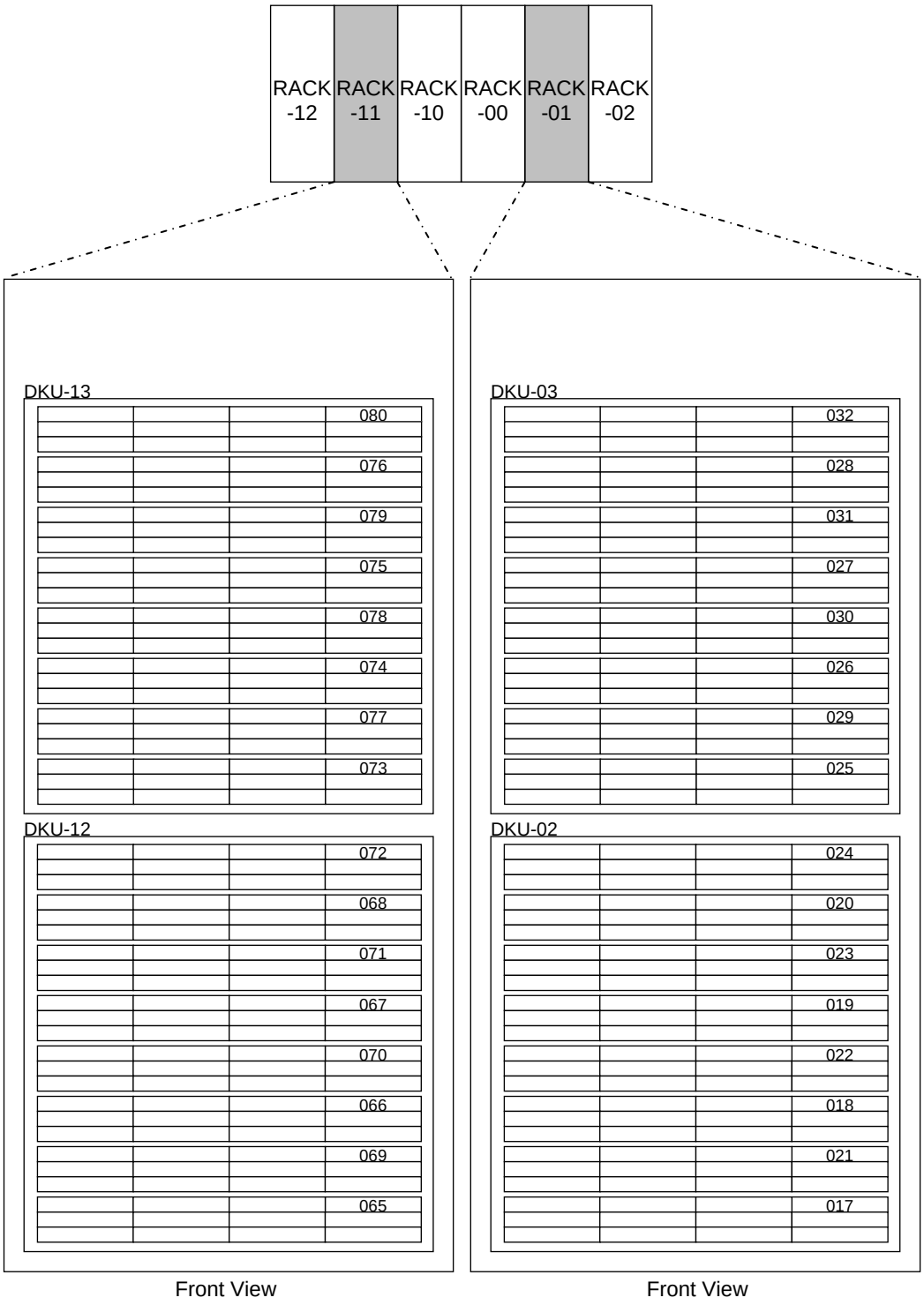
No.	Model Number	Model Name	Data and Parity
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 1	LFF Disk Drive	Spare drive
2	DKC-F810I-400M5M × 1	LFF SSD Drive	Spare drive



*1: A data or spare disk is to be installed.

Fig. 4.1.2-10 Spare Drive Expansion Sequence (1/3)

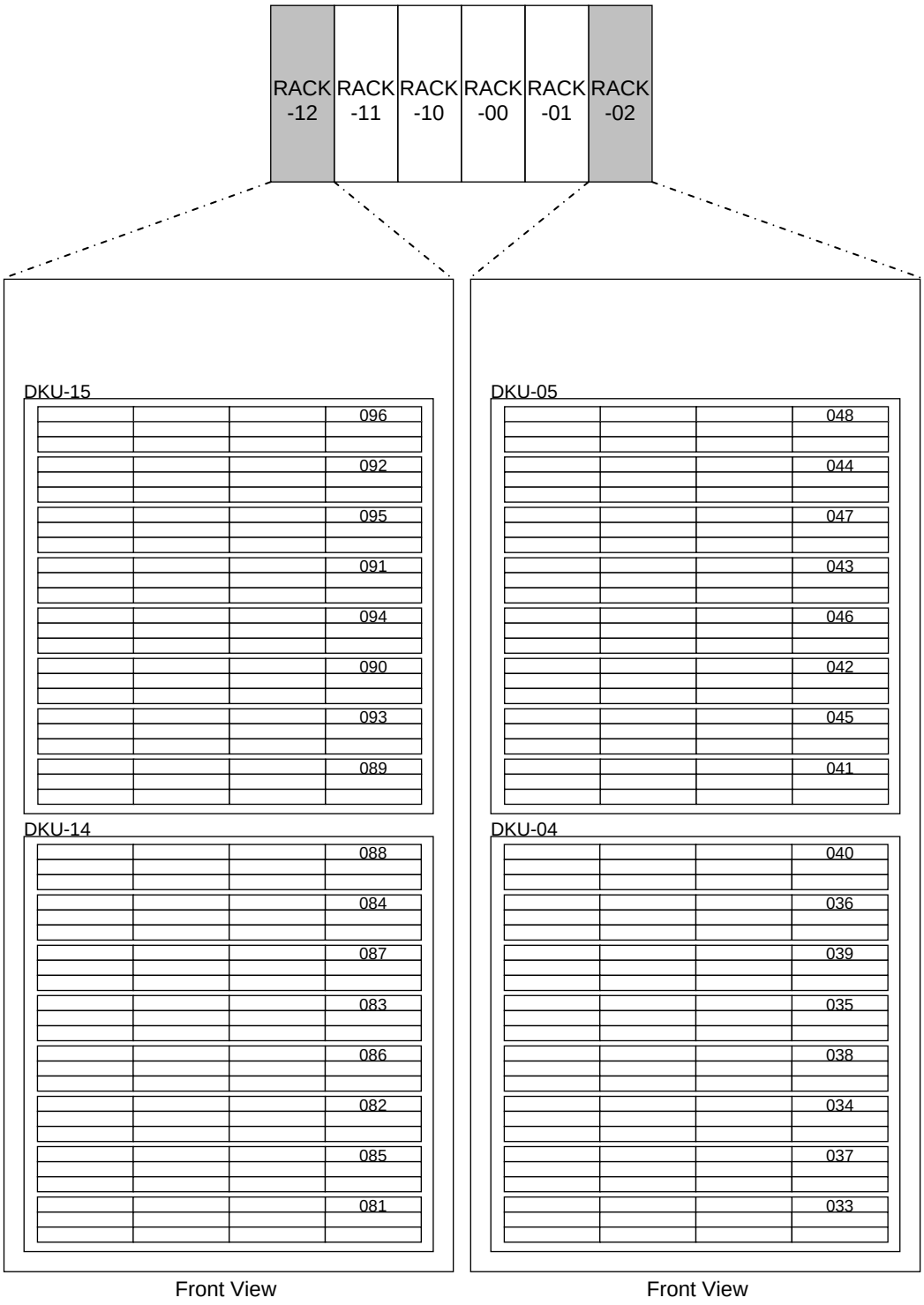
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*1: A data or spare disk is to be installed.

Fig. 4.1.2-10 Spare Drive Expansion Sequence (2/3)

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*1: A data or spare disk is to be installed.

Fig. 4.1.2-10 Spare Drive Expansion Sequence (3/3)

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(xi) Spare Drive, SBX (DKU for 2.5 inch Drive)

Table 4.1.2-11 Relation between Drive installation order and Spare Drive number (1/4)

DKU-00			DKU-01			DKU-02			DKU-03		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
001	1st	Spare1	009	5th	Spare1	017	9th	Spare1	025	13th	Spare1
002	1st	Spare2	010	5th	Spare2	018	9th	Spare2	026	13th	Spare2
003	1st	Spare3	011	5th	Spare3	019	9th	Spare3	027	13th	Spare3
004	1st	Spare4	012	5th	Spare4	020	9th	Spare4	028	13th	Spare4
005	2nd	Spare1	013	6th	Spare1	021	10th	Spare1	029	14th	Spare1
006	2nd	Spare2	014	6th	Spare2	022	10th	Spare2	030	14th	Spare2
007	2nd	Spare3	015	6th	Spare3	023	10th	Spare3	031	14th	Spare3
008	2nd	Spare4	016	6th	Spare4	024	10th	Spare4	032	14th	Spare4

Table 4.1.2-11 Relation between Drive installation order and Spare Drive number (2/4)

DKU-04			DKU-05		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
033	17th	Spare1	041	21th	Spare1
034	17th	Spare2	042	21th	Spare2
035	17th	Spare3	043	21th	Spare3
036	17th	Spare4	044	21th	Spare4
037	18th	Spare1	045	22th	Spare1
038	18th	Spare2	046	22th	Spare2
039	18th	Spare3	047	22th	Spare3
040	18th	Spare4	048	22th	Spare4

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Table 4.1.2-11 Relation between Drive installation order and Spare Drive number (3/4)

DKU-10			DKU-11			DKU-12			DKU-13		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
049	3rd	Spare1	057	7th	Spare1	065	11th	Spare1	073	15th	Spare1
050	3rd	Spare2	058	7th	Spare2	066	11th	Spare2	074	15th	Spare2
051	3rd	Spare3	059	7th	Spare3	067	11th	Spare3	075	15th	Spare3
052	3rd	Spare4	060	7th	Spare4	068	11th	Spare4	076	15th	Spare4
053	4th	Spare1	061	8th	Spare1	069	12th	Spare1	077	16th	Spare1
054	4th	Spare2	062	8th	Spare2	070	12th	Spare2	078	16th	Spare2
055	4th	Spare3	063	8th	Spare3	071	12th	Spare3	079	16th	Spare3
056	4th	Spare4	064	8th	Spare4	072	12th	Spare4	080	16th	Spare4

Table 4.1.2-11 Relation between Drive installation order and Spare Drive number (4/4)

DKU-14			DKU-15		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
081	19th	Spare1	089	23th	Spare1
082	19th	Spare2	090	23th	Spare2
083	19th	Spare3	091	23th	Spare3
084	19th	Spare4	092	23th	Spare4
085	20th	Spare1	093	24th	Spare1
086	20th	Spare2	094	24th	Spare2
087	20th	Spare3	095	24th	Spare3
088	20th	Spare4	096	24th	Spare4

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No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 1	SFF Disk Drive	Spare Drive
2	DKC-F810I-400MCM/800MCM × 1	SFF SSD Drive	Spare Drive

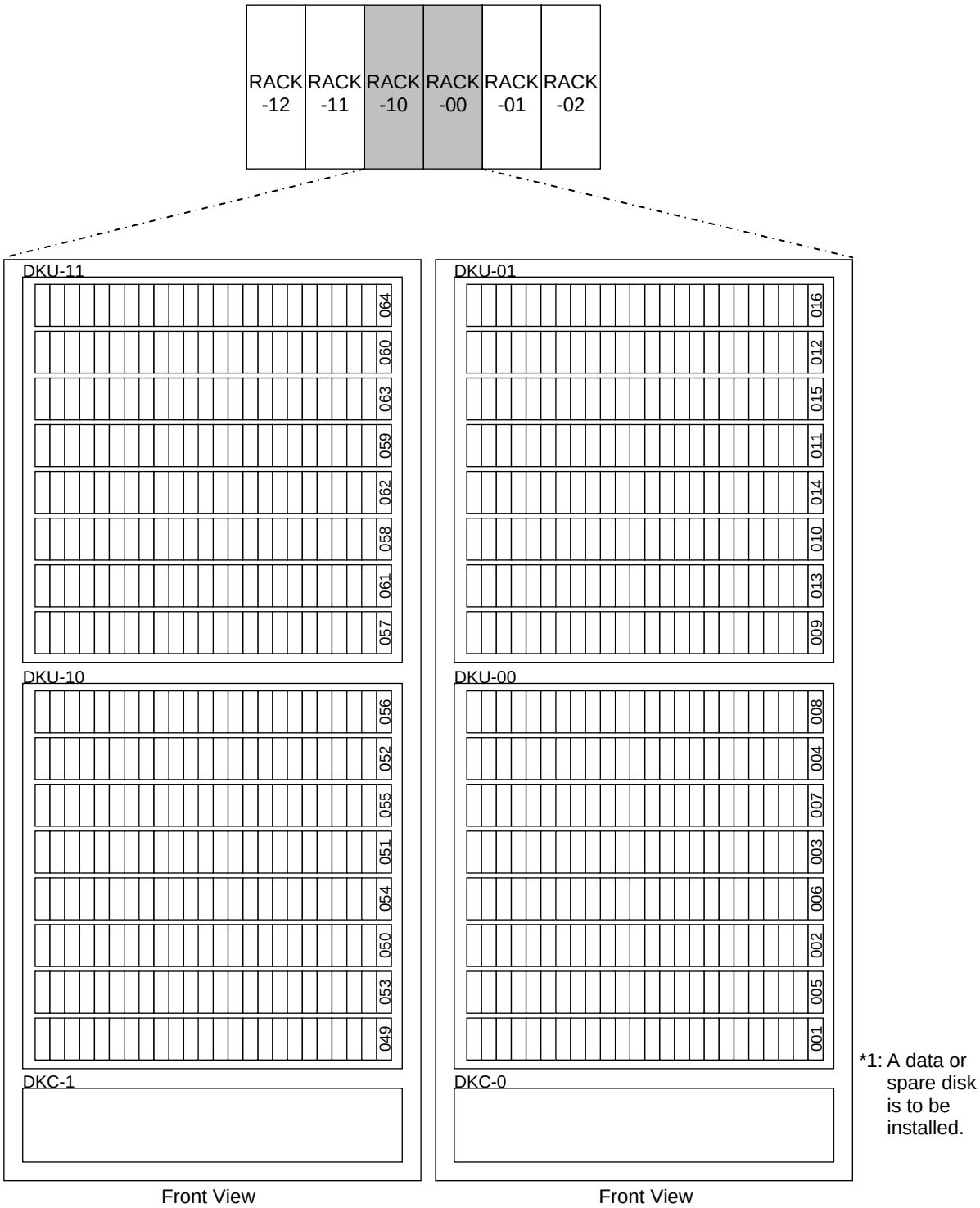
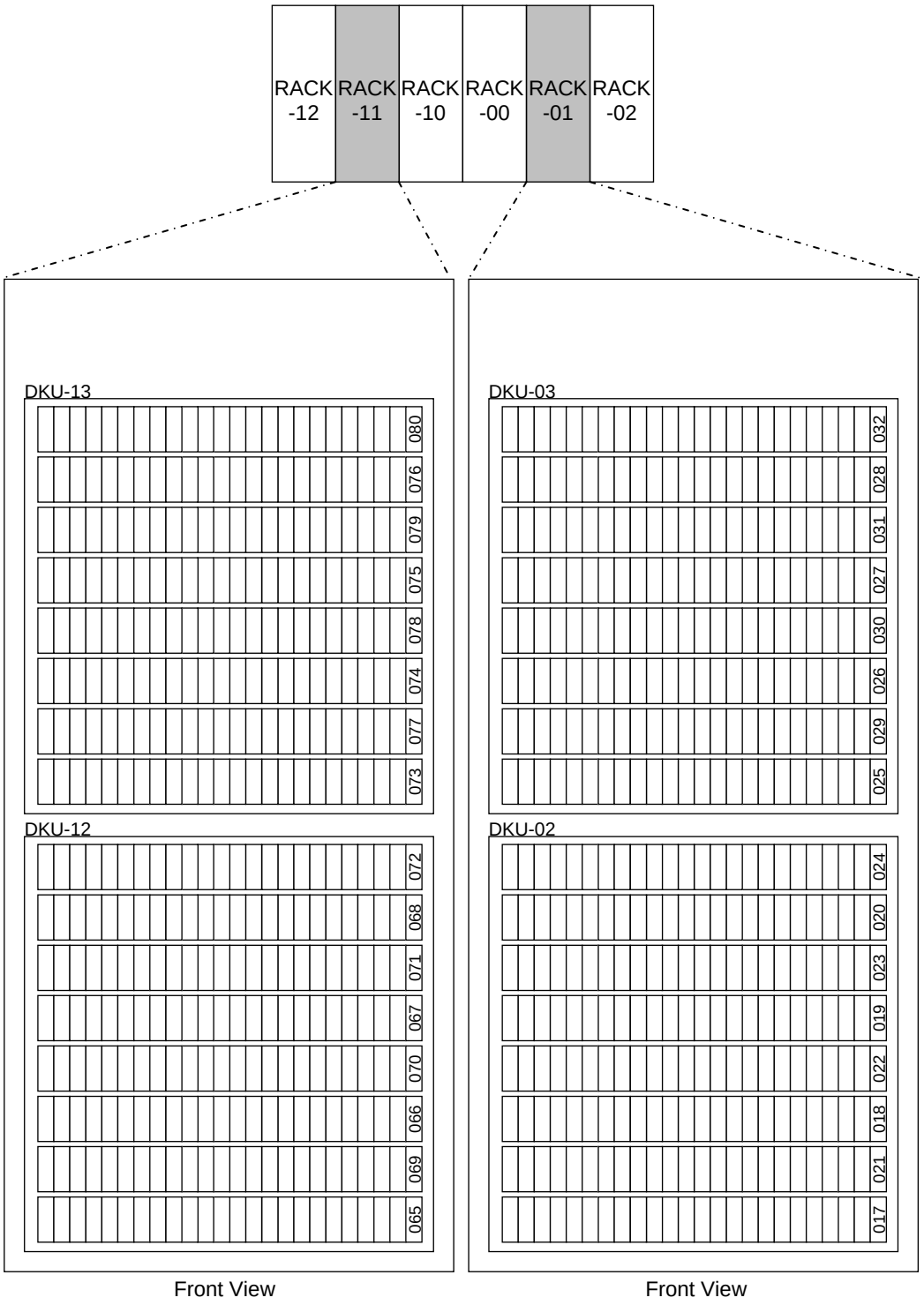


Fig. 4.1.2-11 Spare Drive Expansion Sequence (1/3)

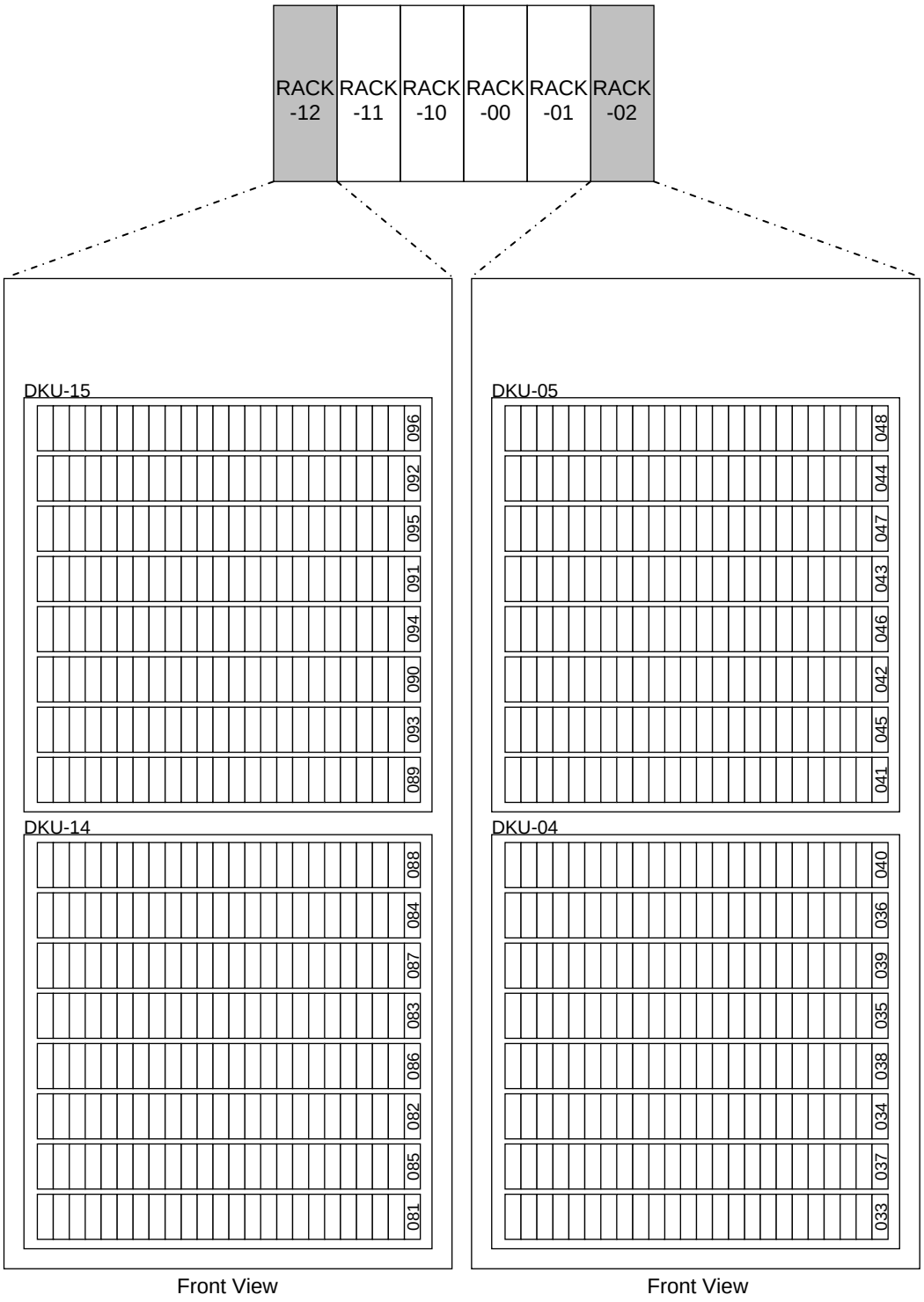
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*1: A data or spare disk is to be installed.

Fig. 4.1.2-11 Spare Drive Expansion Sequence (2/3)

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*1: A data or spare disk is to be installed.

Fig. 4.1.2-11 Spare Drive Expansion Sequence (3/3)

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(xii) Spare Drive, FBX (DKU for FMD)

Table 4.1.2-12 Relation between Drive installation order and Spare Drive number (1/4)

DKU-00			DKU-01			DKU-02			DKU-03		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
001	1st	Spare1	009	5th	Spare1	017	9th	Spare1	025	13th	Spare1
002	1st	Spare2	010	5th	Spare2	018	9th	Spare2	026	13th	Spare2
003	1st	Spare3	011	5th	Spare3	019	9th	Spare3	027	13th	Spare3
004	1st	Spare4	012	5th	Spare4	020	9th	Spare4	028	13th	Spare4
005	2nd	Spare1	013	6th	Spare1	021	10th	Spare1	029	14th	Spare1
006	2nd	Spare2	014	6th	Spare2	022	10th	Spare2	030	14th	Spare2
007	2nd	Spare3	015	6th	Spare3	023	10th	Spare3	031	14th	Spare3
008	2nd	Spare4	016	6th	Spare4	024	10th	Spare4	032	14th	Spare4

Table 4.1.2-12 Relation between Drive installation order and Spare Drive number (2/4)

DKU-04			DKU-05		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
033	17th	Spare1	041	21th	Spare1
034	17th	Spare2	042	21th	Spare2
035	17th	Spare3	043	21th	Spare3
036	17th	Spare4	044	21th	Spare4
037	18th	Spare1	045	22th	Spare1
038	18th	Spare2	046	22th	Spare2
039	18th	Spare3	047	22th	Spare3
040	18th	Spare4	048	22th	Spare4

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Table 4.1.2-12 Relation between Drive installation order and Spare Drive number (3/4)

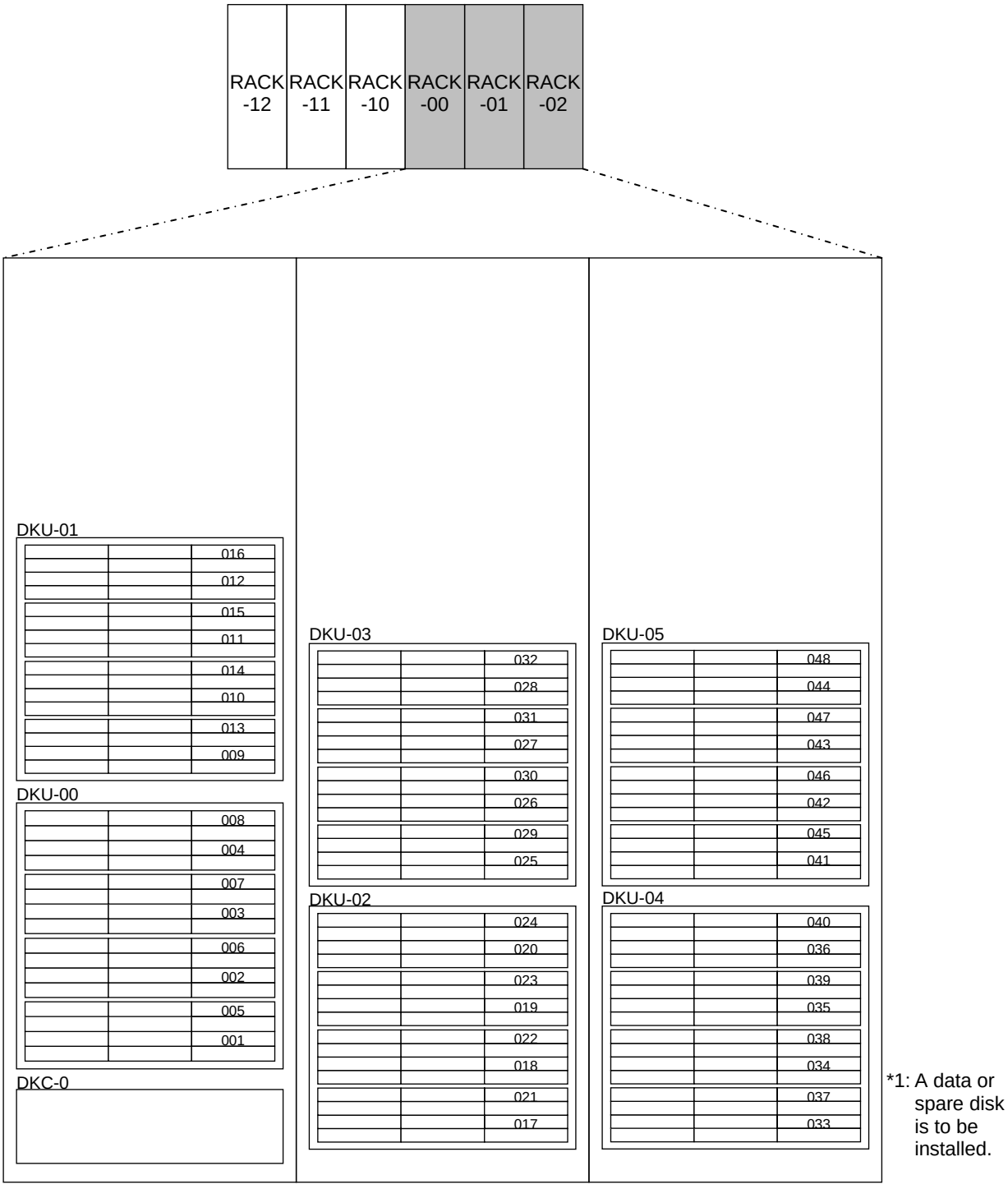
DKU-10			DKU-11			DKU-12			DKU-13		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
049	3rd	Spare1	057	7th	Spare1	065	11th	Spare1	073	15th	Spare1
050	3rd	Spare2	058	7th	Spare2	066	11th	Spare2	074	15th	Spare2
051	3rd	Spare3	059	7th	Spare3	067	11th	Spare3	075	15th	Spare3
052	3rd	Spare4	060	7th	Spare4	068	11th	Spare4	076	15th	Spare4
053	4th	Spare1	061	8th	Spare1	069	12th	Spare1	077	16th	Spare1
054	4th	Spare2	062	8th	Spare2	070	12th	Spare2	078	16th	Spare2
055	4th	Spare3	063	8th	Spare3	071	12th	Spare3	079	16th	Spare3
056	4th	Spare4	064	8th	Spare4	072	12th	Spare4	080	16th	Spare4

Table 4.1.2-12 Relation between Drive installation order and Spare Drive number (4/4)

DKU-14			DKU-15		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
081	19th	Spare1	089	23th	Spare1
082	19th	Spare2	090	23th	Spare2
083	19th	Spare3	091	23th	Spare3
084	19th	Spare4	092	23th	Spare4
085	20th	Spare1	093	24th	Spare1
086	20th	Spare2	094	24th	Spare2
087	20th	Spare3	095	24th	Spare3
088	20th	Spare4	096	24th	Spare4

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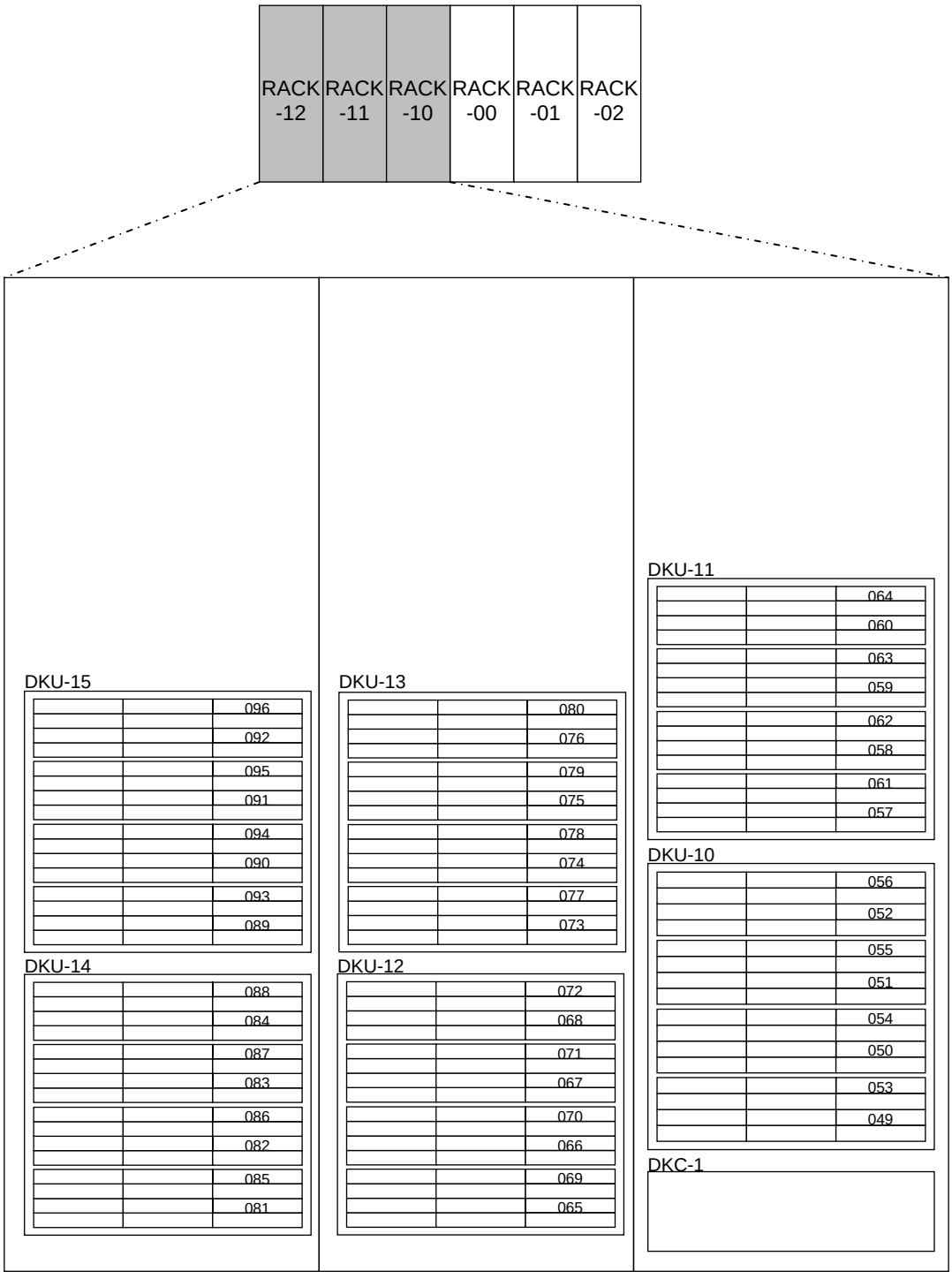
No.	Model Number	Model Name	Data and Parity
1	DKC-F810I-1R6FM/3R2FM × 1	Flash Module Drive	Spare Drive



Front View

Fig. 4.1.2-12 Spare Drive Expansion Sequence (1/2)

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*1: A data or spare disk is to be installed.

Front View

Fig. 4.1.2-12 Spare Drive Expansion Sequence (2/2)

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2-2 Check the Shut Down LED

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

2-2-1 In case of UBX

a. Check that the Shut Down LED on drive is turned on.

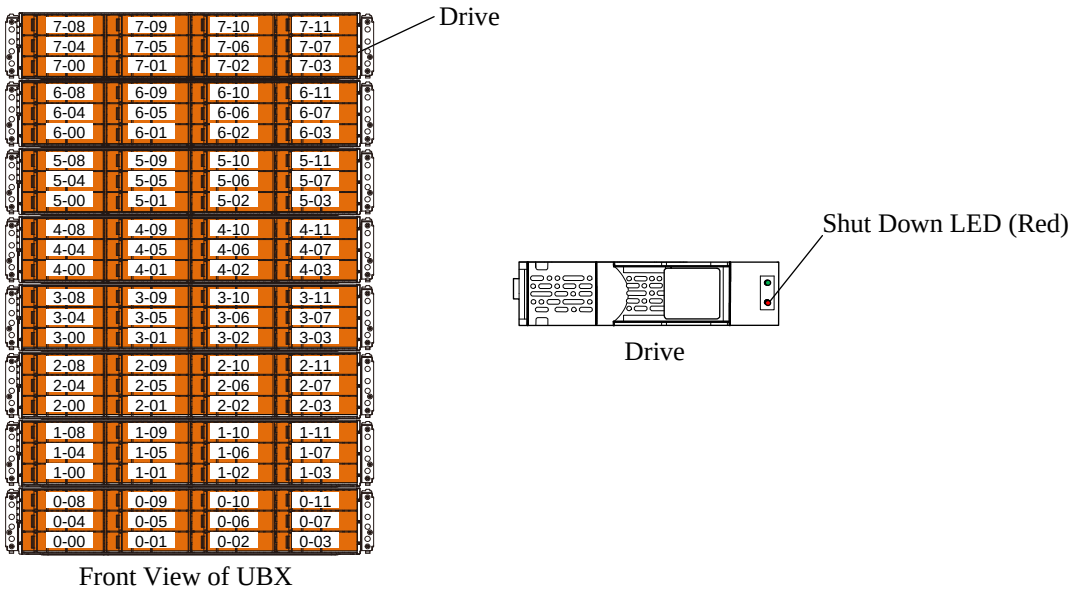


Fig. 4.1.2-13 Checking of Shut Down LED (In case of UBX)

2-2-2 In case of SBX

a. Check that the Shut Down LED on drive is turned on.

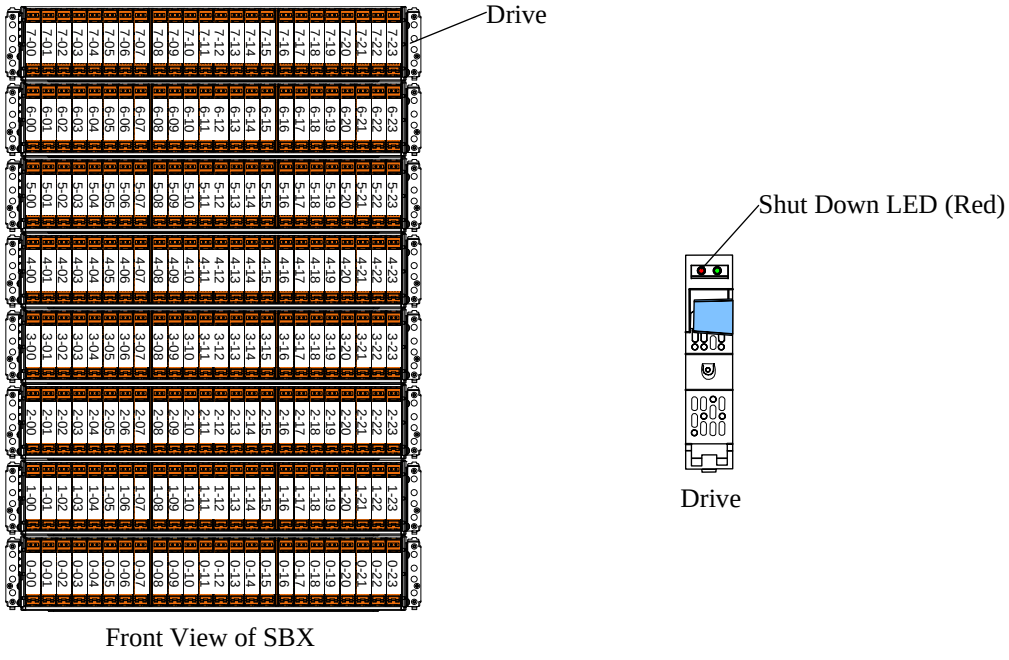


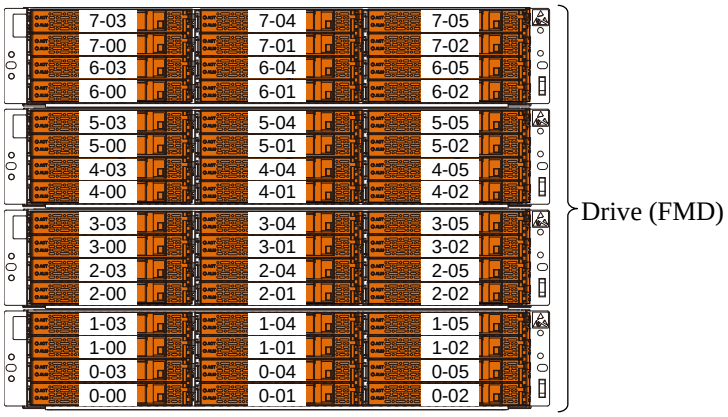
Fig. 4.1.2-14 Checking of Shut Down LED (In case of SBX)

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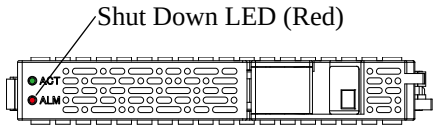
2-2-3 In case of FBX

NOTICE: Just after the FMD is removed, the fans of the DKUPS equipped in the rear of the FBX rotate at the highest speed. In 30 minutes after the removal of the FMD, the fans of the DKUPS rotate at the speed suitable for environmental temperature.

a. Check that the Shut Down LED on drive is turned on.



Front View of FBX



Front View of Drive (FMD)

Fig. 4.1.2-15 Checking of Shut Down LED (In case of FBX)

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2-3 Remove the drive.

NOTICE:	Since the HDD is a precision component, handle it very carefully not to apply a vibration or shock to it.

2-3-1 In case of UBX

a. Pull the stopper of the drive handle toward you to have the lock off.
b. Tilt the handle toward you, and then remove the drive by pulling it out taking care not to apply a shock to it.

NOTE: When handling the drive, hold the rail side because the shield spring is subject to breakage.

c. Insert the dummy (drive) to the drive chassis.

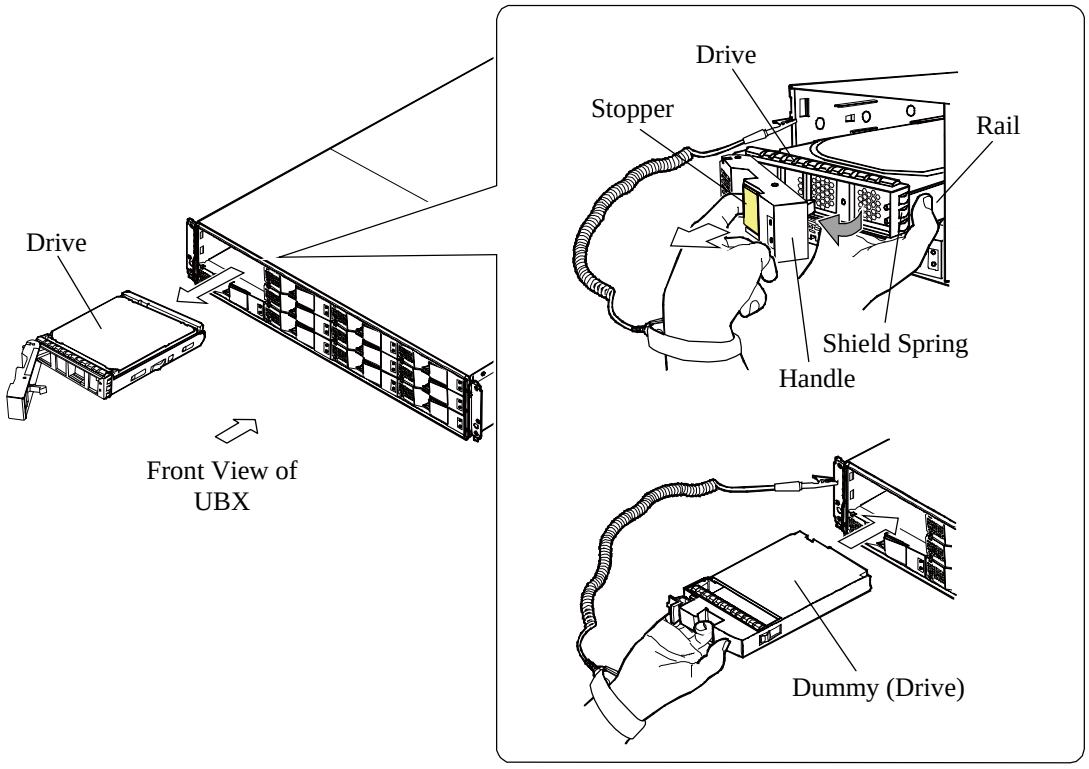


Fig. 4.1.2-16 Removal of Drive (In case of UBX)

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2-3-2 In case of SBX

a. Pull up the stopper of the drive handle toward you to release the lock.
b. Open the handle toward you, and then pull out and remove the drive to be replaced not to give a shock.
c. Insert the dummy (drive) to the drive chassis.

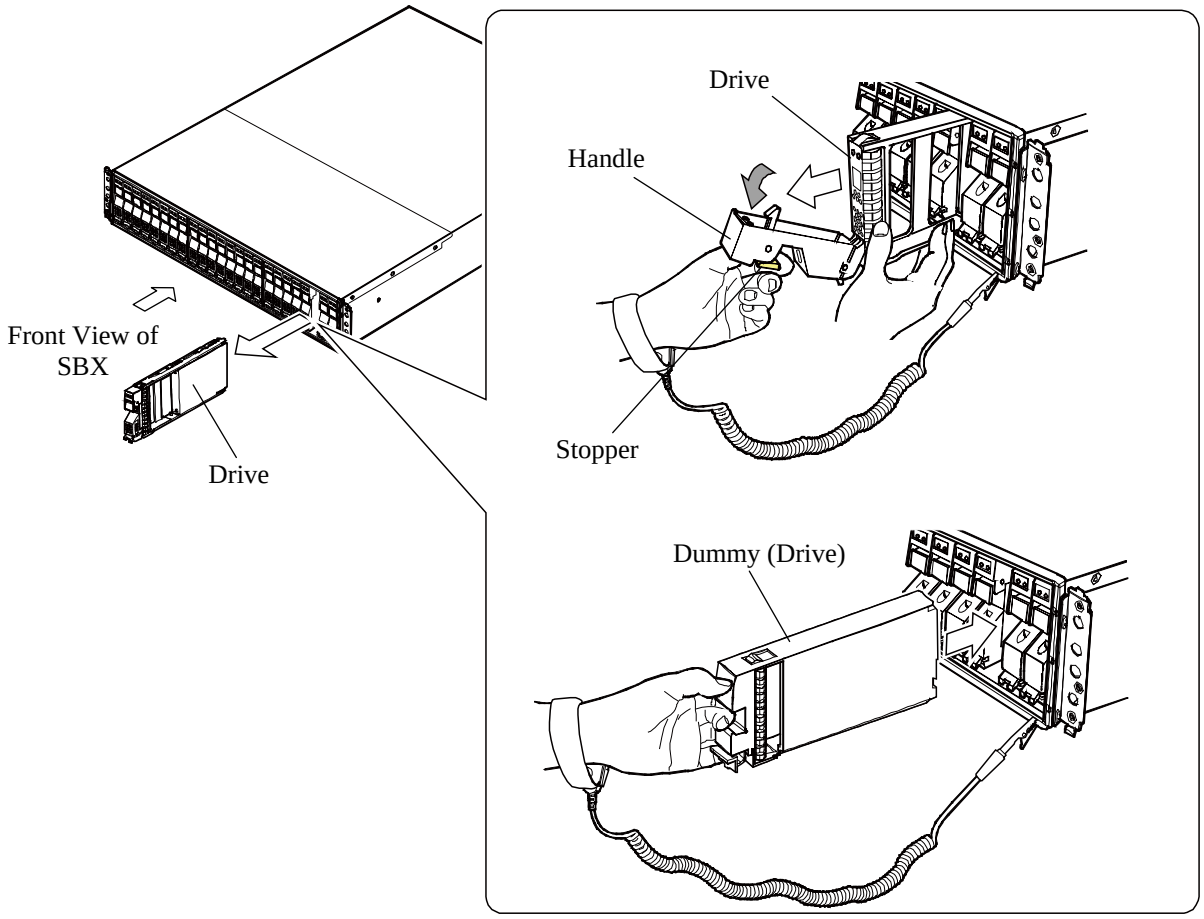
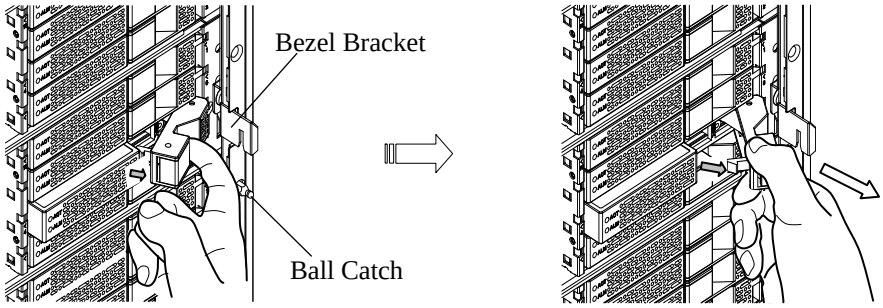


Fig. 4.1.2-17 Removal of Drive (In case of SBX)

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2-3-3 In case of FBX

NOTICE: When extracting drives (FMD) centered on the right side of the FBX, be careful not to get your finger caught in the Bezel Bracket and/or the Ball Catch. Slightly pull the Stopper with your fingertip and then extract a drive with holding upper and bottom sides of the Handle as shown in the figure below.



a. Pull the stopper of the drive handle toward you to have the lock off.
b. Tilt the handle toward you, and then remove the drive by pulling it out taking care not to apply a shock to it.

NOTE: When handling the drive, hold the rail side because the shield spring is subject to breakage.

c. Install the dummy FMD into de-installation position of a drive.

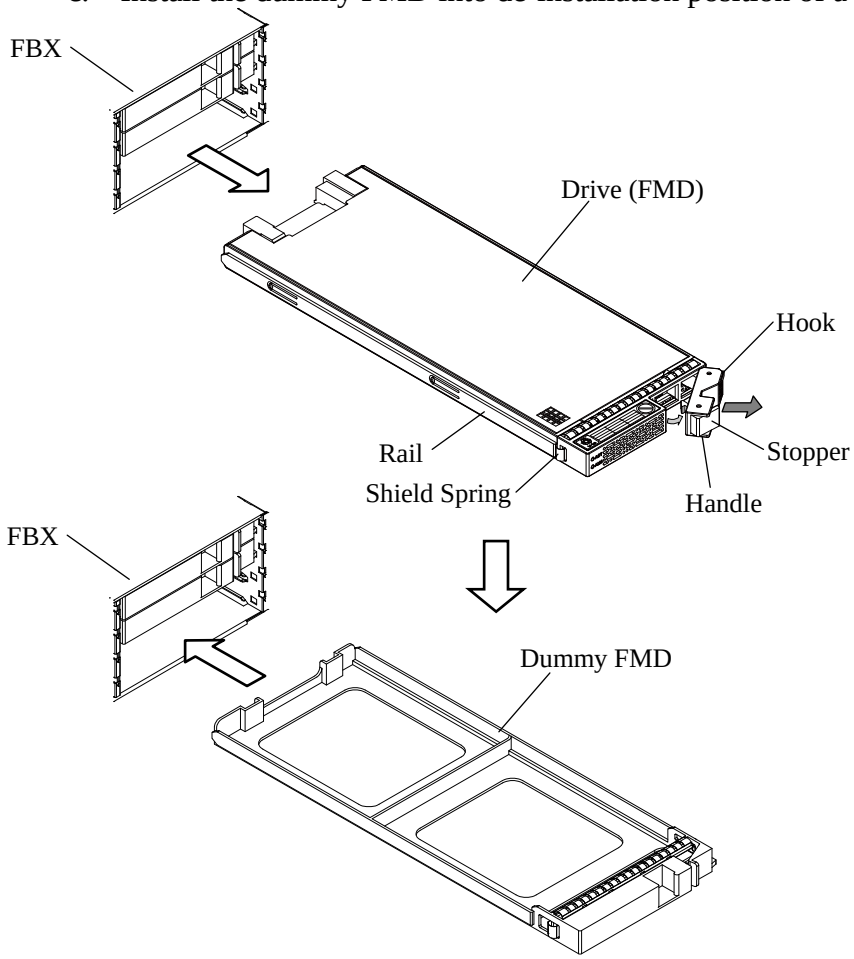


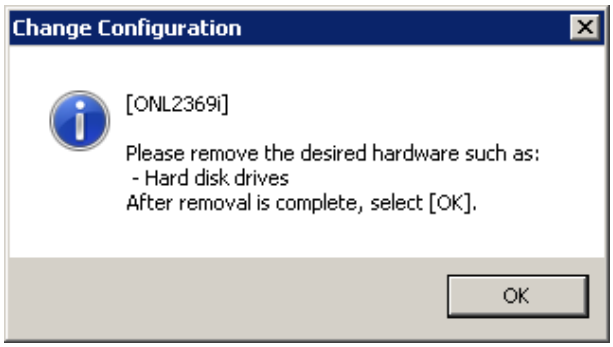
Fig. 4.1.2-18 Removal of Drive (In case of FBX)

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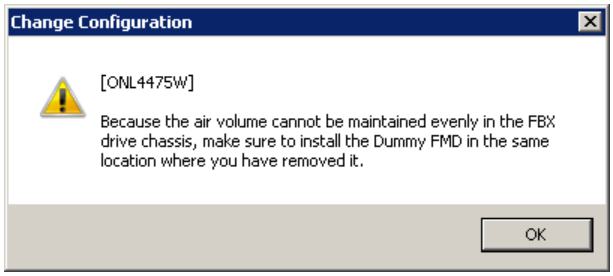
3. SVP post procedure

(1)

In response to a message, “Please remove the desired hardware such as:
- Hard disk drives
After removal is complete, select [OK].”, select (CL) [OK].



(2) <Install the Dummy FMD>
Select (CL) [OK] in response to “Because the air volume cannot be maintained evenly in the FBX drive chassis, make sure to install the Dummy FMD in the same location where you have removed it.”.

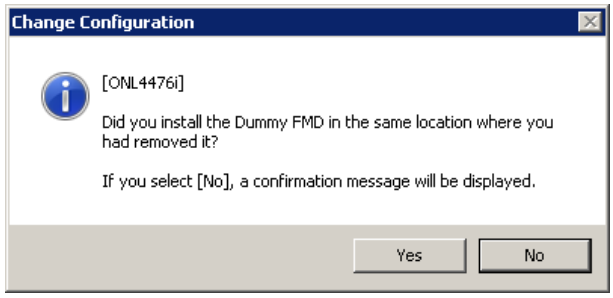


- When you do not remove FMD : Go to Step (3).

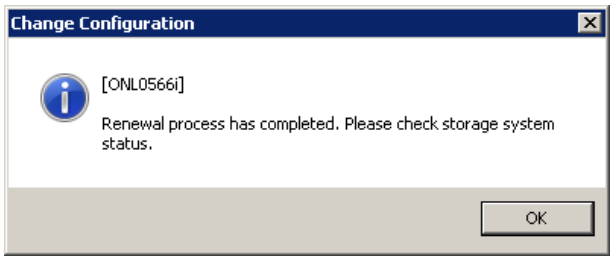
(2)-1

In response to a message, “Did you install the Dummy FMD in the same location where you had removed it? If you select [No], a confirmation message will be displayed.”.
Select [Yes] when Dummy FMD is installed.

Select [No] when Dummy FMD is not installed.
When the [No] is selected, go to Step (2).



(3) <Making sure of completion of the removal>
A message, “Renewal process has completed. Please check storage system status.” is displayed. In response to the message, select (CL) [OK].

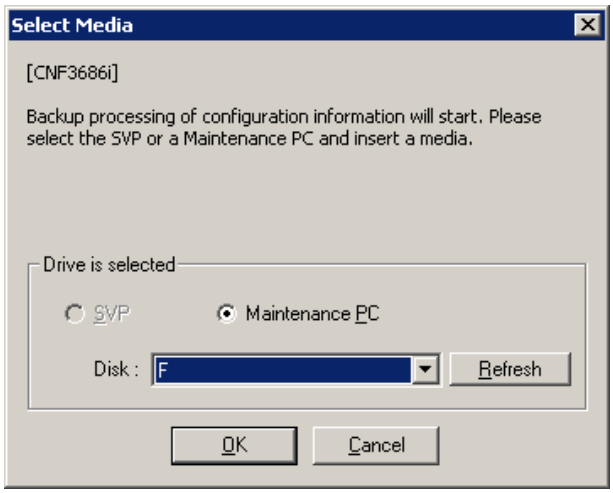


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(4)

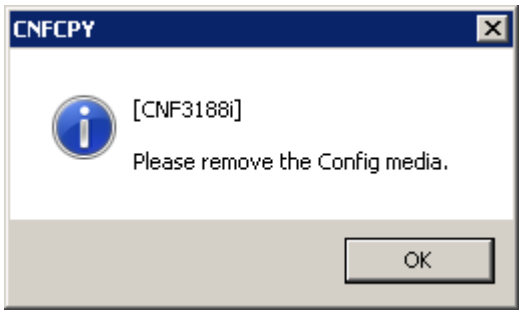
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



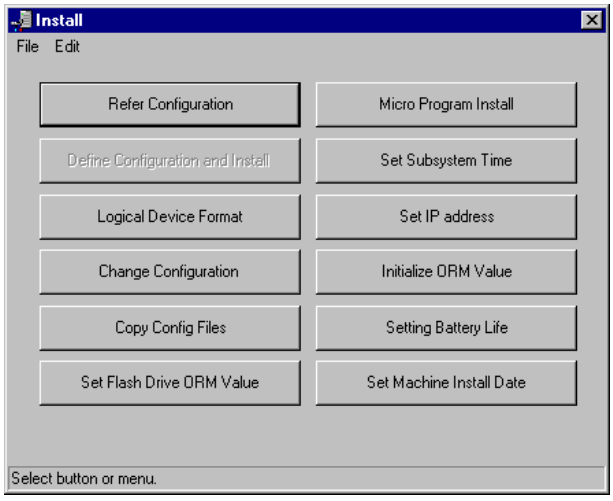
(5)

When this procedure is completed, the message "Please remove the Config media." is displayed.
Remove the configuration information media, select (CL) [OK].



(6)

After the procedure is completed, return to 'Install'.
Select (CL) [File]-[Exit].



(7) <Mode Change>
Change the mode to View Mode.

Return to the work table (INST02-70) and perform rest of the works.

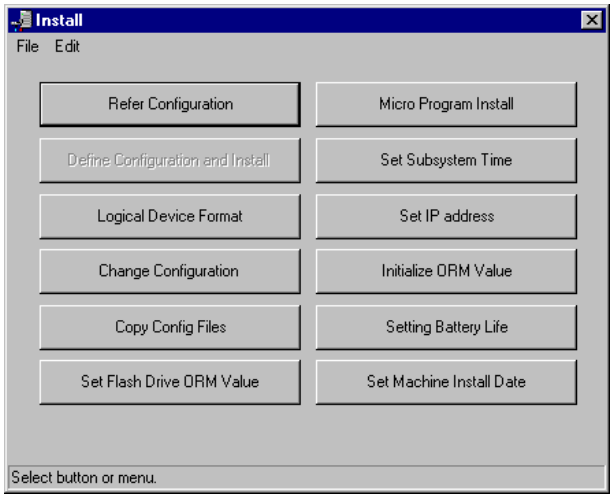
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4.1.3 When performing removal of the DKA and Device Interface Cable (DKC-F810I-SCA/ESCA/CC1/CC2)

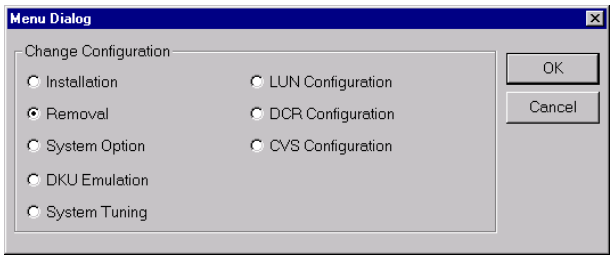
1. Setting up the New Device Structure Information

(1) <Mode Change>
Change the mode to Modify Mode.
Select (CL) [Install].

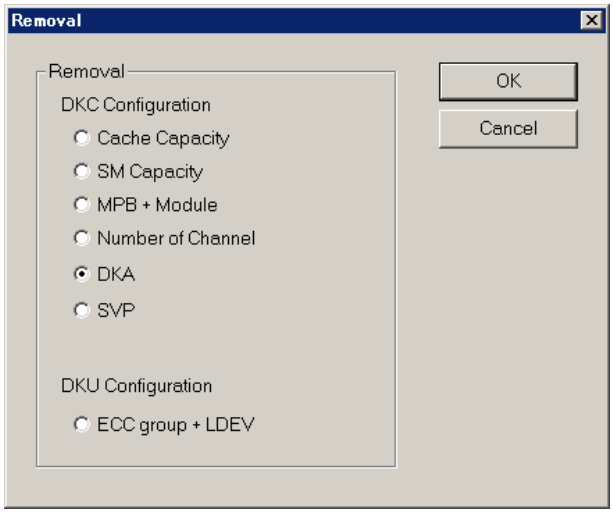
(2) <Start the 'Menu Dialog' screen>
Select (CL) [Change Configuration].



(3) <Start Device Structure Setup screen>
Select (CL) [Removal] in the "Menu Dialog" dialog box and select (CL) [OK].



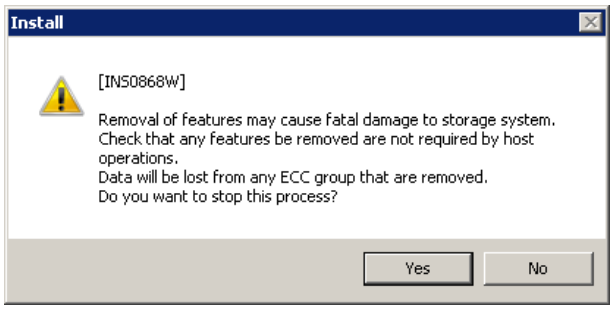
(4) <Select a part to be changed>
Select (CL) [DKA], and select (CL) [OK].



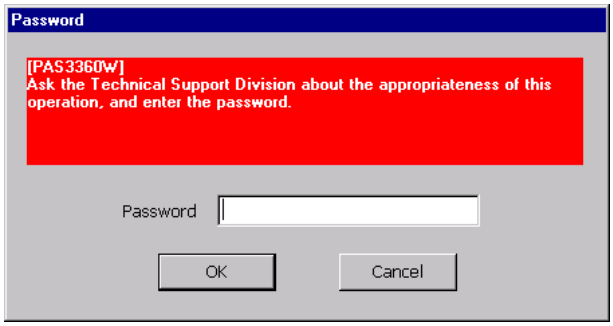
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(5)

Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(6) <Input password>
Enter the password and select (CL) [OK].

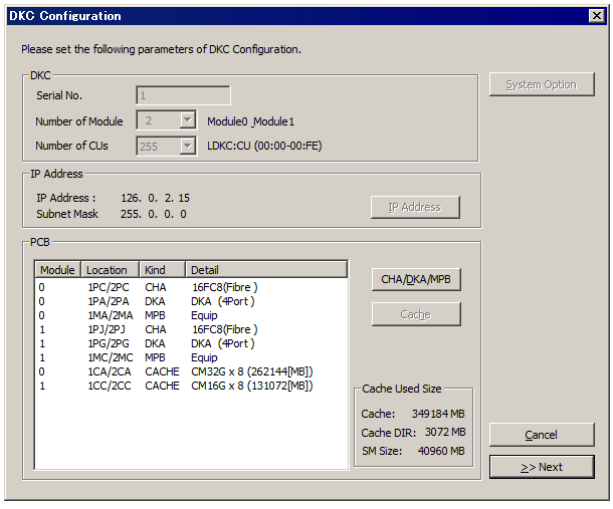


⚠ CAUTION

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

(7) <Update Configuration Information>
Select (CL) [CHA/DKA/MPB] in the ‘DKC Configuration’ window.
Go to Step (8).

After confirming input items, select (CL) the [>>Next] button.
Go to Step (9).
In the case of selecting (CL) [Cancel], this operation procedure terminates.

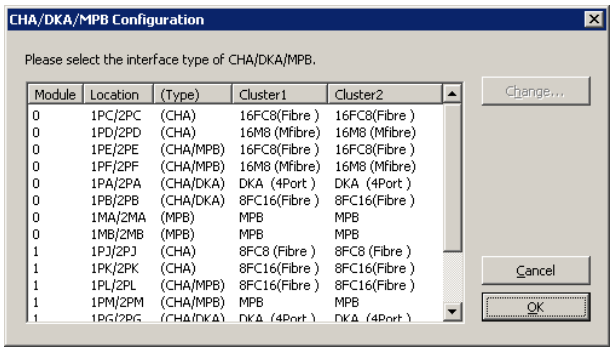


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(8) <Setting DKA>

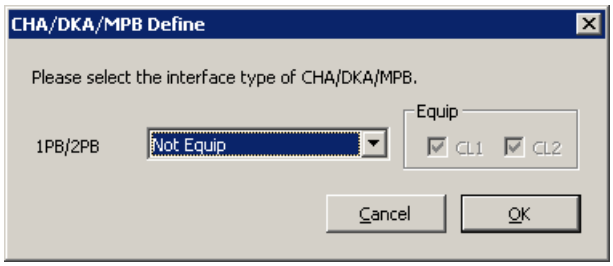
In 'CHA/DKA/MPB Configuration' window, select the location(s) where the DKA is to be removed from and select (CL) the [Change...]. Advances the routine to Step (8)-1. After setting it, select (CL) the [OK] button.
Go back to Step (7).

Refer to INST01-80 for the SVP window display and the conversion of the option type names.



(8)-1 <Set the DKA type>

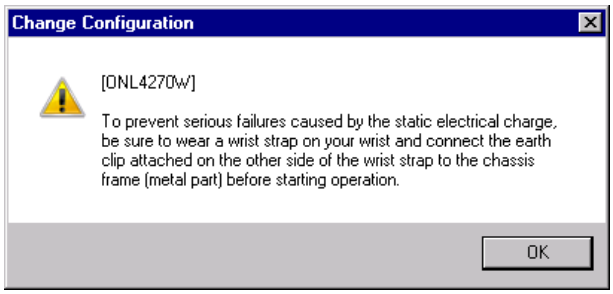
In 'CHA/DKA/MPB Define' window, select the [Not Equip]. After the setting is completed, select (CL) the [OK].
The routine is returned to Step (8).



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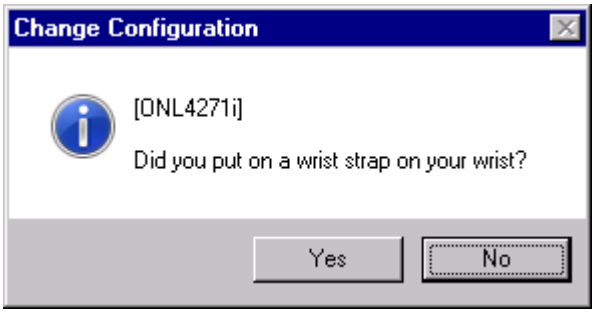
(9) <Wear a wrist strap>

Select (CL) [OK] in response to "To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.".



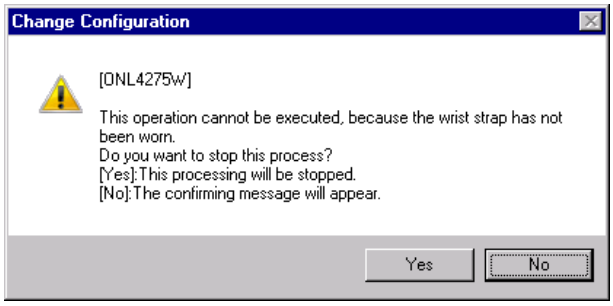
(9)-1 <Confirm wearing wrist strap>

In response to a message, "Did you put on a wrist strap on your wrist?".
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When the [No] is selected, go to Step (9)-2.



(9)-2

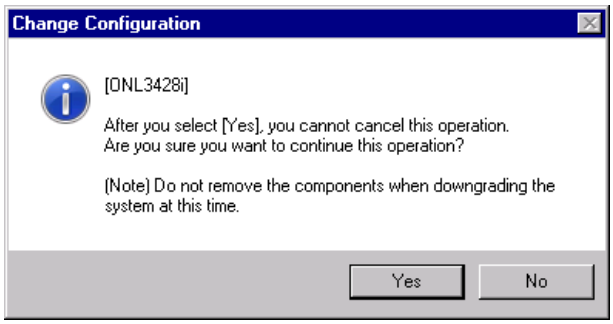
In response to a message, "This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear."
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-01B-10.
When [No] is selected (CL), returned to Step (9).



(10) <Starting the removal>

In response to a message, "After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components when downgrading the system at this time." select (CL) [Yes].

When the [No] is selected, the routine is returned to Step (2) on page INST04-01B-10.



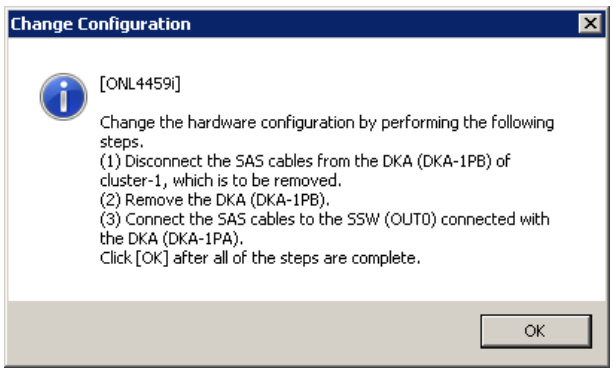
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2. SVP Pre-Procedure (Cluster 1)

(1) <Change the hardware configuration>
When changing from the Standard Model to the High Performance Model : Go to Step (1)-1.
When removing from the less DKA or less DKU configuration : Go to Step (1)-2.

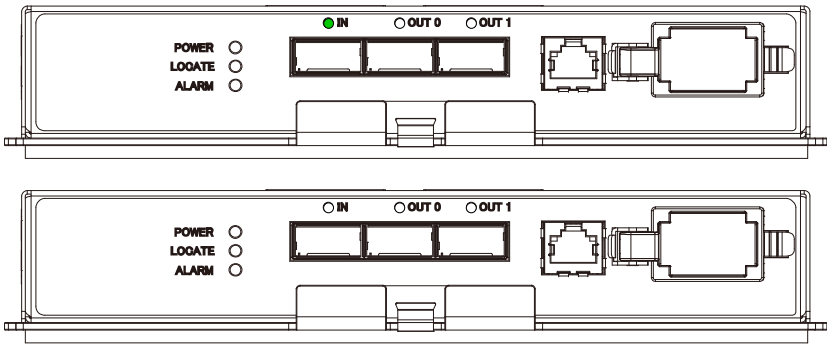
(1)-1

"Change the hardware configuration by performing the following steps. (1) Disconnect the SAS cables from the DKA (DKA-nnn) of cluster-1, which is to be removed. (2) Remove the DKA (DKA-nnn). (3) Connect the SAS cables to the SSW (OUT0) connected with the DKA (DKA-nnn). Click [OK] after all of the steps are complete." is displayed.



NOTE: Connect the cables of Blinking LED.

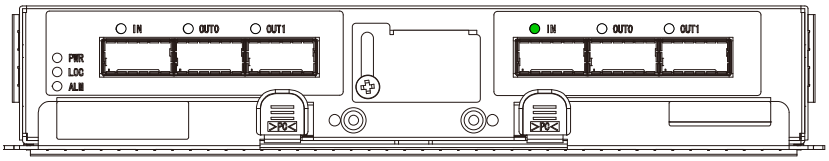
SSW (UBX / SBX)



SSWx07-1
SSWx05-1
SSWx03-1
SSWx01-1

SSWx06-1
SSWx04-1
SSWx02-1
SSWx00-1

SSW (FBX)



SSWx03-1
SSWx02-1
SSWx01-1
SSWx00-1

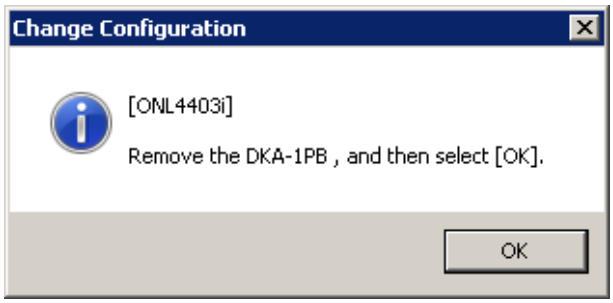
Go to Step 3.

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(1)-2

Do not push the [OK] button at this time yet.
A message, “Remove the DKA-nnn, and then select [OK].” is displayed.

Go to Step 4.



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3. De-Installation of Disk Adapter and SAS cable for cluster 1

3-1 De-Installation Procedure of Disk Adapter for cluster 1

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

3-1-1 Confirmation of the Shut Down LED

a. While referring to Fig. 4.1.3-1 and Table 4.1.3-1, check the Shut Down LED on the PCB

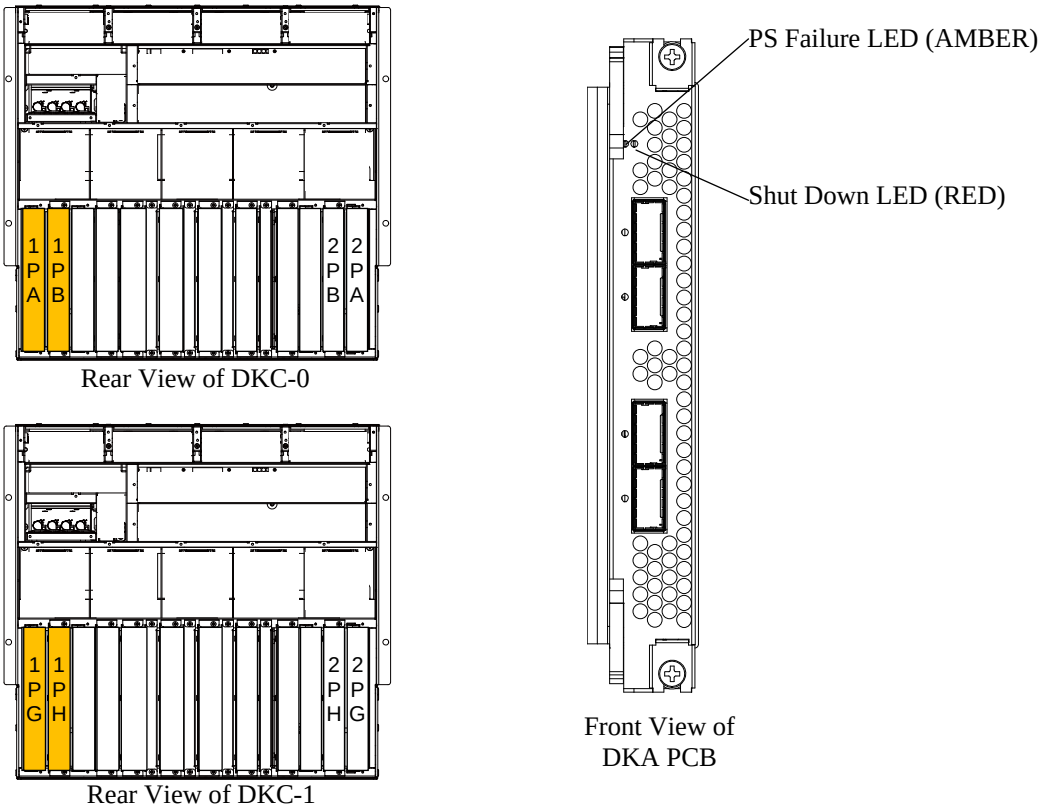


Fig. 4.1.3-1 Location of the Shut Down LED

Table 4.1.3-1 PCB Location List

DKC	Addition No.	Location No.	Number of DKAs set through the SVP		Remarks
		Cluster 1			
DKC-0	Basic	DKA-1PA	2	4	
	Option 1	DKA-1PB	—		
DKC-1	Option 2	DKA-1PG	2	4	
	Option 3	DKA-1PH	—		

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3-1-2 Disconnection of cables

In the case of Basic in DKC-0

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

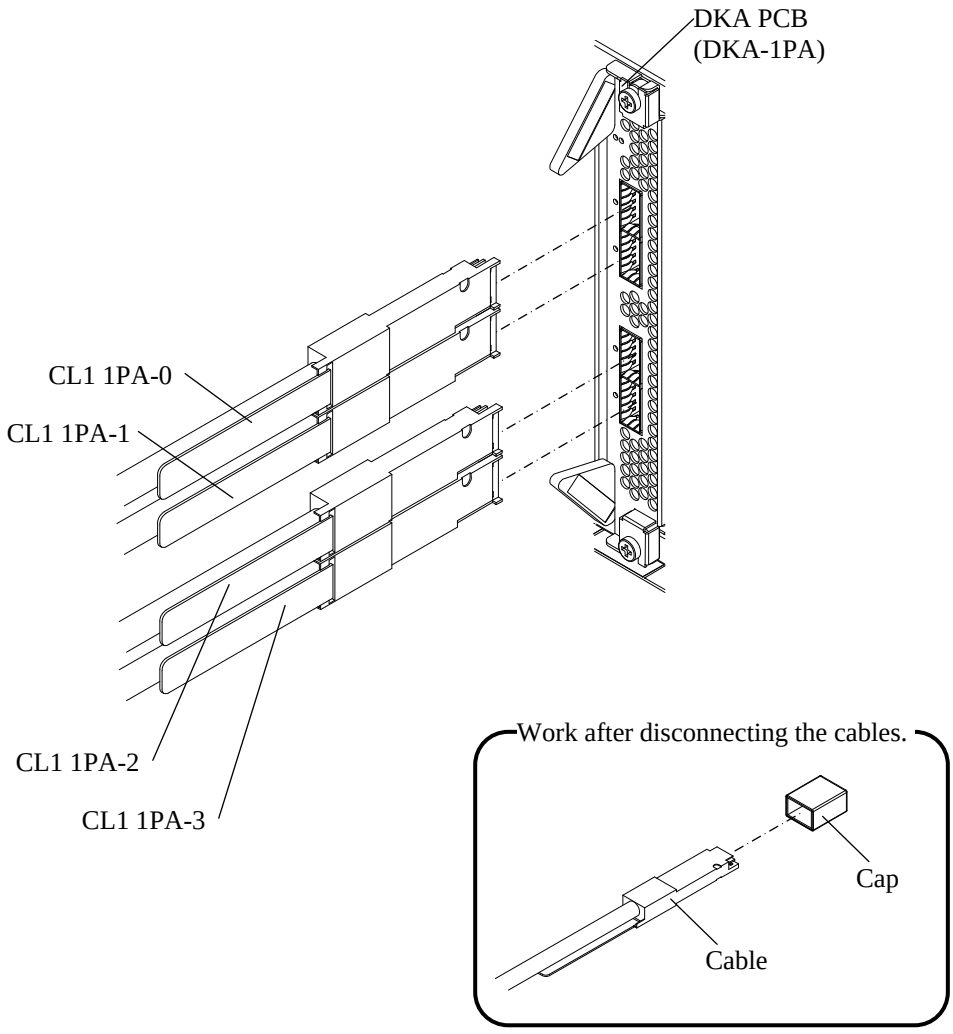


Fig. 4.1.3-2 Disconnection of Cables (Basic in DKC-0)

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c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-3 or Fig. 4.1.3-4.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

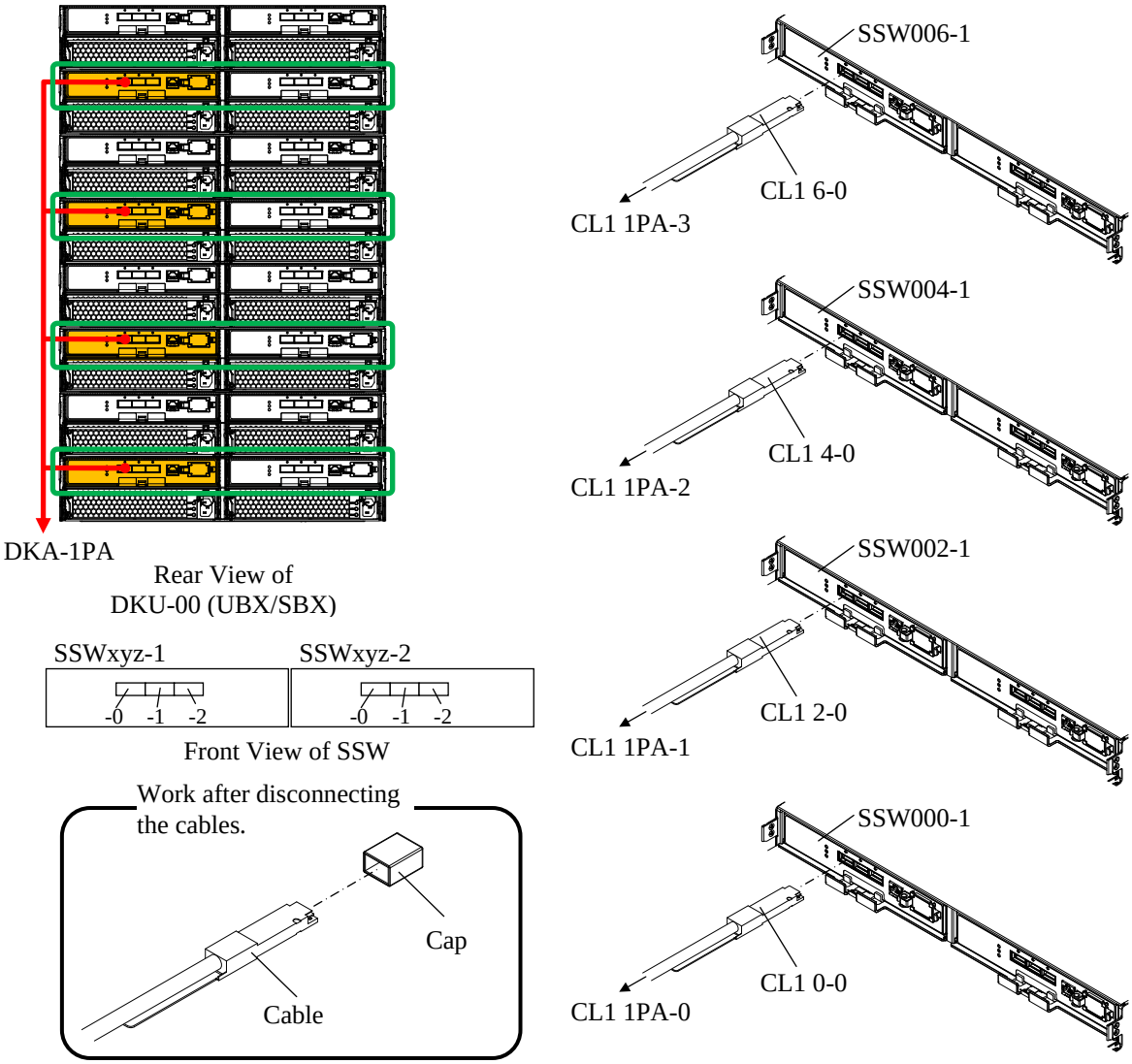


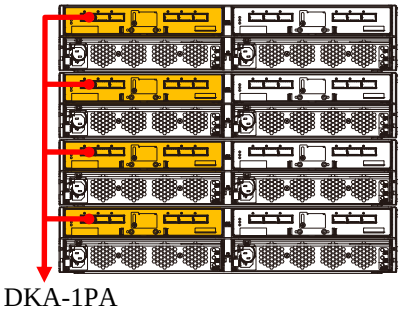
Fig. 4.1.3-3 Disconnection of Cables (CC2_DKU-00(UBX/SBX)_CL1)

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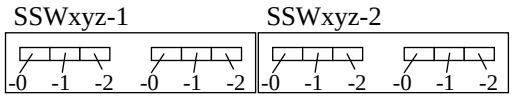
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

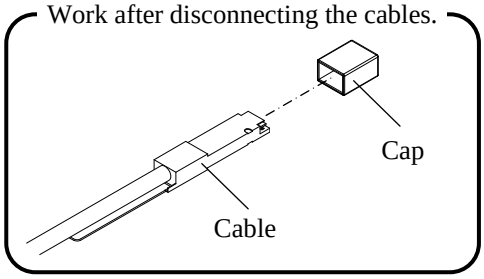
When the DKU-00 is the FBX.



Rear View of DKU-00 (FBX)



Front View of SSW



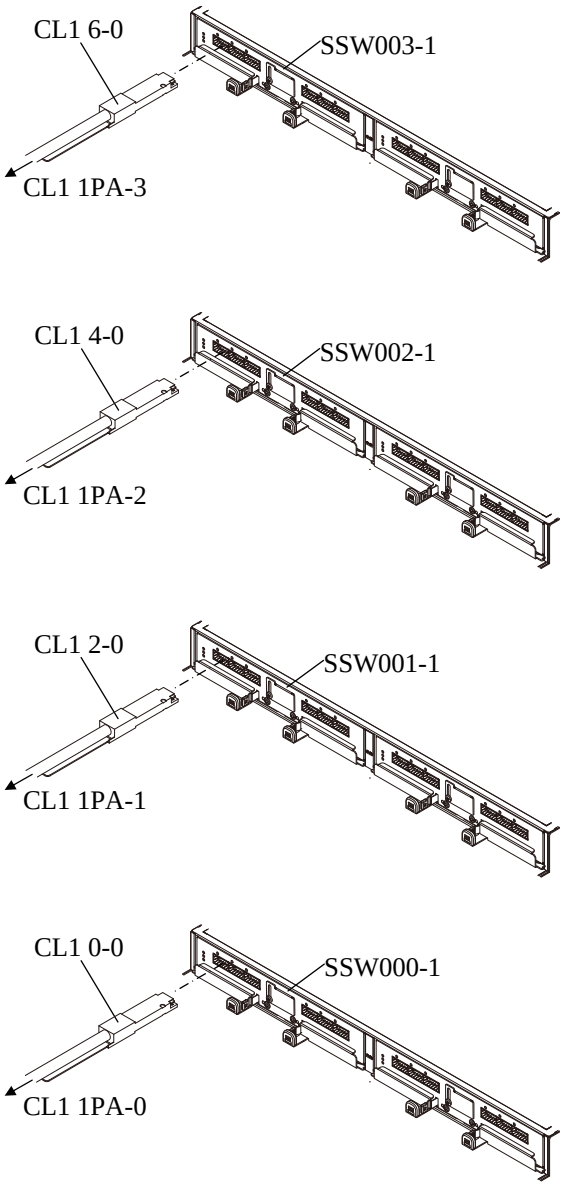


Fig. 4.1.3-4 Disconnection of Cables (CC2_DKU-00(FBX)_CL1)

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In the case of Option 1 in DKC-0

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

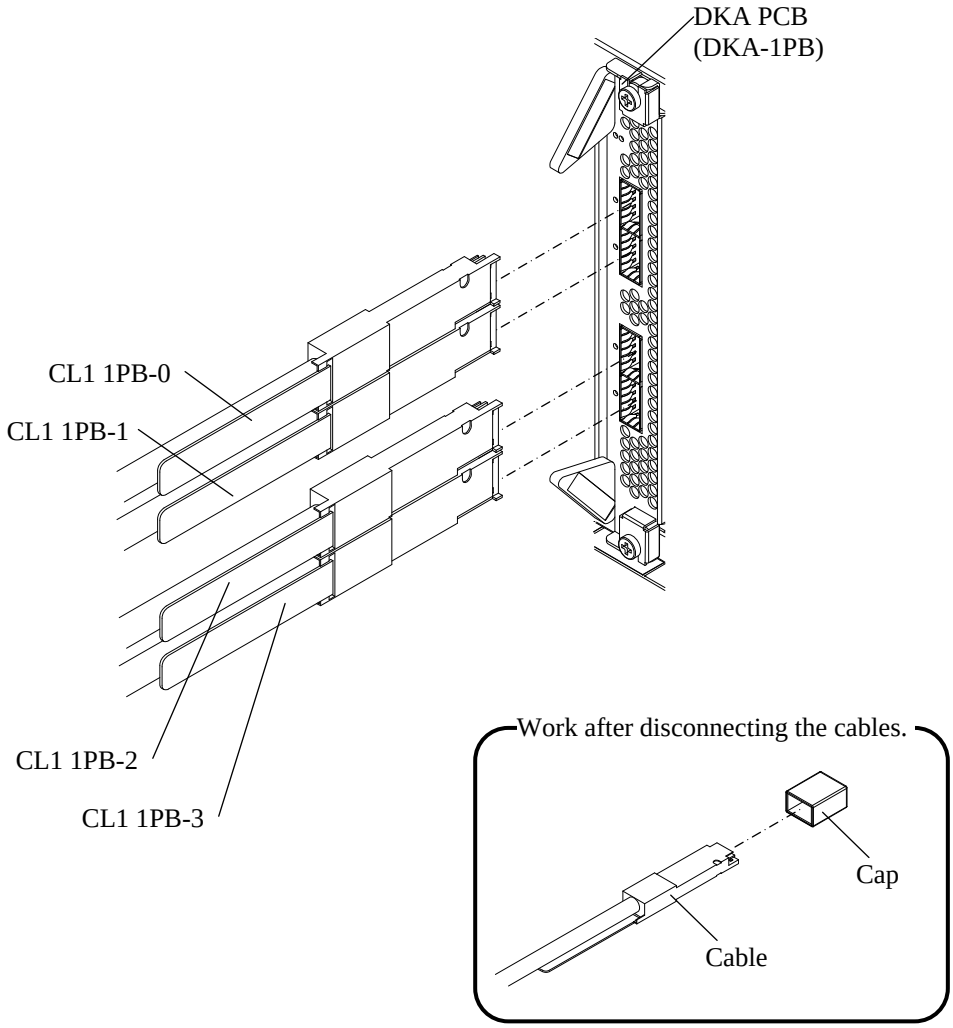


Fig. 4.1.3-5 Disconnection of Cables (Option 1 in DKC-0)

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c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-6 or Fig. 4.1.3-7.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

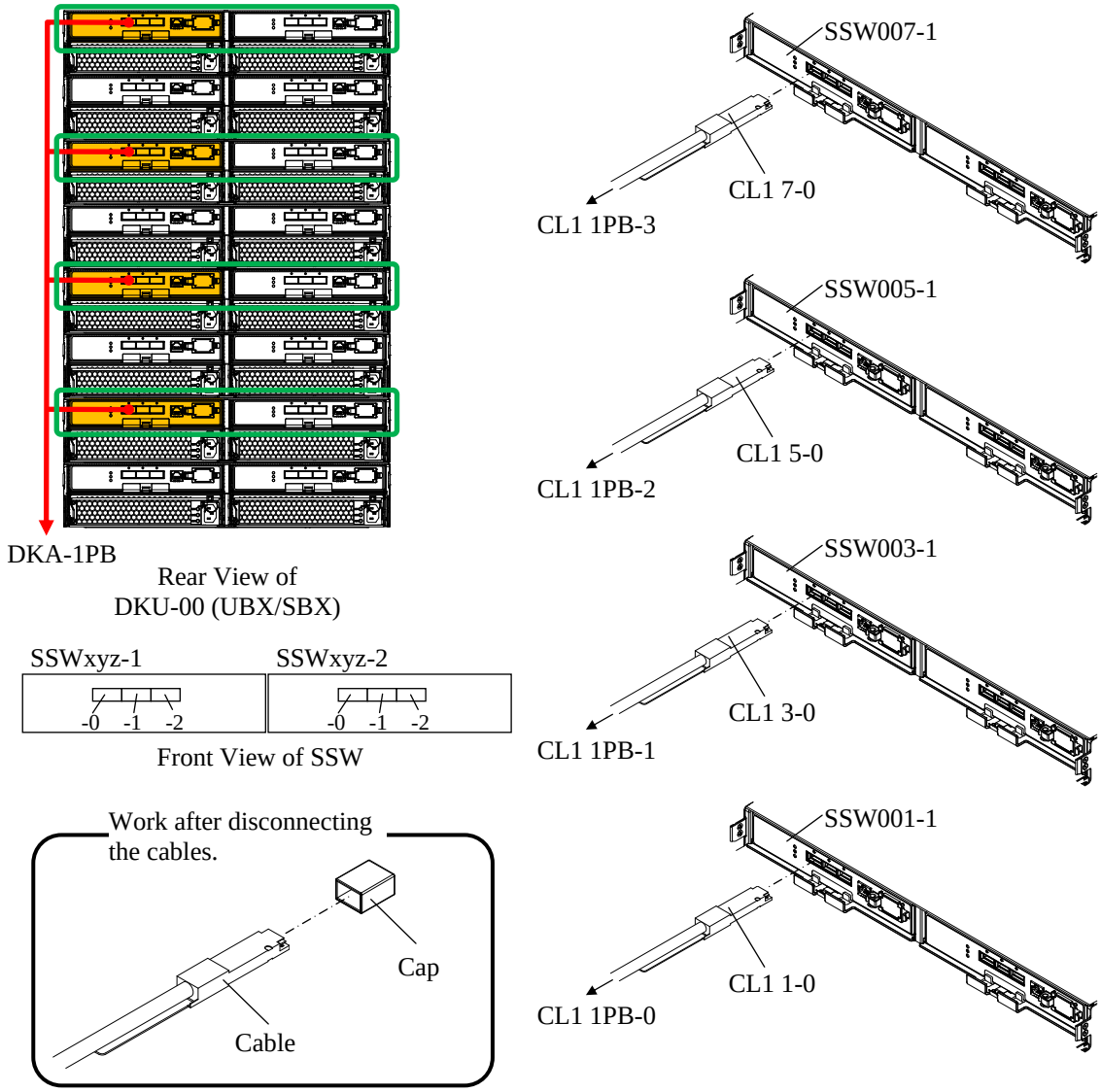


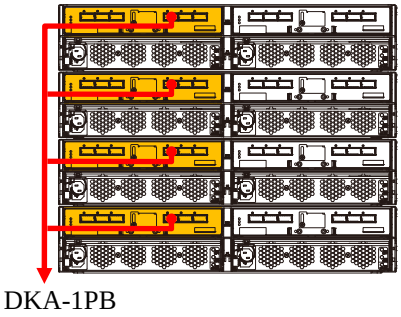
Fig. 4.1.3-6 Disconnection of Cables (CC2_DKU-00(UBX/SBX)_CL1)

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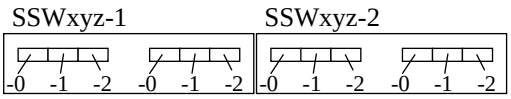
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

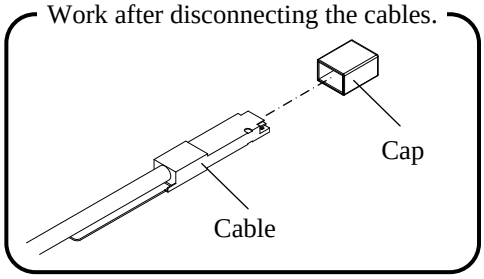
<u>When the DKU-00 is the FBX.</u>



Rear View of DKU-00 (FBX)



Front View of SSW



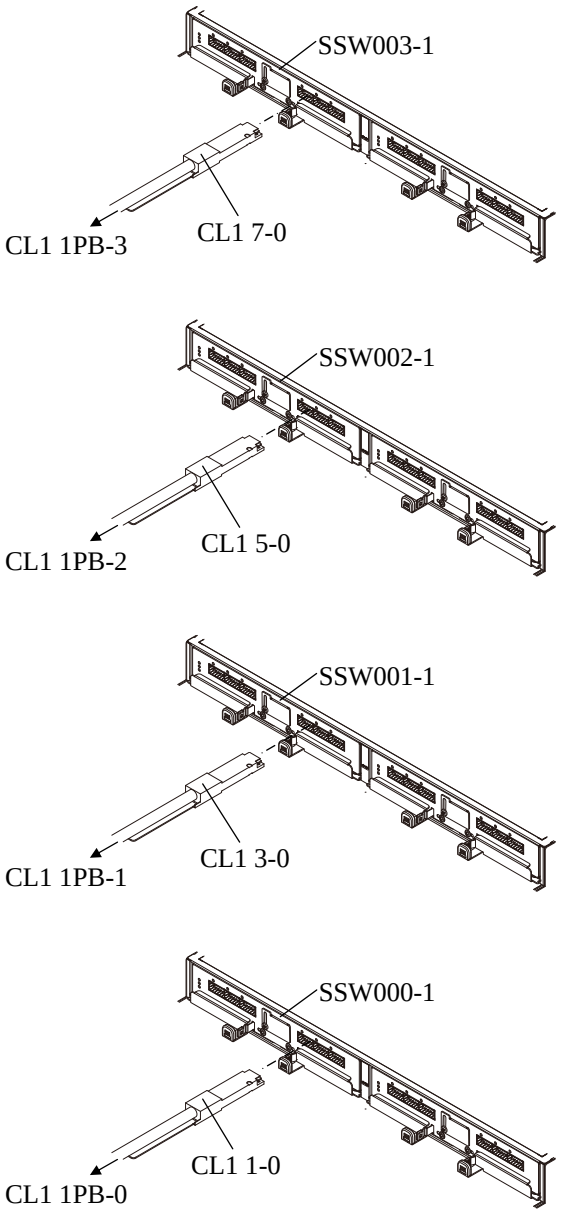


Fig. 4.1.3-7 Disconnection of Cables (CC2_DKU-00(FBX)_CL1)

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In the case of Option 2 in DKC-1

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

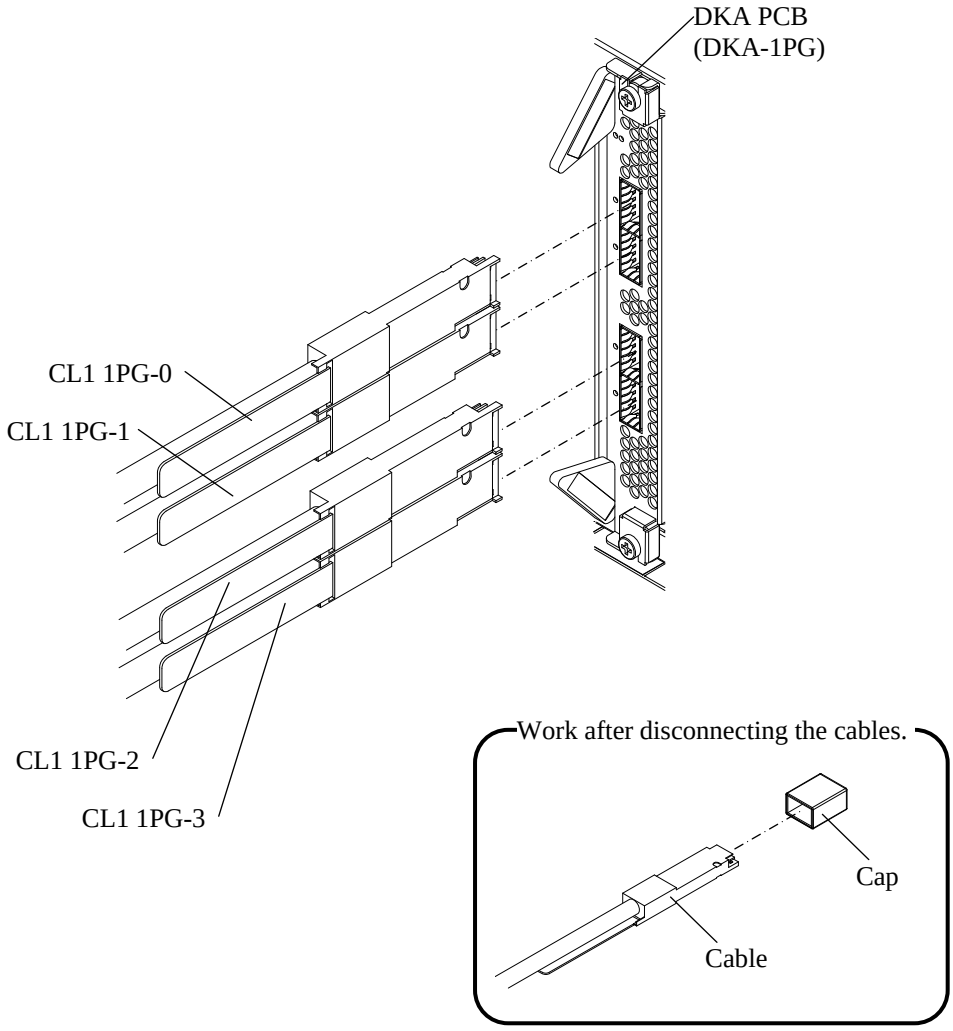


Fig. 4.1.3-8 Disconnection of Cables (Option 2 in DKC-1)

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c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-9 or Fig. 4.1.3-10.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

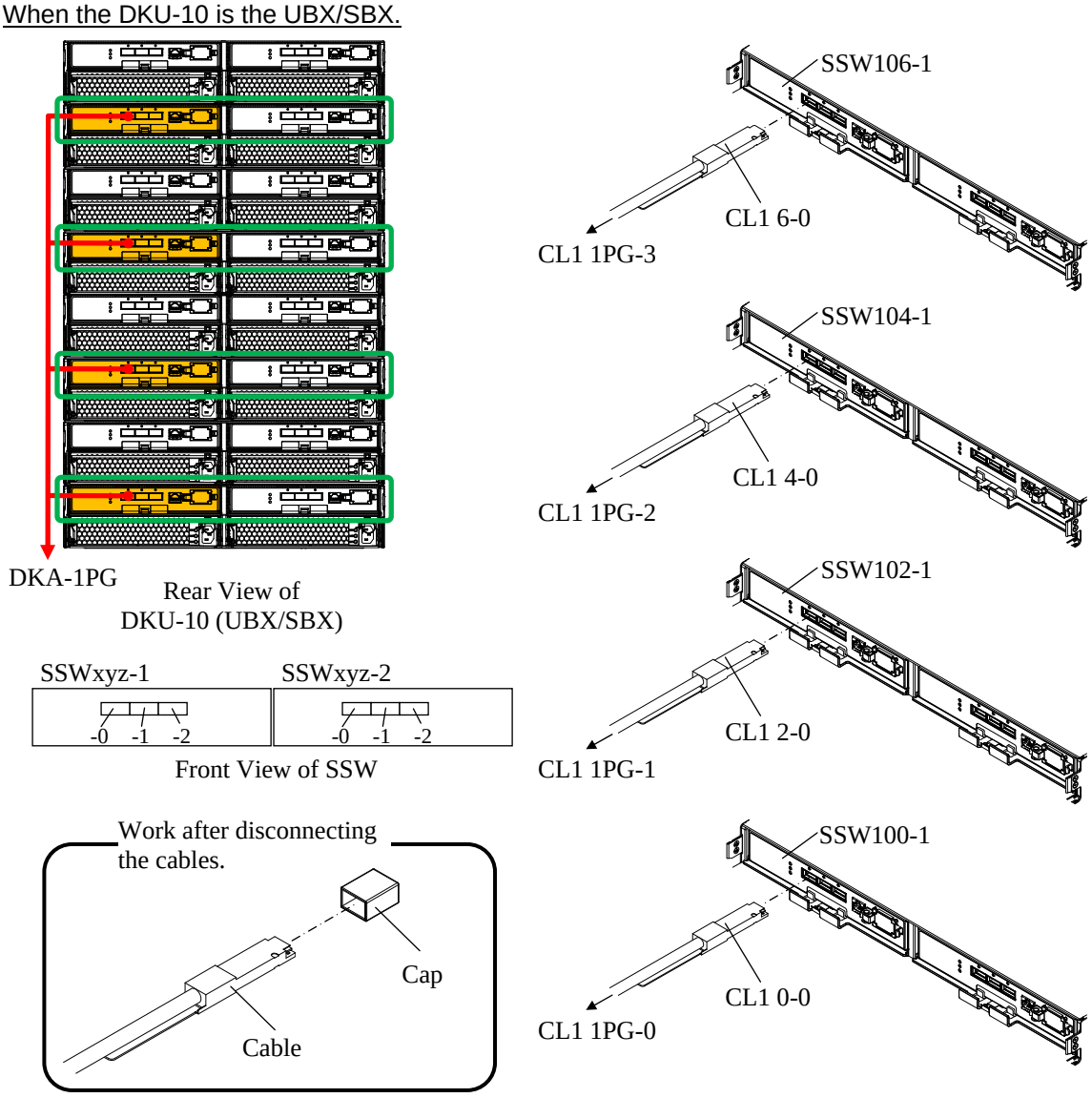


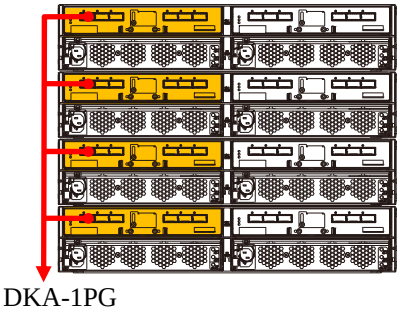
Fig. 4.1.3-9 Disconnection of Cables (CC2_DKU-10(UBX/SBX)_CL1)

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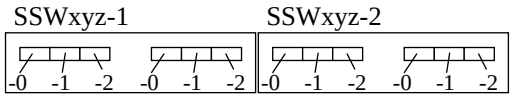
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

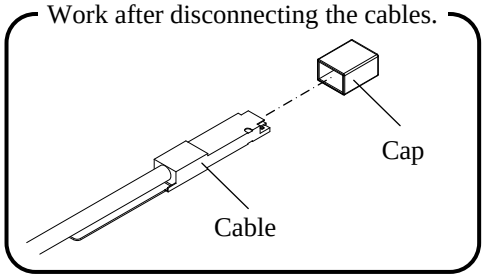
When the DKU-10 is the FBX.



Rear View of DKU-10 (FBX)



Front View of SSW



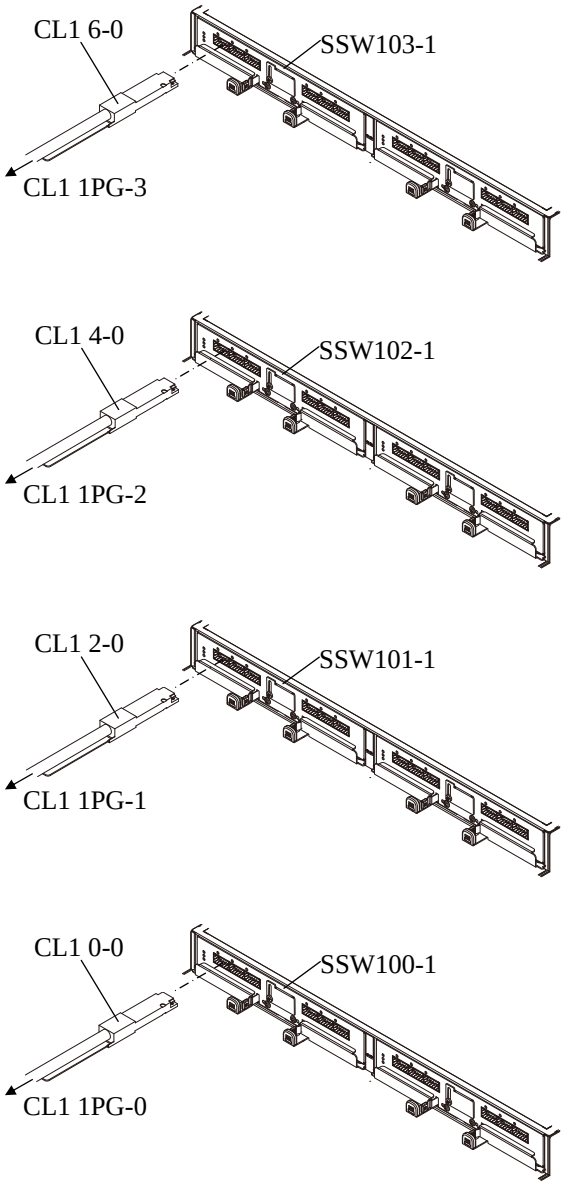


Fig. 4.1.3-10 Disconnection of Cables (CC2_DKU-10(FBX)_CL1)

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In the case of Option 3 in DKC-1

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

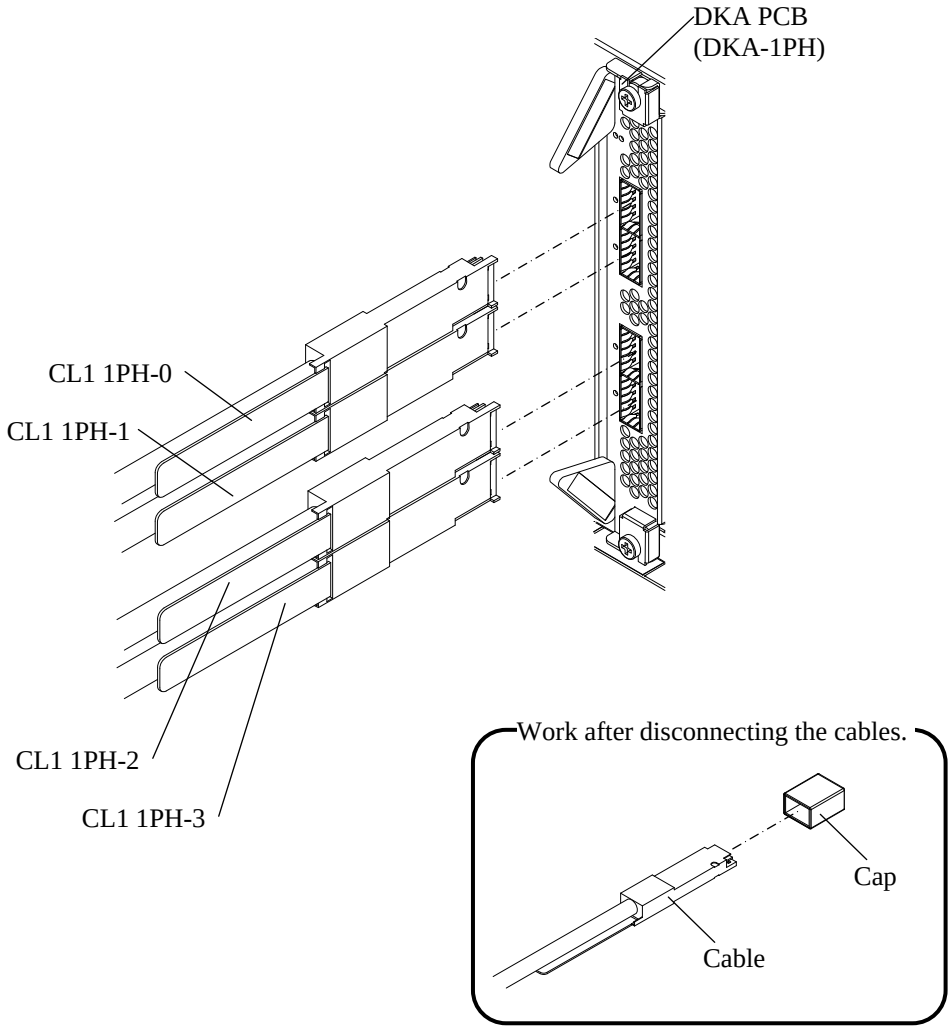


Fig. 4.1.3-11 Disconnection of Cables (Option 3 in DKC-1)

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c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-12 or Fig. 4.1.3-13.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

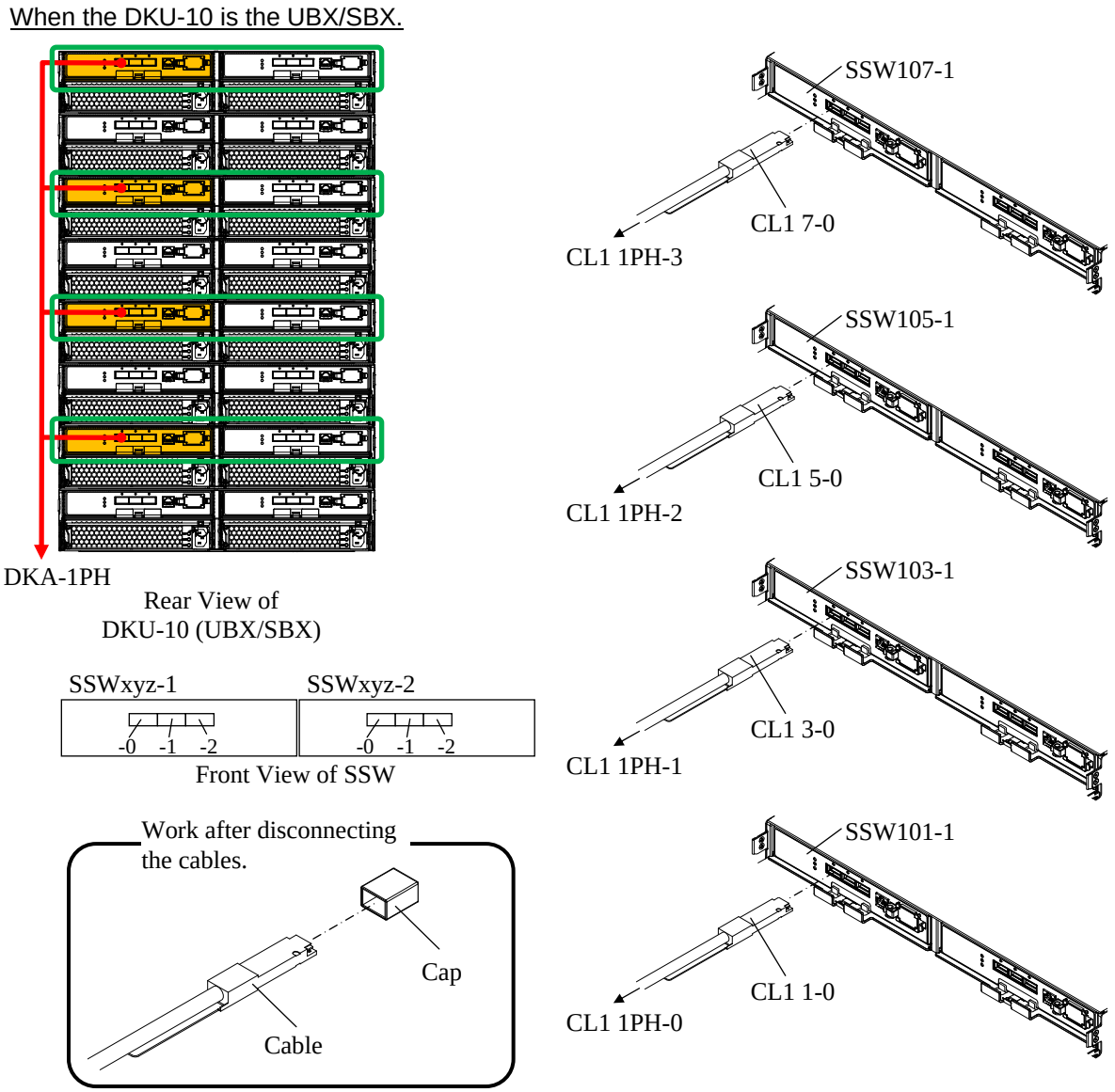


Fig. 4.1.3-12 Disconnection of Cables (CC2_DKU-10(UBX/SBX)_CL1)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the FBX.

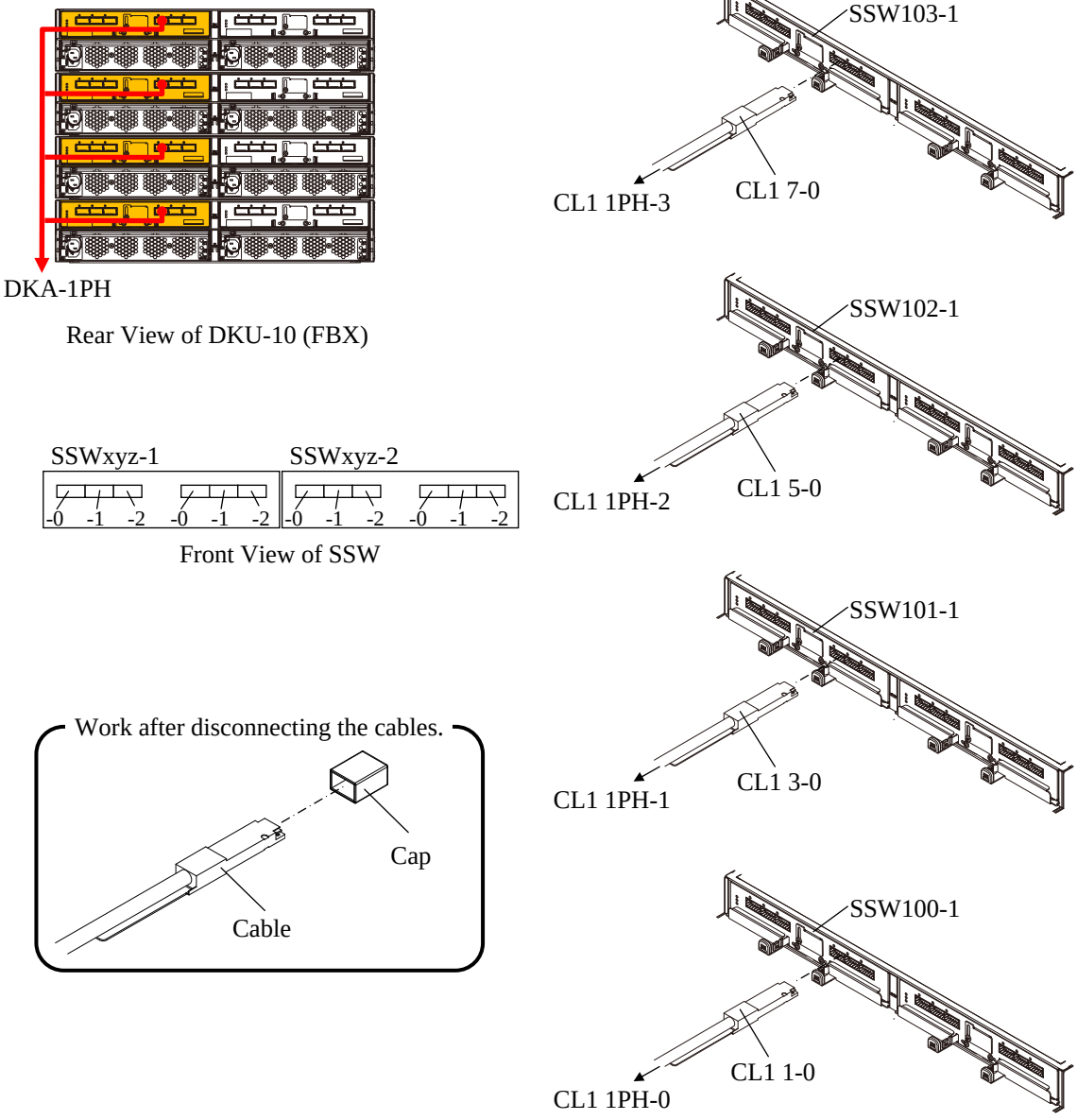
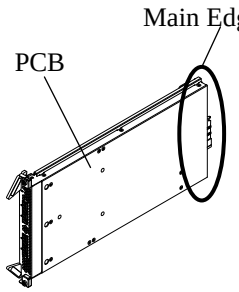


Fig. 4.1.3-13 Disconnection of Cables (CC2_DKU-10(FBX)_CL1)

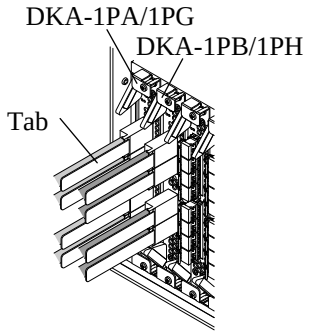
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3-1-3 Removal of PCBs

a. Loosen the screws and remove the PCBs from the DKC. (Refer to Fig. 4.1.3-14.)



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.



NOTICE: When inserting or removing the DKA PCB (DKA-1PB/1PH), be careful so that the tab of the DEV interface cable that connects to the adjacent DKA PCB (DKA-1PA/1PG) is not caught in it.

NOTICE: Install the dummy plate immediately after removing the PCB.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

b. Attach the dummy plates and tighten the screws.

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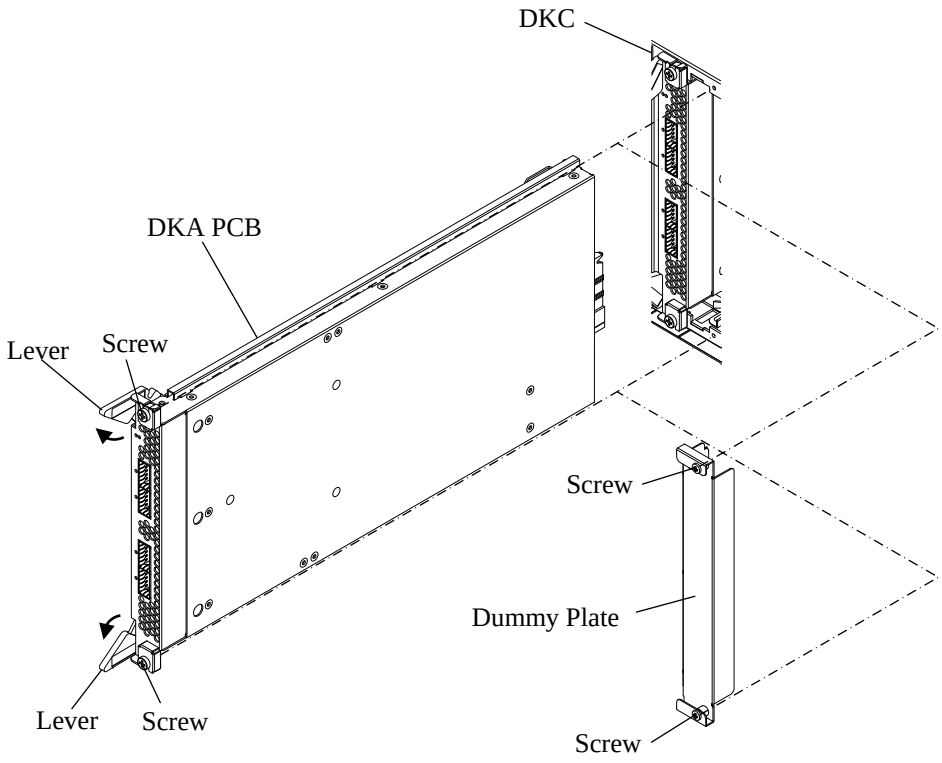


Fig. 4.1.3-14 Removal of PCB

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3-2 Removal Procedure of Device Interface Cable for Cluster 1 (DKC-F810I-CC2)

In the case of cable removal between DKA-1PA and DKU-00 or between DKA-1PG and DKU-10

a. Open the loop cable ties and remove the four cables in the cluster 1. (Refer to Fig. 4.1.3-15 or Fig. 4.1.3-16.)

When the DKU-x0 is the UBX/SBX.

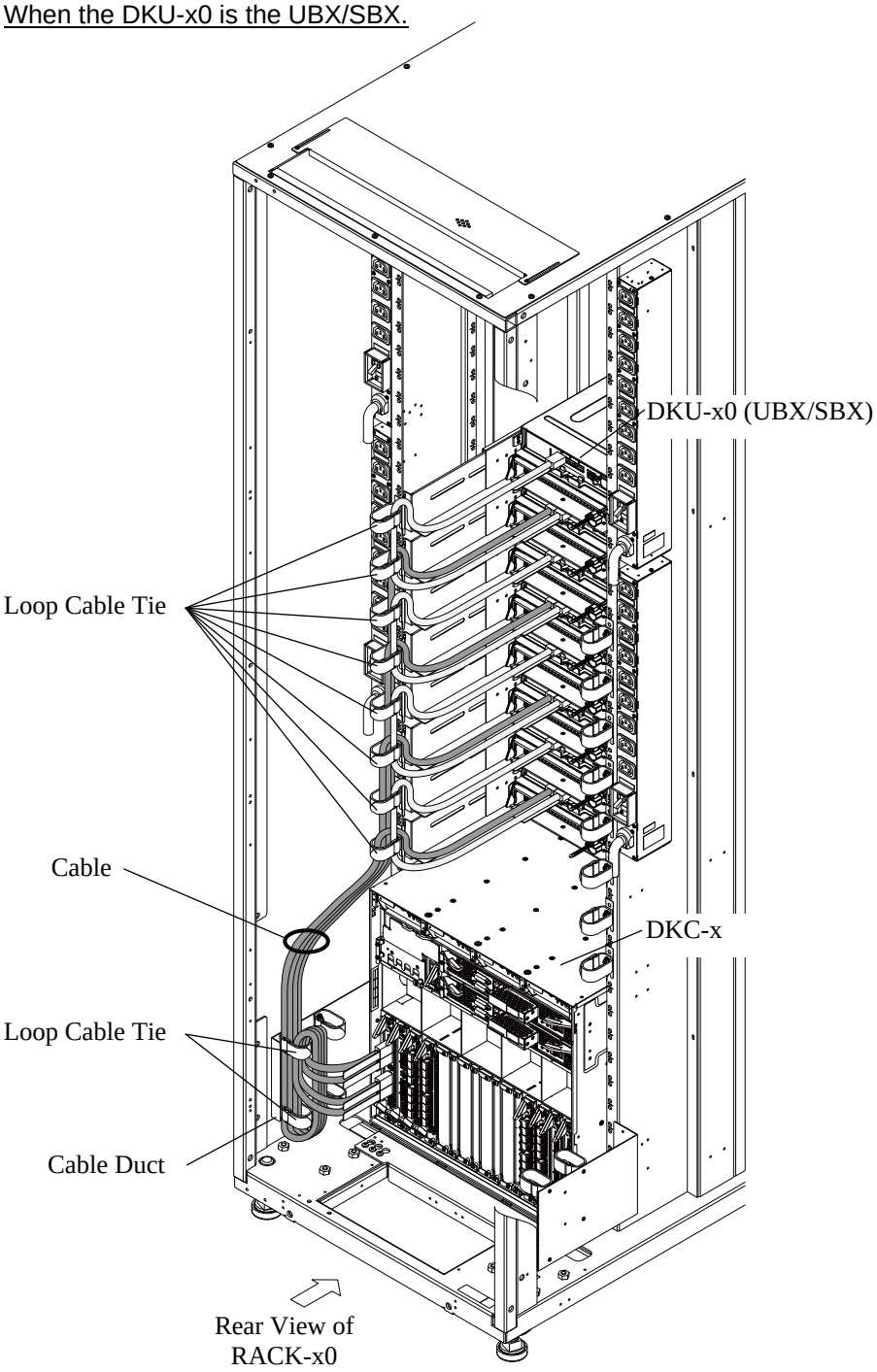


Fig. 4.1.3-15 Removal of Cables
(DKA-1PA – DKU-00 (UBX/SBX) or DKA-1PG – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX.

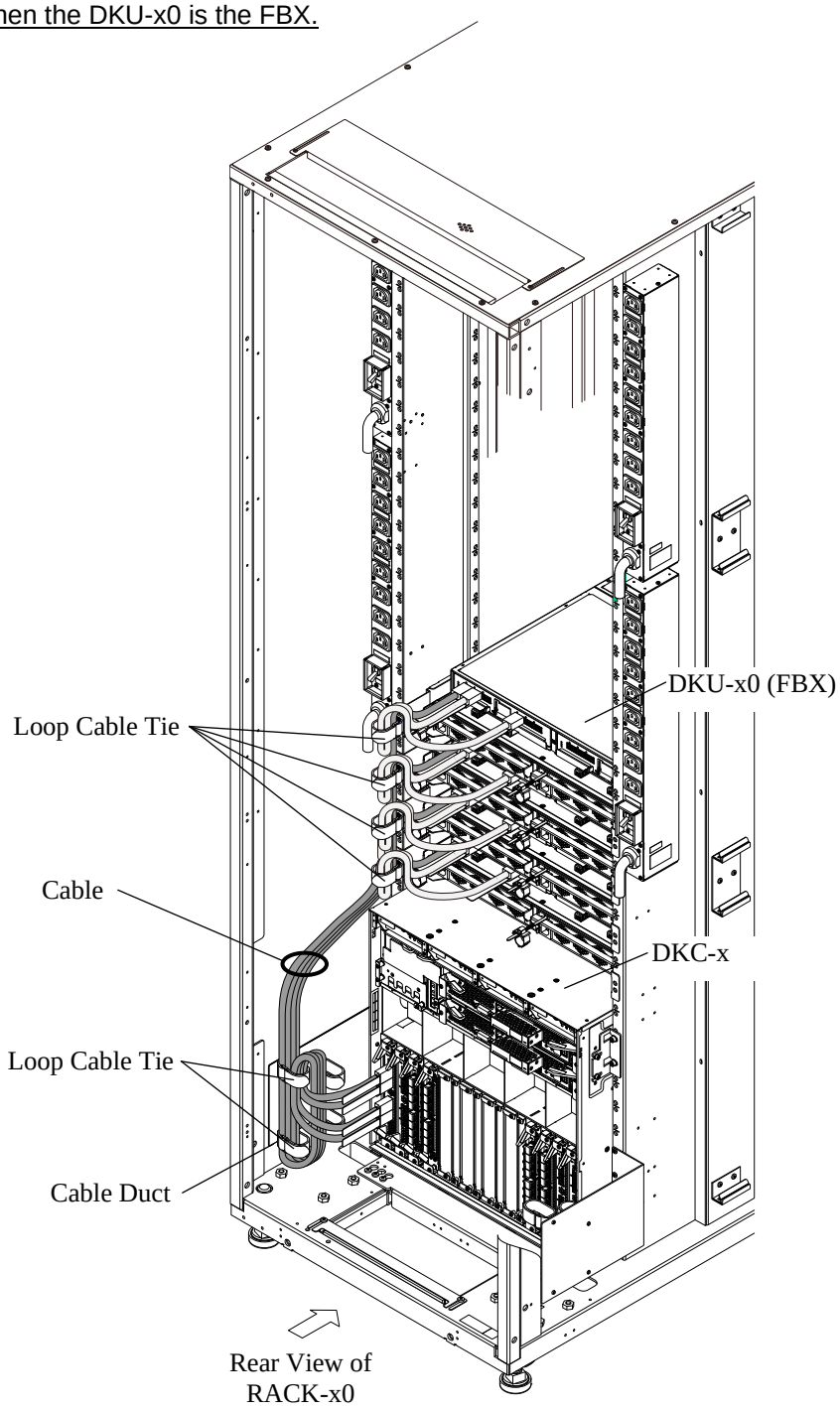


Fig. 4.1.3-16 Removal of Cables
(DKA-1PA – DKU-00 (FBX) or DKA-1PG – DKU-10 (FBX))

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In the case of cable removal between DKA-1PB and DKU-00 or between DKA-1PH and DKU-10

a. Open the loop cable ties and remove the four cables in the cluster 1. (Refer to Fig. 4.1.3-17 or Fig. 4.1.3-18.)

When the DKU-x0 is the UBX/SBX.

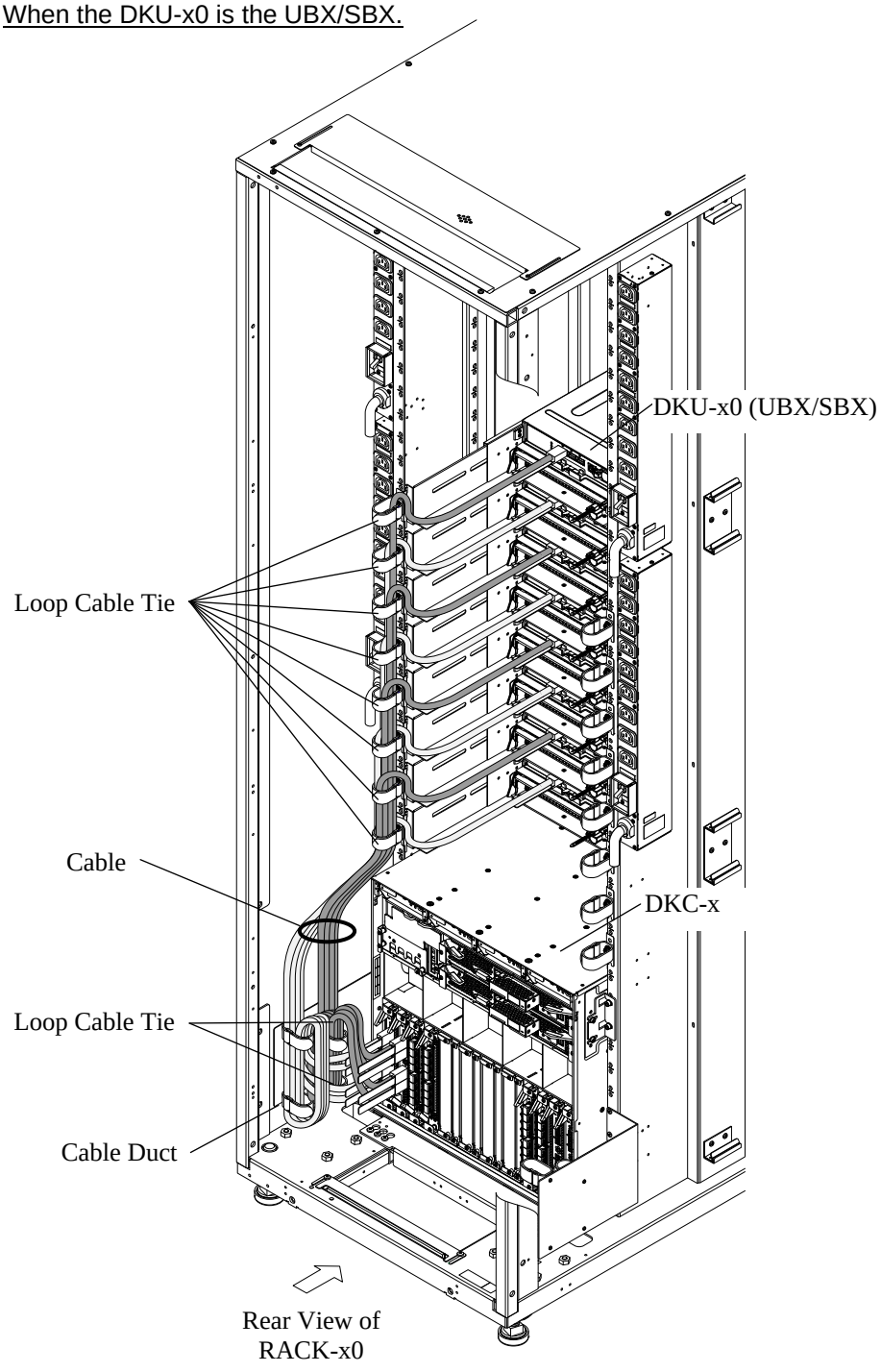


Fig. 4.1.3-17 Removal of Cables
(DKA-1PB – DKU-00 (UBX/SBX) or DKA-1PH – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX.

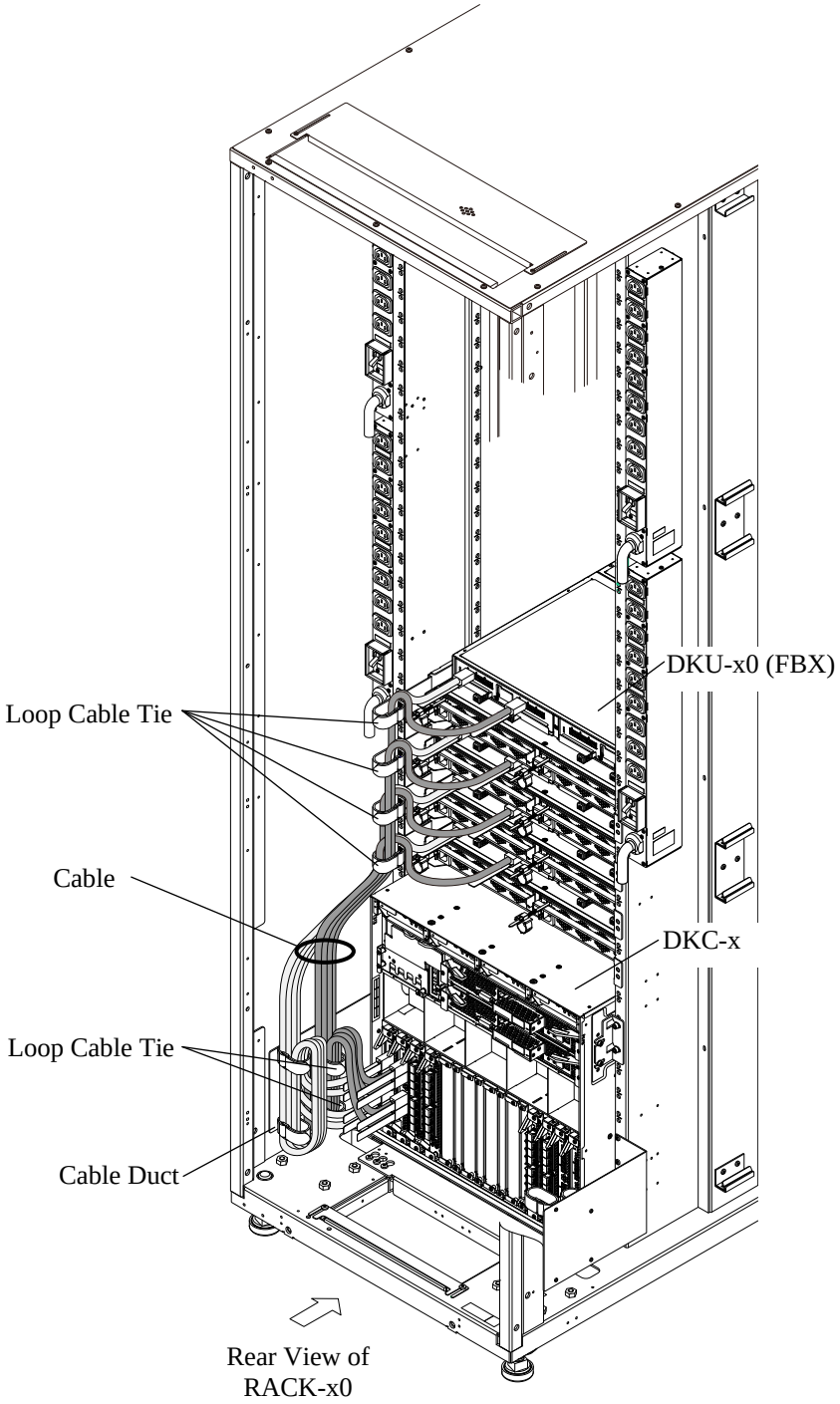


Fig. 4.1.3-18 Removal of Cables
(DKA-1PB – DKU-00 (FBX) or DKA-1PH – DKU-10 (FBX))

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3-3 Installation Procedure of Device Interface Cable for Cluster 1 (DKC-F810I-CC1)

When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-00 (UBX/SBX)

(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-00. (Refer to Fig. 4.1.3-19 and Fig. 4.1.3-20.)

⚠ CAUTION

A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.

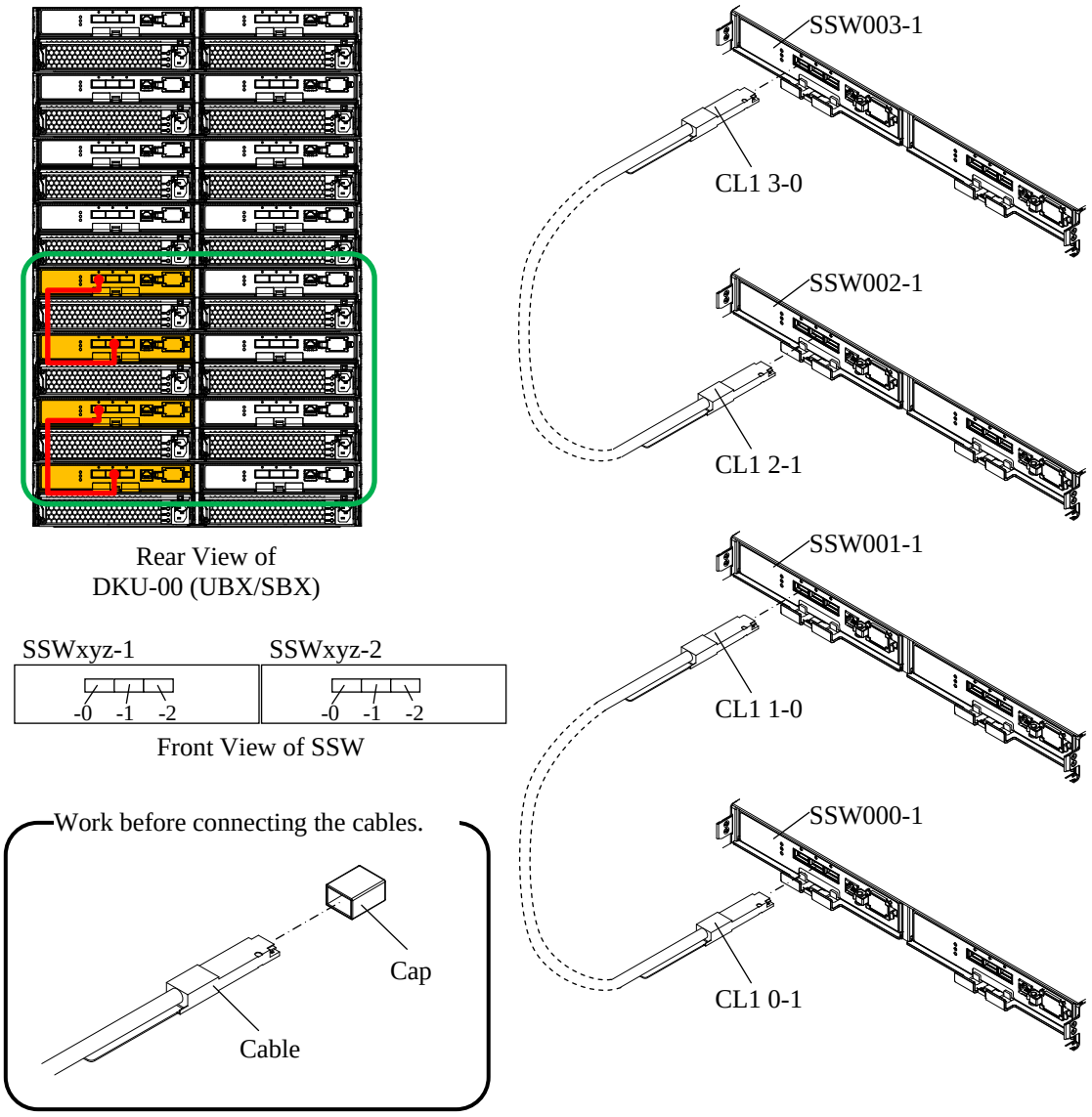


Fig. 4.1.3-19 Connection of Cables (UBX/SBX_CC1_CL1_L)

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⚠ CAUTION

A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.

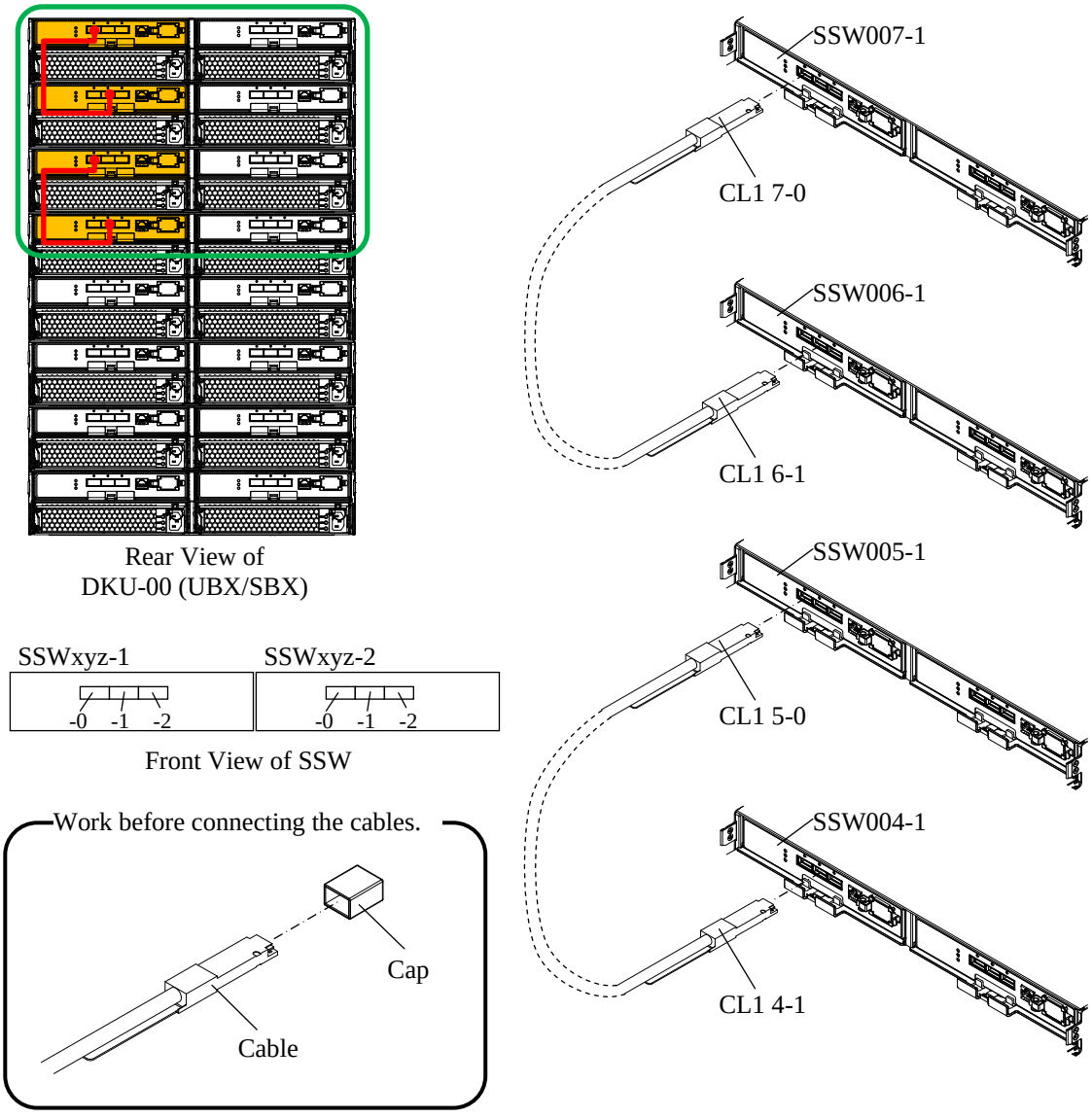


Fig. 4.1.3-20 Connection of Cables (UBX/SBX_CC1_CL1_U)

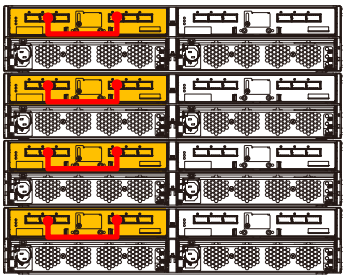
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When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-00 (FBX)

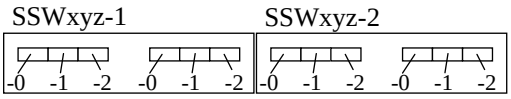
(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-00.

⚠ CAUTION

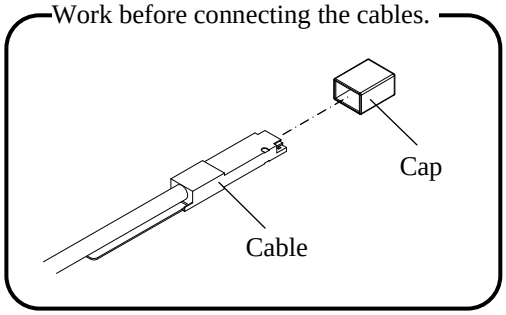
A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.



Rear View of DKU-00 (FBX)



Front View of SSW



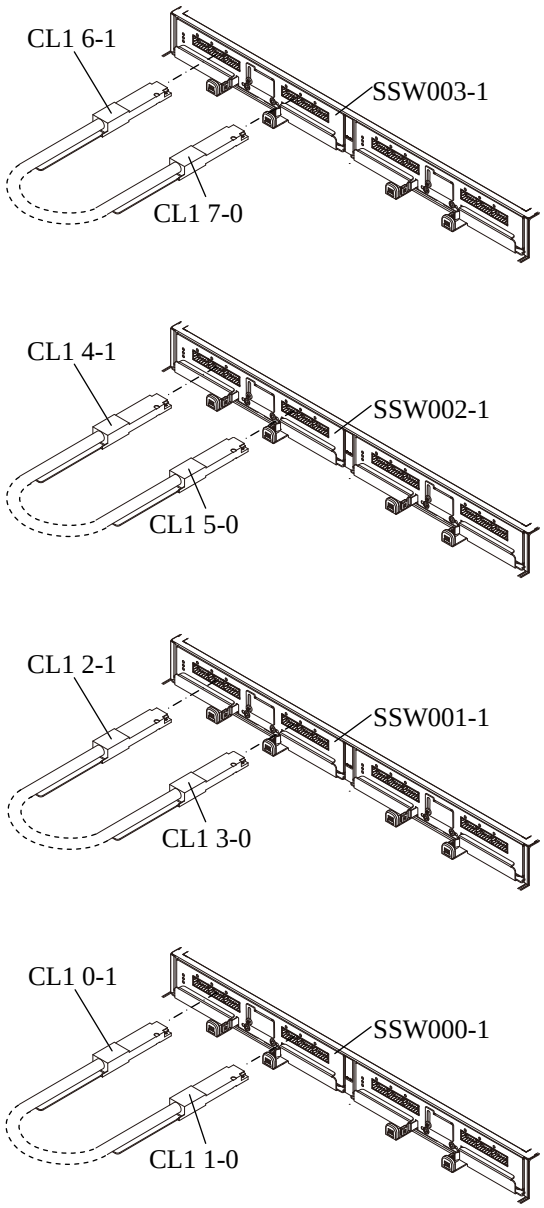


Fig. 4.1.3-21 Connection of Cables (FBX_CC1_CL1)

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When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-10 (UBX/SBX)

(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-10. (Refer to Fig. 4.1.3-22 and Fig. 4.1.3-23.)

⚠ CAUTION

A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.

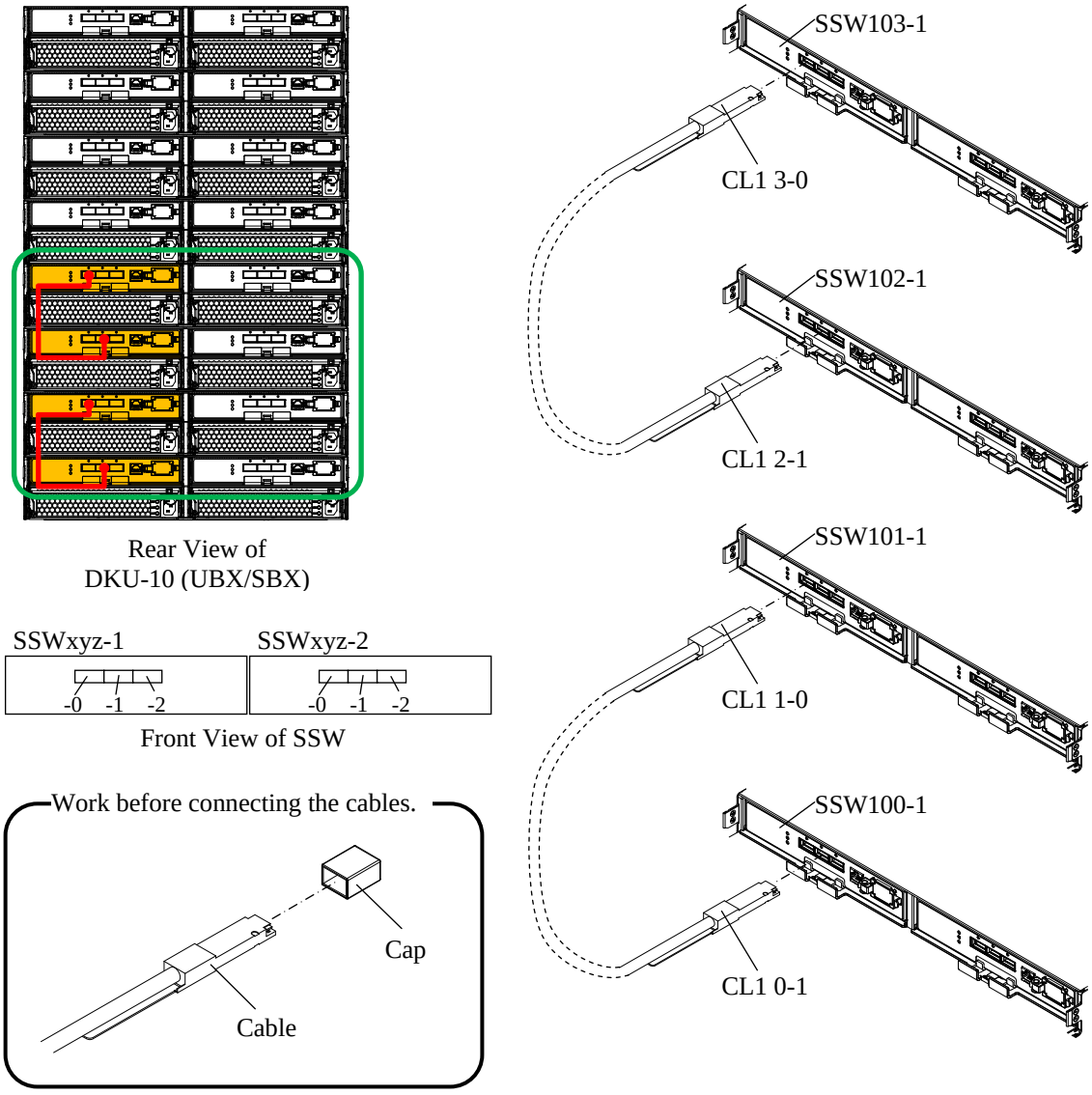


Fig. 4.1.3-22 Connection of Cables (UBX/SBX_CC1_CL1_L)

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⚠ CAUTION

A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.

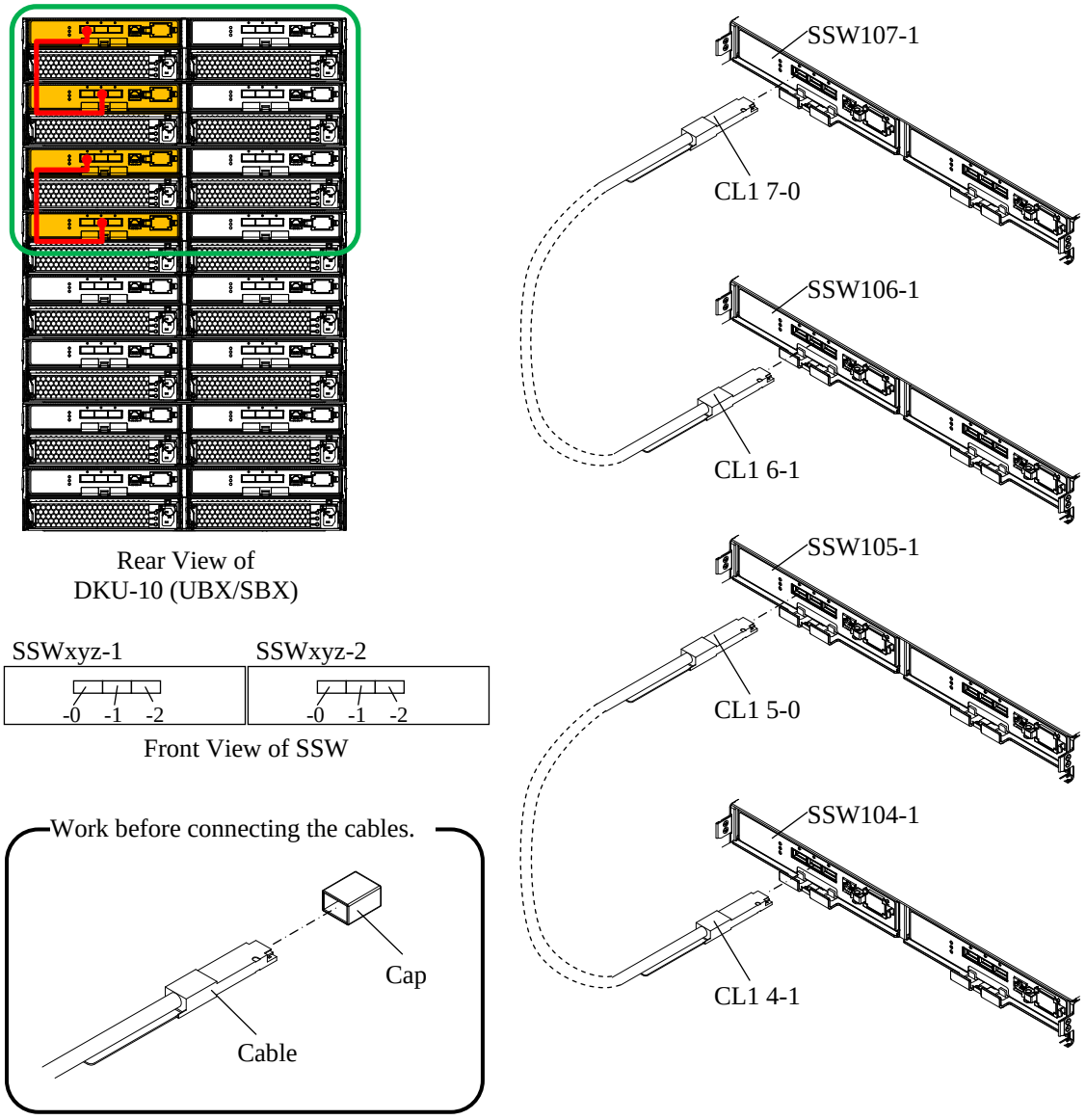


Fig. 4.1.3-23 Connection of Cables (UBX/SBX_CC1_CL1_U)

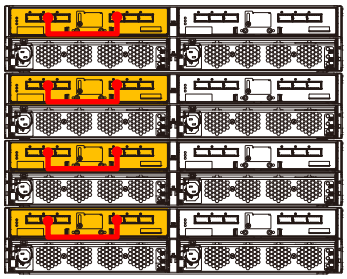
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When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-10 (FBX)

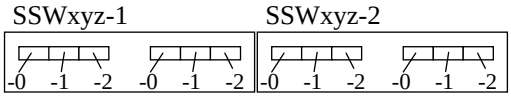
(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-10.

⚠ CAUTION

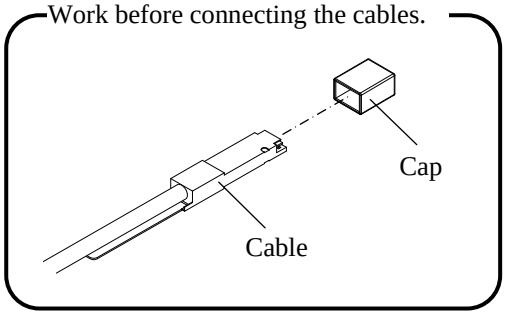
A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.



Rear View of DKU-10 (FBX)



Front View of SSW



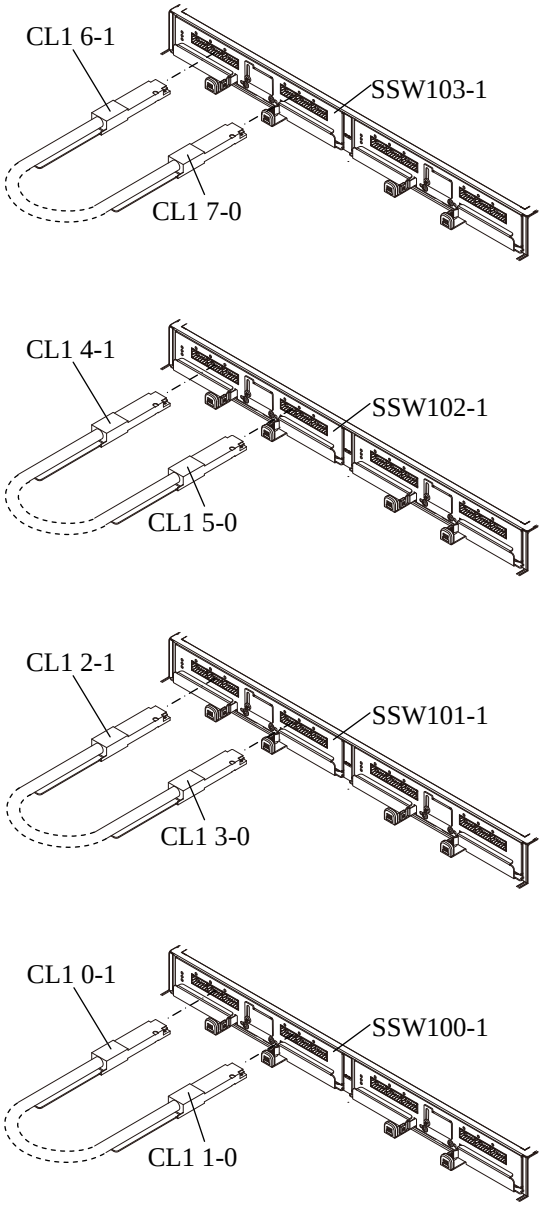


Fig. 4.1.3-24 Connection of Cables (FBX_CC1_CL1)

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(2) Route the DKC-F810I-CC1 (four cables) and fix them with the loop cable ties. (Refer to Fig. 4.1.3-25 or Fig. 4.1.3-26.)
(3) Go to Procedure 4 (INST04-01B-330).

When the DKU-x0 is the UBX/SBX.

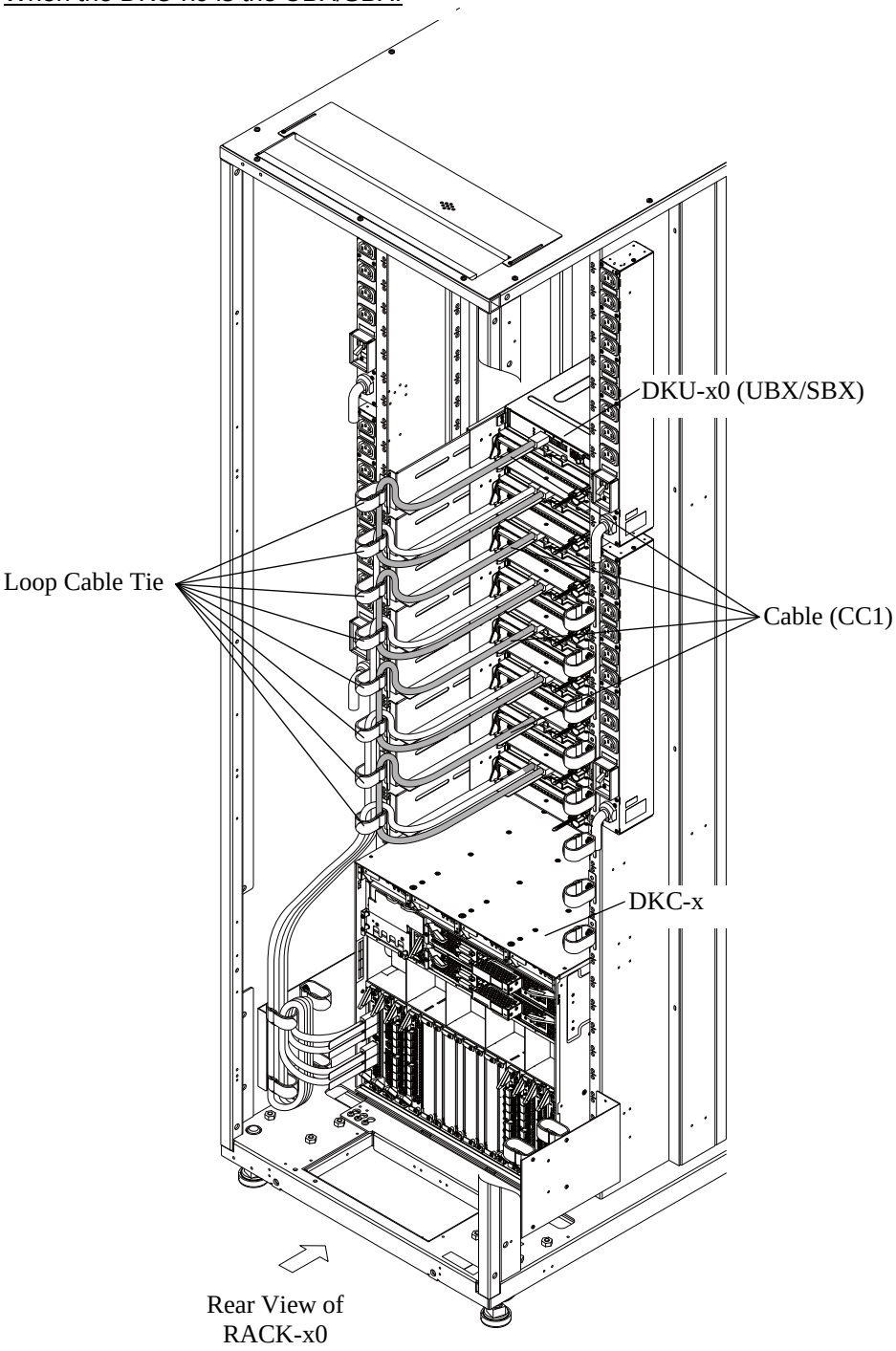


Fig. 4.1.3-25 Fixation of Cables (UBX/SBX_CC1_CL1)

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When the DKU-x0 is the FBX.

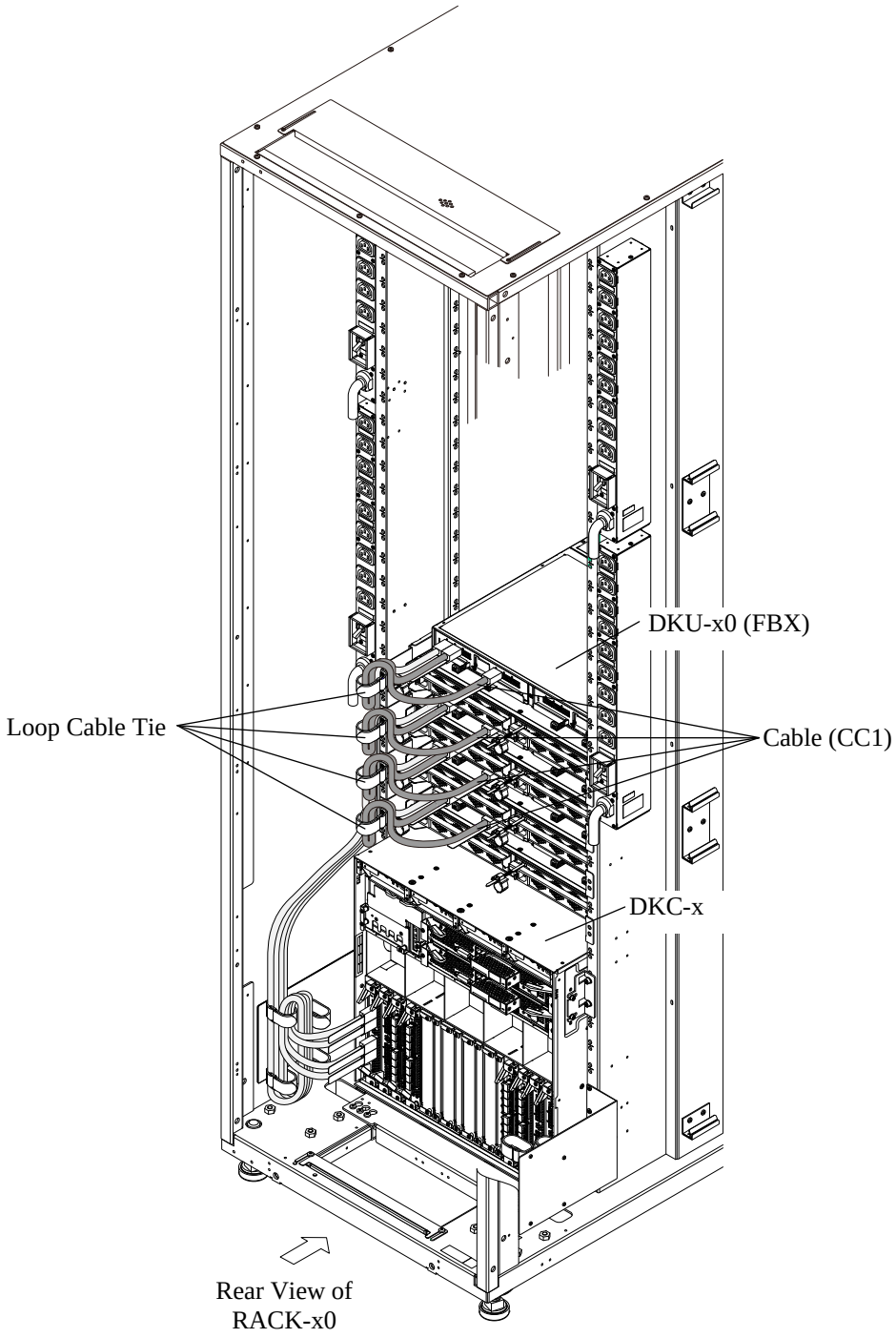


Fig. 4.1.3-26 Fixation of Cables (FBX_CC1_CL1)

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4. De-Installation Procedure of Disk Adapter for cluster 1

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

4-1 Confirmation of the Shut Down LED

a. While referring to Fig. 4.1.3-26A and Table 4.1.3-1A, check the Shut Down LED on the PCB

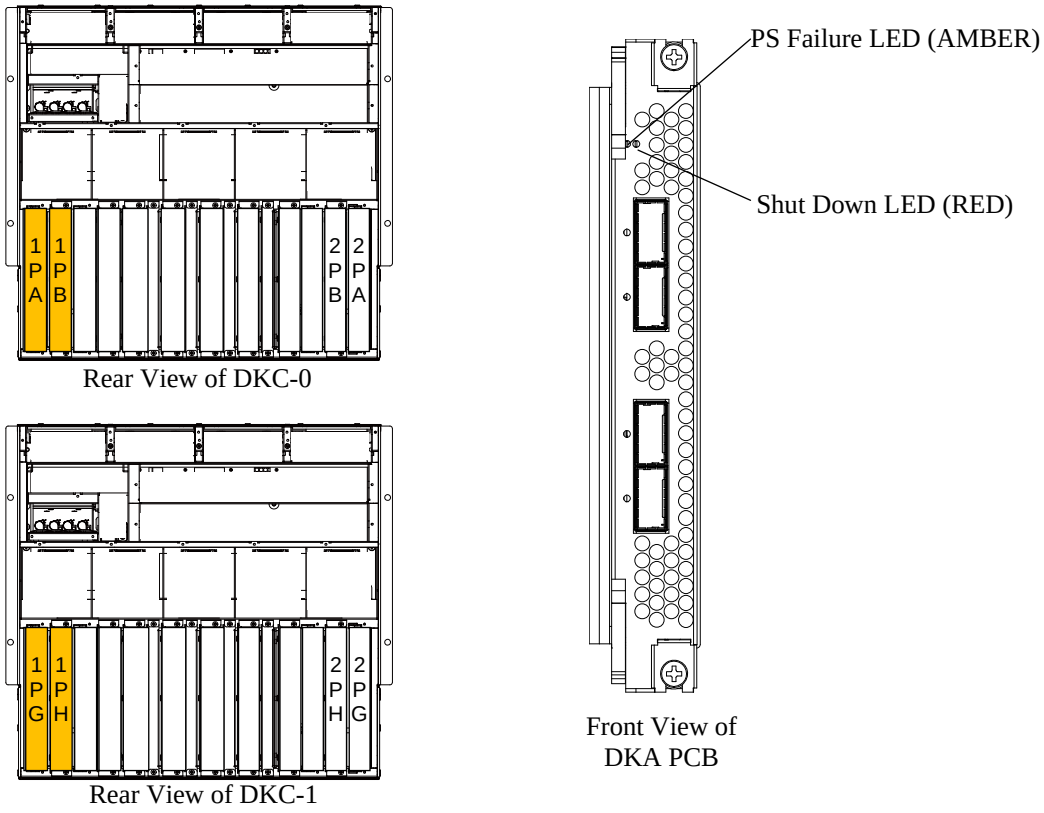


Fig. 4.1.3-26A Location of the Shut Down LED

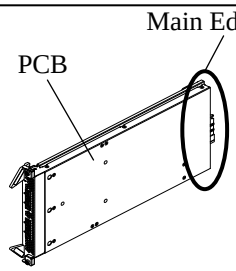
Table 4.1.3-1A PCB Location List

DKC	Addition No.	Location No.	Number of DKAs set through the SVP		Remarks
		Cluster 1			
DKC-0	Basic	DKA-1PA	2	4	
	Option 1	DKA-1PB	—		
DKC-1	Option 2	DKA-1PG	2	4	
	Option 3	DKA-1PH	—		

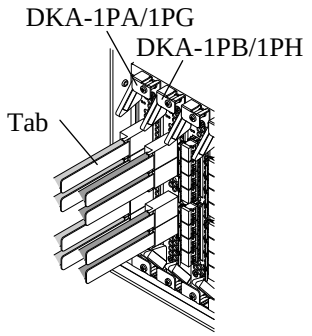
Copyright © 2014, Hitachi, Ltd.

4-2 Removal of PCBs

a. Loosen the screws and remove the PCBs from the DKC. (Refer to Fig. 4.1.3-14.)



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.



NOTICE: When inserting or removing the DKA PCB (DKA-1PB/1PH), be careful so that the tab of the DEV interface cable that connects to the adjacent DKA PCB (DKA-1PA/1PG) is not caught in it.

NOTICE: Install the dummy plate immediately after removing the PCB.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

b. Attach the dummy plates and tighten the screws.

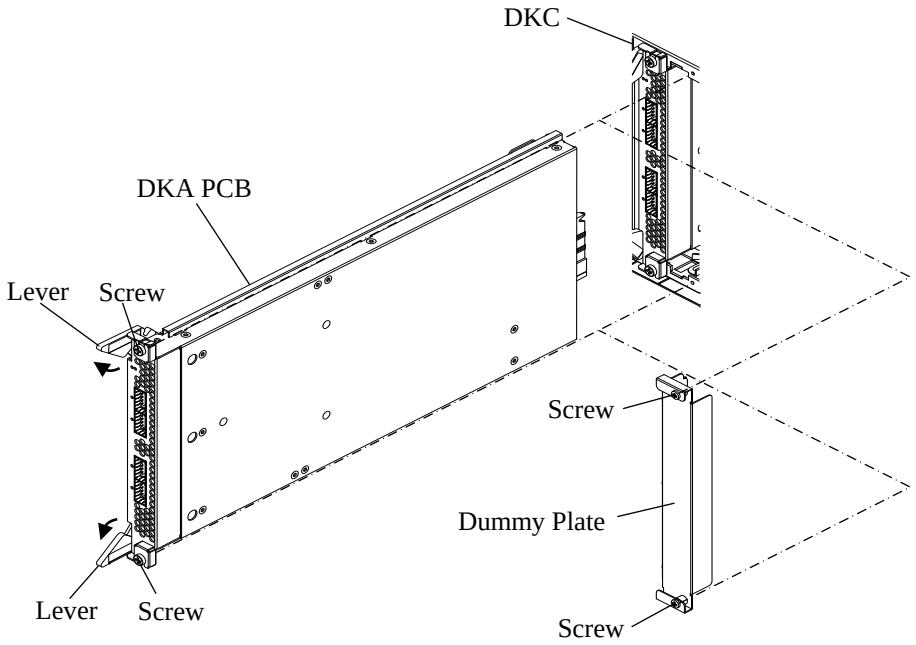


Fig. 4.1.3-26B Removal of PCB

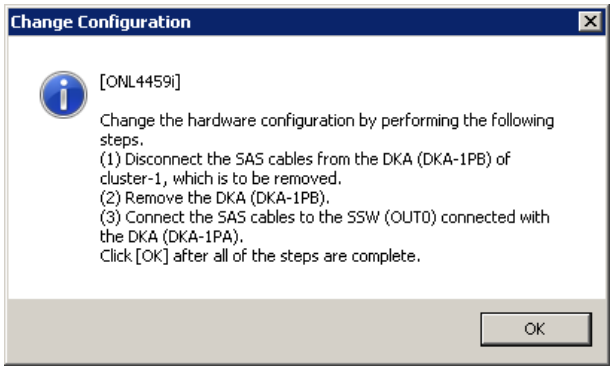
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5. SVP Post-Procedure (Cluster 1)

(1) <Check that hardware is removed>
When changing from the Standard Model to the High Performance Model : Go to Step (1)-1.
When removing from the less DKA or less DKU configuration : Go to Step (1)-2.

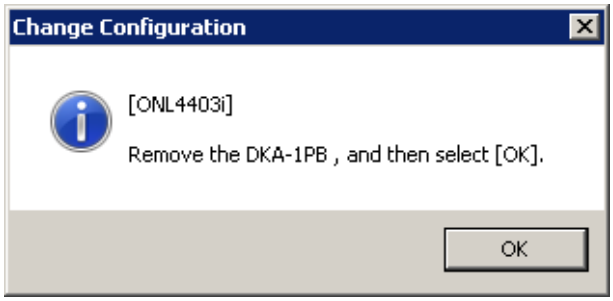
(1)-1

"Change the hardware configuration by performing the following steps. (1) Disconnect the SAS cables from the DKA (DKA-nnn) of cluster-1, which is to be removed. (2) Remove the DKA (DKA-nnn). (3) Connect the SAS cables to the SSW (OUT0) connected with the DKA (DKA-nnn). Click [OK] after all of the steps are complete." is displayed, select (CL) the [OK] button.



(1)-2

"Remove the DKA-nnn, and then select [OK]." is displayed, select (CL) the [OK] button.



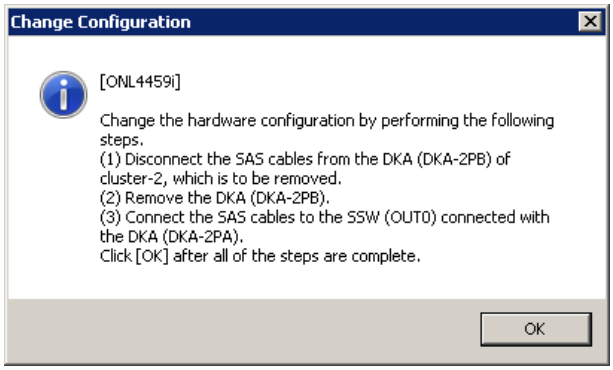
Copyright © 2014, Hitachi, Ltd.

6. SVP Pre-Procedure (Cluster 2)

(1) <Change the hardware configuration>
When changing from the Standard Model to the High Performance Model : Go to Step (1)-1.
When removing from the less DKA or less DKU configuration : Go to Step (1)-2.

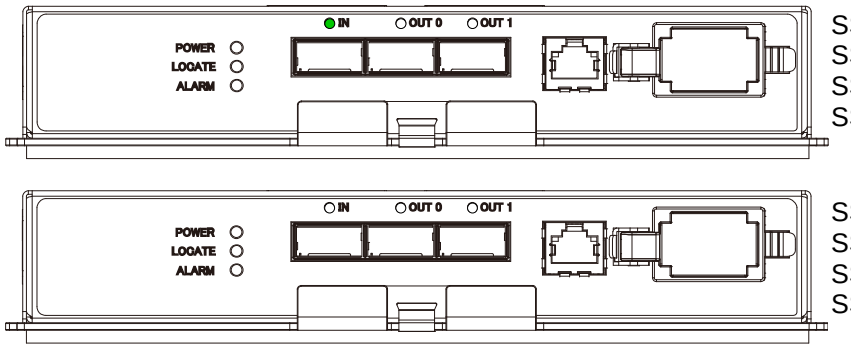
(1)-1

"Change the hardware configuration by performing the following steps. (1) Disconnect the SAS cables from the DKA (DKA-nnn) of cluster-2, which is to be removed. (2) Remove the DKA (DKA-nnn). (3) Connect the SAS cables to the SSW (OUT0) connected with the DKA (DKA-nnn). Click [OK] after all of the steps are complete." is displayed.



NOTE: Connect the cables of Blinking LED.

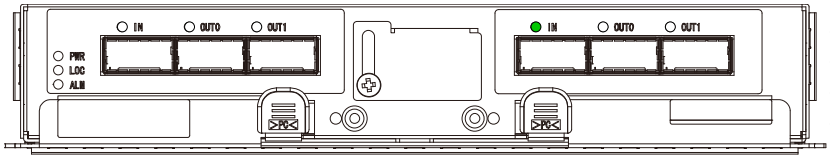
SSW (UBX / SBX)



SSWx07-1
SSWx05-1
SSWx03-1
SSWx01-1

SSWx06-1
SSWx04-1
SSWx02-1
SSWx00-1

SSW (FBX)



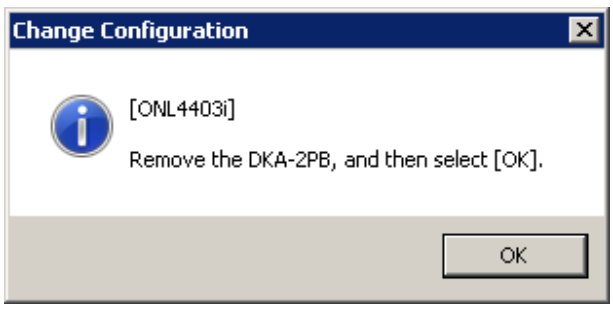
SSWx03-1
SSWx02-1
SSWx01-1
SSWx00-1

Go to Step 7.

(1)-2

Do not push the [OK] button at this time yet. A message, "Remove the DKA-nnn, and then select [OK]." is displayed.

Go to Step 8.



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7. De-Installation of Disk Adapter and SAS cable for cluster 2

7-1 De-Installation Procedure of Disk Adapter for cluster 2

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

7-1-1 Confirmation of the Shut Down LED

a. While referring to Fig. 4.1.3-27 and Table 4.1.3-2, check the Shut Down LED on the PCB

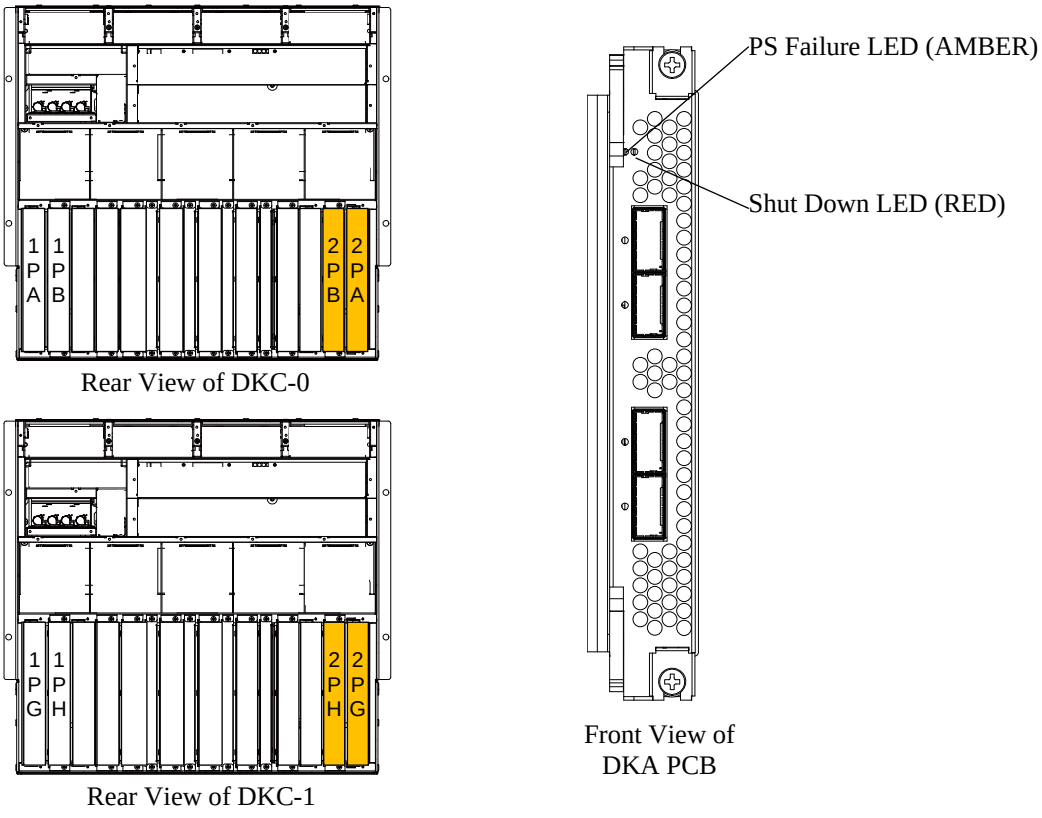


Fig. 4.1.3-27 Location of the Shut Down LED

Table 4.1.3-2 PCB Location List

DKC	Addition No.	Location No.	Number of DKAs set through the SVP		Remarks
		Cluster 2			
DKC-0	Basic	DKA-2PA	2	4	
	Option 1	DKA-2PB	—		
DKC-1	Option 2	DKA-2PG	2	4	
	Option 3	DKA-2PH	—		

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7-1-2 Disconnection of cables

In the case of Basic in DKC-0

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

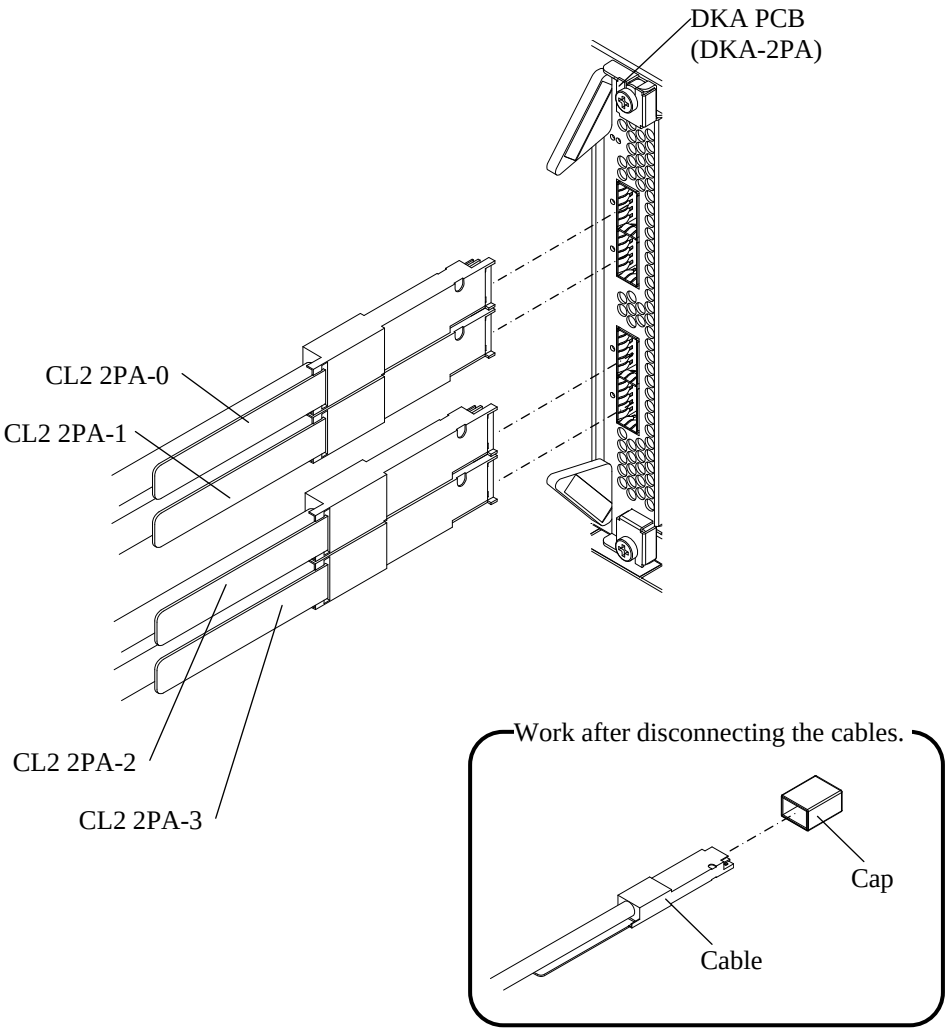


Fig. 4.1.3-28 Disconnection of cables (Basic in DKC-0)

c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-29 or Fig. 4.1.3-30.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

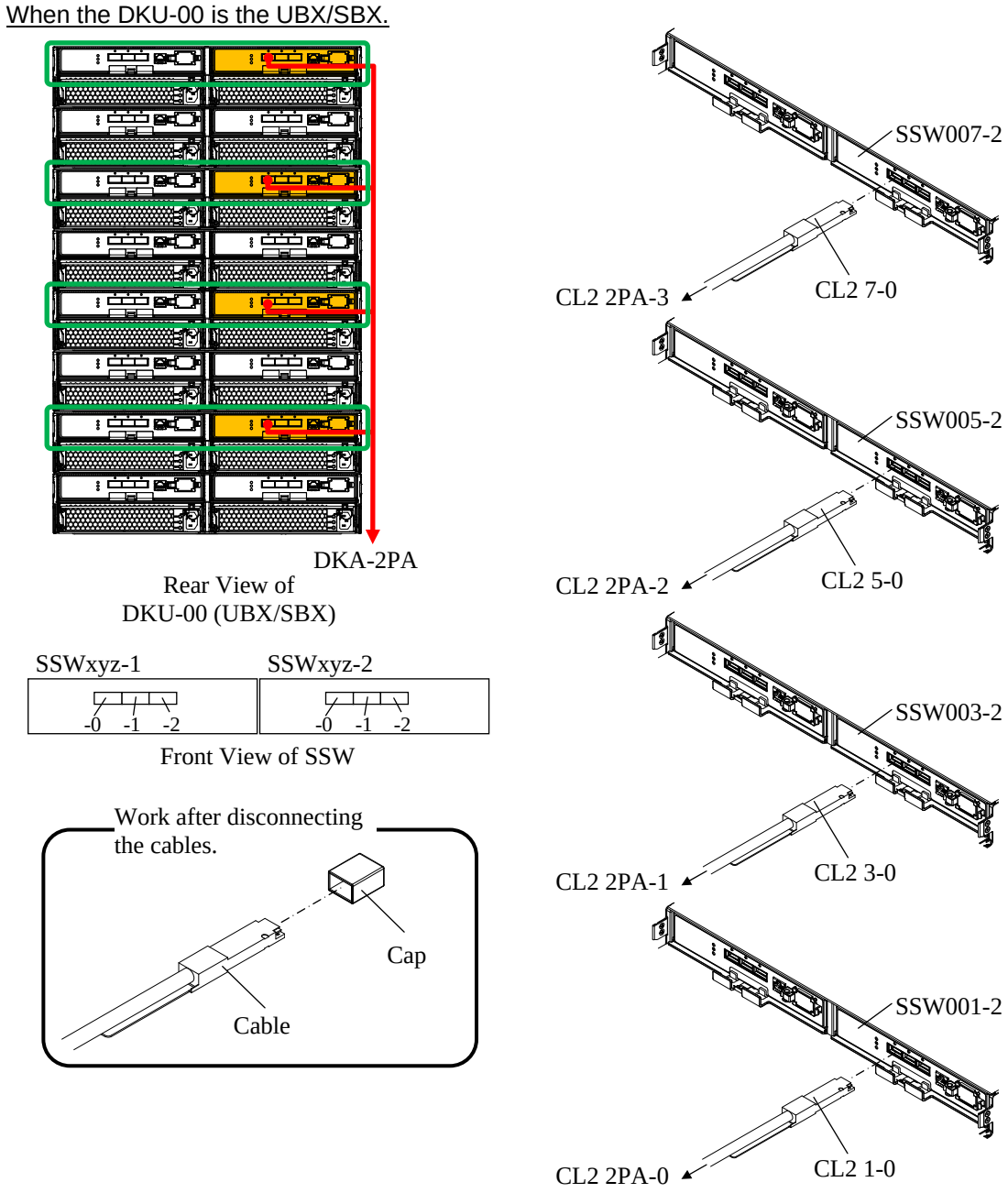


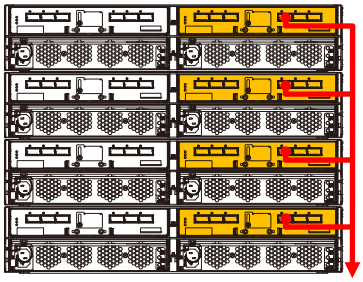
Fig. 4.1.3-29 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL2)

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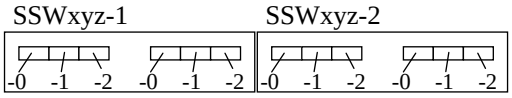
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

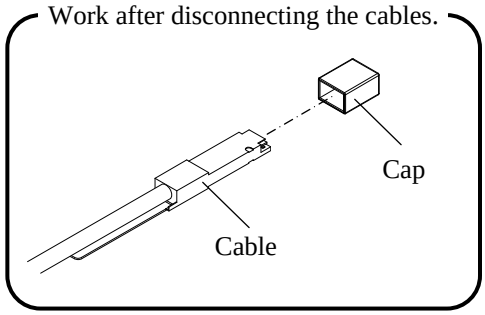
When the DKU-00 is the FBX.



Rear View of DKU-00 (FBX)



Front View of SSW



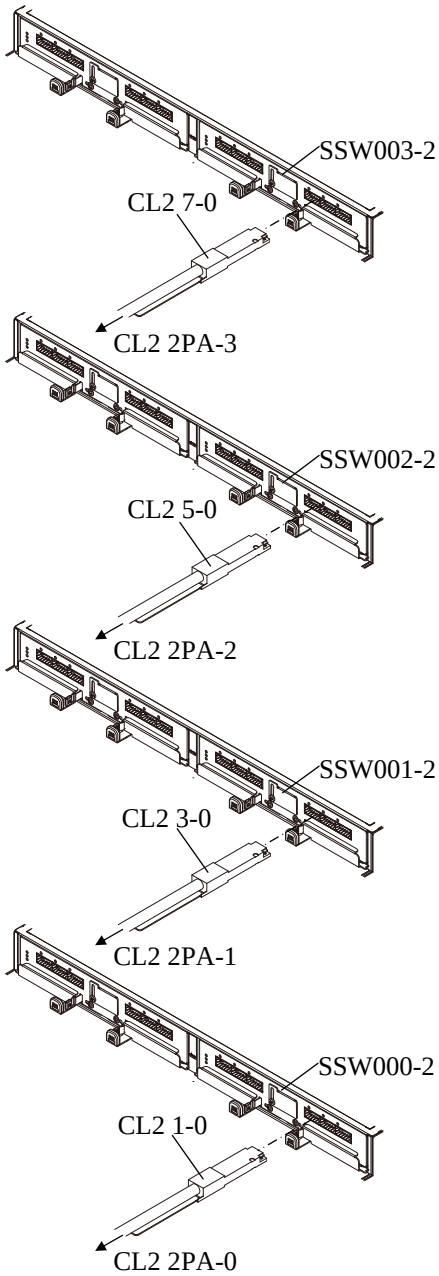


Fig. 4.1.3-30 Disconnection of Cables (CC2_DKU-00 (FBX)_CL2)

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In the case of Option 1 in DKC-0

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

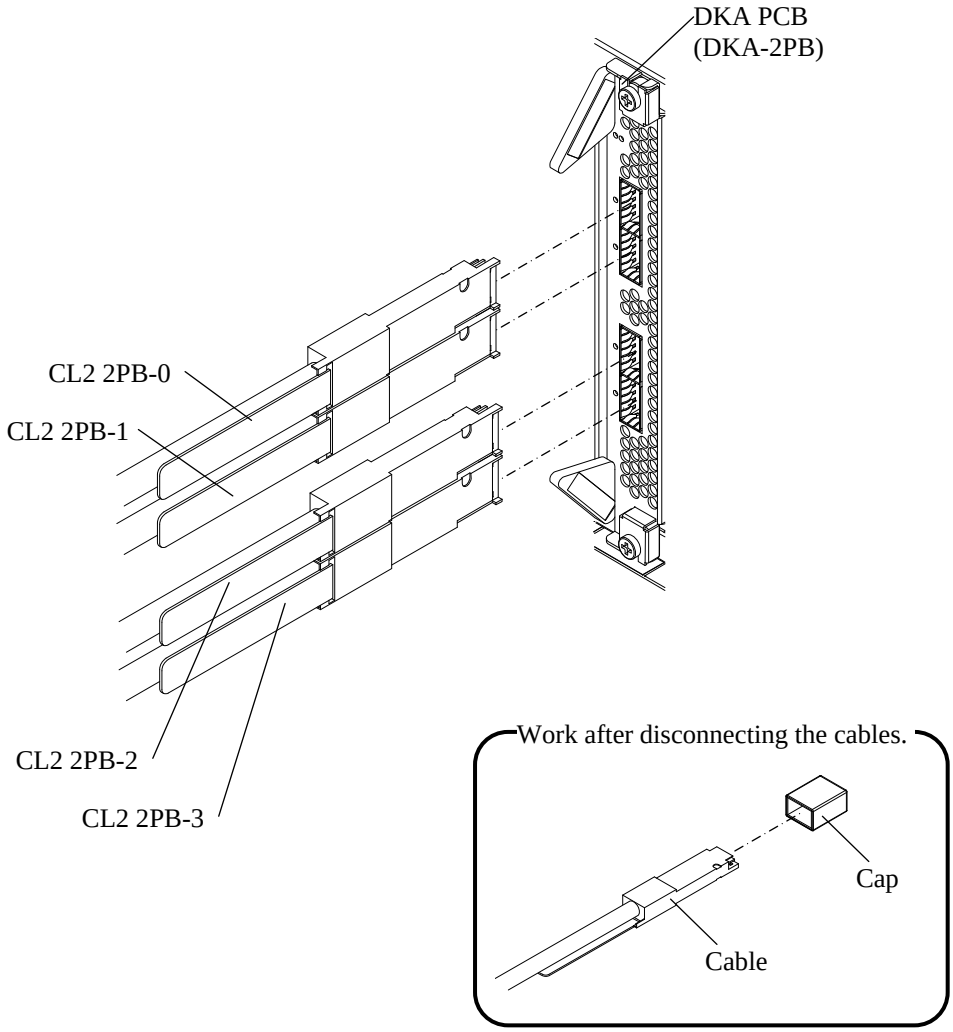


Fig. 4.1.3-31 Disconnection of Cables (Option 1 in DKC-0)

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c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-32 or Fig. 4.1.3-33.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

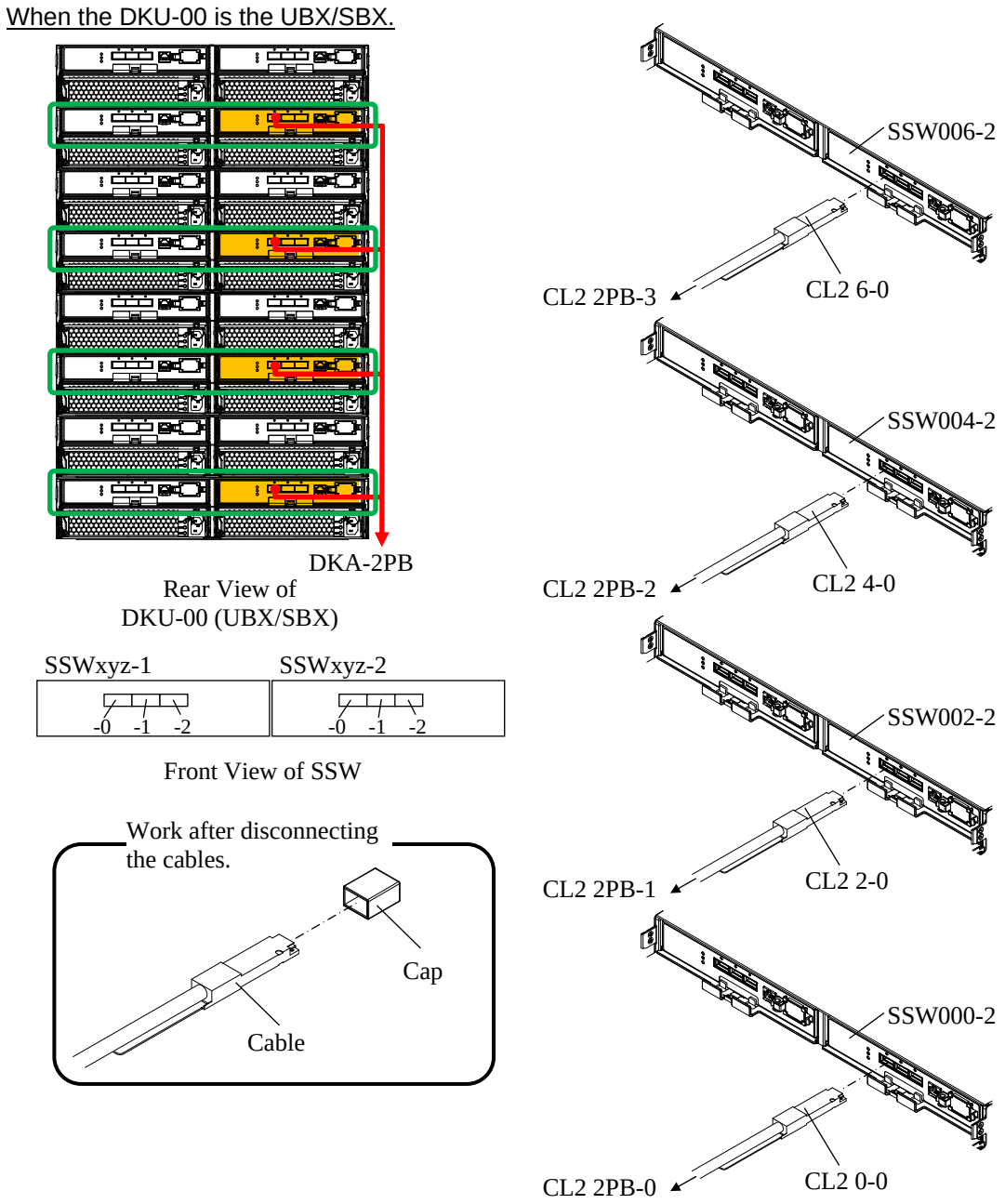


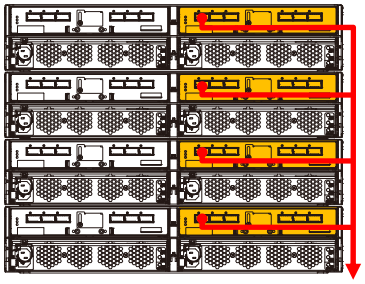
Fig. 4.1.3-32 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL2)

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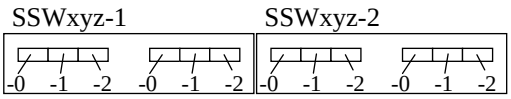
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

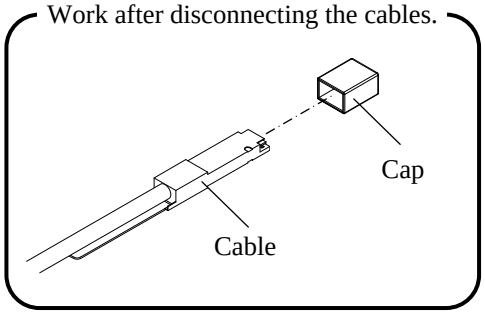
When the DKU-00 is the FBX.



Rear View of DKU-00 (FBX)



Front View of SSW



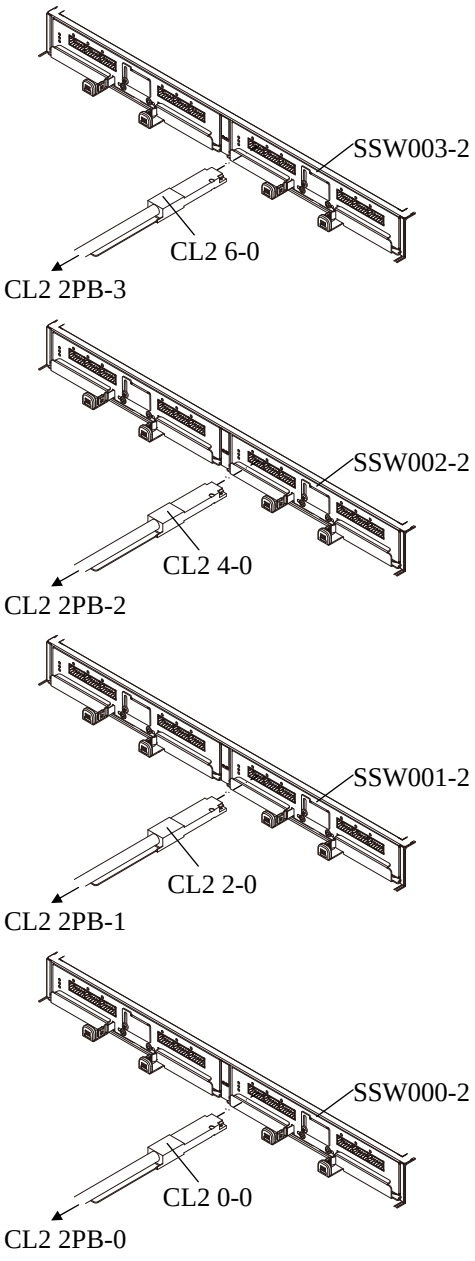


Fig. 4.1.3-33 Disconnection of Cables (CC2_DKU-00 (FBX)_CL2)

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In the case of Option 2 in DKC-1

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

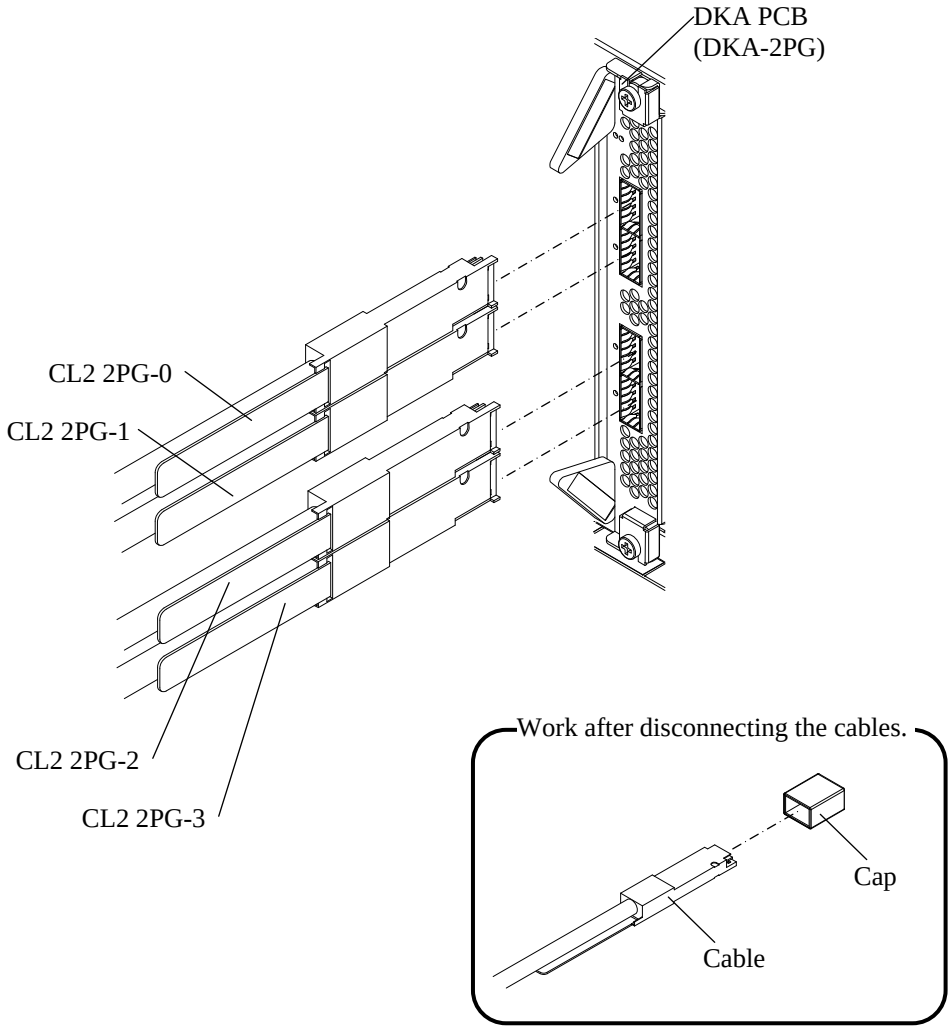


Fig. 4.1.3-34 Disconnection of Cables (Option 2 in DKC-1)

c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-35 or Fig. 4.1.3-36.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

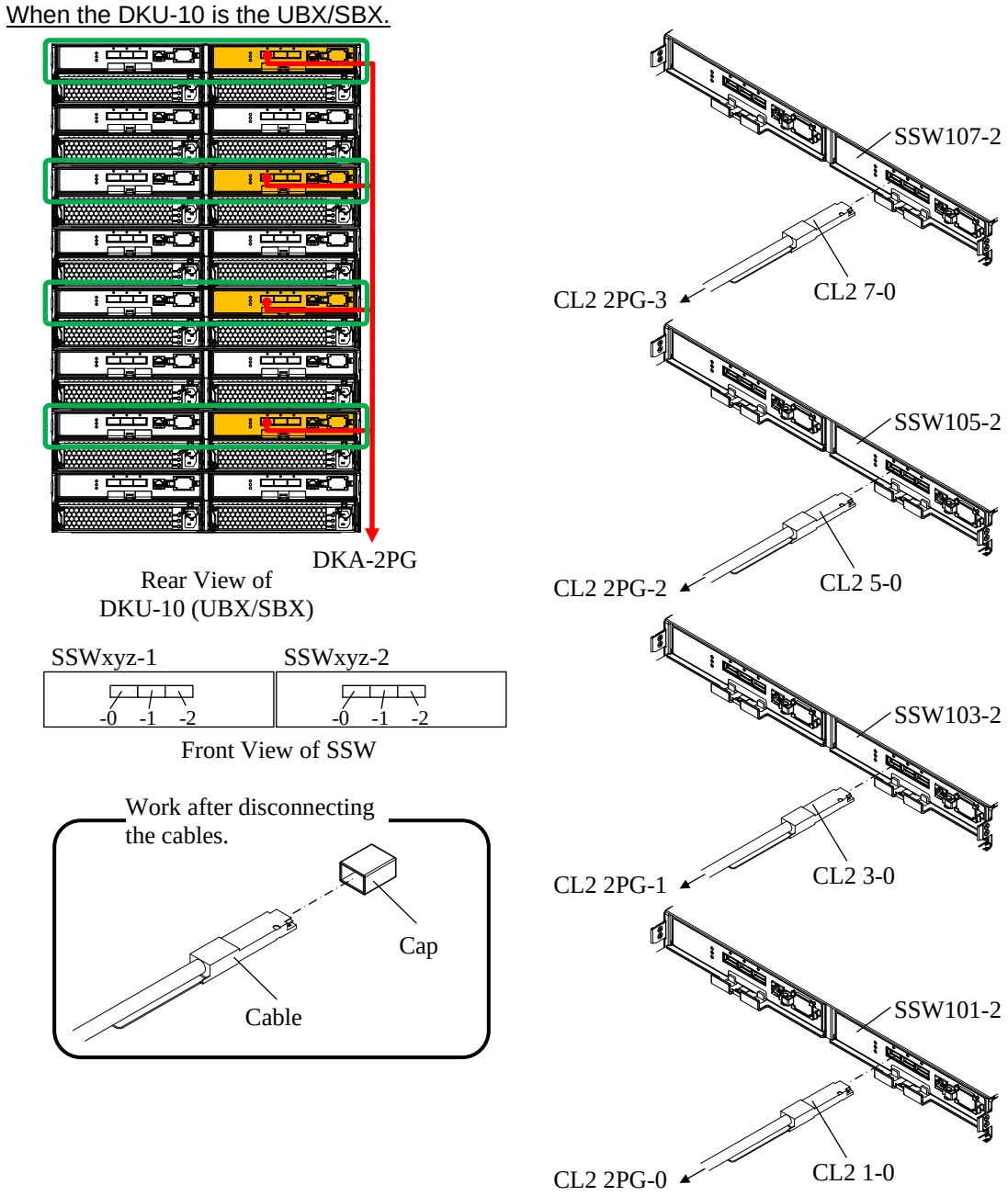


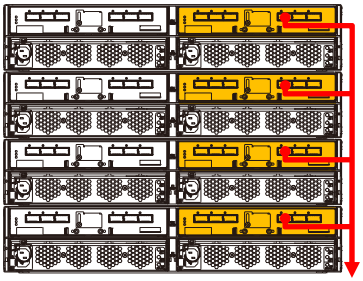
Fig. 4.1.3-35 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL2)

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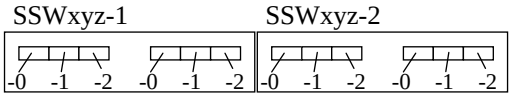
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

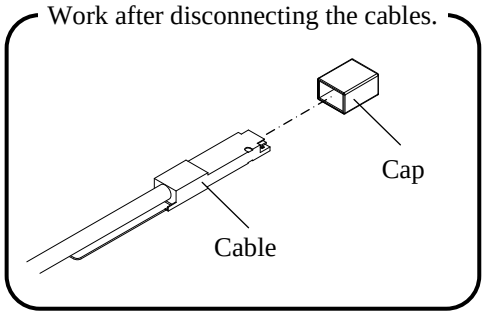
When the DKU-10 is FBX.



Rear View of DKU-10 (FBX)



Front View of SSW



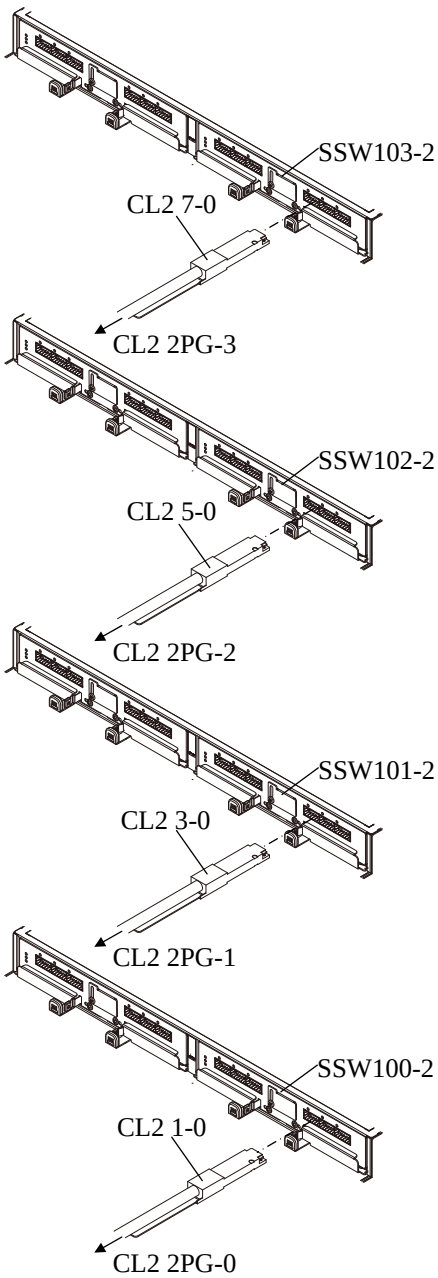


Fig. 4.1.3-36 Disconnection of Cables (CC2_DKU-10 (FBX)_CL2)

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In the case of Option 3 in DKC-1

a. Disconnect the cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

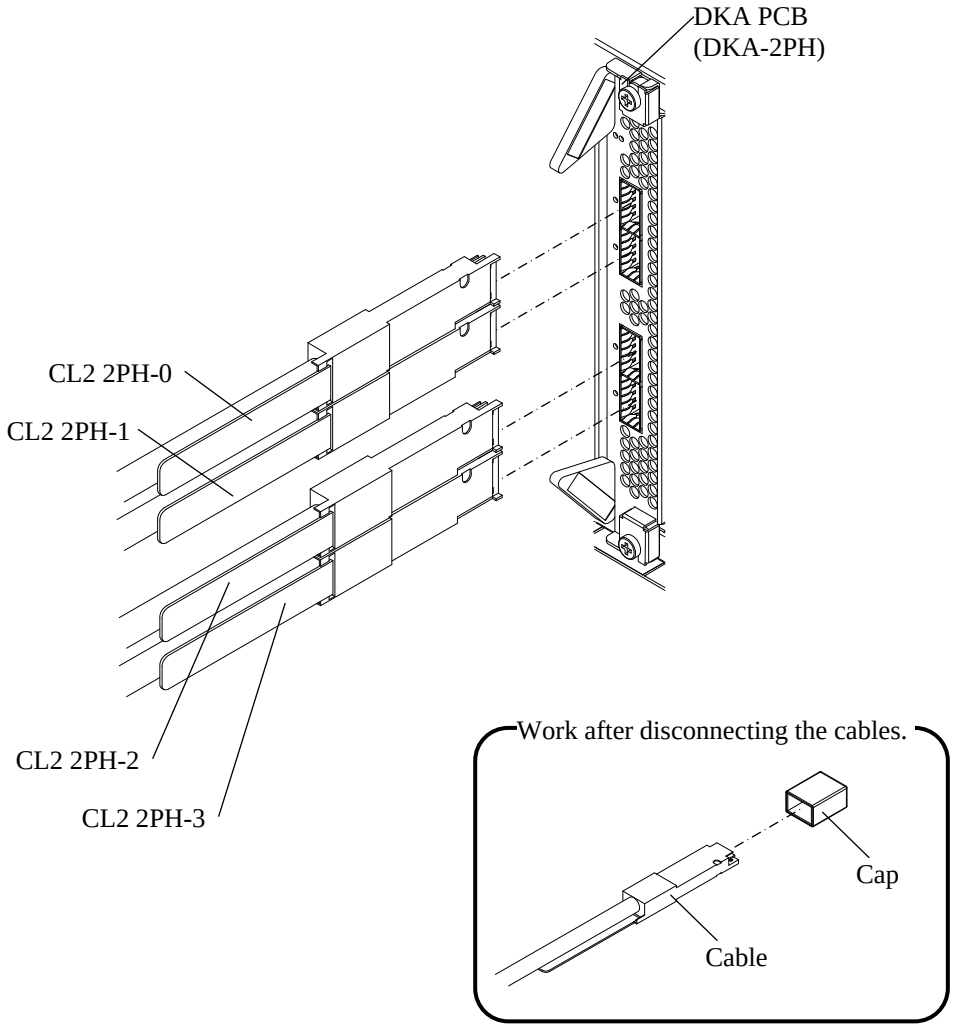


Fig. 4.1.3-37 Disconnection of Cables (Option 3 in DKC-1)

c. Disconnect the four cables from the SSWs in the DKU. (Refer to Fig. 4.1.3-38 or Fig. 4.1.3-39.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

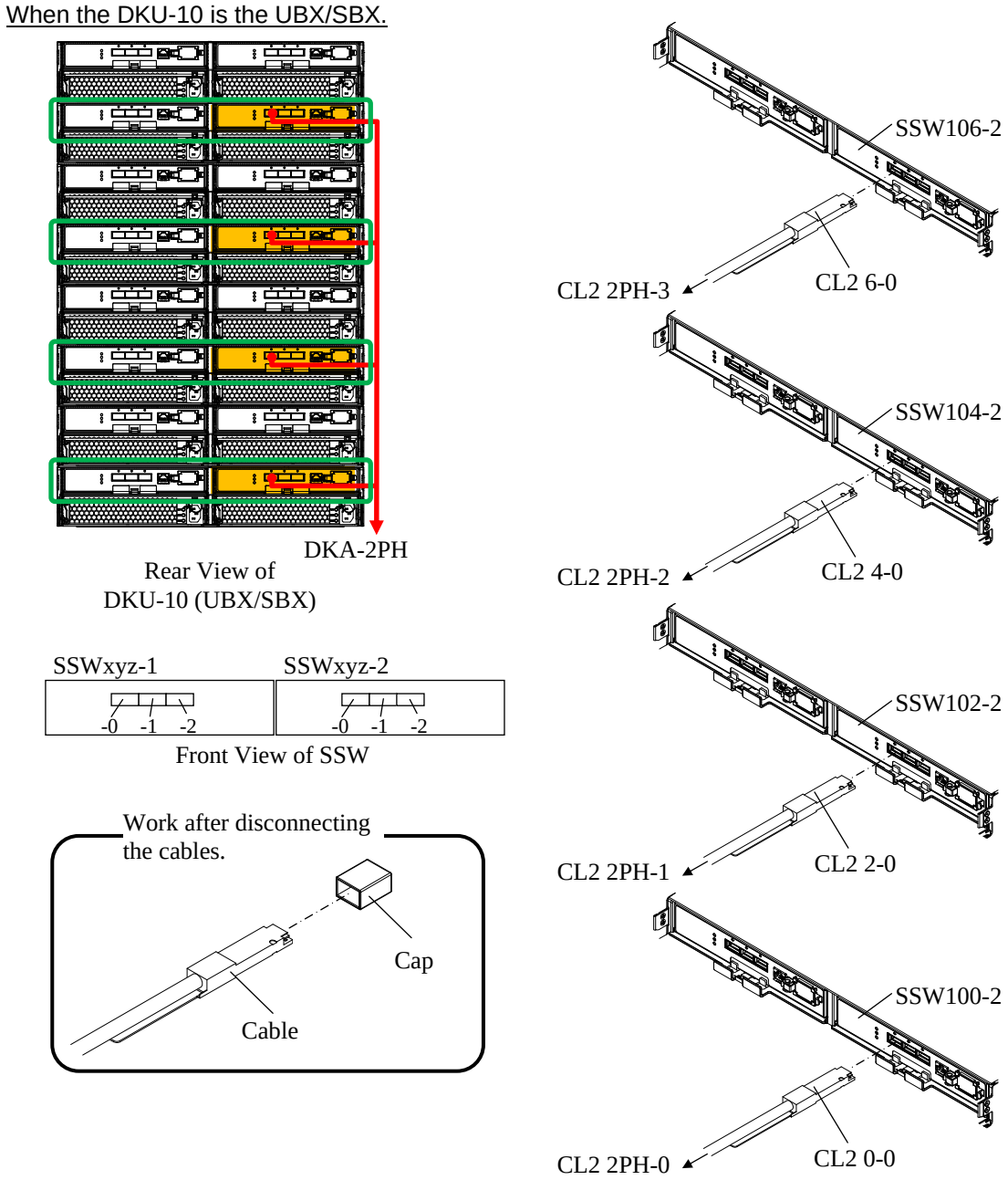


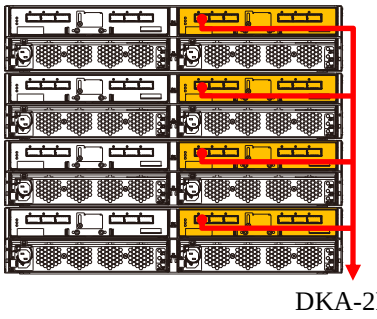
Fig. 4.1.3-38 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL2)

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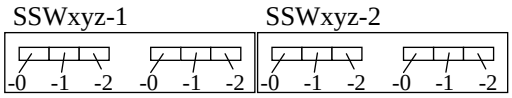
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

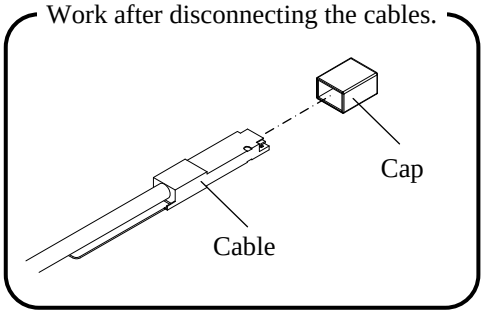
When the DKU-10 is the FBX.



Rear View of DKU-10 (FBX)



Front View of SSW



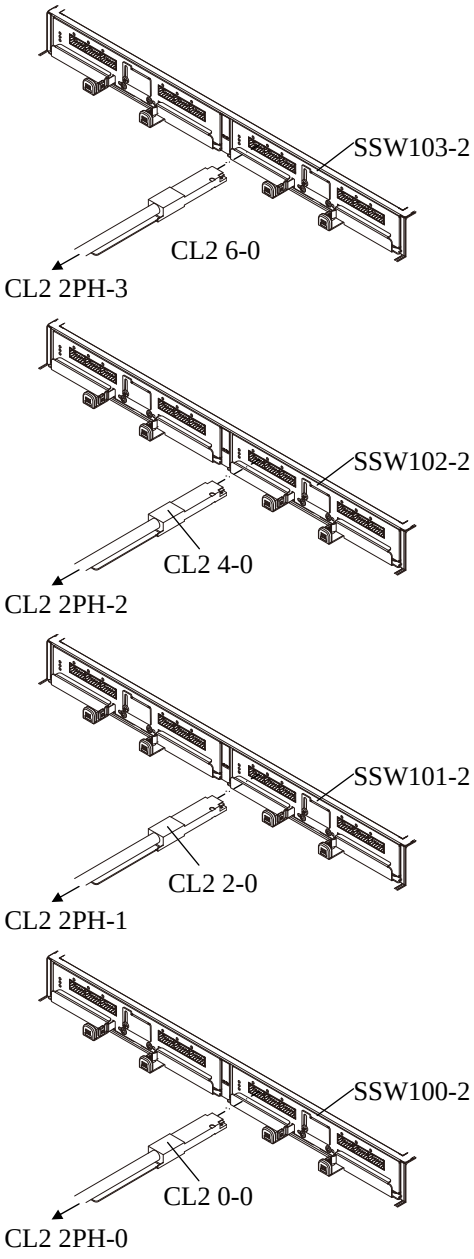
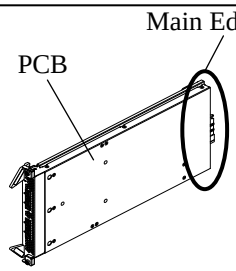


Fig. 4.1.3-39 Disconnection of Cables (CC2_DKU-10 (FBX)_CL2)

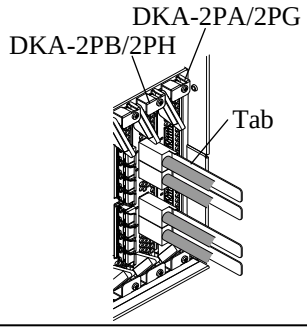
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7-1-3 Removal of PCBs

a. Loosen the screws and remove the PCBs from the DKC.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.



NOTICE: When inserting or removing the DKA PCB (DKA-2PA/2PG), be careful so that the tab of the DEV interface cable that connects to the adjacent DKA PCB (DKA-2PB/2PH) is not caught in it.

b. Attach the dummy plates and fasten the screws.

NOTICE: Remove the dummy plate just before installing the PCB.
If the dummy plate is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

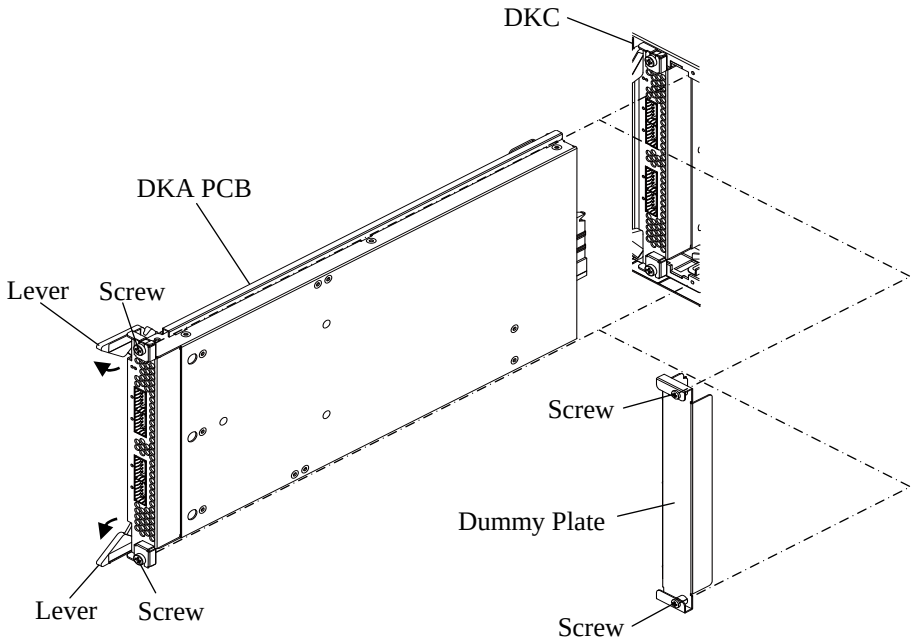


Fig. 4.1.3-40 Removal of PCB

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7-2 Removal Procedure of Device Interface Cable for Cluster 2 (DKC-F810I-CC2)

In the case of cable removal between DKA-2PA and DKU-00 or between DKA-2PG and DKU-10

a. Open the loop cable ties and remove the four cables in the cluster 2. (Refer to Fig. 4.1.3-41 or Fig. 4.1.3-42.)

When the DKU-x0 is the UBX/SBX.

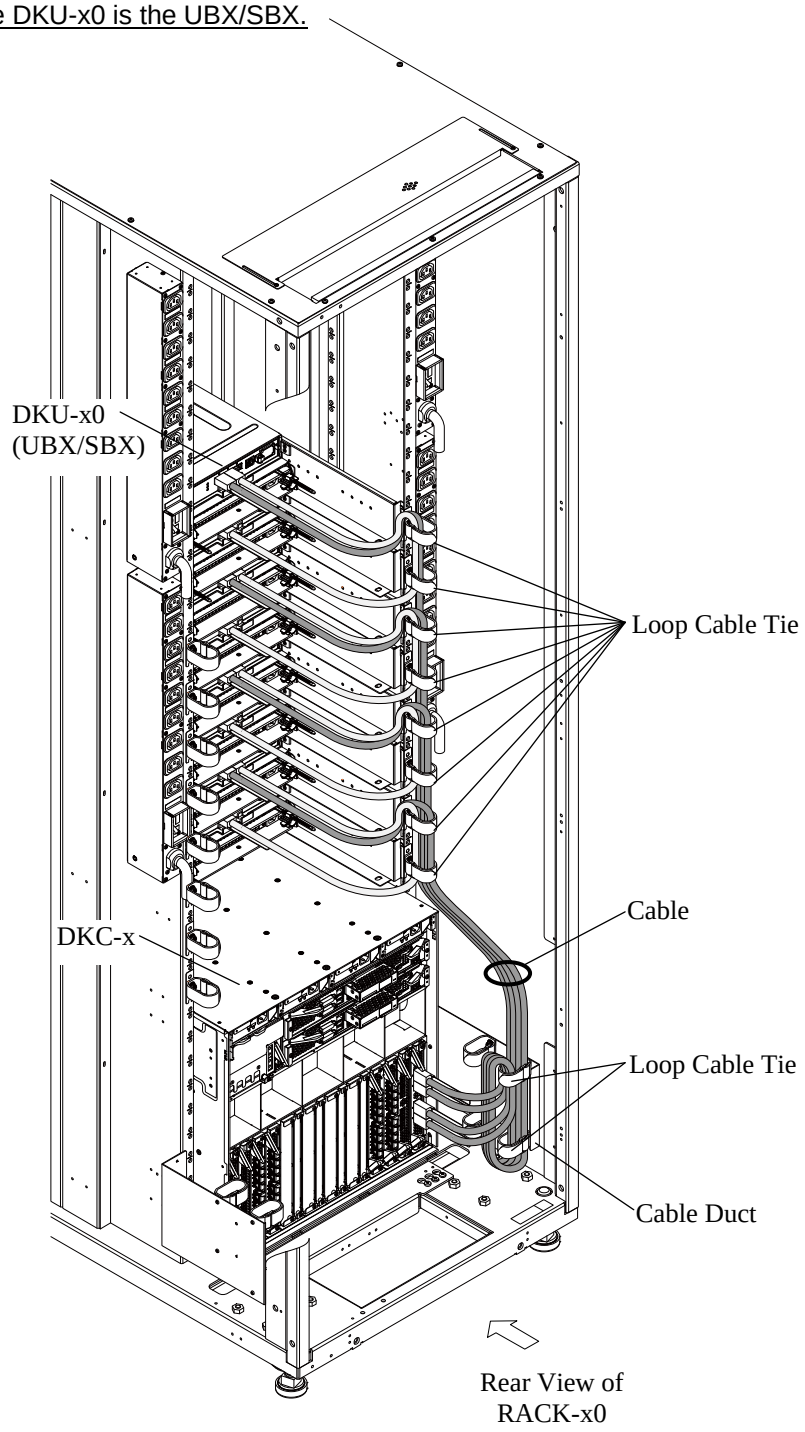


Fig. 4.1.3-41 Removal of Cables
(DKA-2PA – DKU-00 (UBX/SBX) or DKA-2PG – DKU-10 (UBX/SBX))

Copyright © 2014, Hitachi, Ltd.

When the DKU-x0 is the FBX.

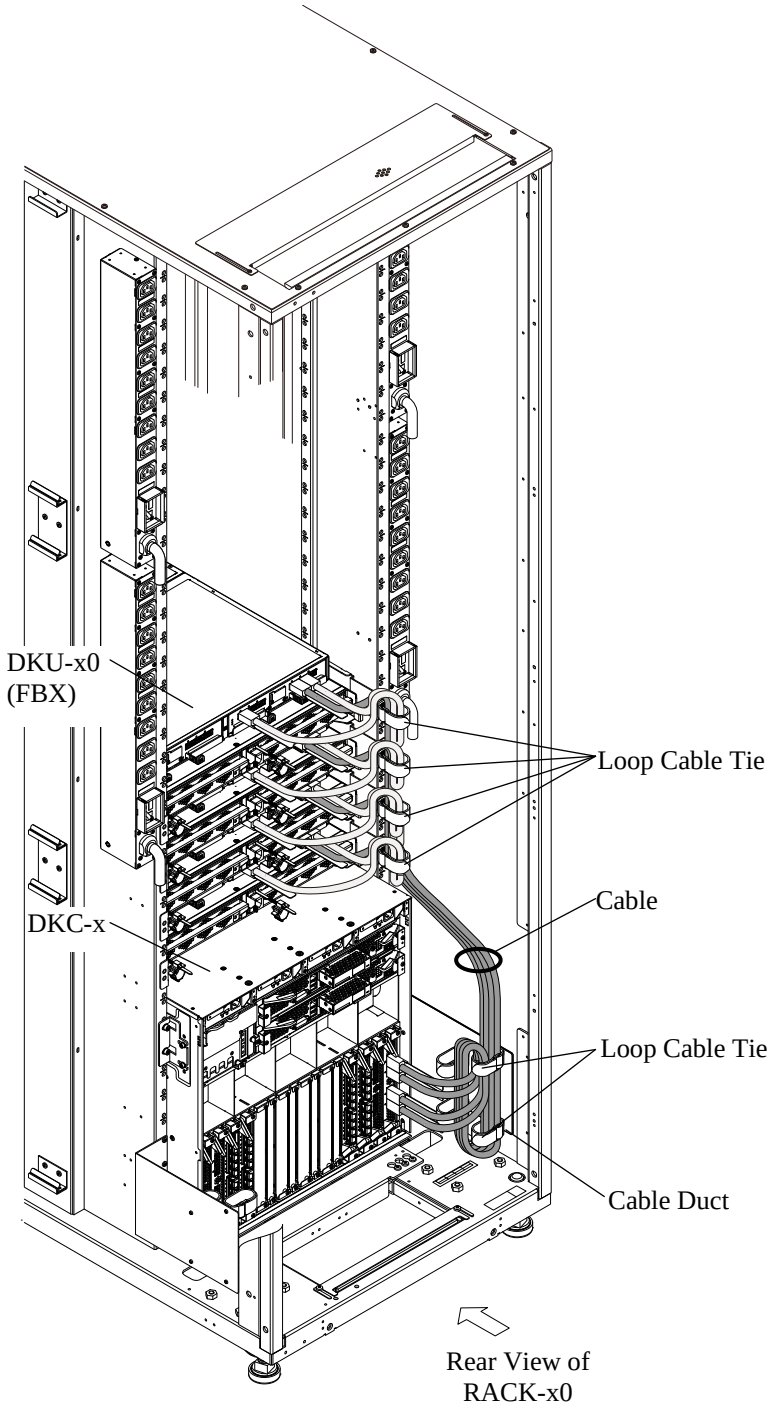


Fig. 4.1.3-42 Removal of Cables
(DKA-2PA – DKU-00 (FBX) or DKA-2PG – DKU-10 (FBX))

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In the case of cable removal between DKA-2PB and DKU-00 or between DKA-2PH and DKU-10

a. Open the loop cable ties and remove the four cables in the cluster 2. (Refer to Fig. 4.1.3-43 or Fig. 4.1.3-44.)

When the DKU-x0 is the UBX/SBX

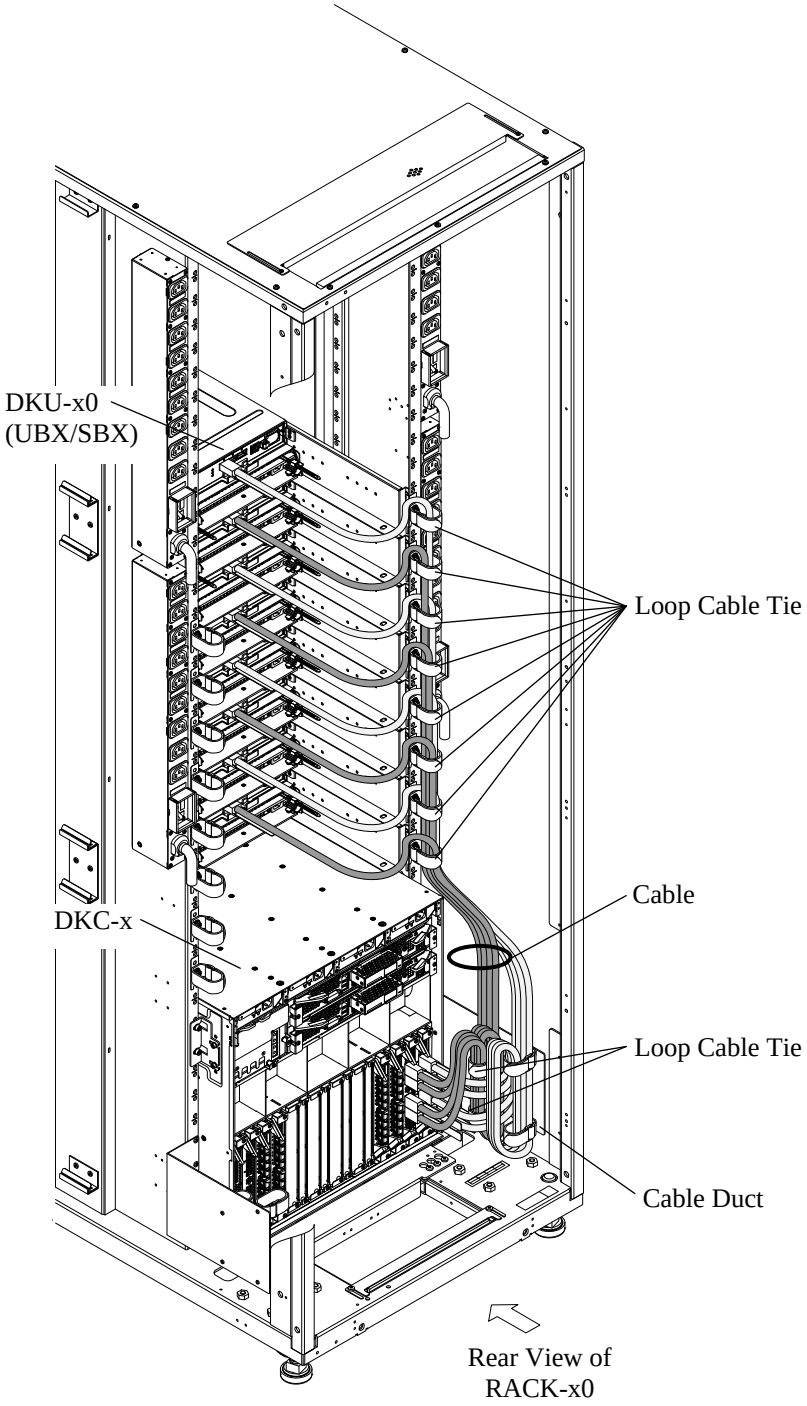


Fig. 4.1.3-43 Removal of Cables
(DKA-2PB – DKU-00 (UBX/SBX) or DKA-2PH – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX

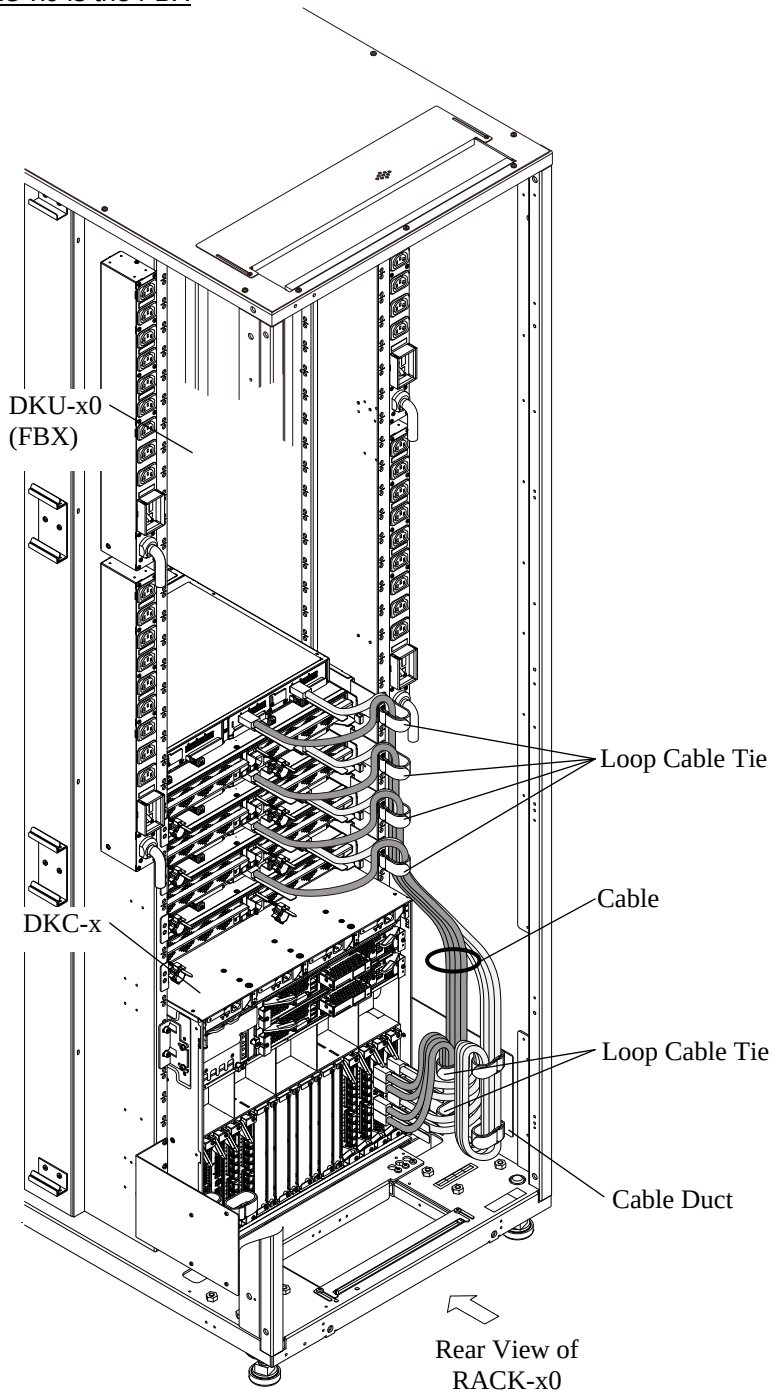


Fig. 4.1.3-44 Removal of Cables
(DKA-2PB – DKU-00 (FBX) or DKA-2PH – DKU-10 (FBX))

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7-3 Installation Procedure of Device Interface Cable for Cluster 2 (DKC-F810I-CC1)

When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-00 (UBX/SBX)

(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-00. (Refer to Fig. 4.1.3-45 and Fig. 4.1.3-46.)

⚠ CAUTION

A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.

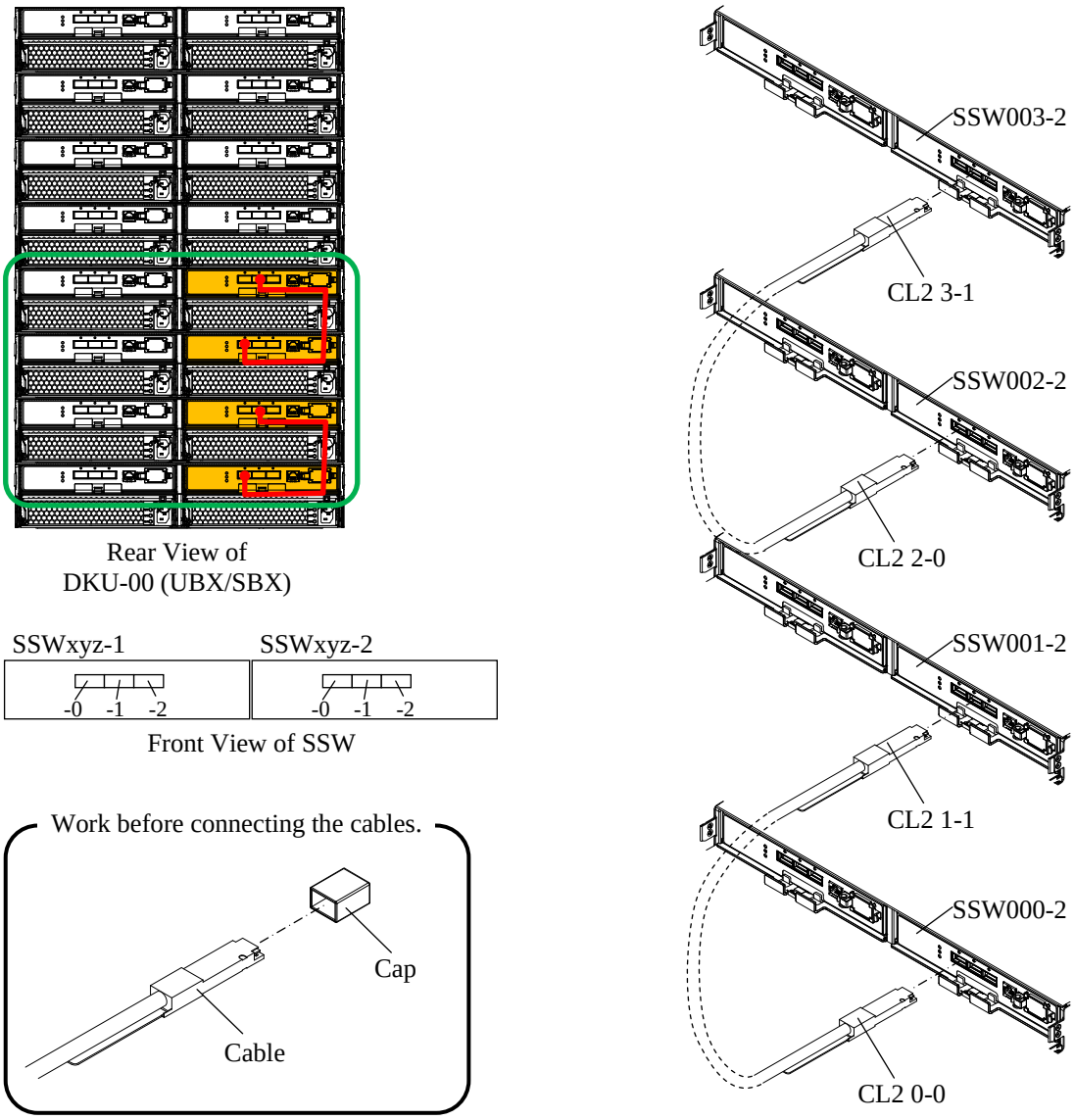
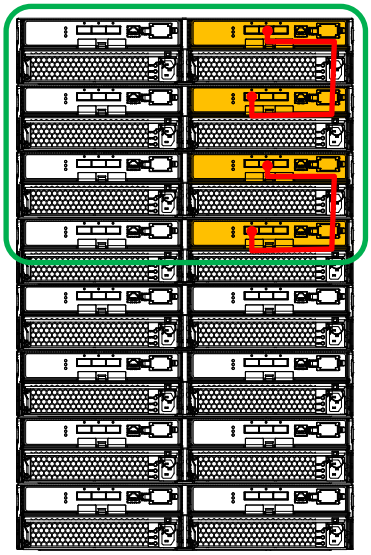


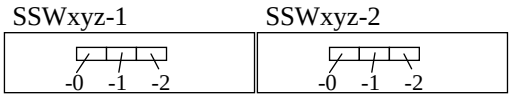
Fig. 4.1.3-45 Connection of Cables (UBX/SBX_CC1_CL2_L)

⚠ CAUTION

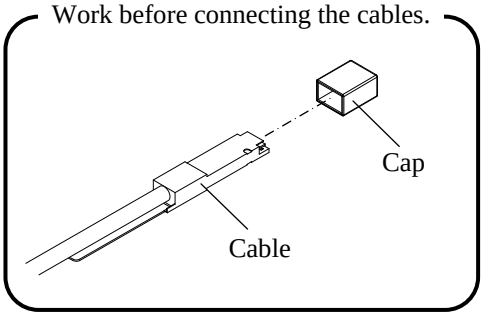
A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.



Rear View of
DKU-00 (UBX/SBX)



Front View of SSW



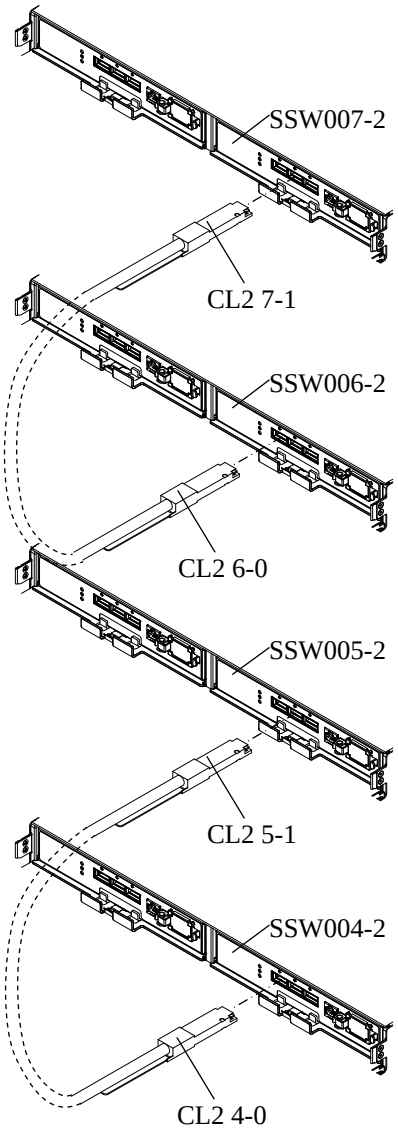


Fig. 4.1.3-46 Connection of Cables (UBX/SBX_CC1_CL2_U)

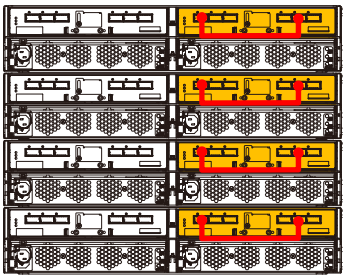
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When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-00 (FBX)

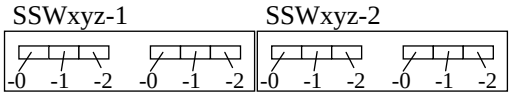
(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-00.

⚠ CAUTION

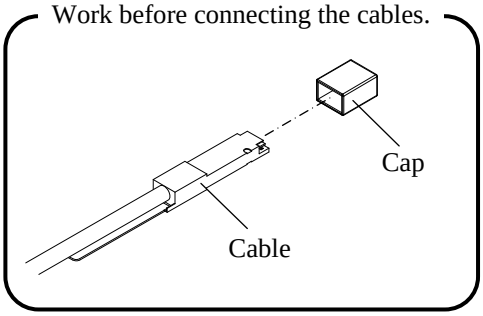
A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.



Rear View of DKU-00 (FBX)



Front View of SSW



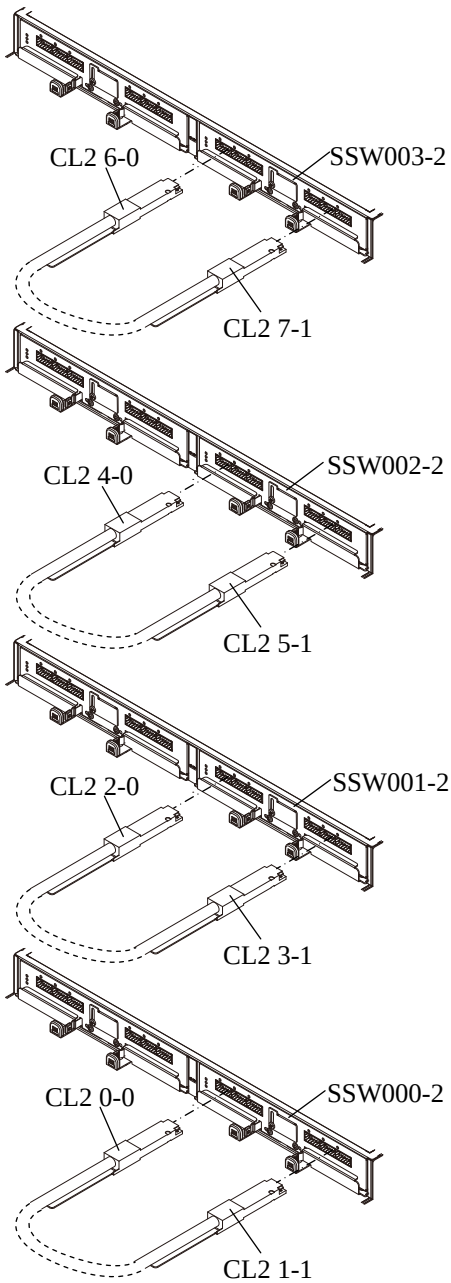


Fig. 4.1.3-47 Connection of Cables (FBX_CC1_CL2)

When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-10 (UBX/SBX)

(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-10. (Refer to Fig. 4.1.3-48 and Fig. 4.1.3-49.)

⚠ CAUTION

A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.

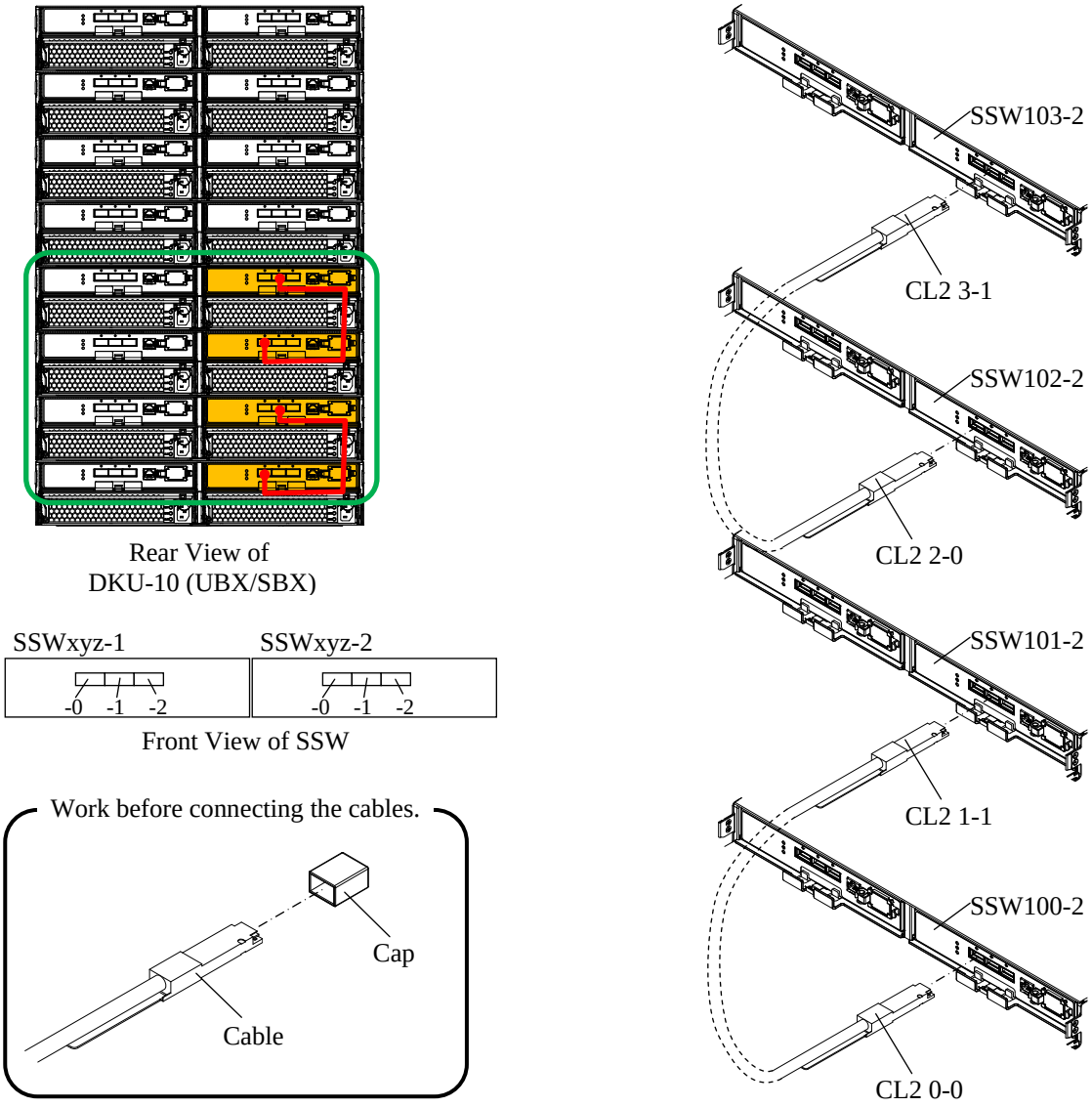
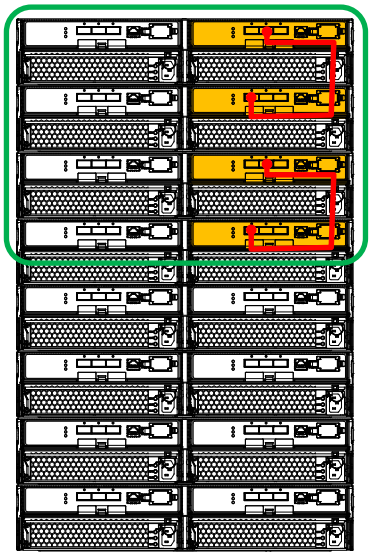


Fig. 4.1.3-48 Connection of Cables (UBX/SBX_CC1_CL2_L)

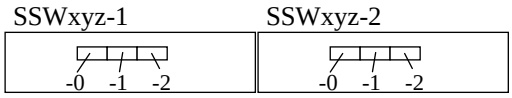
Copyright © 2014, Hitachi, Ltd.

⚠ CAUTION

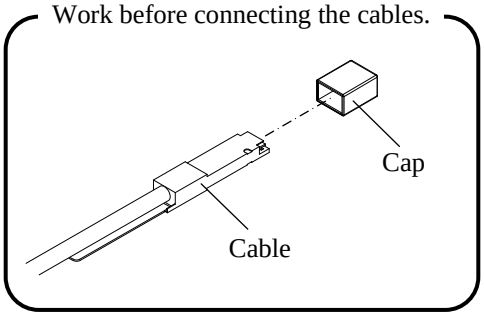
A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.



Rear View of
DKU-10 (UBX/SBX)



Front View of SSW



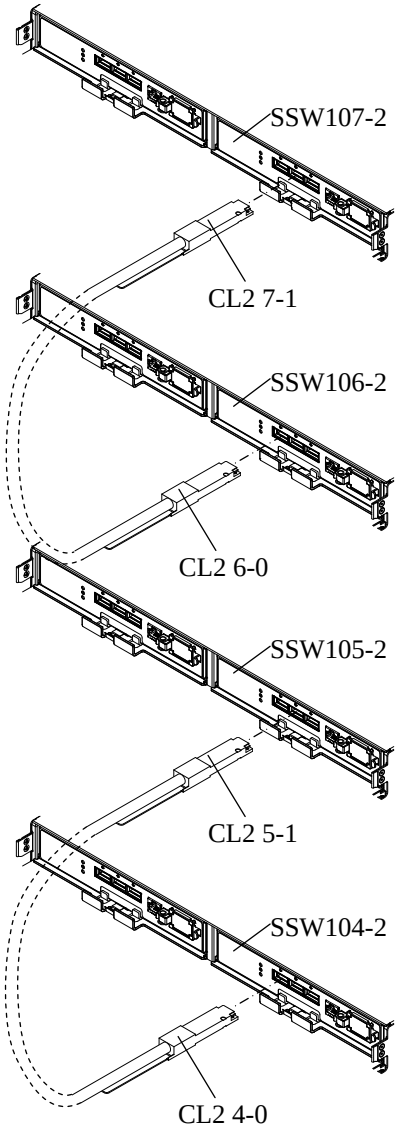


Fig. 4.1.3-49 Connection of Cables (UBX/SBX_CC1_CL2_U)

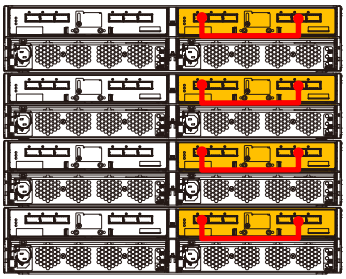
Copyright © 2014, Hitachi, Ltd.

When you need to install Device Interface Cable CC1 (DKC-F810I-CC1) in DKU-10 (FBX)

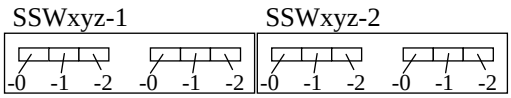
(1) Remove the caps from the cables and connect the cables to the SSWs in the DKU-10.

⚠ CAUTION

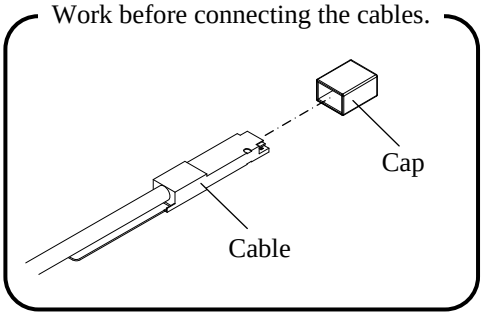
A serious failure occurs if any of cables/connectors is wrongly connected.
Since a label bearing a connection destination is affixed on each cable/connector, work very carefully referring to it and the wiring diagram.



Rear View of DKU-10 (FBX)



Front View of SSW



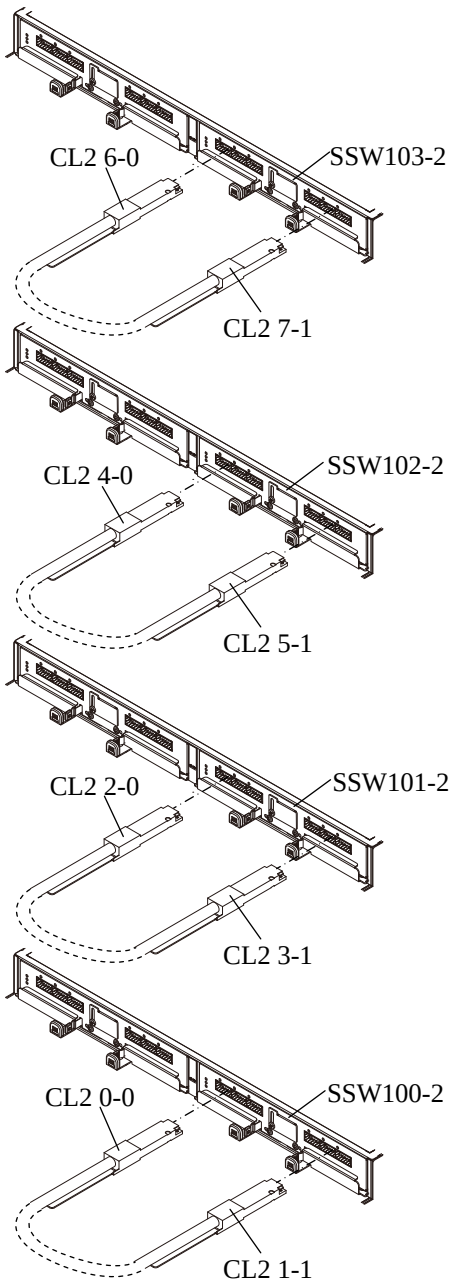


Fig. 4.1.3-50 Connection of Cables (FBX_CC1_CL2)

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(2) Route the DKC-F810I-CC1 (four cables) and fix them with the loop cable ties. (Refer to Fig. 4.1.3-51 or Fig. 4.1.3-52.)
(3) Go to Procedure 8 (INST04-01B-610).

When the DKU-x0 is the UBX/SBX.

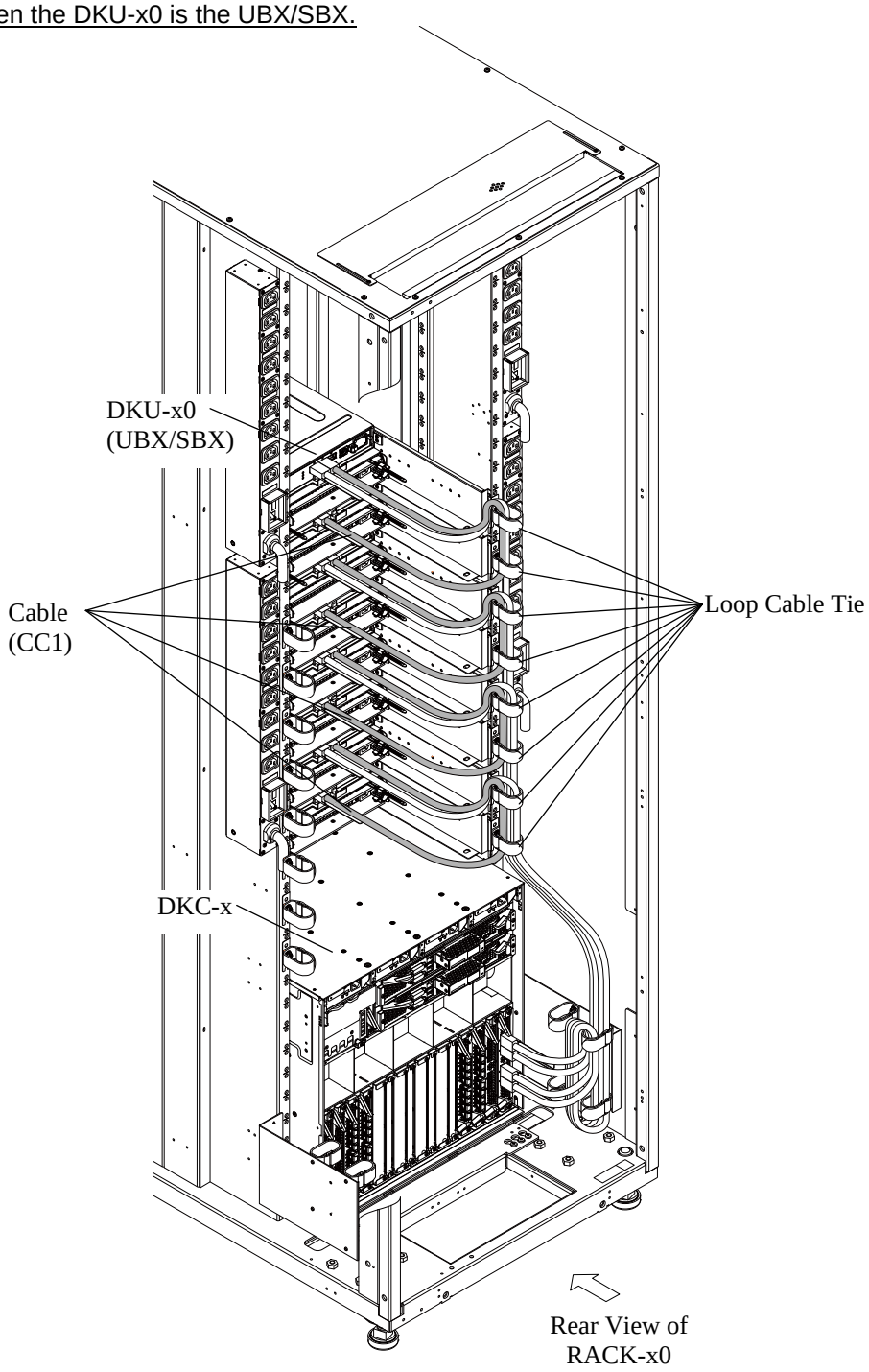


Fig. 4.1.3-51 Removal of Cables (UBX/SBX_CC1_CL2)

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When the DKU-x0 is the FBX.

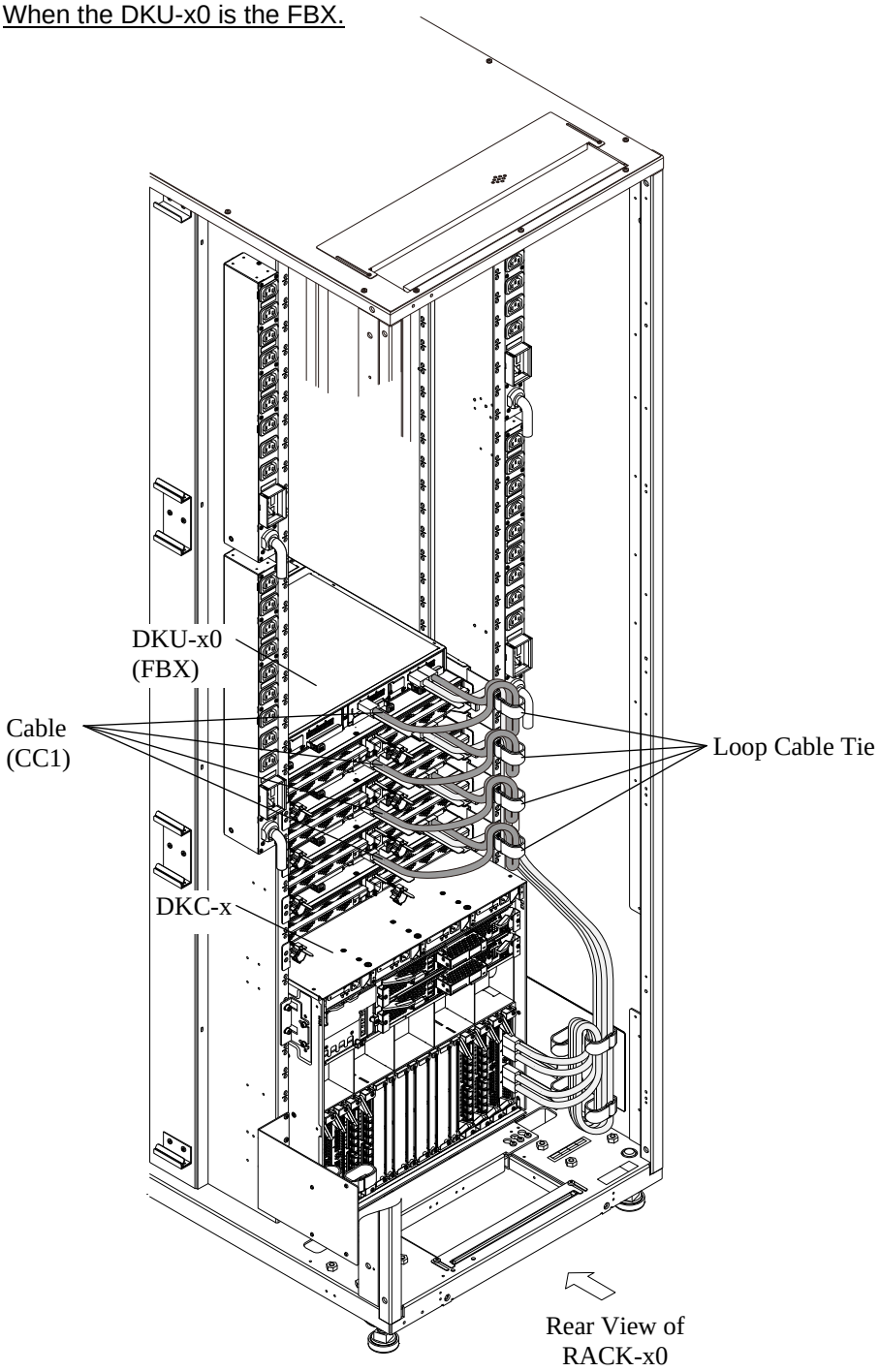


Fig. 4.1.3-52 Removal of Cables (FBX_CC1_CL2)

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8. De-Installation Procedure of Disk Adapter for cluster 2

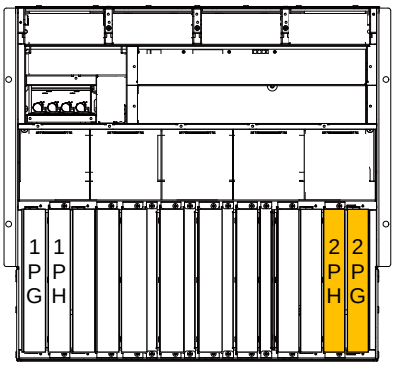
NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

8-1 Confirmation of the Shut Down LED

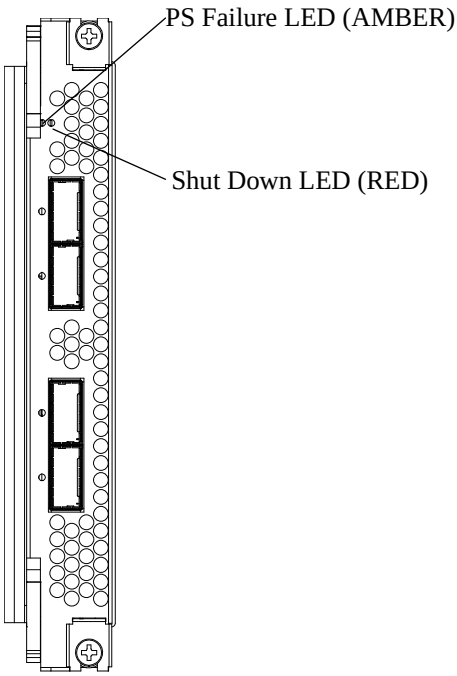
a. While referring to Fig. 4.1.3-53 and Table 4.1.3-3, check the Shut Down LED on the PCB



Rear View of DKC-0



Rear View of DKC-1



Front View of DKA PCB

Fig. 4.1.3-53 Location of the Shut Down LED

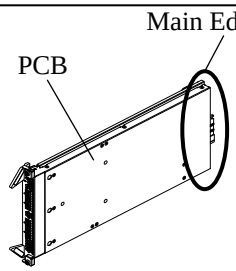
Table 4.1.3-3 PCB Location List

DKC	Addition No.	Location No.	Number of DKAs set through the SVP		Remarks
		Cluster 2			
DKC-0	Basic	DKA-2PA	2	4	
	Option 1	DKA-2PB	—		
DKC-1	Option 2	DKA-2PG	2	4	
	Option 3	DKA-2PH	—		

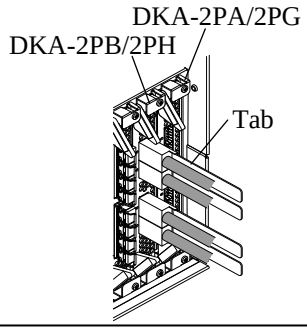
Copyright © 2014, Hitachi, Ltd.

8-2 Removal of PCBs

a. Loosen the screws and remove the PCBs from the DKC.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.



NOTICE: When inserting or removing the DKA PCB (DKA-2PA/2PG), be careful so that the tab of the DEV interface cable that connects to the adjacent DKA PCB (DKA-2PB/2PH) is not caught in it.

b. Attach the dummy plates and fasten the screws.

NOTICE: Remove the dummy plate just before installing the PCB.
If the dummy plate is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

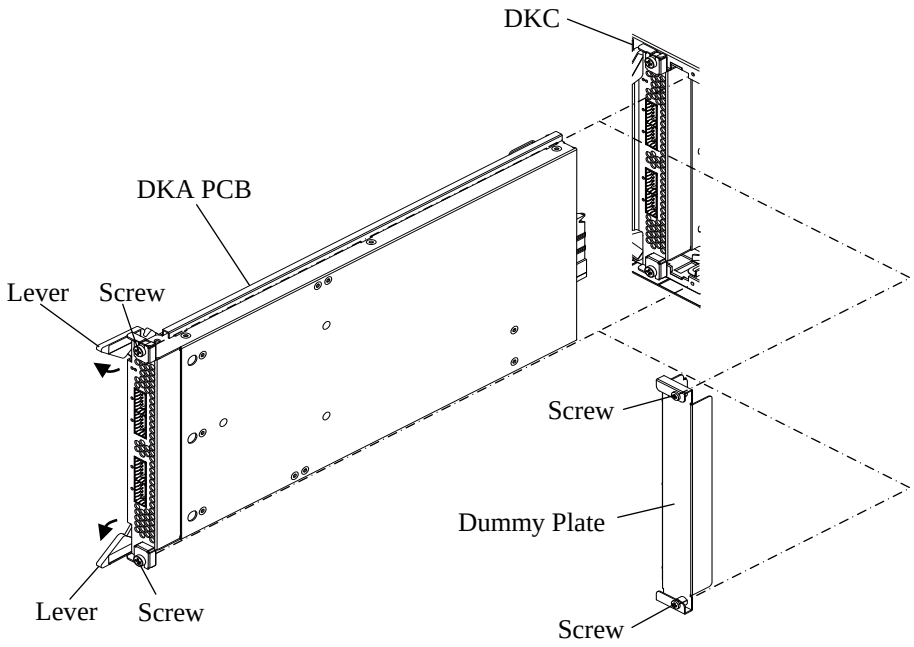


Fig. 4.1.3-54 Removal of PCB

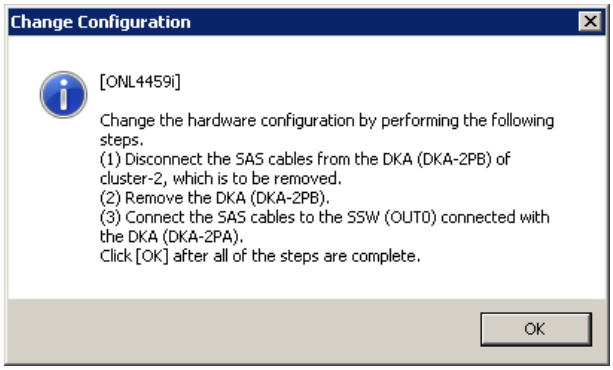
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9. SVP Post-Procedure (Cluster 2)

(1) <Check that hardware is removed>
When changing from the Standard Model to the High Performance Model : Go to Step (1)-1.
When removing from the less DKA or less DKU configuration : Go to Step (1)-2.

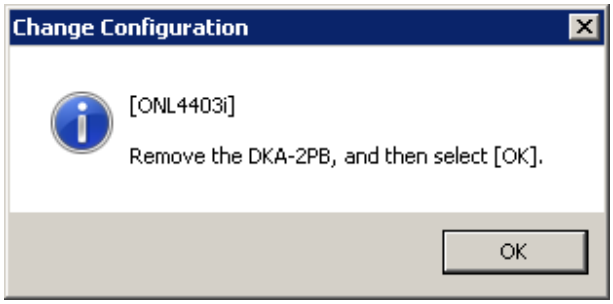
(1)-1

"Change the hardware configuration by performing the following steps. (1) Disconnect the SAS cables from the DKA (DKA-nnn) of cluster-2, which is to be removed. (2) Remove the DKA (DKA-nnn). (3) Connect the SAS cables to the SSW (OUT0) connected with the DKA (DKA-nnn). Click [OK] after all of the steps are complete." is displayed, select (CL) the [OK] button.

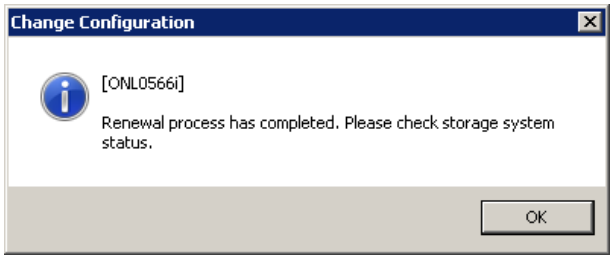


(1)-2

"Remove the DKA-nnn, and then select [OK]." is displayed, select (CL) the [OK] button.



(2) <Making sure of completion of the removal>
A message, "Renewal process has completed. Please check storage system status." is displayed. In response to the message, select (CL) [OK].

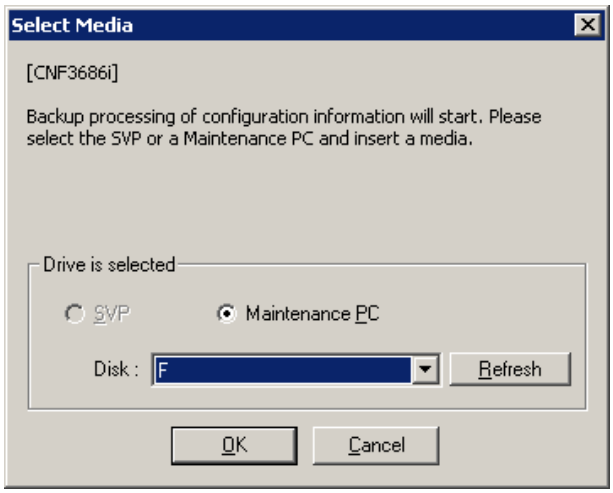


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(3)

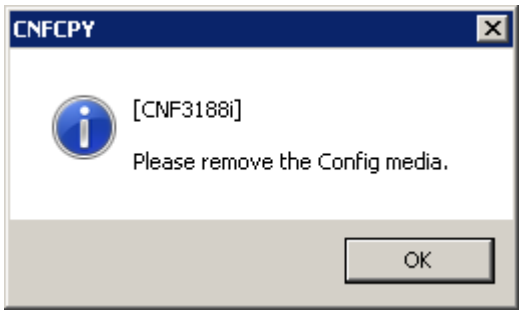
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



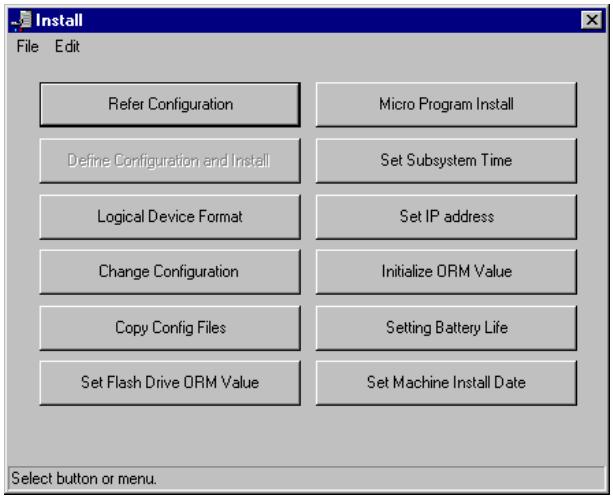
(4)

When this procedure is completed, the message "Please remove the Config media." is displayed.
Remove the configuration information media, select (CL) [OK].



(5)

After the procedure is completed, return to 'Install'.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

Return to the work table (INST02-70) and perform rest of the works.

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4.1.4 When performing removal of the data/spare Drive, Device Interface Cable that accompanies the removal of the DKU (DKC-F810I-CC1/CC2/CC4/300KCM/600JCM/600J5M/900JCM/1R2JCM/3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/3R2FM)

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4.1.4.1 Storage System Configurations and Required I/F Cable Options

1. In the case of Standard Model
   The storage system configuration and number of required options for the Standard Model are shown below.

Table 4.1.4.1-1 Requisite Options for Standard Model (Single and Twin DKC model)

No.	Required Number of Options													
	DKC810I -CBXA	DKC-F810I-										2.5-inch HDD (*1)	3.5-inch HDD (*1)	FMD (*1)
		CBXB	RK42	SBX	UBX	FBX	SCA/ ESCA	CC1	CC2	CC4	MOD5			
1	1	—	1	1	—	—	1	1	1	—	—	192	—	—
2	1	—	1	2	—	—	1	1	3	—	—	384	—	—
3	1	—	2	3	—	—	1	1	3	2	—	576	—	—
4	1	—	2	4	—	—	1	1	5	2	—	768	—	—
5	1	—	3	5	—	—	1	1	5	4	—	960	—	—
6	1	—	3	6	—	—	1	1	7	4	—	1152	—	—
7	1	1	4	7	—	—	2	2	8	4	1	1344	—	—
8	1	1	4	8	—	—	2	2	10	4	1	1536	—	—
9	1	1	5	9	—	—	2	2	10	6	1	1728	—	—
10	1	1	5	10	—	—	2	2	12	6	1	1920	—	—
11	1	1	6	11	—	—	2	2	12	8	1	2112	—	—
12	1	1	6	12	—	—	2	2	14	8	1	2304	—	—
13	1	—	1	—	1	—	1	1	1	—	—	—	96	—
14	1	—	1	—	2	—	1	1	3	—	—	—	192	—
15	1	—	2	—	3	—	1	1	3	2	—	—	288	—
16	1	—	2	—	4	—	1	1	5	2	—	—	384	—
17	1	—	3	—	5	—	1	1	5	4	—	—	480	—
18	1	—	3	—	6	—	1	1	7	4	—	—	576	—
19	1	1	4	—	7	—	2	2	8	4	1	—	672	—
20	1	1	4	—	8	—	2	2	10	4	1	—	768	—
21	1	1	5	—	9	—	2	2	10	6	1	—	864	—
22	1	1	5	—	10	—	2	2	12	6	1	—	960	—
23	1	1	6	—	11	—	2	2	12	8	1	—	1056	—
24	1	1	6	—	12	—	2	2	14	8	1	—	1152	—
25	1	—	1	—	—	1	1	1	1	—	—	—	—	48
26	1	—	1	—	—	2	1	3	1	—	—	—	—	96
27	1	1	2	—	—	3	2	4	2	—	1	—	—	144
28	1	1	2	—	—	4	2	6	2	—	1	—	—	192

*1: The maximum number of installable HDDs/FMDs includes the spare disk(s).

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Table 4.1.4.1-2 Requisite Options for Standard Model (Dual DKC model)

No.	Required Number of Options											Remarks
	DKC810I	DKC-F810I-									FMD	
	-CBXA	CBXB	RK42	FBX	SCA/ ESCA	CC1	CC2	CC4	FC5	MOD5	(*1)	
1	1	1	1	2	2	2	2	—	—	1	96	Dual DKC Layout-1
2	1	1	2	3	2	2	2	—	2	1	144	Dual DKC Layout-1
3	1	1	3	4	2	2	2	2	2	1	192	Dual DKC Layout-1
4	1	1	1	2	2	2	—	—	2	1	96	Dual DKC Layout-2
5	1	1	2	3	2	2	—	—	4	1	144	Dual DKC Layout-2
6	1	1	3	4	2	2	—	2	4	1	192	Dual DKC Layout-2
7	1	1	2	2	2	2	—	—	2	1	96	Dual DKC Layout-3
8	1	1	2	3	2	4	—	—	2	1	144	Dual DKC Layout-3
9	1	1	2	4	2	6	—	—	2	1	192	Dual DKC Layout-3

*1: The maximum number of installable FMDs includes the spare drive(s).

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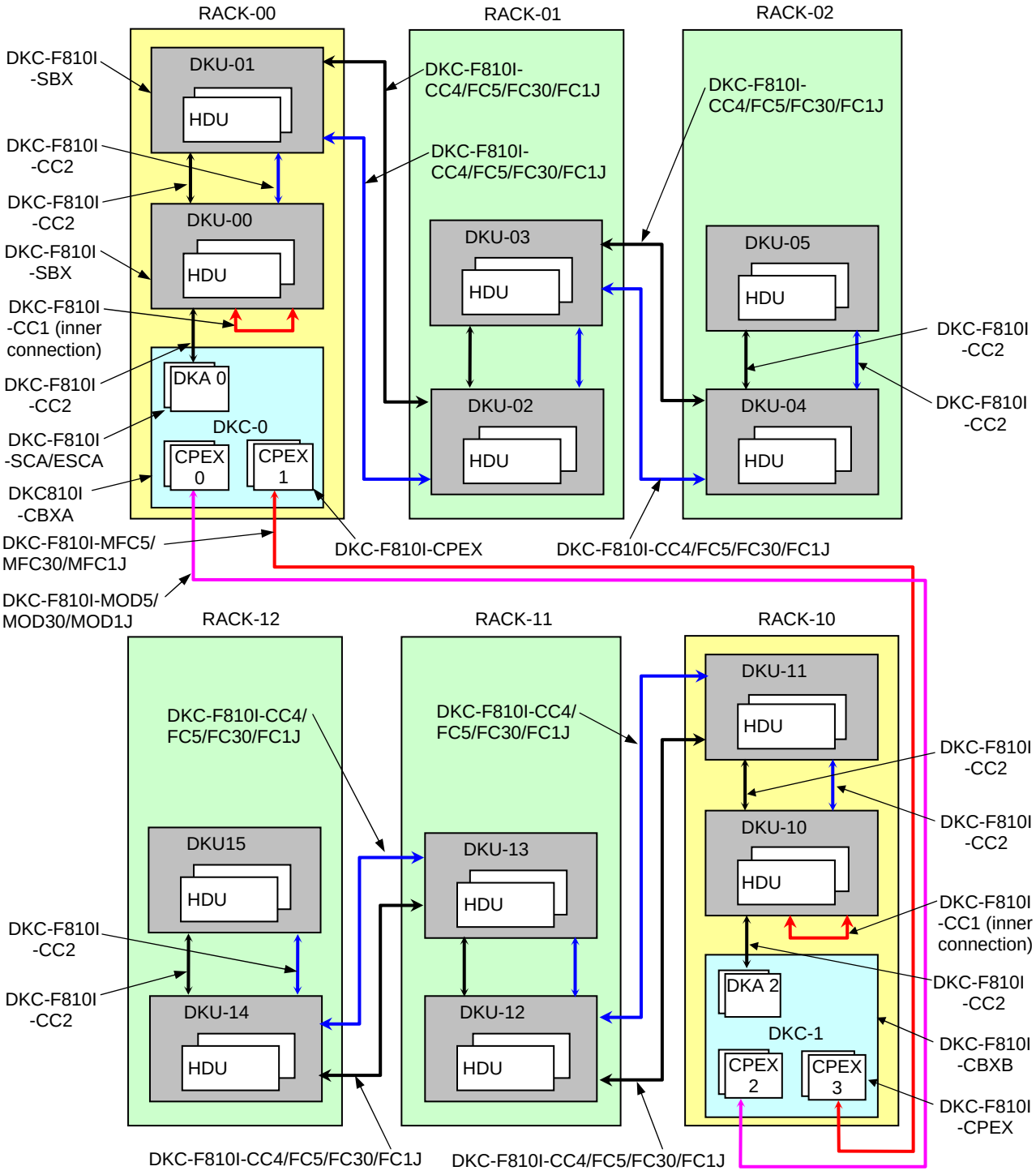


Fig. 4.1.4.1-1 Twin DKC Configurations and Required I/F Cable Options (Standard Model)

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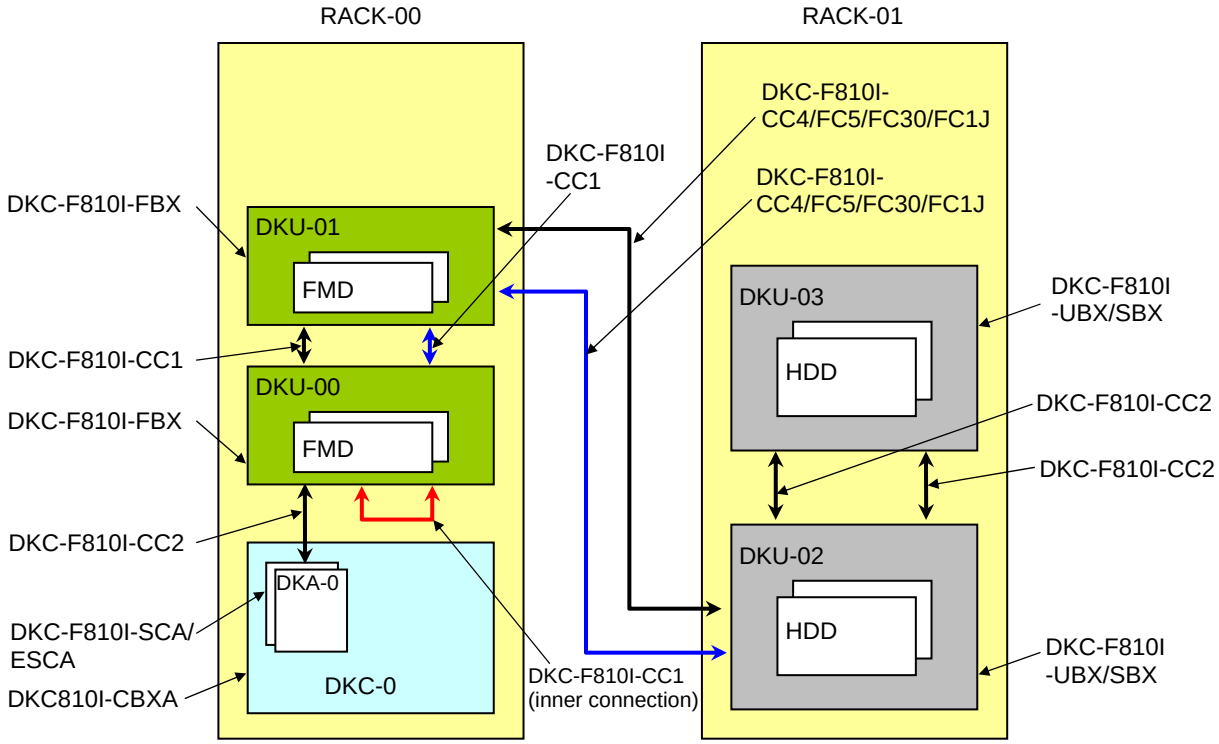


Fig. 4.1.4.1-2 Single DKC Configurations and Required I/F Cable Options (FMD Standard Model)

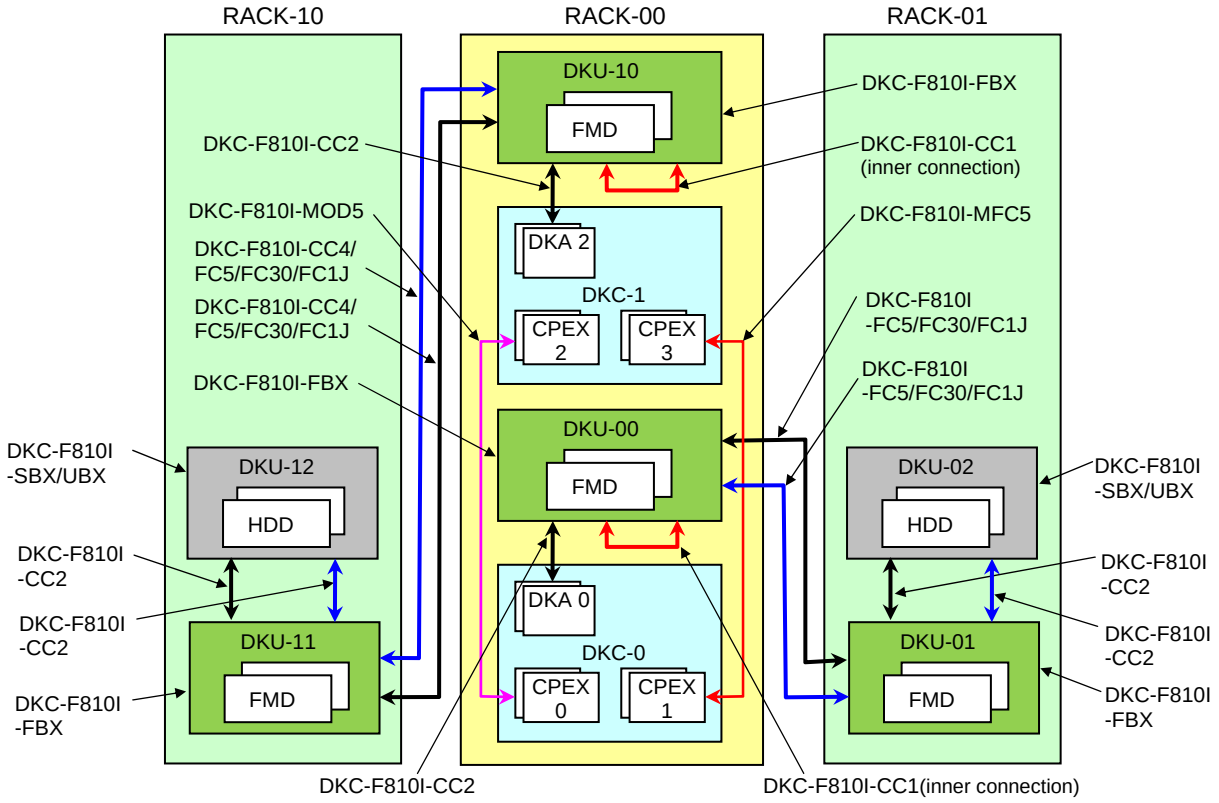


Fig. 4.1.4.1-3 Dual DKC Configuration and Required I/F Cable Options (Dual DKC Layout-1, Standard Model)

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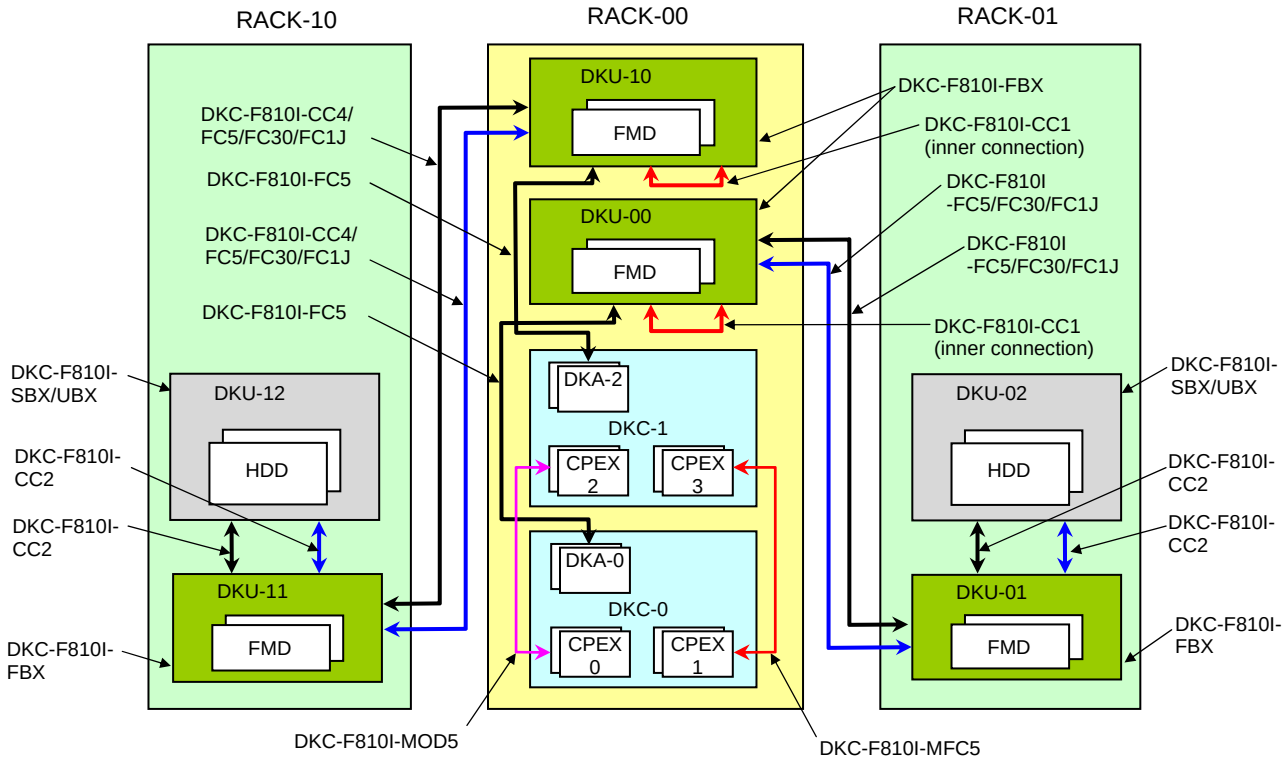


Fig. 4.1.4.1-4 Dual DKC Configuration and Required I/F Cable Options
(Dual DKC Layout-2, Standard Model)

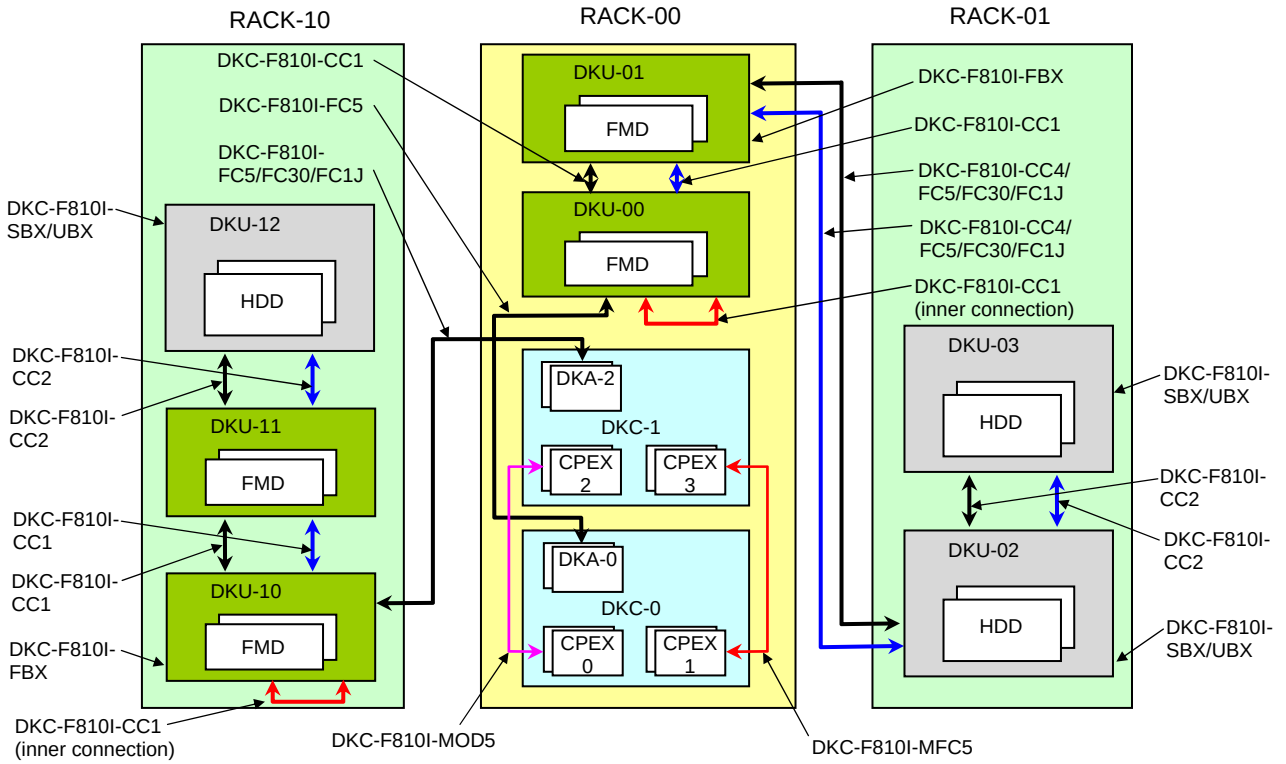


Fig. 4.1.4.1-5 Dual DKC Configuration and Required I/F Cable Options
(Dual DKC Layout-3, Standard Model)

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2. In the case of High Performance Model
   The storage system configuration and number of required options for the High Performance model are shown below.

Table 4.1.4.1-3 Requisite Options for High Performance Model (Single and Twin DKC model)

No.	Required Number of Options													
	DKC810I-CBXA	DKC-F810I-										2.5-inch HDD (*1)	3.5-inch HDD (*1)	FMD (*1)
		CBXB	RK42	SBX	UBX	FBX	SCA/ ESCA	CC1	CC2	CC4	MOD5			
1	1	—	1	1	—	—	2	—	2	—	—	192	—	—
2	1	—	1	2	—	—	2	—	4	—	—	384	—	—
3	1	—	2	3	—	—	2	—	4	2	—	576	—	—
4	1	—	2	4	—	—	2	—	6	2	—	768	—	—
5	1	—	3	5	—	—	2	—	6	4	—	960	—	—
6	1	—	3	6	—	—	2	—	8	4	—	1152	—	—
7	1	1	4	7	—	—	4	—	10	4	1	1344	—	—
8	1	1	4	8	—	—	4	—	12	4	1	1536	—	—
9	1	1	5	9	—	—	4	—	12	6	1	1728	—	—
10	1	1	5	10	—	—	4	—	14	6	1	1920	—	—
11	1	1	6	11	—	—	4	—	14	8	1	2112	—	—
12	1	1	6	12	—	—	4	—	16	8	1	2304	—	—
13	1	—	1	—	1	—	2	—	2	—	—	—	96	—
14	1	—	1	—	2	—	2	—	4	—	—	—	192	—
15	1	—	2	—	3	—	2	—	4	2	—	—	288	—
16	1	—	2	—	4	—	2	—	6	2	—	—	384	—
17	1	—	3	—	5	—	2	—	6	4	—	—	480	—
18	1	—	3	—	6	—	2	—	8	4	—	—	576	—
19	1	1	4	—	7	—	4	—	10	4	1	—	672	—
20	1	1	4	—	8	—	4	—	12	4	1	—	768	—
21	1	1	5	—	9	—	4	—	12	6	1	—	864	—
22	1	1	5	—	10	—	4	—	14	6	1	—	960	—
23	1	1	6	—	11	—	4	—	14	8	1	—	1056	—
24	1	1	6	—	12	—	4	—	16	8	1	—	1152	—
25	1	—	1	—	—	1	2	—	2	—	—	—	—	48
26	1	—	1	—	—	2	2	2	2	—	—	—	—	96
27	1	1	2	—	—	3	4	2	4	—	1	—	—	144
28	1	1	2	—	—	4	4	4	4	—	1	—	—	192
29	1	1	1	—	—	2	4	—	4	—	1	—	—	96

*1: The maximum number of installable HDDs/FMDs includes the spare disk(s).

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Table 4.1.4.1-4 Requisite Options for High Performance Model (Dual DKC model)

No.	Required Number of Options											Remarks
	DKC810I	DKC-F810I-									FMD	
	-CBXA	CBXB	RK42	FBX	SCA/ ESCA	CC1	CC2	CC4	FC5	MOD5	(*1)	
1	1	1	1	2	4	—	4	—	—	1	96	Dual DKC Layout-1
2	1	1	2	3	4	—	4	—	2	1	144	Dual DKC Layout-1
3	1	1	3	4	4	—	4	2	2	1	192	Dual DKC Layout-1
4	1	1	1	2	4	—	—	—	4	1	96	Dual DKC Layout-2
5	1	1	2	3	4	—	—	—	6	1	144	Dual DKC Layout-2
6	1	1	3	4	4	—	—	2	6	1	192	Dual DKC Layout-2
7	1	1	2	2	4	—	—	—	4	1	96	Dual DKC Layout-3
8	1	1	2	3	4	2	—	—	4	1	144	Dual DKC Layout-3
9	1	1	2	4	4	4	—	—	4	1	192	Dual DKC Layout-3

*1: The maximum number of installable FMDs includes the spare drive(s).

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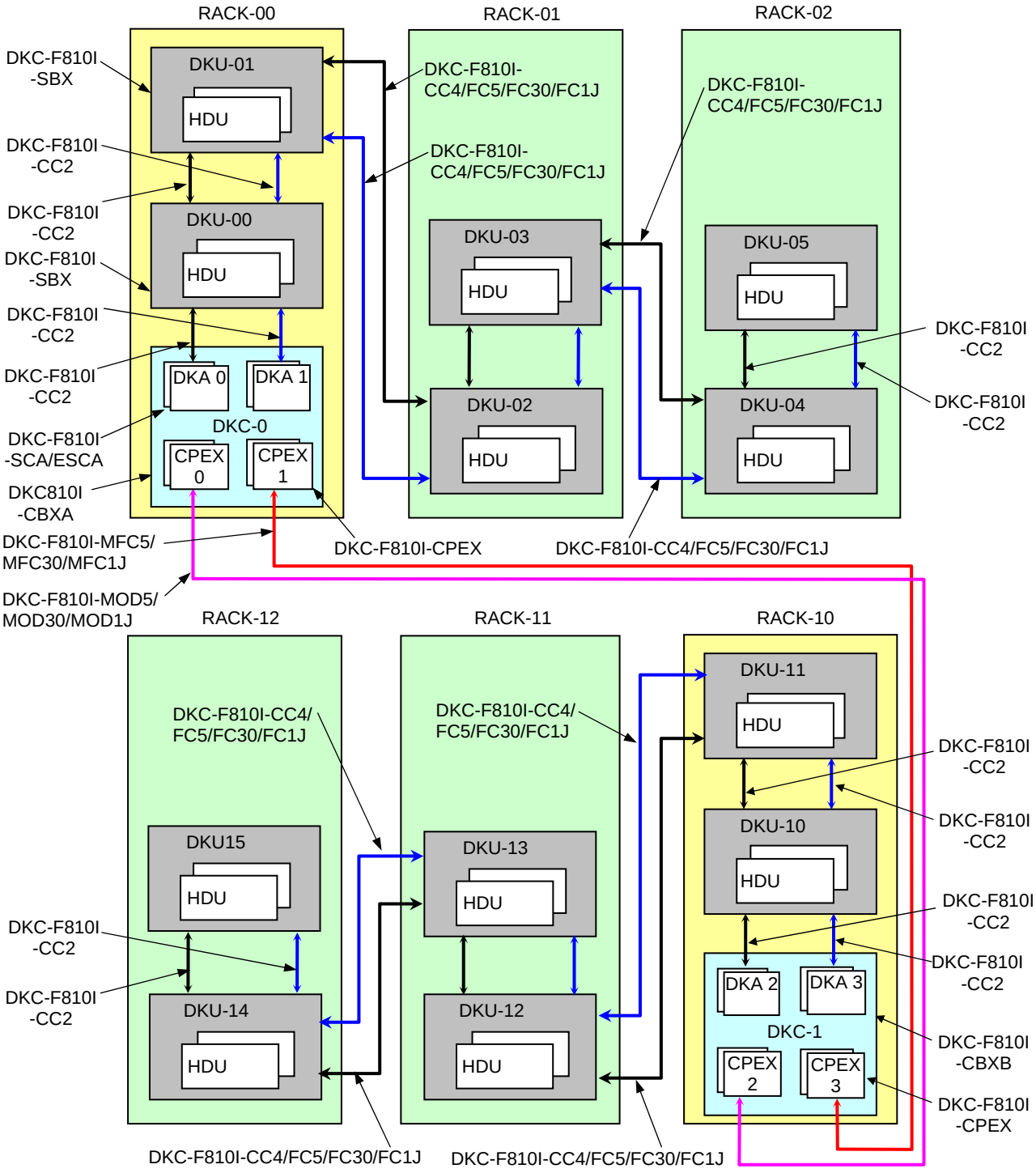


Fig. 4.1.4.1-6 Twin DKC Configurations and Required I/F Cable Options (High Performance Model)

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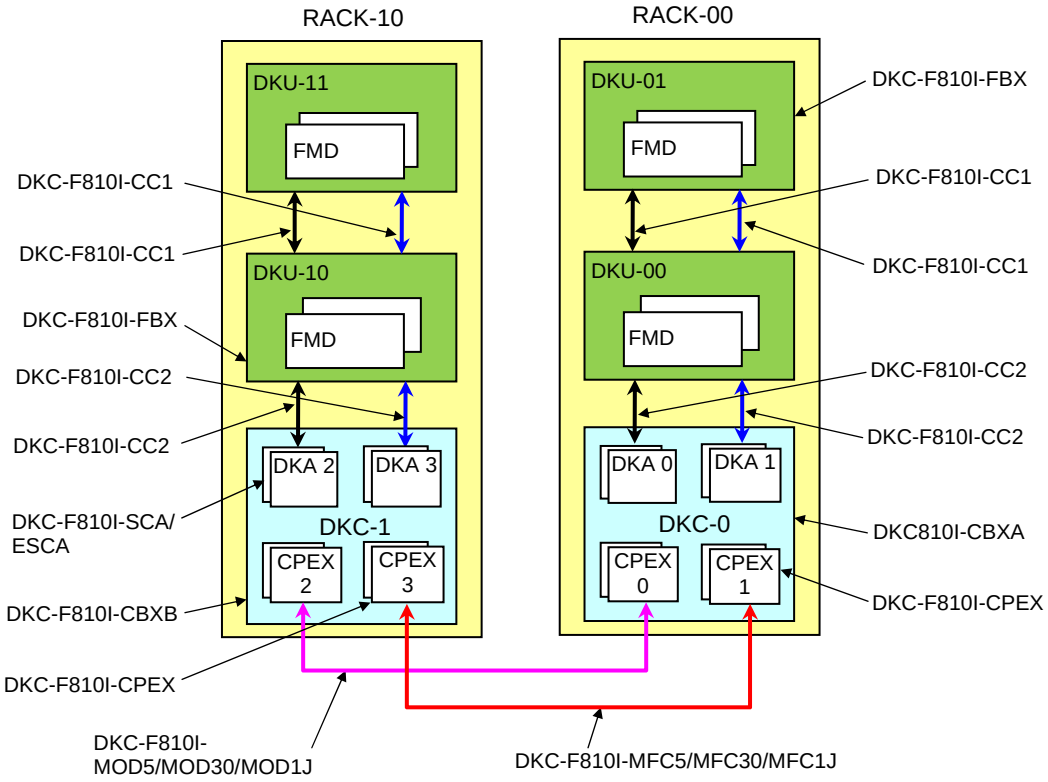


Fig. 4.1.4.1-7 Twin DKC Configuration and Required I/F Cable Options (FMD High Performance Model)

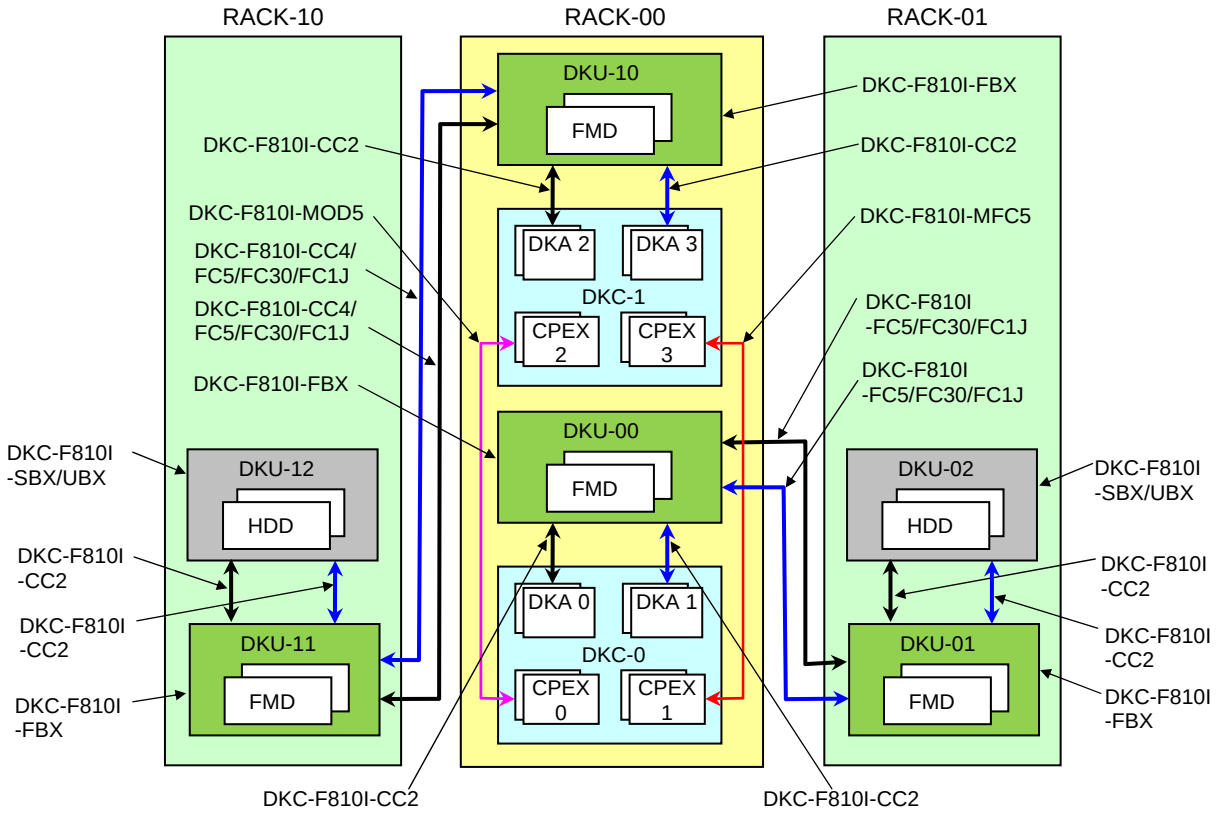


Fig. 4.1.4.1-8 Dual DKC Configuration and Required I/F Cable Options (Dual DKC Layout-1, High Performance Model)

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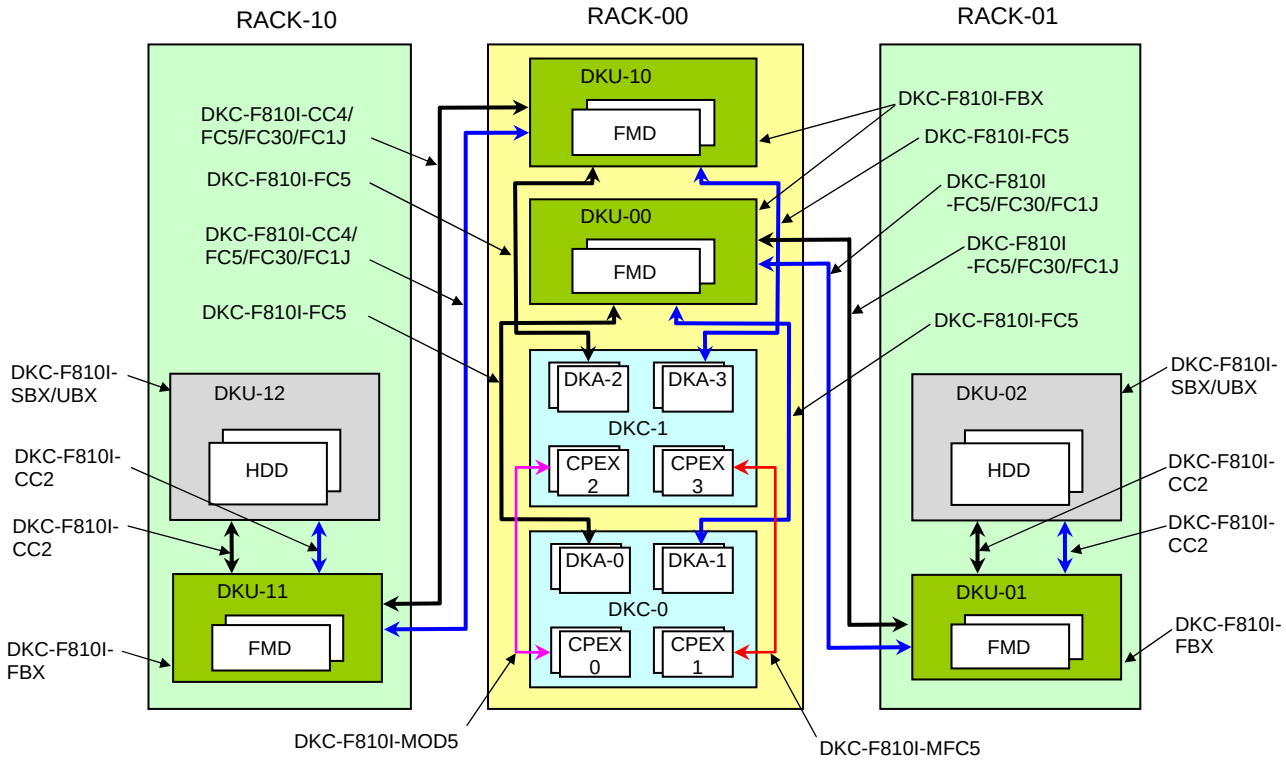


Fig. 4.1.4.1-9 Dual DKC Configuration and Required I/F Cable Options
(Dual DKC Layout-2, High Performance Model)

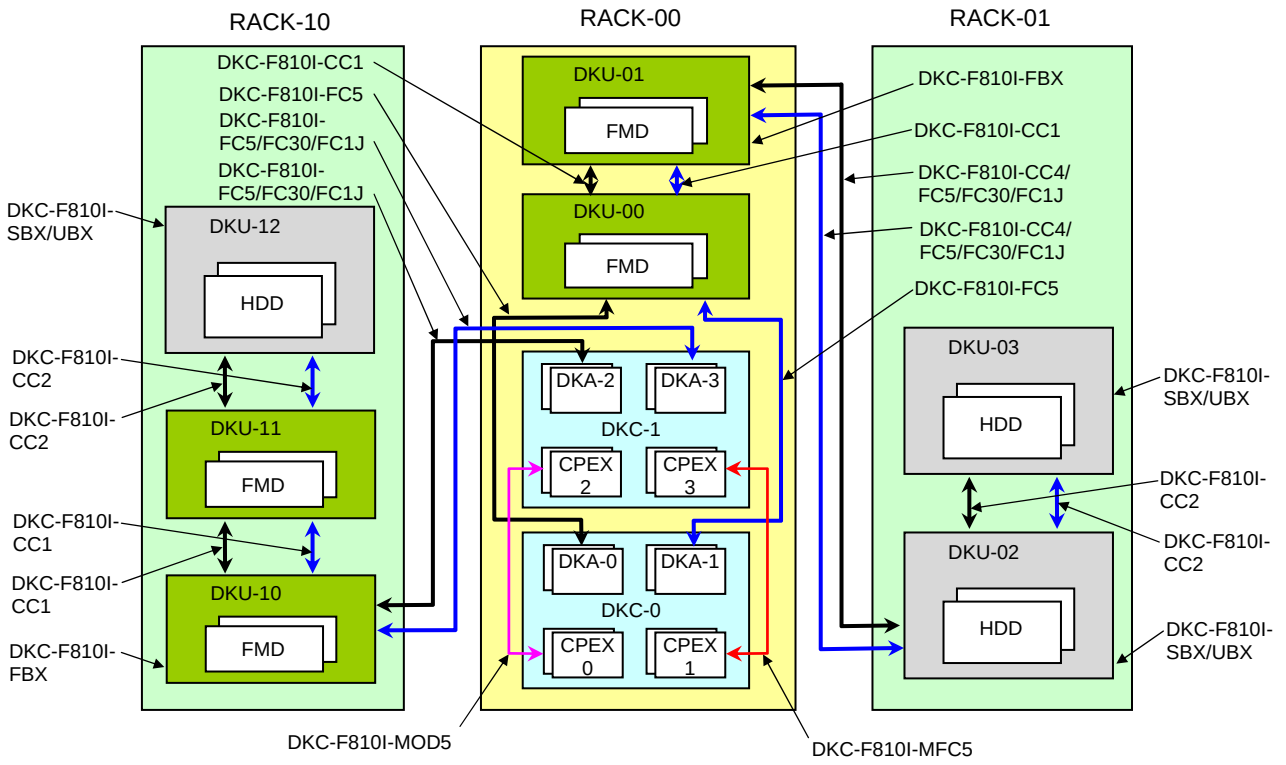


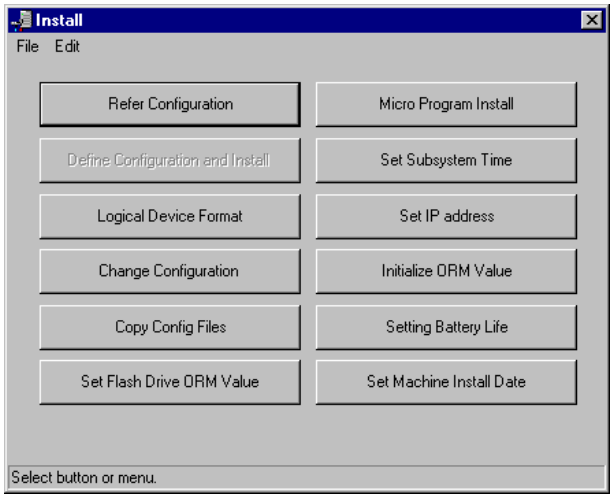
Fig. 4.1.4.1-10 Dual DKC Configuration and Required I/F Cable Options
(Dual DKC Layout-3, High Performance Model)

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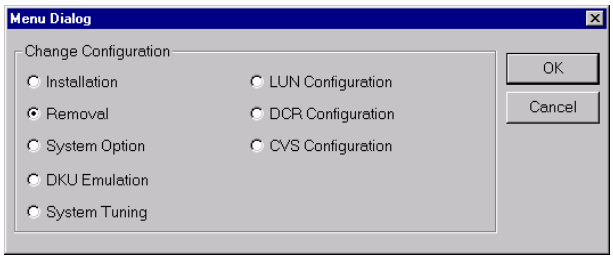
4.1.4.2 Setting up the New Device Structure Information

(1) <Mode Change>
Change the mode to Modify Mode.
Select (CL) [Install].

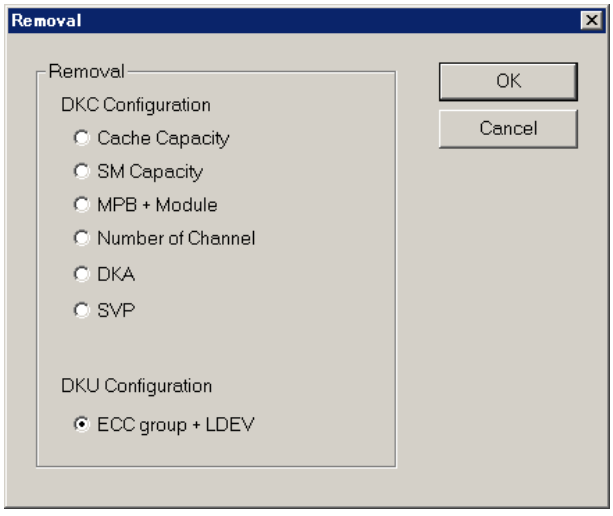
(2) <Start the Menu Dialog screen>
Select (CL) [Change Configuration].



(3) <Start Device Structure Setup screen>
Select (CL) [Removal] in the “Menu Dialog” dialog box and select (CL) [OK].

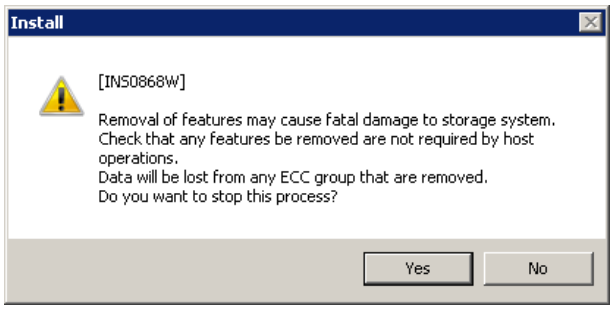


(4) <Selecting a part to be changed>
Select (CL) [ECC group + LDEV] and select (CL) the [OK].



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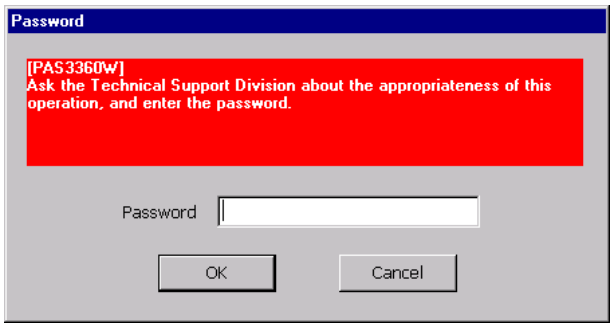
(5)



Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.

NOTE: The Alias information which is set to the LDEV included in the ECC to remove is also deleted at the same time. When the Alias is set, migrate the Alias information to another LDEV before removal or reset it after removal.

(6) <Input password>
Enter a password and select (CL) the [OK].

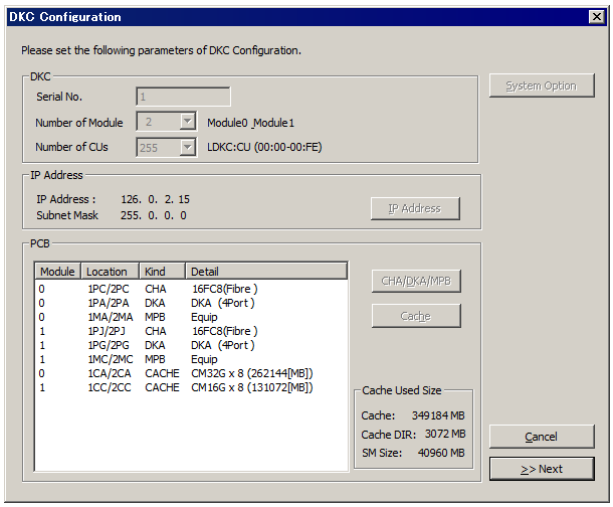


⚠ CAUTION

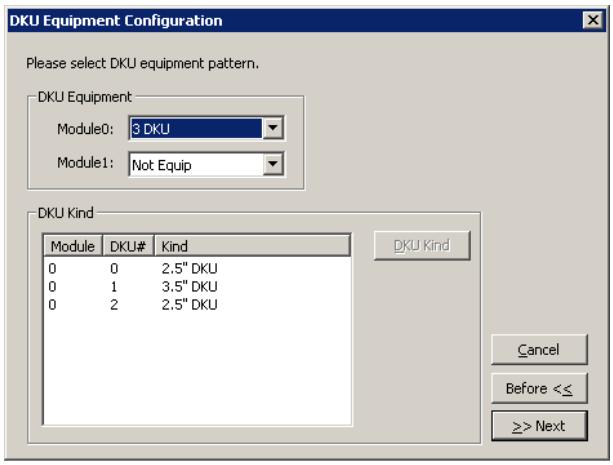
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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(7) <Updating the configuration information>
Select (CL) the [>>Next] in 'DKC Configuration' window.
Go to Step (8).

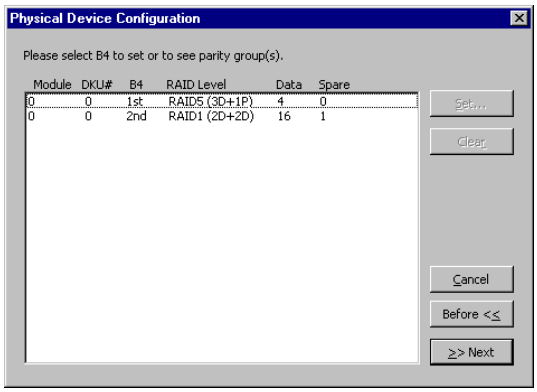


(8) <Setting the DKU frame>
Define the DKU equipment in 'DKU Equipment Configuration' window.
After the setting is made, select (CL) the [>>Next]. Go to Step (9).



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(9) <Changing the drive configuration information>
Define the drive configuration according to the 'Physical Drive Configuration' window.
The detailed procedure is explained below.
[Set...]: Defines a parity group or a spare disk. The routine goes to Step (9)-1.
[Clear]: Clears the setting of the B4.



After all the settings are made, select (CL) the [>>Next]. Go to Step (10).
When the [Before<<] is selected (CL), the window is returned to Step (8).

• Relation between B4 and HDU Location (Refer to LOC02-40 ~ 80 for Location.)

B4	Location	
	DKU	HDU
1st	DKU-00	HDU-000, 001, 002, 003
2nd	DKU-00	HDU-004, 005, 006, 007
3rd	DKU-10	HDU-100, 101, 102, 103
4th	DKU-10	HDU-104, 105, 106, 107
5th	DKU-01	HDU-010, 011, 012, 013
6th	DKU-01	HDU-014, 015, 016, 017
7th	DKU-11	HDU-110, 111, 112, 113
8th	DKU-11	HDU-114, 115, 116, 117
9th	DKU-02	HDU-020, 021, 022, 023
10th	DKU-02	HDU-024, 025, 026, 027
11th	DKU-12	HDU-120, 121, 122, 123
12th	DKU-12	HDU-124, 125, 126, 127

B4	Location	
	DKU	HDU
13th	DKU-03	HDU-030, 031, 032, 033
14th	DKU-03	HDU-034, 035, 036, 037
15th	DKU-13	HDU-130, 131, 132, 133
16th	DKU-13	HDU-134, 135, 136, 137
17th	DKU-04	HDU-040, 041, 042, 043
18th	DKU-04	HDU-044, 045, 046, 047
19th	DKU-14	HDU-140, 141, 142, 143
20th	DKU-14	HDU-144, 145, 146, 147
21st	DKU-05	HDU-050, 051, 052, 053
22nd	DKU-05	HDU-054, 055, 056, 057
23rd	DKU-15	HDU-150, 151, 152, 153
24th	DKU-15	HDU-154, 155, 156, 157

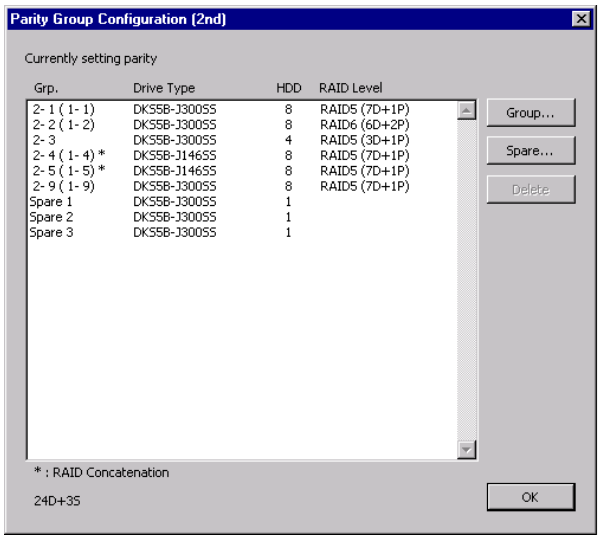
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(9)-1 <Defining the parity group>

Select (CL) the group to be removed, and then select (CL) the [Delete] in the 'Parity Group Configuration' dialog box.

After the setting is made, select (CL) the [OK]. The routine is returned to Step (9).

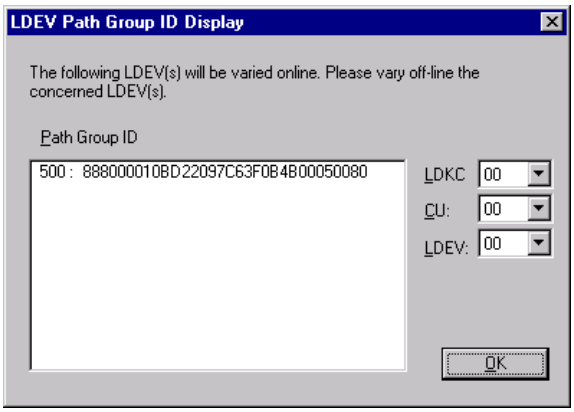
Grp*: A parity group for which the RAID concatenation is set.



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(10) <Display LDEV Path Group ID>

When some of the LDEVs to be uninstalled are connected to hosts because a Vary On-line operation was performed, 'LDEV Path Group ID Display' window appears.



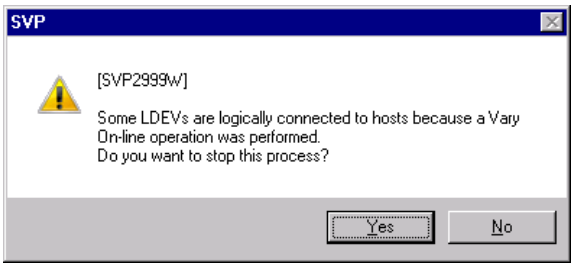
LDKC/CU/LDEV:

Only the LDEVs to be installed, which are connected to hosts, are displayed

Path Group ID:

List of Path Group IDs of the hosts connected to the LDEVs to be uninstalled. Depending on the host, the LPAR information may be registered in the 4th byte of the Path Group ID (7th and 8th characters on the window. "01" on the window above), and the host serial number may be registered in the 5th and 6th bytes (9th to 12th characters on the window. "E6FE" on the window above).

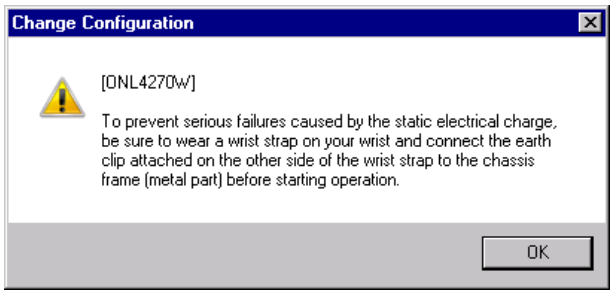
After clicking [OK], click [Yes] for the message, "Some LDEVs are logically connected to hosts because a Vary On-line operation was performed. Do you want to stop this process?" After that, disconnect all the LDEVs to be uninstalled from the host and perform the uninstallation again.



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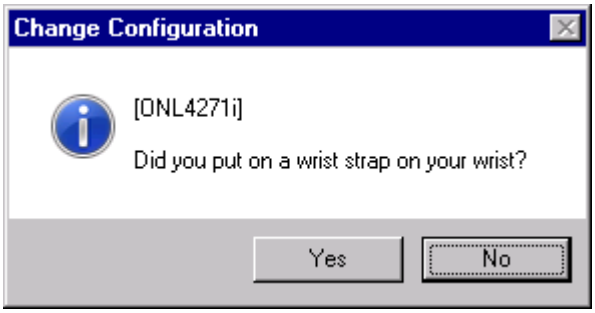
(11) <Wear a wrist strap>

Select (CL) [OK] in response to “To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.”.



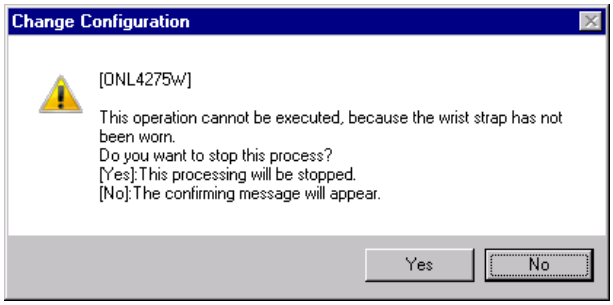
(11)-1 <Confirm wearing wrist strap>

In response to a message, “Did you put on a wrist strap on your wrist?”.
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When the [No] is selected, go to Step (11)-2.



(11)-2

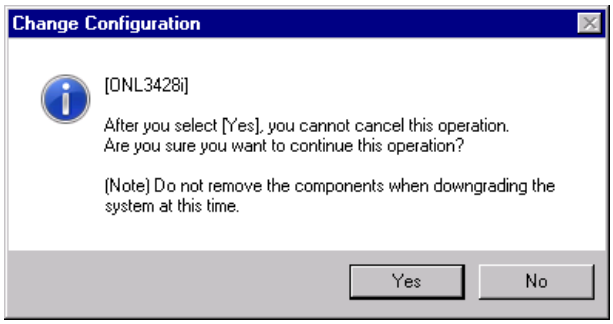
In response to a message, “This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear.”
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-01C-120.
When [No] is selected (CL), returned to Step (11).



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(12) <Starting the removal>

In response to a message, “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components when downgrading the system at this time.” select (CL) [Yes].



When the [No] is selected, the routine is returned to Step (2) on page INST04-01C-120.

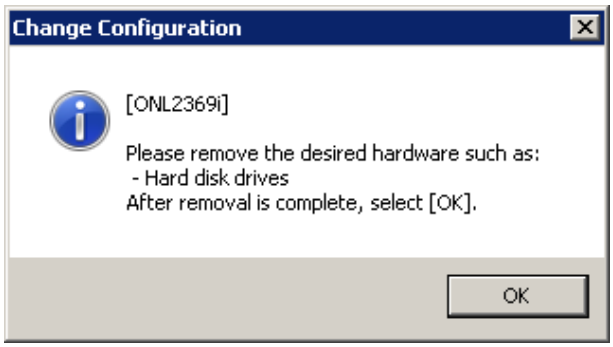
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(13) <Removing the hardware>

Do not push the [OK] button at this time yet. A message, “Please remove the desired hardware such as:

- Hard disk drives

After removal is complete, select [OK].” is displayed.



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4.1.4.3 De-Installation Procedure of Drive

1. Confirmation of position to de-install HDD/SSD canister
   (i) RAID5 (3D+1P) / RAID1 (2D+2D), UBX (DKU for 3.5 inch Drive)
   Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-1.

Table 4.1.4.3-1 Relation between drives installation order and RAID group number (3D+1P/2D+2D, UBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	025	5-1	049	9-1	073	13-1	097	17-1	121	21-1
002	2-1	026	6-1	050	10-1	074	14-1	098	18-1	122	22-1
003	1-2	027	5-2	051	9-2	075	13-2	099	17-2	123	21-2
004	2-2	028	6-2	052	10-2	076	14-2	100	18-2	124	22-2
005	1-3	029	5-3	053	9-3	077	13-3	101	17-3	125	21-3
006	2-3	030	6-3	054	10-3	078	14-3	102	18-3	126	22-3
007	1-4	031	5-4	055	9-4	079	13-4	103	17-4	127	21-4
008	2-4	032	6-4	056	10-4	080	14-4	104	18-4	128	22-4
009	1-5	033	5-5	057	9-5	081	13-5	105	17-5	129	21-5
010	2-5	034	6-5	058	10-5	082	14-5	106	18-5	130	22-5
011	1-6	035	5-6	059	9-6	083	13-6	107	17-6	131	21-6
012	2-6	036	6-6	060	10-6	084	14-6	108	18-6	132	22-6
013	1-7	037	5-7	061	9-7	085	13-7	109	17-7	133	21-7
014	2-7	038	6-7	062	10-7	086	14-7	110	18-7	134	22-7
015	1-8	039	5-8	063	9-8	087	13-8	111	17-8	135	21-8
016	2-8	040	6-8	064	10-8	088	14-8	112	18-8	136	22-8
017	1-9	041	5-9	065	9-9	089	13-9	113	17-9	137	21-9
018	2-9	042	6-9	066	10-9	090	14-9	114	18-9	138	22-9
019	1-10	043	5-10	067	9-10	091	13-10	115	17-10	139	21-10
020	2-10	044	6-10	068	10-10	092	14-10	116	18-10	140	22-10
021	1-11	045	5-11	069	9-11	093	13-11	117	17-11	141	21-11
022	2-11	046	6-11	070	10-11	094	14-11	118	18-11	142	22-11
023	1-12 Spare*1	047	5-12 Spare*1	071	9-12 Spare*1	095	13-12 Spare*1	119	17-12 Spare*1	143	21-12 Spare*1
024	2-12 Spare*1	048	6-12 Spare*1	072	10-12 Spare*1	096	14-12 Spare*1	120	18-12 Spare*1	144	22-12 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.4.3-1 Relation between drives installation order and RAID group (3D+1P/2D+2D, UBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
145	3-1	169	7-1	193	11-1	217	15-1	241	19-1	265	23-1
146	4-1	170	8-1	194	12-1	218	16-1	242	20-1	266	24-1
147	3-2	171	7-2	195	11-2	219	15-2	243	19-2	267	23-2
148	4-2	172	8-2	196	12-2	220	16-2	244	20-2	268	24-2
149	3-3	173	7-3	197	11-3	221	15-3	245	19-3	269	23-3
150	4-3	174	8-3	198	12-3	222	16-3	246	20-3	270	24-3
151	3-4	175	7-4	199	11-4	223	15-4	247	19-4	271	23-4
152	4-4	176	8-4	200	12-4	224	16-4	248	20-4	272	24-4
153	3-5	177	7-5	201	11-5	225	15-5	249	19-5	273	23-5
154	4-5	178	8-5	202	12-5	226	16-5	250	20-5	274	24-5
155	3-6	179	7-6	203	11-6	227	15-6	251	19-6	275	23-6
156	4-6	180	8-6	204	12-6	228	16-6	252	20-6	276	24-6
157	3-7	181	7-7	205	11-7	229	15-7	253	19-7	277	23-7
158	4-7	182	8-7	206	12-7	230	16-7	254	20-7	278	24-7
159	3-8	183	7-8	207	11-8	231	15-8	255	19-8	279	23-8
160	4-8	184	8-8	208	12-8	232	16-8	256	20-8	280	24-8
161	3-9	185	7-9	209	11-9	233	15-9	257	19-9	281	23-9
162	4-9	186	8-9	210	12-9	234	16-9	258	20-9	282	24-9
163	3-10	187	7-10	211	11-10	235	15-10	259	19-10	283	23-10
164	4-10	188	8-10	212	12-10	236	16-10	260	20-10	284	24-10
165	3-11	189	7-11	213	11-11	237	15-11	261	19-11	285	23-11
166	4-11	190	8-11	214	12-11	238	16-11	262	20-11	286	24-11
167	3-12 Spare*1	191	7-12 Spare*1	215	11-12 Spare*1	239	15-12 Spare*1	263	19-12 Spare*1	287	23-12 Spare*1
168	4-12 Spare*1	192	8-12 Spare*1	216	12-12 Spare*1	240	16-12 Spare*1	264	20-12 Spare*1	288	24-12 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 4	LFF Disk Drive	
2	DKC-F810I-400M5M × 4	LFF SSD Drive	

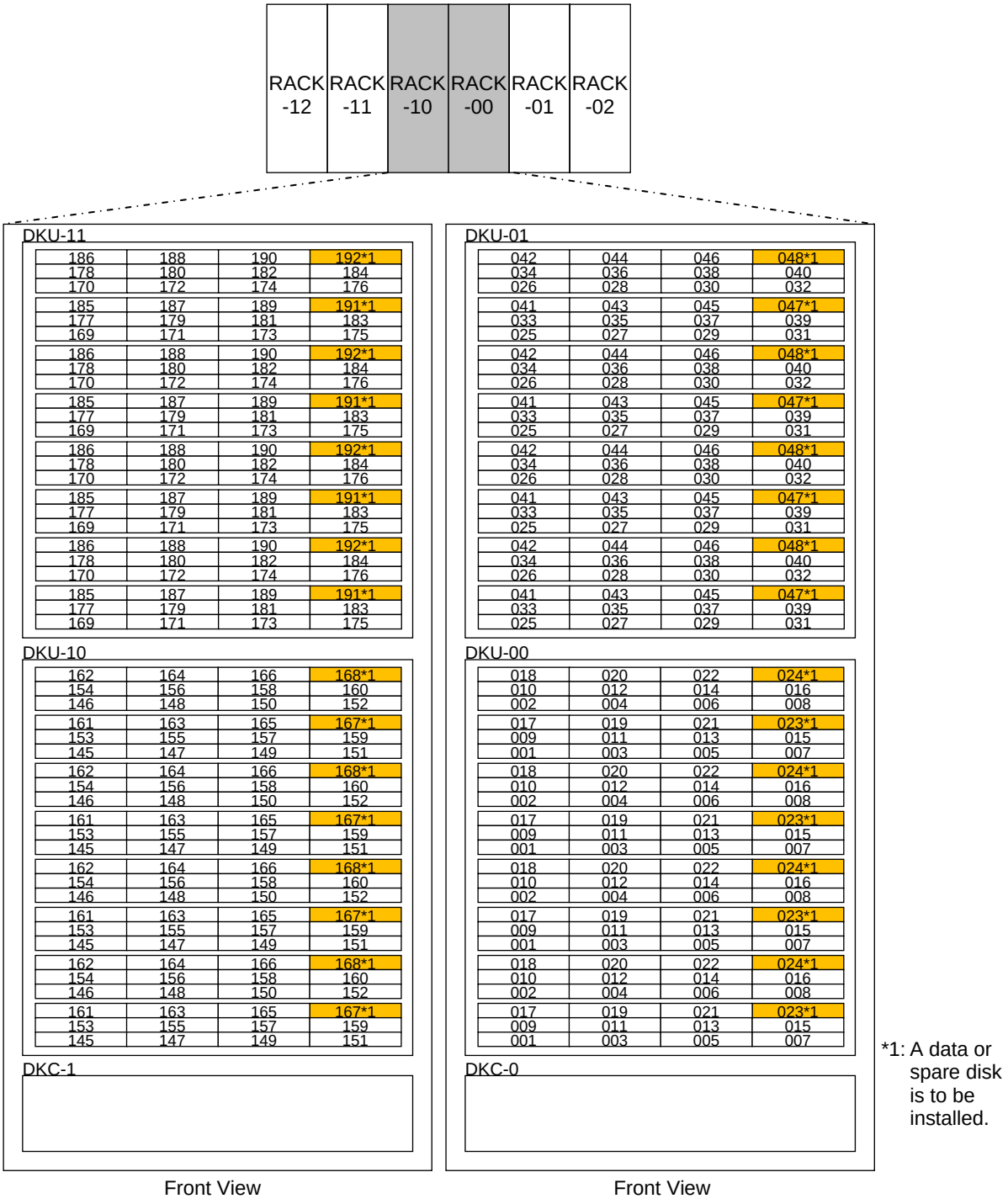


Fig. 4.1.4.3-1 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-1.

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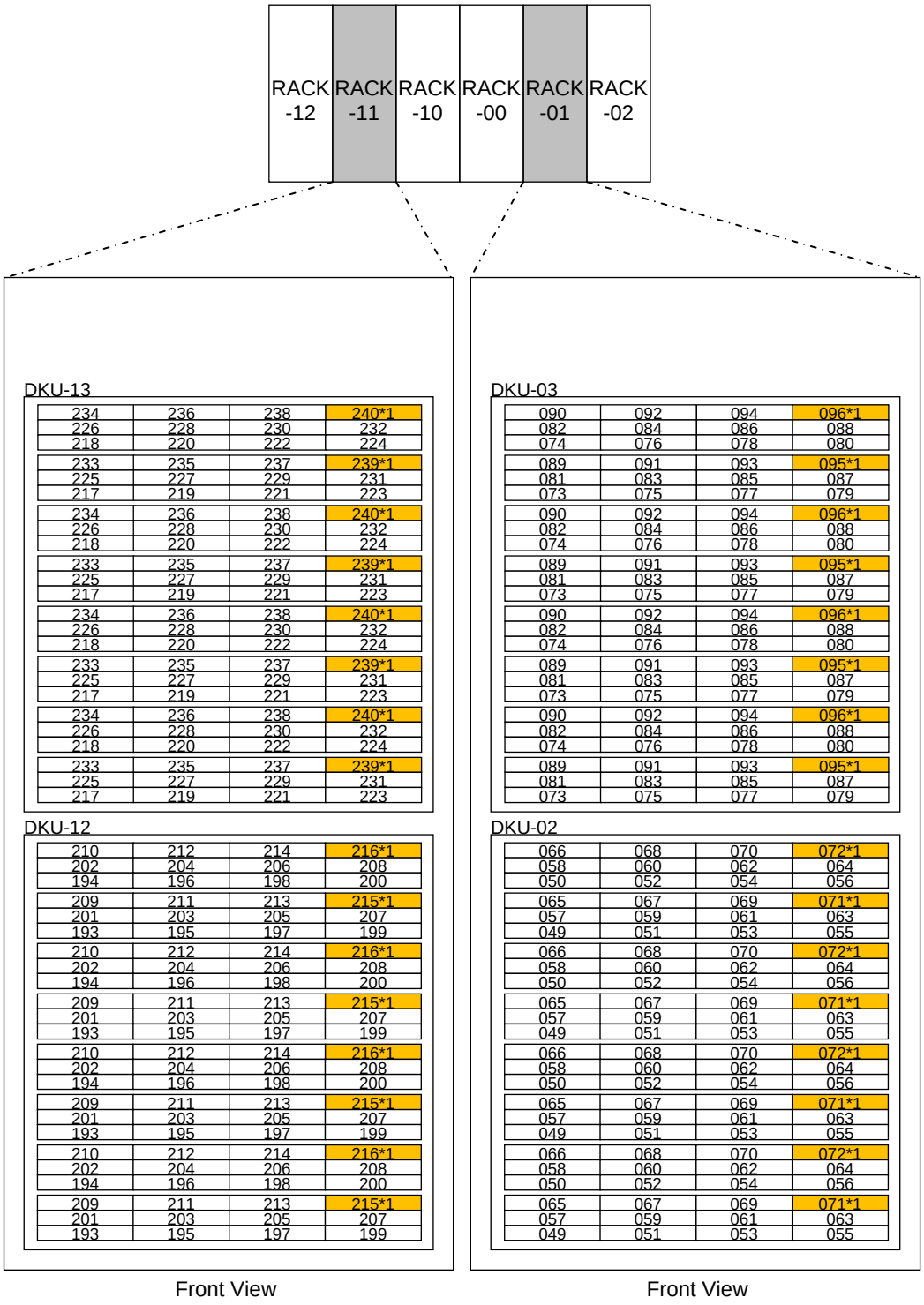


Fig. 4.1.4.3-1 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-1.

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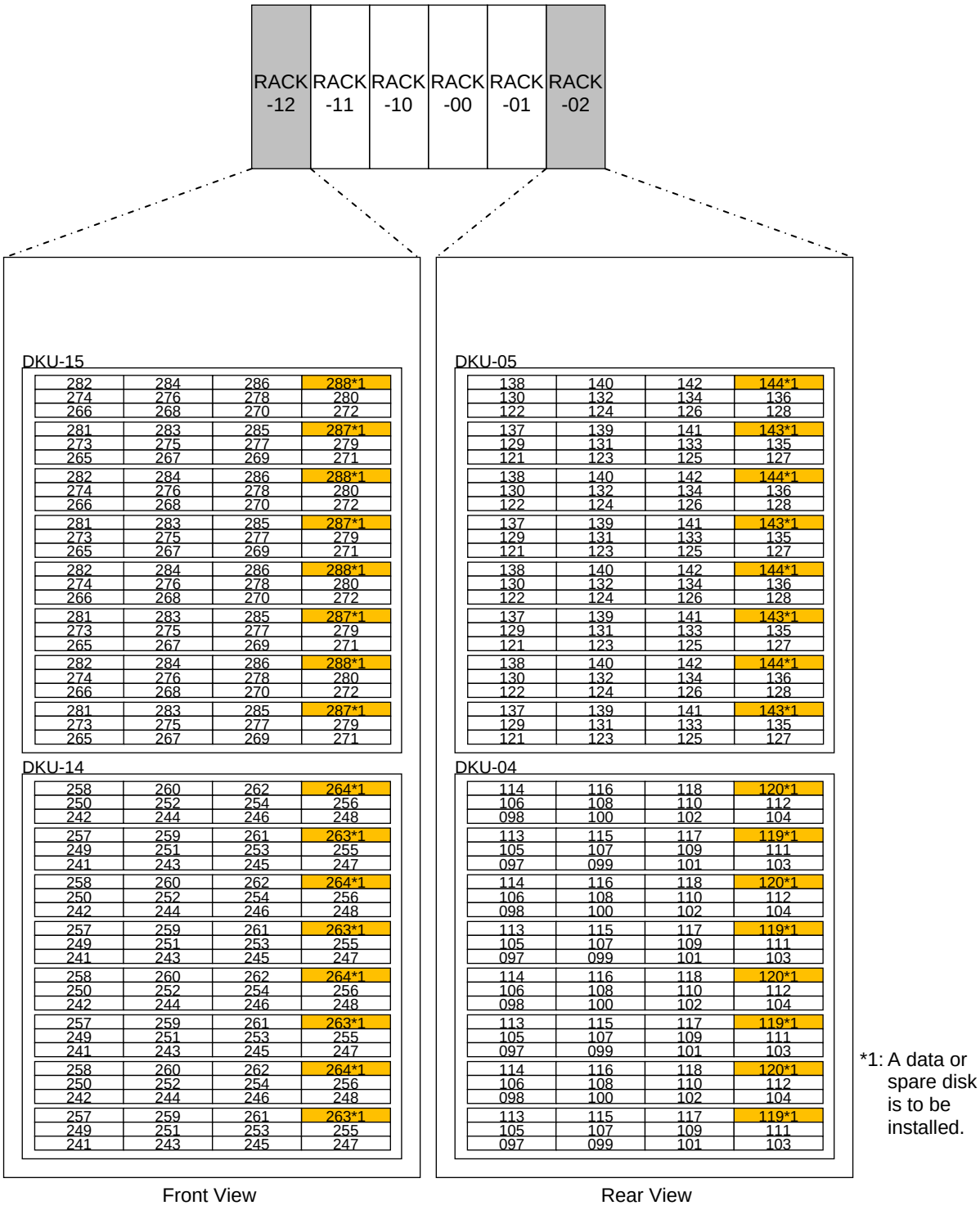


Fig. 4.1.4.3-1 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-1.

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(ii) RAID5 (3D+1P) / RAID1 (2D+2D), SBX (DKU for 2.5 inch Drive)
Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-2.

Table 4.1.4.3-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (1/4)

DKU-00				DKU-01				DKU-02			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	025	1-13	049	5-1	073	5-13	097	9-1	121	9-13
002	2-1	026	2-13	050	6-1	074	6-13	098	10-1	122	10-13
003	1-2	027	1-14	051	5-2	075	5-14	099	9-2	123	9-14
004	2-2	028	2-14	052	6-2	076	6-14	100	10-2	124	10-14
005	1-3	029	1-15	053	5-3	077	5-15	101	9-3	125	9-15
006	2-3	030	2-15	054	6-3	078	6-15	102	10-3	126	10-15
007	1-4	031	1-16	055	5-4	079	5-16	103	9-4	127	9-16
008	2-4	032	2-16	056	6-4	080	6-16	104	10-4	128	10-16
009	1-5	033	1-17	057	5-5	081	5-17	105	9-5	129	9-17
010	2-5	034	2-17	058	6-5	082	6-17	106	10-5	130	10-17
011	1-6	035	1-18	059	5-6	083	5-18	107	9-6	131	9-18
012	2-6	036	2-18	060	6-6	084	6-18	108	10-6	132	10-18
013	1-7	037	1-19	061	5-7	085	5-19	109	9-7	133	9-19
014	2-7	038	2-19	062	6-7	086	6-19	110	10-7	134	10-19
015	1-8	039	1-20	063	5-8	087	5-20	111	9-8	135	9-20
016	2-8	040	2-20	064	6-8	088	6-20	112	10-8	136	10-20
017	1-9	041	1-21	065	5-9	089	5-21	113	9-9	137	9-21
018	2-9	042	2-21	066	6-9	090	6-21	114	10-9	138	10-21
019	1-10	043	1-22	067	5-10	091	5-22	115	9-10	139	9-22
020	2-10	044	2-22	068	6-10	092	6-22	116	10-10	140	10-22
021	1-11	045	1-23	069	5-11	093	5-23	117	9-11	141	9-23
022	2-11	046	2-23	070	6-11	094	6-23	118	10-11	142	10-23
023	1-12	047	1-24 Spare*1	071	5-12	095	5-24 Spare*1	119	9-12	143	9-24 Spare*1
024	2-12	048	2-24 Spare*1	072	6-12	096	6-24 Spare*1	120	10-12	144	10-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.4.3-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (2/4)

DKU-03				DKU-04				DKU-05			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
145	13-1	169	13-13	193	17-1	217	17-13	241	21-1	265	21-13
146	14-1	170	14-13	194	18-1	218	18-13	242	22-1	266	22-13
147	13-2	171	13-14	195	17-2	219	17-14	243	21-2	267	21-14
148	14-2	172	14-14	196	18-2	220	18-14	244	22-2	268	22-14
149	13-3	173	13-15	197	17-3	221	17-15	245	21-3	269	21-15
150	14-3	174	14-15	198	18-3	222	18-15	246	22-3	270	22-15
151	13-4	175	13-16	199	17-4	223	17-16	247	21-4	271	21-16
152	14-4	176	14-16	200	18-4	224	18-16	248	22-4	272	22-16
153	13-5	177	13-17	201	17-5	225	17-17	249	21-5	273	21-17
154	14-5	178	14-17	202	18-5	226	18-17	250	22-5	274	22-17
155	13-6	179	13-18	203	17-6	227	17-18	251	21-6	275	21-18
156	14-6	180	14-18	204	18-6	228	18-18	252	22-6	276	22-18
157	13-7	181	13-19	205	17-7	229	17-19	253	21-7	277	21-19
158	14-7	182	14-19	206	18-7	230	18-19	254	22-7	278	22-19
159	13-8	183	13-20	207	17-8	231	17-20	255	21-8	279	21-20
160	14-8	184	14-20	208	18-8	232	18-20	256	22-8	280	22-20
161	13-9	185	13-21	209	17-9	233	17-21	257	21-9	281	21-21
162	14-9	186	14-21	210	18-9	234	18-21	258	22-9	282	22-21
163	13-10	187	13-22	211	17-10	235	17-22	259	21-10	283	21-22
164	14-10	188	14-22	212	18-10	236	18-22	260	22-10	284	22-22
165	13-11	189	13-23	213	17-11	237	17-23	261	21-11	285	21-23
166	14-11	190	14-23	214	18-11	238	18-23	262	22-11	286	22-23
167	13-12	191	13-24 Spare*1	215	17-12	239	17-24 Spare*1	263	21-12	287	21-24 Spare*1
168	14-12	192	14-24 Spare*1	216	18-12	240	18-24 Spare*1	264	22-12	288	22-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.4.3-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (3/4)

DKU-10				DKU-11				DKU-12			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
289	3-1	313	3-13	337	7-1	361	7-13	385	11-1	409	11-13
290	4-1	314	4-13	338	8-1	362	8-13	386	12-1	410	12-13
291	3-2	315	3-14	339	7-2	363	7-14	387	11-2	411	11-14
292	4-2	316	4-14	340	8-2	364	8-14	388	12-2	412	12-14
293	3-3	317	3-15	341	7-3	365	7-15	389	11-3	413	11-15
294	4-3	318	4-15	342	8-3	366	8-15	390	12-3	414	12-15
295	3-4	319	3-16	343	7-4	367	7-16	391	11-4	415	11-16
296	4-4	320	4-16	344	8-4	368	8-16	392	12-4	416	12-16
297	3-5	321	3-17	345	7-5	369	7-17	393	11-5	417	11-17
298	4-5	322	4-17	346	8-5	370	8-17	394	12-5	418	12-17
299	3-6	323	3-18	347	7-6	371	7-18	395	11-6	419	11-18
300	4-6	324	4-18	348	8-6	372	8-18	396	12-6	420	12-18
301	3-7	325	3-19	349	7-7	373	7-19	397	11-7	421	11-19
302	4-7	326	4-19	350	8-7	374	8-19	398	12-7	422	12-19
303	3-8	327	3-20	351	7-8	375	7-20	399	11-8	423	11-20
304	4-8	328	4-20	352	8-8	376	8-20	400	12-8	424	12-20
305	3-9	329	3-21	353	7-9	377	7-21	401	11-9	425	11-21
306	4-9	330	4-21	354	8-9	378	8-21	402	12-9	426	12-21
307	3-10	331	3-22	355	7-10	379	7-22	403	11-10	427	11-22
308	4-10	332	4-22	356	8-10	380	8-22	404	12-10	428	12-22
309	3-11	333	3-23	357	7-11	381	7-23	405	11-11	429	11-23
310	4-11	334	4-23	358	8-11	382	8-23	406	12-11	430	12-23
311	3-12	335	3-24 Spare*1	359	7-12	383	7-24 Spare*1	407	11-12	431	11-24 Spare*1
312	4-12	336	4-24 Spare*1	360	8-12	384	8-24 Spare*1	408	12-12	432	12-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.4.3-2 Relation between drives installation order and RAID group number (3D+1P/2D+2D, SBX) (4/4)

DKU-13				DKU-14				DKU-15			
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
433	15-1	457	15-13	481	19-1	505	19-13	529	23-1	553	23-13
434	16-1	458	16-13	482	20-1	506	20-13	530	24-1	554	24-13
435	15-2	459	15-14	483	19-2	507	19-14	531	23-2	555	23-14
436	16-2	460	16-14	484	20-2	508	20-14	532	24-2	556	24-14
437	15-3	461	15-15	485	19-3	509	19-15	533	23-3	557	23-15
438	16-3	462	16-15	486	20-3	510	20-15	534	24-3	558	24-15
439	15-4	463	15-16	487	19-4	511	19-16	535	23-4	559	23-16
440	16-4	464	16-16	488	20-4	512	20-16	536	24-4	560	24-16
441	15-5	465	15-17	489	19-5	513	19-17	537	23-5	561	23-17
442	16-5	466	16-17	490	20-5	514	20-17	538	24-5	562	24-17
443	15-6	467	15-18	491	19-6	515	19-18	539	23-6	563	23-18
444	16-6	468	16-18	492	20-6	516	20-18	540	24-6	564	24-18
445	15-7	469	15-19	493	19-7	517	19-19	541	23-7	565	23-19
446	16-7	470	16-19	494	20-7	518	20-19	542	24-7	566	24-19
447	15-8	471	15-20	495	19-8	519	19-20	543	23-8	567	23-20
448	16-8	472	16-20	496	20-8	520	20-20	544	24-8	568	24-20
449	15-9	473	15-21	497	19-9	521	19-21	545	23-9	569	23-21
450	16-9	474	16-21	498	20-9	522	20-21	546	24-9	570	24-21
451	15-10	475	15-22	499	19-10	523	19-22	547	23-10	571	23-22
452	16-10	476	16-22	500	20-10	524	20-22	548	24-10	572	24-22
453	15-11	477	15-23	501	19-11	525	19-23	549	23-11	573	23-23
454	16-11	478	16-23	502	20-11	526	20-23	550	24-11	574	24-23
455	15-12	479	15-24 Spare*1	503	19-12	527	19-24 Spare*1	551	23-12	575	23-24 Spare*1
456	16-12	480	16-24 Spare*1	504	20-12	528	20-24 Spare*1	552	24-12	576	24-24 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 4	SFF Disk Drive	
2	DKC-F810I-400MCM/800MCM × 4	SFF SSD Drive	

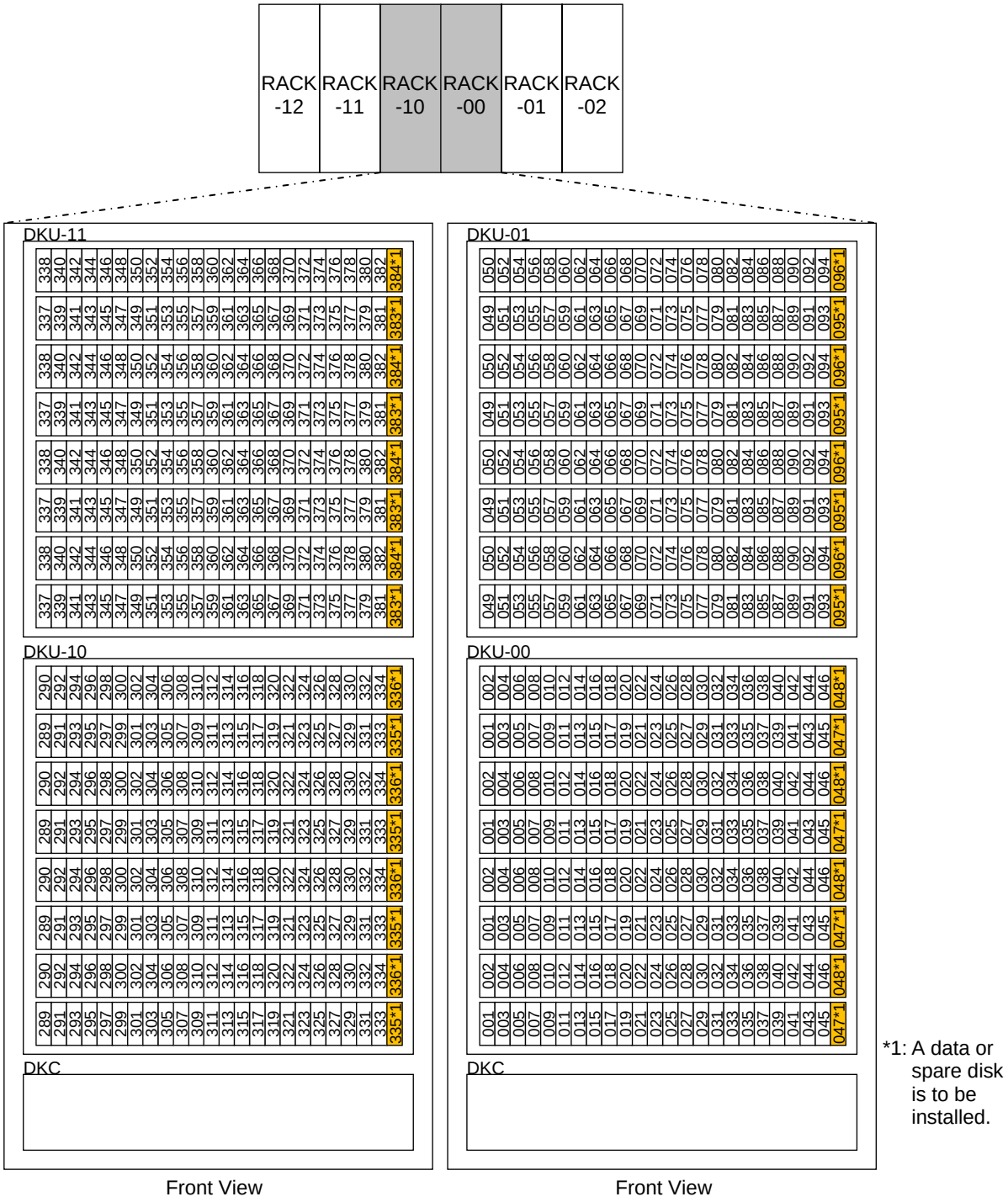


Fig. 4.1.4.3-2 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-2.

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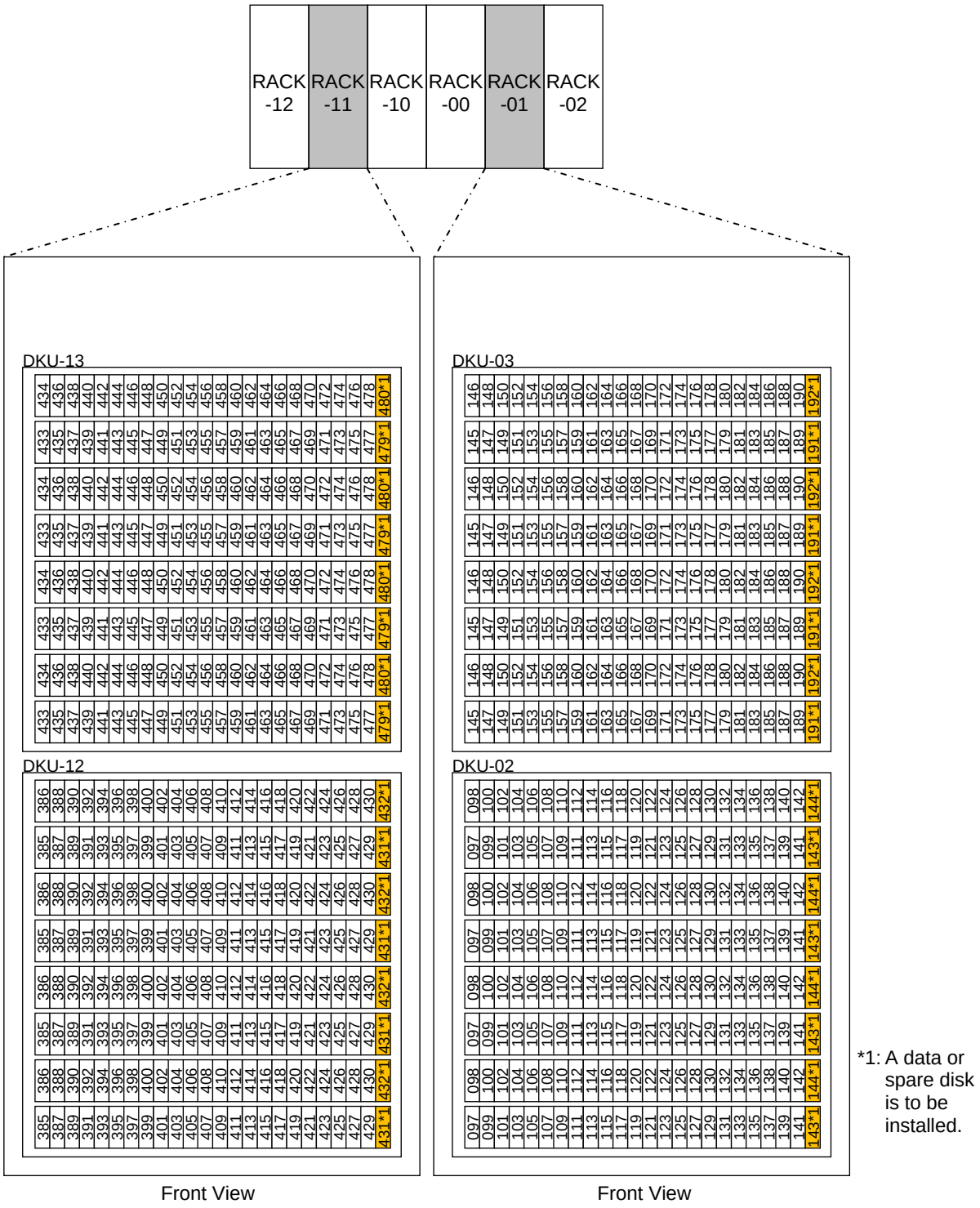


Fig. 4.1.4.3-2 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-2.

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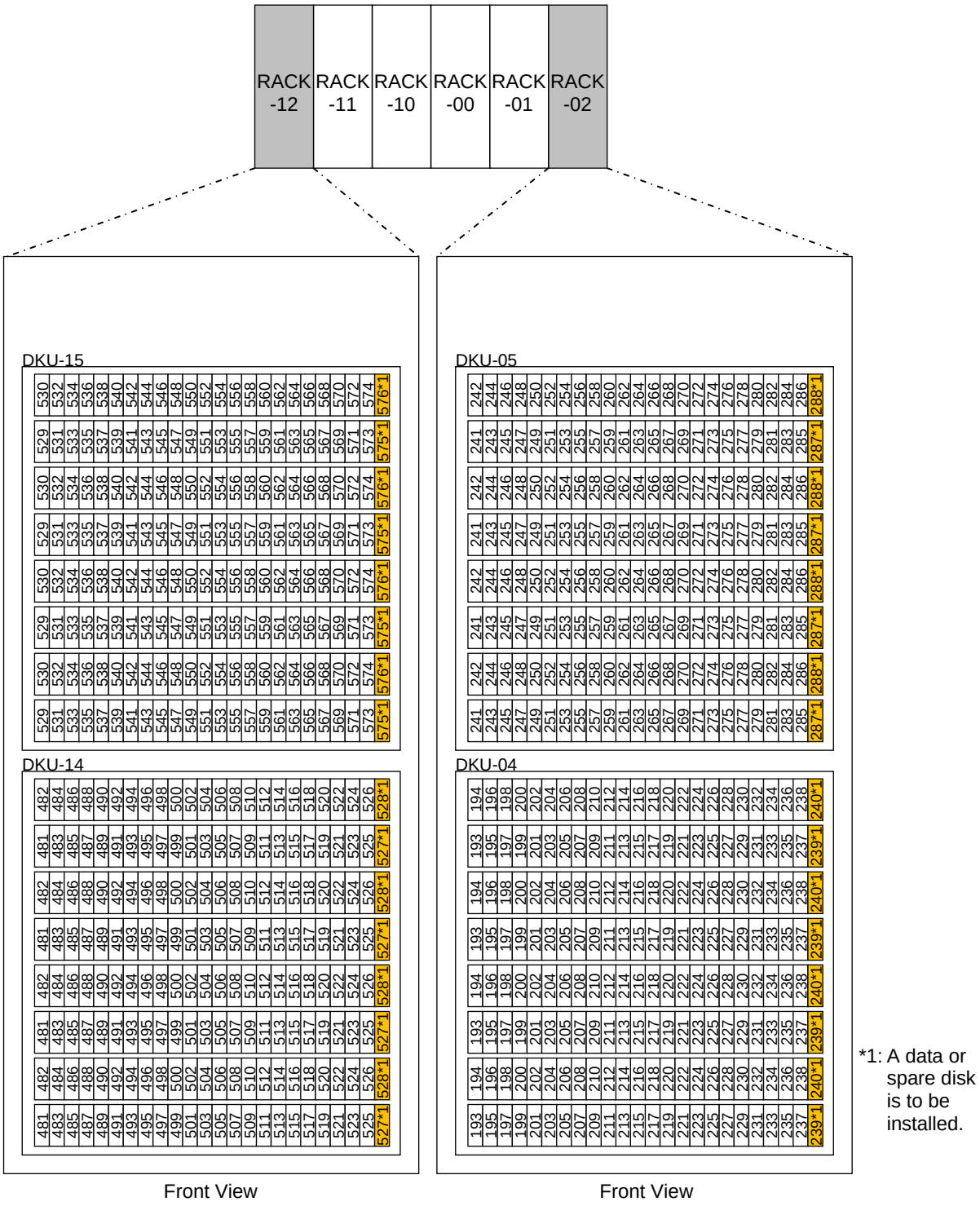


Fig. 4.1.4.3-2 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-2.

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(iii) RAID5 (3D+1P) / RAID1 (2D+2D), FBX (DKU for FMD)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-3.

Table 4.1.4.3-3 Relation between drives installation order and RAID group number (3D+1P/2D+2D, FBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	013	5-1	025	9-1	037	13-1	049	17-1	061	21-1
002	2-1	014	6-1	026	10-1	038	14-1	050	18-1	062	22-1
003	1-2	015	5-2	027	9-2	039	13-2	051	17-2	063	21-2
004	2-2	016	6-2	028	10-2	040	14-2	052	18-2	064	22-2
005	1-3	017	5-3	029	9-3	041	13-3	053	17-3	065	21-3
006	2-3	018	6-3	030	10-3	042	14-3	054	18-3	066	22-3
007	1-4	019	5-4	031	9-4	043	13-4	055	17-4	067	21-4
008	2-4	020	6-4	032	10-4	044	14-4	056	18-4	068	22-4
009	1-5	021	5-5	033	9-5	045	13-5	057	17-5	069	21-5
010	2-5	022	6-5	034	10-5	046	14-5	058	18-5	070	22-5
011	1-6 Spare*1	023	5-6 Spare*1	035	9-6 Spare*1	047	13-6 Spare*1	059	17-6 Spare*1	071	21-6 Spare*1
012	2-6 Spare*1	024	6-6 Spare*1	036	10-6 Spare*1	048	14-6 Spare*1	060	18-6 Spare*1	072	22-6 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.4.3-3 Relation between drives installation order and RAID group number (3D+1P/2D+2D, FBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
073	3-1	085	7-1	097	11-1	109	15-1	121	19-1	133	23-1
074	4-1	086	8-1	098	12-1	110	16-1	122	20-1	134	24-1
075	3-2	087	7-2	099	11-2	111	15-2	123	19-2	135	23-2
076	4-2	088	8-2	100	12-2	112	16-2	124	20-2	136	24-2
077	3-3	089	7-3	101	11-3	113	15-3	125	19-3	137	23-3
078	4-3	090	8-3	102	12-3	114	16-3	126	20-3	138	24-3
079	3-4	091	7-4	103	11-4	115	15-4	127	19-4	139	23-4
080	4-4	092	8-4	104	12-4	116	16-4	128	20-4	140	24-4
081	3-5	093	7-5	105	11-5	117	15-5	129	19-5	141	23-5
082	4-5	094	8-5	106	12-5	118	16-5	130	20-5	142	24-5
083	3-6 Spare*1	095	7-6 Spare*1	107	11-6 Spare*1	119	15-6 Spare*1	131	19-6 Spare*1	143	23-6 Spare*1
084	4-6 Spare*1	096	8-6 Spare*1	108	12-6 Spare*1	120	16-6 Spare*1	132	20-6 Spare*1	144	24-6 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-1R6FM/3R2FM × 4	Flash Module Drive	FMD

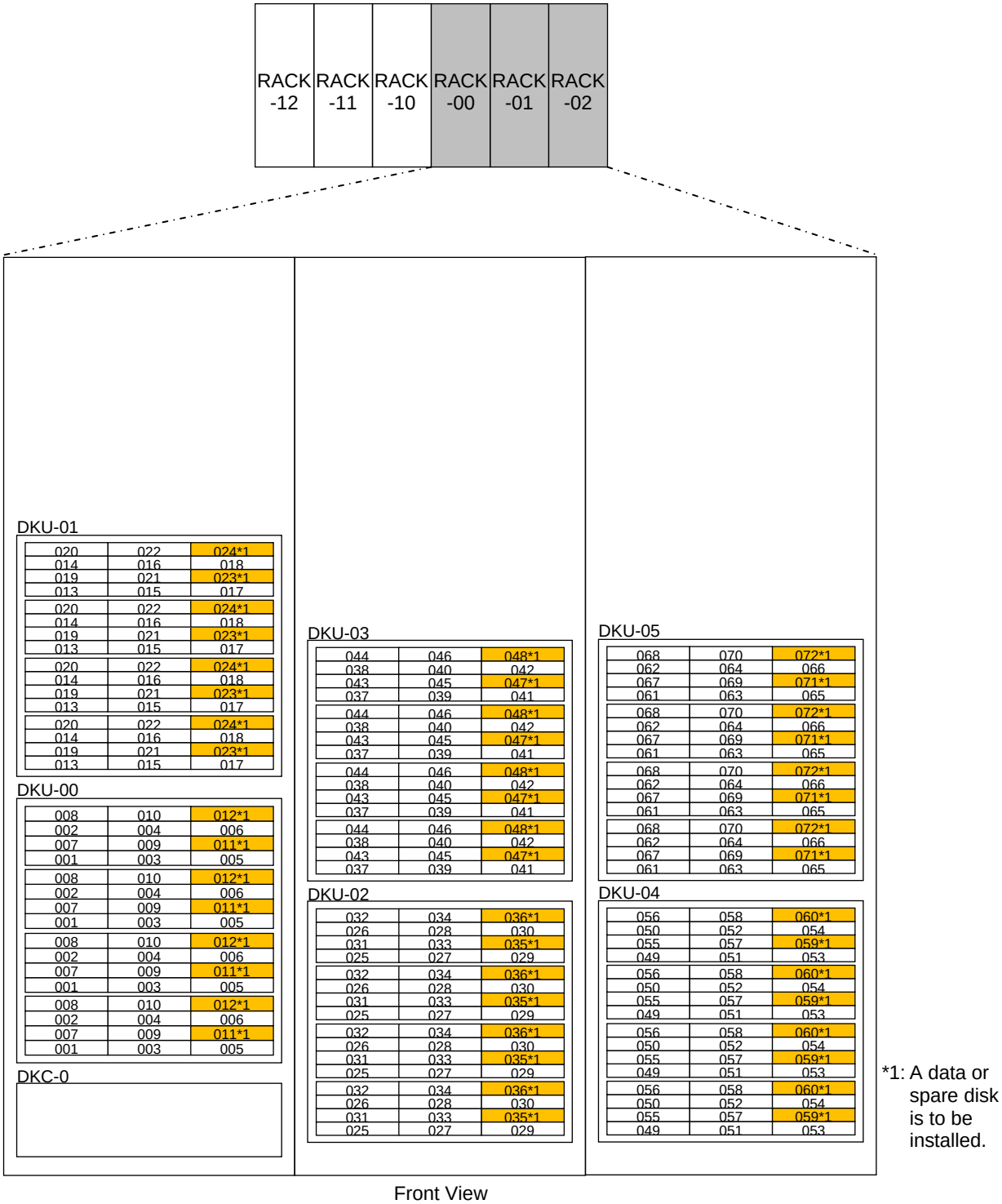


Fig. 4.1.4.3-3 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (1/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-3.

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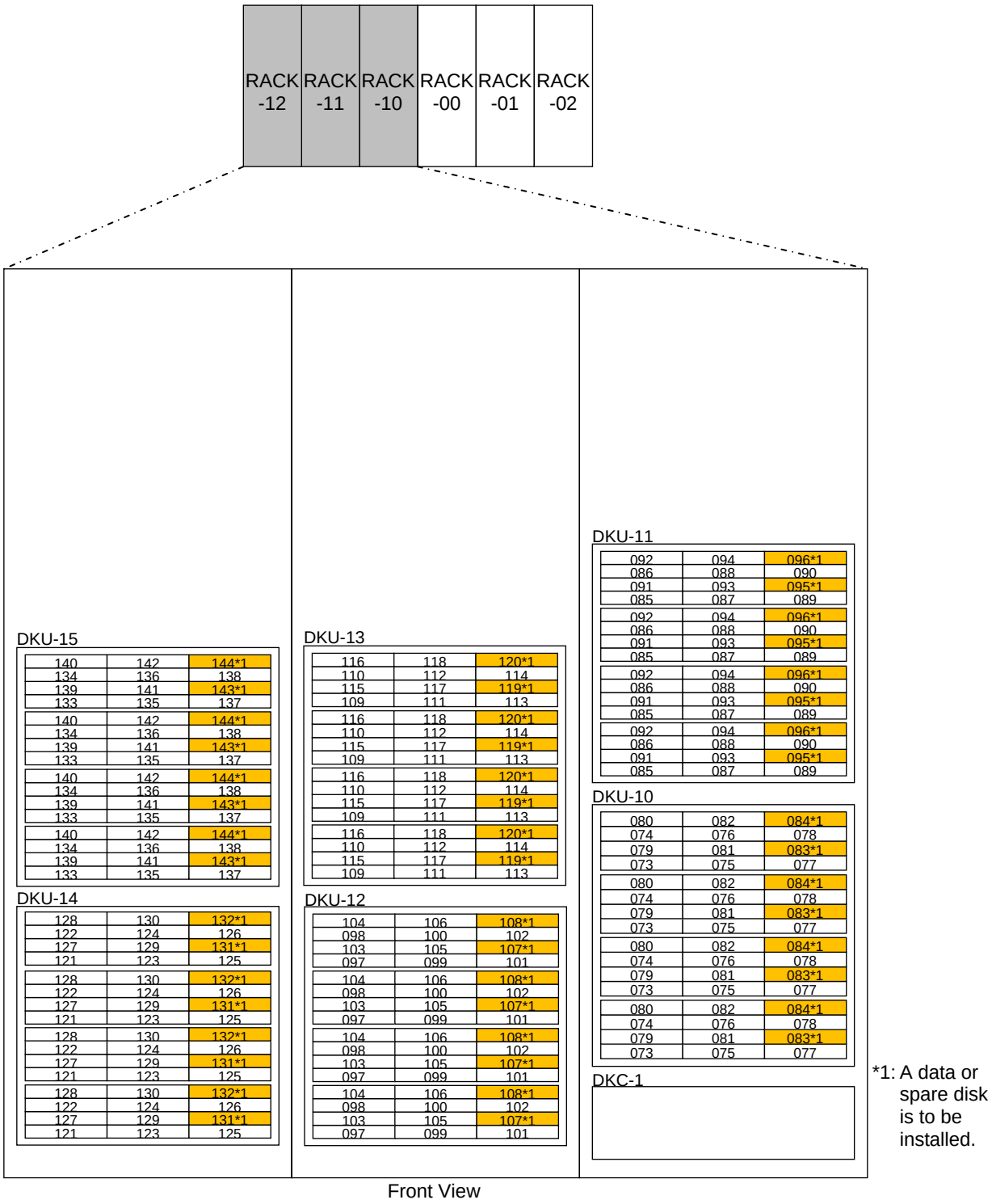


Fig. 4.1.4.3-3 (3D+1P/2D+2D) Data Drive/Parity Drive Expansion Sequence (2/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-3.

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(iv) RAID5 (7D+1P) / RAID6 (6D+2P), UBX (DKU for 3.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-4.

Table 4.1.4.3-4 Relation between drives installation order and RAID group number (7D+1P/6D+2P, UBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	013	5-1	025	9-1	037	13-1	049	17-1	061	21-1
002	1-2	014	5-2	026	9-2	038	13-2	050	17-2	062	21-2
003	1-3	015	5-3	027	9-3	039	13-3	051	17-3	063	21-3
004	1-4	016	5-4	028	9-4	040	13-4	052	17-4	064	21-4
005	1-5	017	5-5	029	9-5	041	13-5	053	17-5	065	21-5
006	1-6	018	5-6	030	9-6	042	13-6	054	17-6	066	21-6
007	1-7	019	5-7	031	9-7	043	13-7	055	17-7	067	21-7
008	1-8	020	5-8	032	9-8	044	13-8	056	17-8	068	21-8
009	1-9	021	5-9	033	9-9	045	13-9	057	17-9	069	21-9
010	1-10	022	5-10	034	9-10	046	13-10	058	17-10	070	21-10
011	1-11	023	5-11	035	9-11	047	13-11	059	17-11	071	21-11
012	1-12 Spare*1	024	5-12 Spare*1	036	9-12 Spare*1	048	13-12 Spare*1	060	17-12 Spare*1	072	21-12 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.4.3-4 Relation between drives installation order and RAID group number (7D+1P/6D+2P, UBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
073	3-1	085	7-1	097	11-1	109	15-1	121	19-1	133	23-1
074	3-2	086	7-2	098	11-2	110	15-2	122	19-2	134	23-2
075	3-3	087	7-3	099	11-3	111	15-3	123	19-3	135	23-3
076	3-4	088	7-4	100	11-4	112	15-4	124	19-4	136	23-4
077	3-5	089	7-5	101	11-5	113	15-5	125	19-5	137	23-5
078	3-6	090	7-6	102	11-6	114	15-6	126	19-6	138	23-6
079	3-7	091	7-7	103	11-7	115	15-7	127	19-7	139	23-7
080	3-8	092	7-8	104	11-8	116	15-8	128	19-8	140	23-8
081	3-9	093	7-9	105	11-9	117	15-9	129	19-9	141	23-9
082	3-10	094	7-10	106	11-10	118	15-10	130	19-10	142	23-10
083	3-11	095	7-11	107	11-11	119	15-11	131	19-11	143	23-11
084	3-12 Spare*1	096	7-12 Spare*1	108	11-12 Spare*1	120	15-12 Spare*1	132	19-12 Spare*1	144	23-12 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 8	LFF Disk Drive	
2	DKC-F810I-400M5M × 8	LFF SSD Drive	

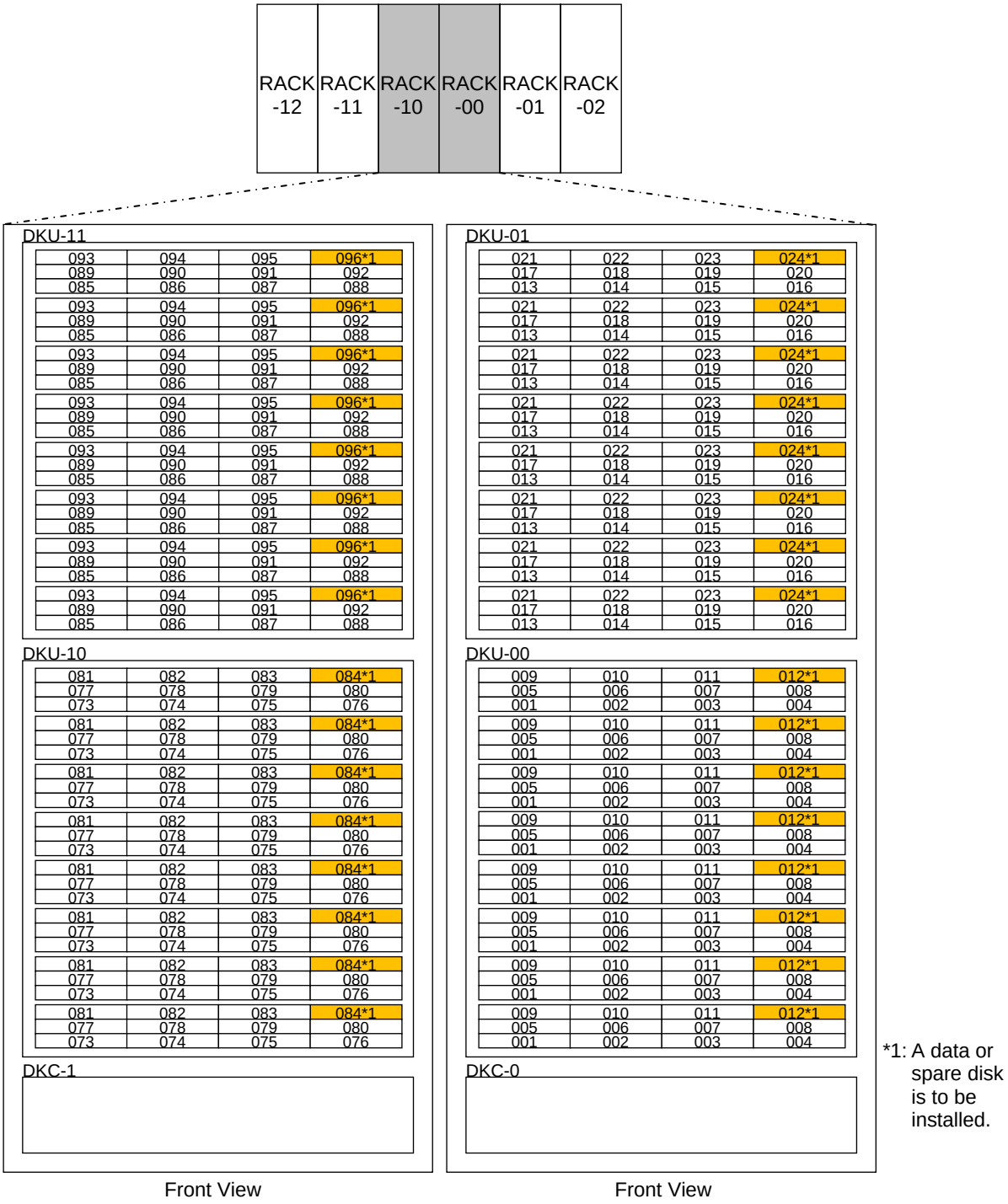


Fig. 4.1.4.3-4 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-4.

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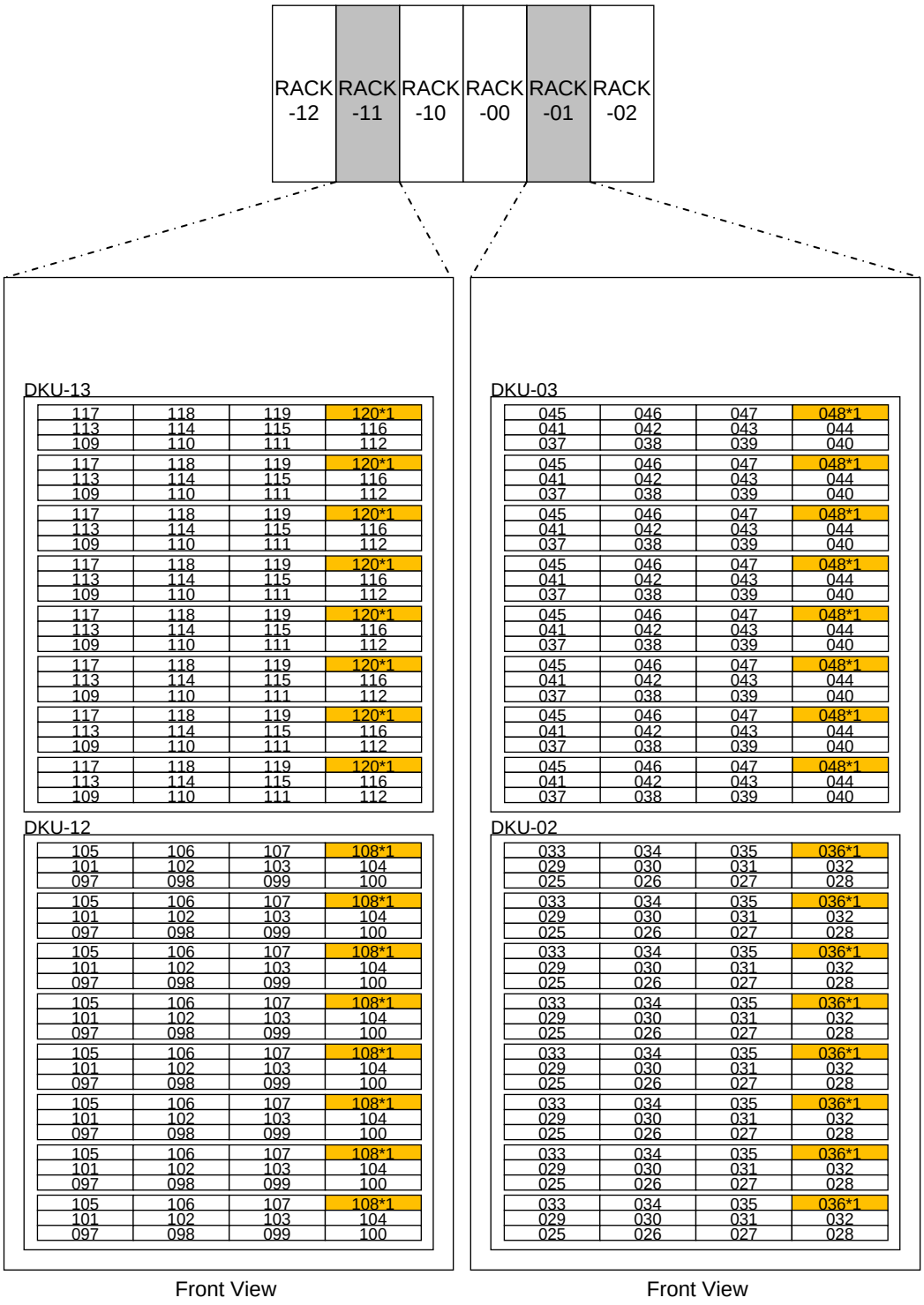


Fig. 4.1.4.3-4 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-4.

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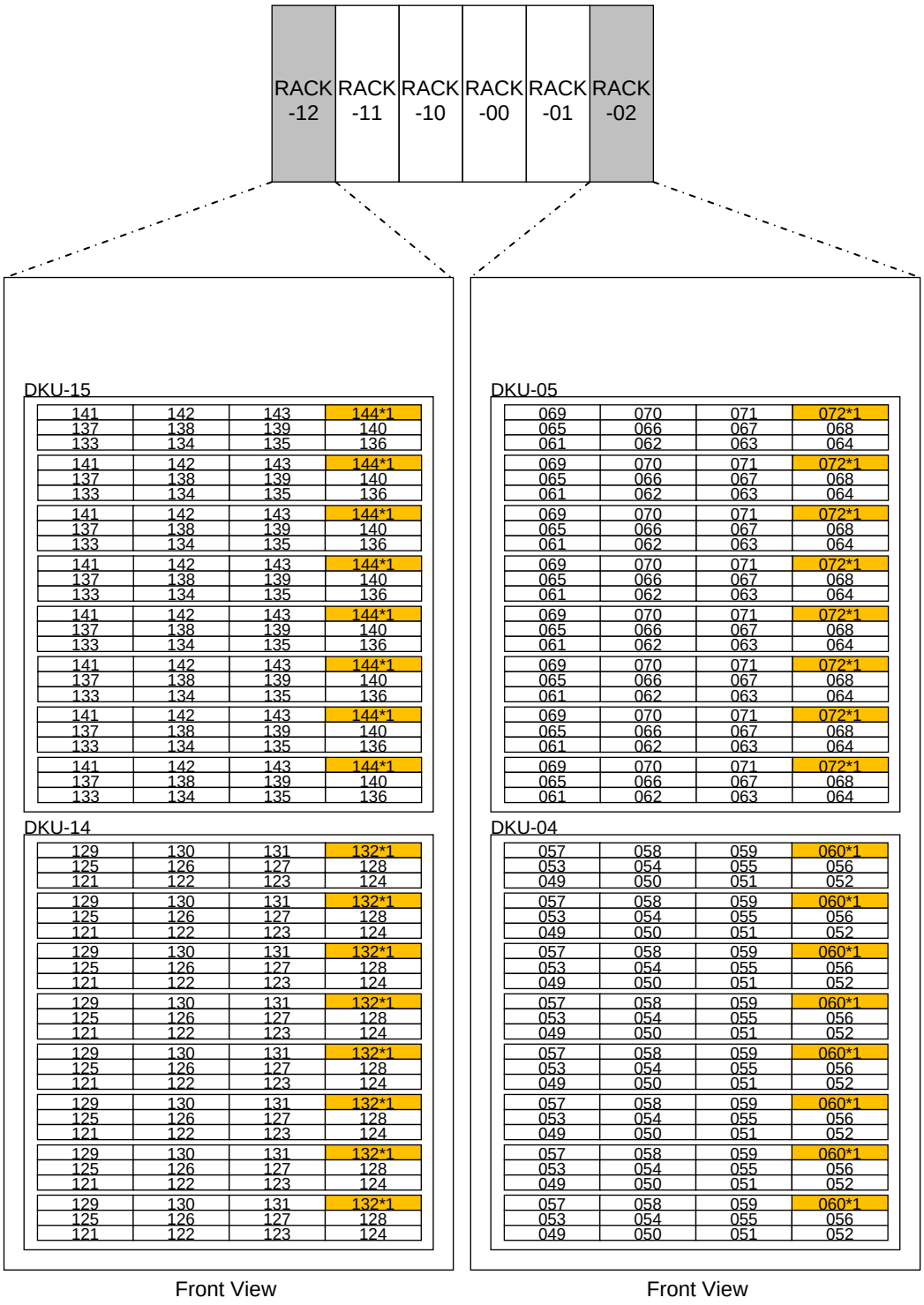


Fig. 4.1.4.3-4 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-4.

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(v) RAID5 (7D+1P) / RAID6 (6D+2P), SBX (DKU for 2.5 inch Drive)
Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-5.

Table 4.1.4.3-5 Relation between drives installation order and RAID group number (7D+1P/6D+2P, SBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	025	5-1	049	9-1	073	13-1	097	17-1	121	19-1
002	1-2	026	5-2	050	9-2	074	13-2	098	17-2	122	19-2
003	1-3	027	5-3	051	9-3	075	13-3	099	17-3	123	19-3
004	1-4	028	5-4	052	9-4	076	13-4	100	17-4	124	19-4
005	1-5	029	5-5	053	9-5	077	13-5	101	17-5	125	19-5
006	1-6	030	5-6	054	9-6	078	13-6	102	17-6	126	19-6
007	1-7	031	5-7	055	9-7	079	13-7	103	17-7	127	19-7
008	1-8	032	5-8	056	9-8	080	13-8	104	17-8	128	19-8
009	1-9	033	5-9	057	9-9	081	13-9	105	17-9	129	19-9
010	1-10	034	5-10	058	9-10	082	13-10	106	17-10	130	19-10
011	1-11	035	5-11	059	9-11	083	13-11	107	17-11	131	19-11
012	1-12	036	5-12	060	9-12	084	13-12	108	17-12	132	19-12
013	1-13	037	5-13	061	9-13	085	13-13	109	17-13	133	19-13
014	1-14	038	5-14	062	9-14	086	13-14	110	17-14	134	19-14
015	1-15	039	5-15	063	9-15	087	13-15	111	17-15	135	19-15
016	1-16	040	5-16	064	9-16	088	13-16	112	17-16	136	19-16
017	1-17	041	5-17	065	9-17	089	13-17	113	17-17	137	19-17
018	1-18	042	5-18	066	9-18	090	13-18	114	17-18	138	19-18
019	1-19	043	5-19	067	9-19	091	13-19	115	17-19	139	19-19
020	1-20	044	5-20	068	9-20	092	13-20	116	17-20	140	19-20
021	1-21	045	5-21	069	9-21	093	13-21	117	17-21	141	19-21
022	1-22	046	5-22	070	9-22	094	13-22	118	17-22	142	19-22
023	1-23	047	5-23	071	9-23	095	13-23	119	17-23	143	19-23
024	1-24 Spare*1	048	5-24 Spare*1	072	9-24 Spare*1	096	13-24 Spare*1	120	17-24 Spare*1	144	19-24 Spare*1

*1: A data or spare drive is to be installed.

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Table 4.1.4.3-5 Relation between drives installation order and RAID group number (7D+1P/6D+2P, SBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
145	3-1	169	7-1	193	11-1	217	15-1	241	19-1	265	23-1
146	3-2	170	7-2	194	11-2	218	15-2	242	19-2	266	23-2
147	3-3	171	7-3	195	11-3	219	15-3	243	19-3	267	23-3
148	3-4	172	7-4	196	11-4	220	15-4	244	19-4	268	23-4
149	3-5	173	7-5	197	11-5	221	15-5	245	19-5	269	23-5
150	3-6	174	7-6	198	11-6	222	15-6	246	19-6	270	23-6
151	3-7	175	7-7	199	11-7	223	15-7	247	19-7	271	23-7
152	3-8	176	7-8	200	11-8	224	15-8	248	19-8	272	23-8
153	3-9	177	7-9	201	11-9	225	15-9	249	19-9	273	23-9
154	3-10	178	7-10	202	11-10	226	15-10	250	19-10	274	23-10
155	3-11	179	7-11	203	11-11	227	15-11	251	19-11	275	23-11
156	3-12	180	7-12	204	11-12	228	15-12	252	19-12	276	23-12
157	3-13	181	7-13	205	11-13	229	15-13	253	19-13	277	23-13
158	3-14	182	7-14	206	11-14	230	15-14	254	19-14	278	23-14
159	3-15	183	7-15	207	11-15	231	15-15	255	19-15	279	23-15
160	3-16	184	7-16	208	11-16	232	15-16	256	19-16	280	23-16
161	3-17	185	7-17	209	11-17	233	15-17	257	19-17	281	23-17
162	3-18	186	7-18	210	11-18	234	15-18	258	19-18	282	23-18
163	3-19	187	7-19	211	11-19	235	15-19	259	19-19	283	23-19
164	3-20	188	7-20	212	11-20	236	15-20	260	19-20	284	23-20
165	3-21	189	7-21	213	11-21	237	15-21	261	19-21	285	23-21
166	3-22	190	7-22	214	11-22	238	15-22	262	19-22	286	23-22
167	3-23	191	7-23	215	11-23	239	15-23	263	19-23	287	23-23
168	3-24 Spare*1	192	7-24 Spare*1	216	11-24 Spare*1	240	15-24 Spare*1	264	19-24 Spare*1	288	23-24 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 8	SFF Disk Drive	
2	DKC-F810I-400MCM/800MCM × 8	SFF SSD Drive	

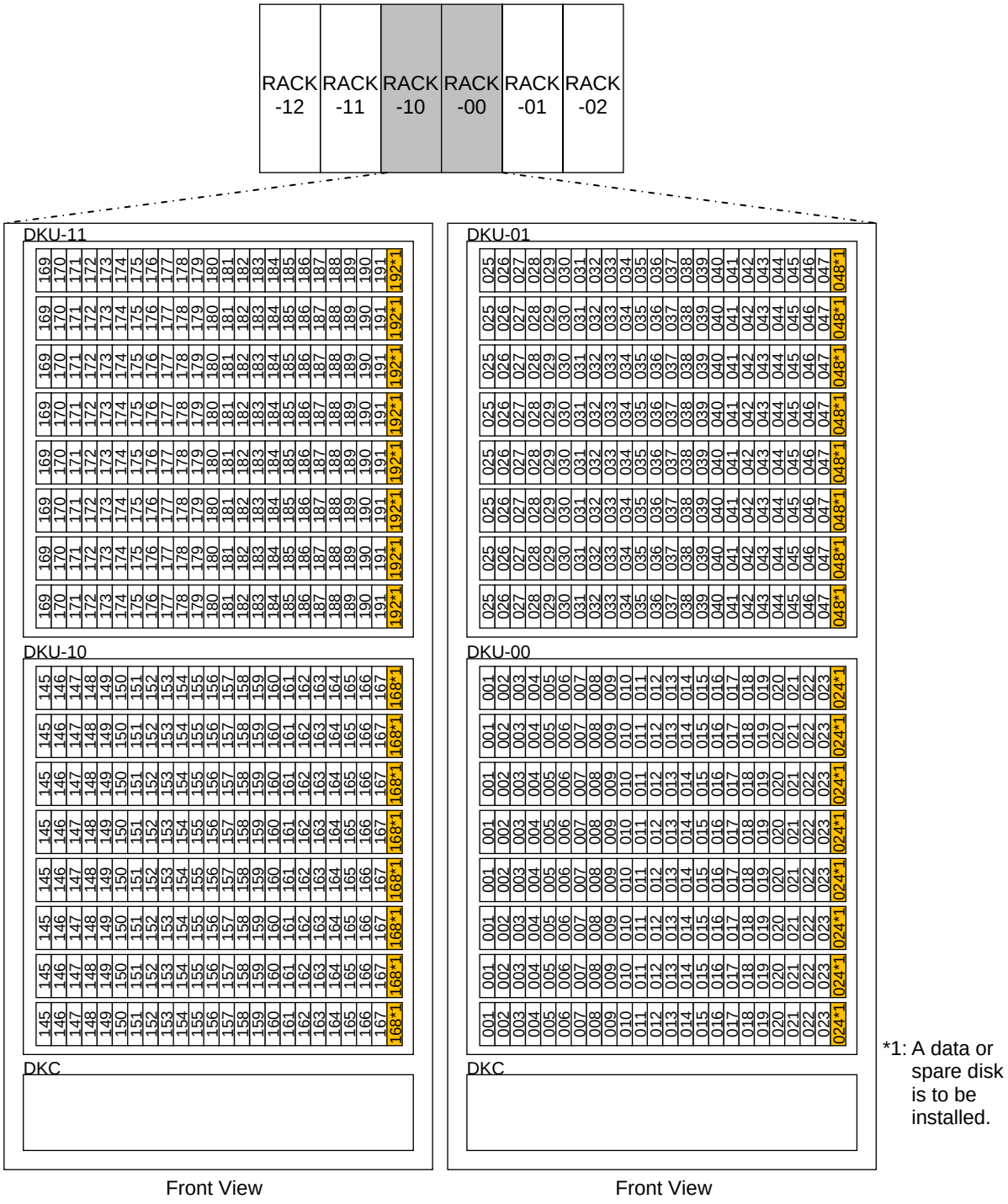


Fig. 4.1.4.3-5 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-5.

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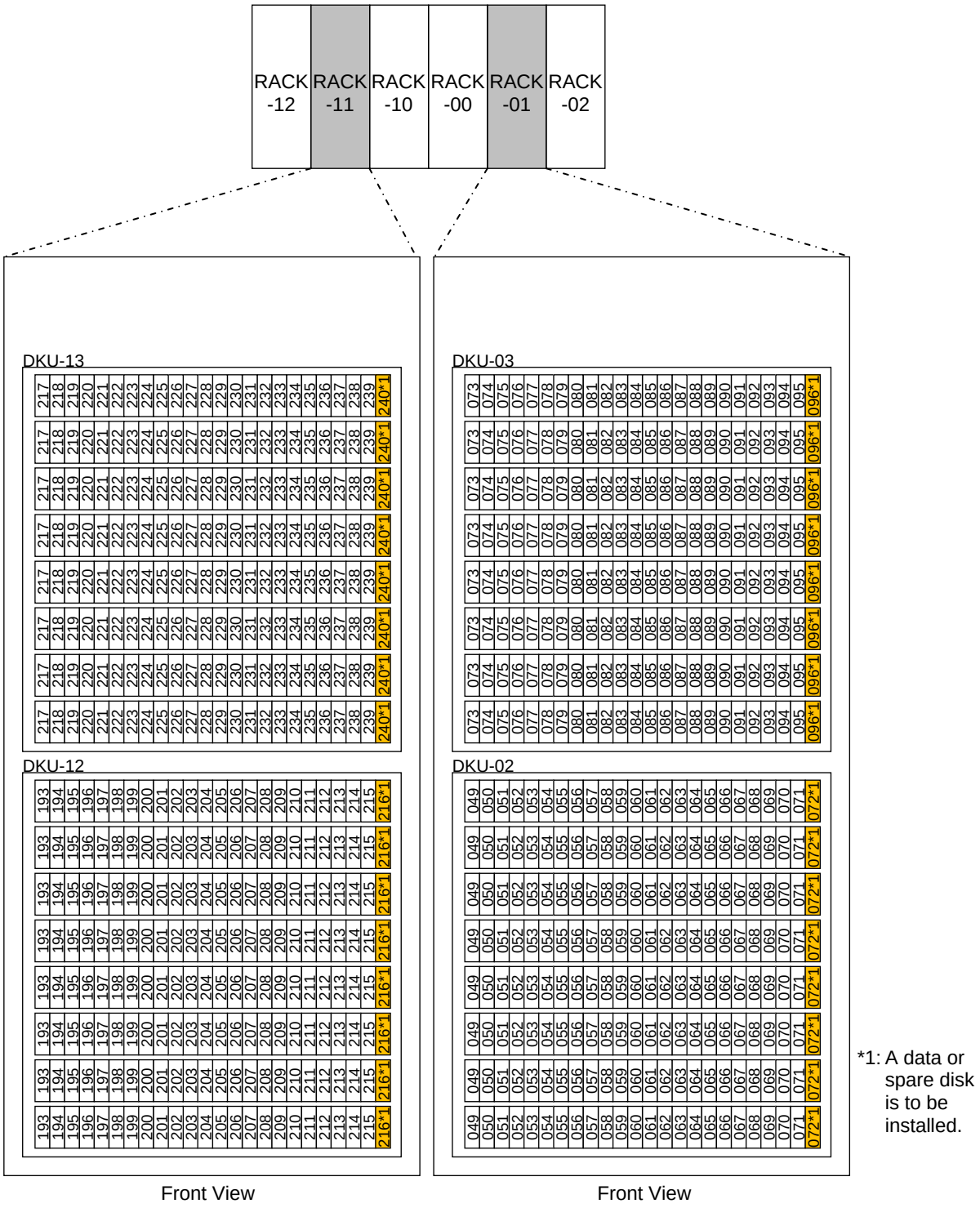


Fig. 4.1.4.3-5 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-5.

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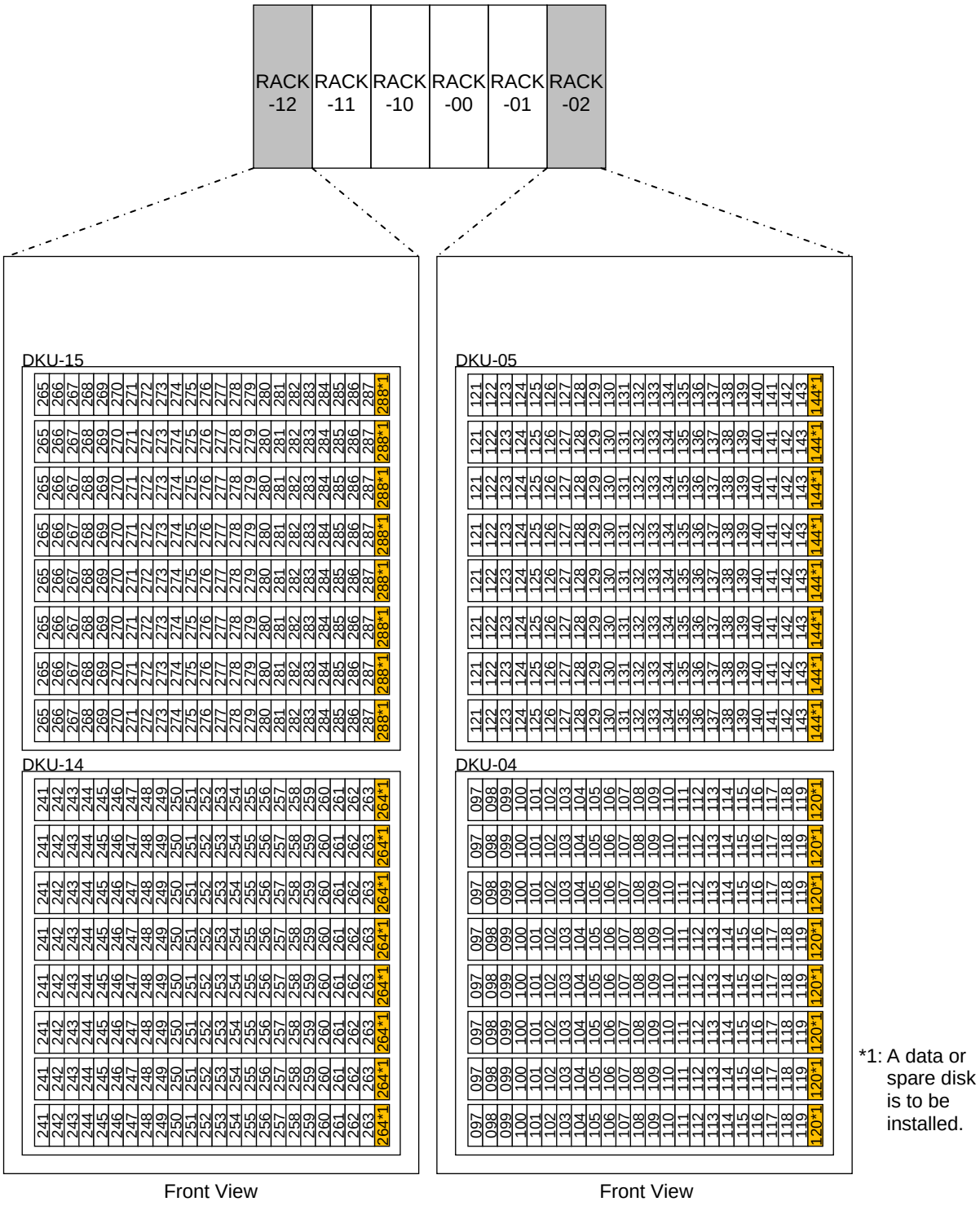


Fig. 4.1.4.3-5 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-5.

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(vi) RAID5 (7D+1P) / RAID6 (6D+2P), FBX (DKU for FMD)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-6.

Table 4.1.4.3-6 Relation between drives installation order and RAID group number (7D+1P/6D+2P, FBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	007	5-1	013	9-1	019	13-1	025	17-1	031	21-1
002	1-2	008	5-2	014	9-2	020	13-2	026	17-2	032	21-2
003	1-3	009	5-3	015	9-3	021	13-3	027	17-3	033	21-3
004	1-4	010	5-4	016	9-4	022	13-4	028	17-4	034	21-4
005	1-5	011	5-5	017	9-5	023	13-5	029	17-5	035	21-5
006	1-6 Spare*1	012	5-6 Spare*1	018	9-6 Spare*1	024	13-6 Spare*1	030	17-6 Spare*1	036	21-6 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.4.3-6 Relation between drives installation order and RAID group number (7D+1P/6D+2P, FBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
037	3-1	043	7-1	049	11-1	055	15-1	061	19-1	067	23-1
038	3-2	044	7-2	050	11-2	056	15-2	062	19-2	068	23-2
039	3-3	045	7-3	051	11-3	057	15-3	063	19-3	069	23-3
040	3-4	046	7-4	052	11-4	058	15-4	064	19-4	070	23-4
041	3-5	047	7-5	053	11-5	059	15-5	065	19-5	071	23-5
042	3-6 Spare*1	048	7-6 Spare*1	054	11-6 Spare*1	060	15-6 Spare*1	066	19-6 Spare*1	072	23-6 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-1R6FM/3R2FM × 8	Flash Module Drive	FMD

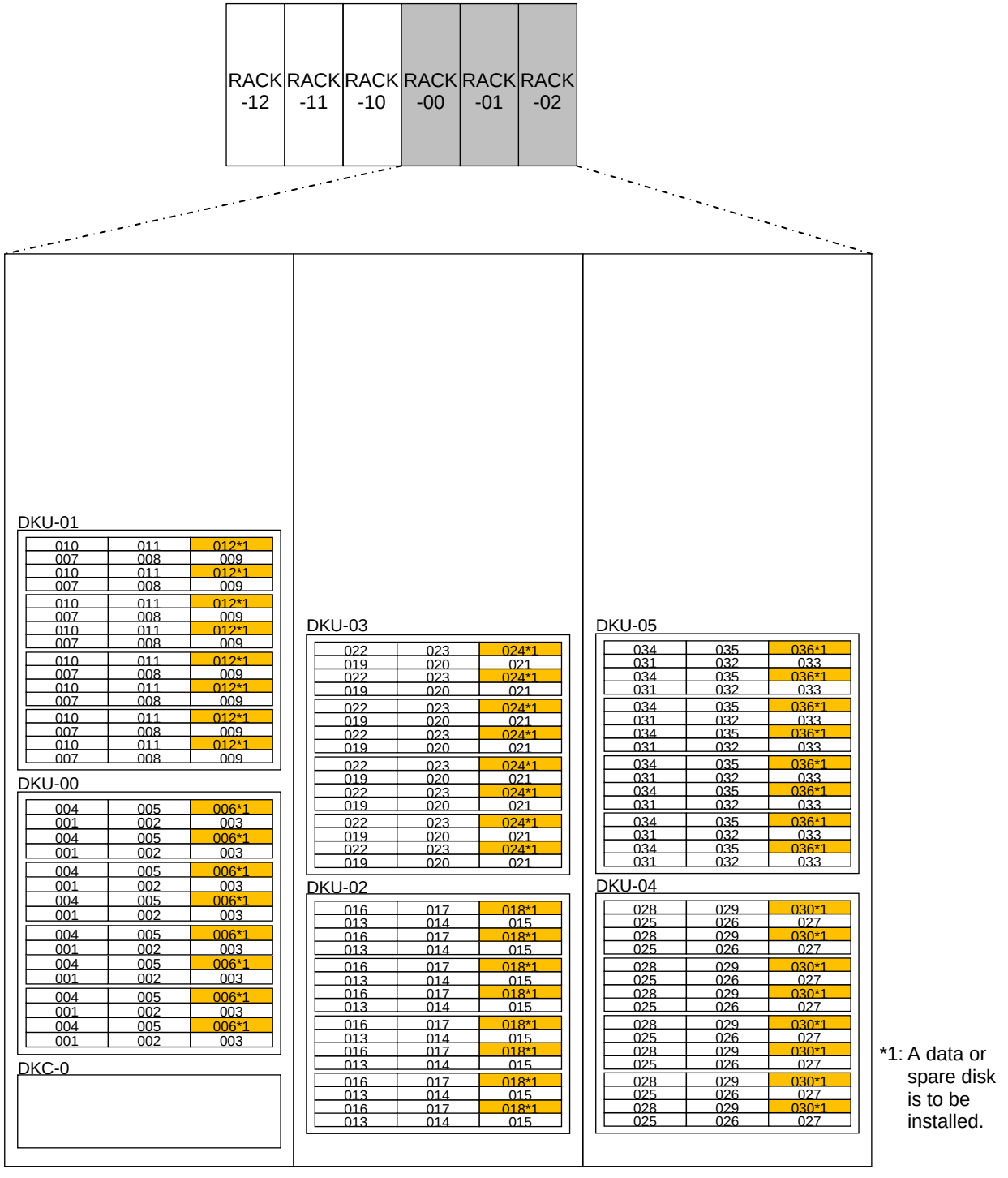


Fig. 4.1.4.3-6 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (1/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-6.

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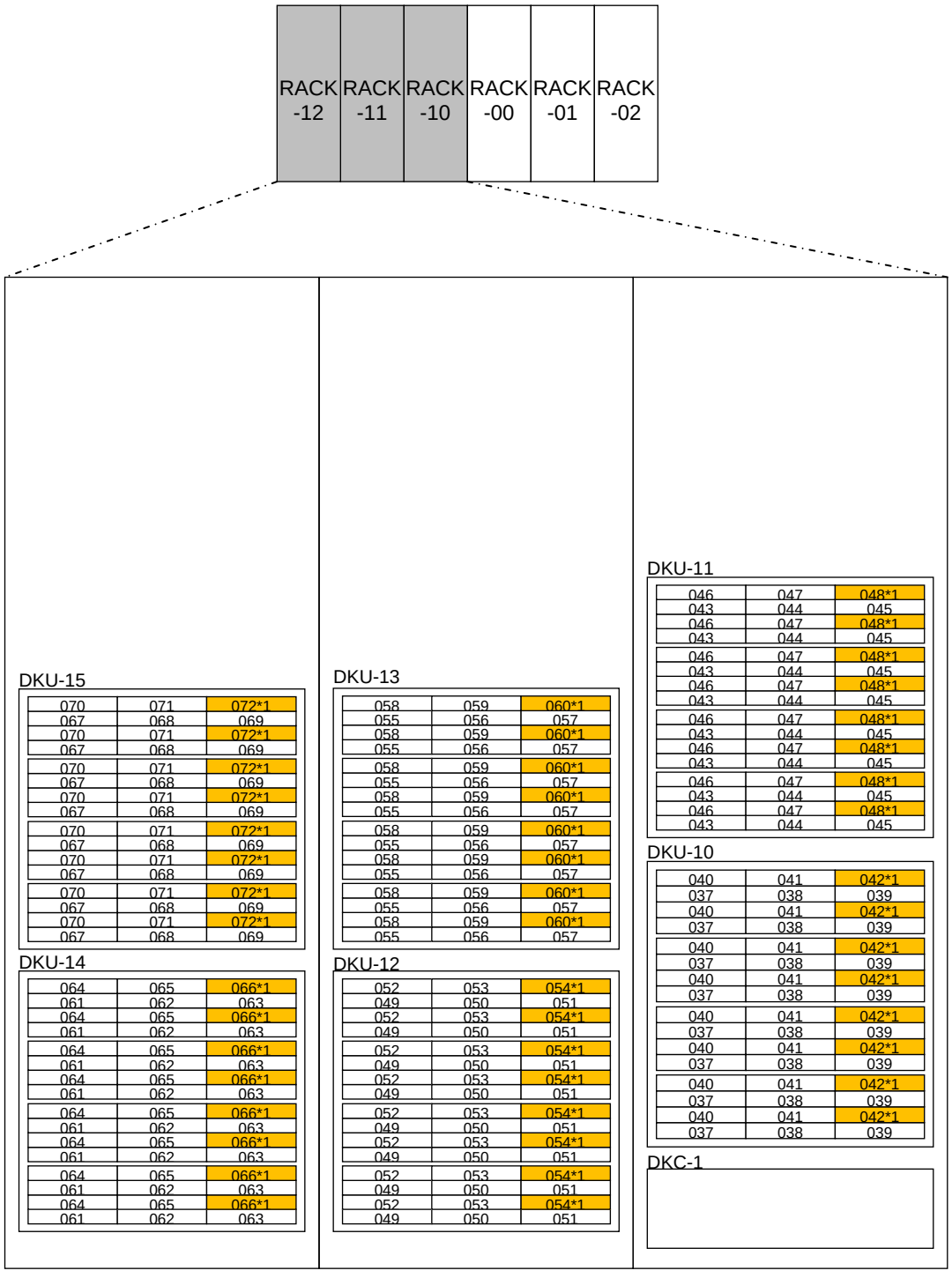


Fig. 4.1.4.3-6 (7D+1P/6D+2P) Data Drive/Parity Drive Expansion Sequence (2/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-6.

(vii) RAID6 (14D+2P), UBX (DKU for 3.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-7.

Table 4.1.4.3-7 Relation between drives installation order and RAID group number (14D+2P, UBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	007	5-1	013	9-1	019	13-1	025	17-1	031	21-1
002	1-3	008	5-3	014	9-3	020	13-3	026	17-3	032	21-3
003	1-5	009	5-5	015	9-5	021	13-5	027	17-5	033	21-5
004	1-7	010	5-7	016	9-7	022	13-7	028	17-7	034	21-7
005	1-9	011	5-9	017	9-9	023	13-9	029	17-9	035	21-9
006	1-11 Spare*1	012	5-11 Spare*1	018	9-11 Spare*1	024	13-1 Spare*1	030	17-11 Spare*1	036	21-11 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.4.3-7 Relation between drives installation order and RAID group number (14D+2P, UBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
037	3-1	043	7-1	049	11-1	055	15-1	061	19-1	067	23-1
038	3-3	044	7-3	050	11-3	056	15-3	062	19-3	068	23-3
039	3-5	045	7-5	051	11-5	057	15-5	063	19-5	069	23-5
040	3-7	046	7-7	052	11-7	058	15-7	064	19-7	070	23-7
041	3-9	047	7-9	053	11-9	059	15-9	065	19-9	071	23-9 Spare*1
042	3-11 Spare*1	048	7-11 Spare*1	054	11-11 Spare*1	060	15-11 Spare*1	066	1-11 Spare*1	072	23-11 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 16	LFF Disk Drive	
2	DKC-F810I-400M5M × 16	LFF SSD Drive	

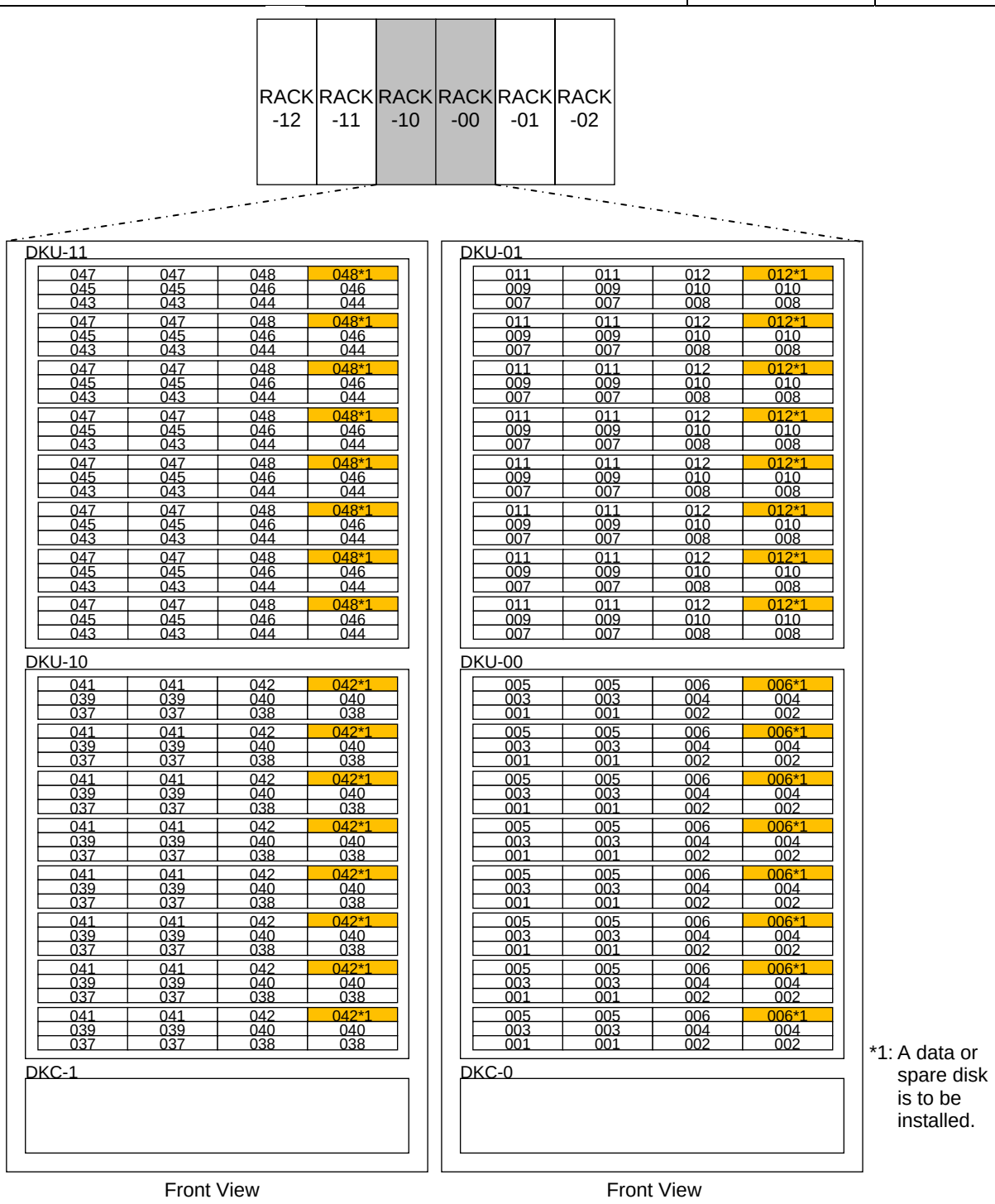


Fig. 4.1.4.3-7 (14D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-7.

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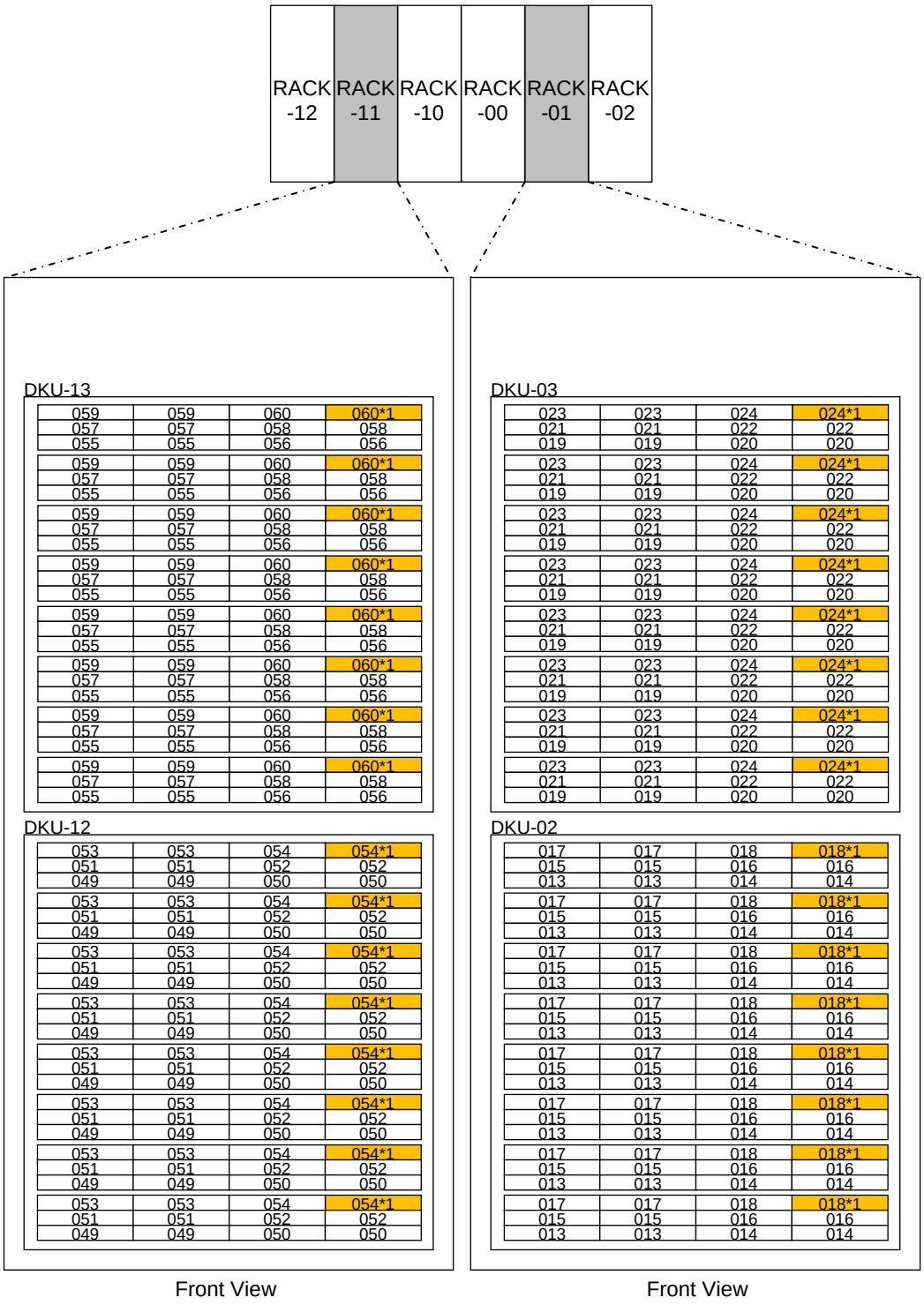


Fig. 4.1.4.3-7 (14D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-7.

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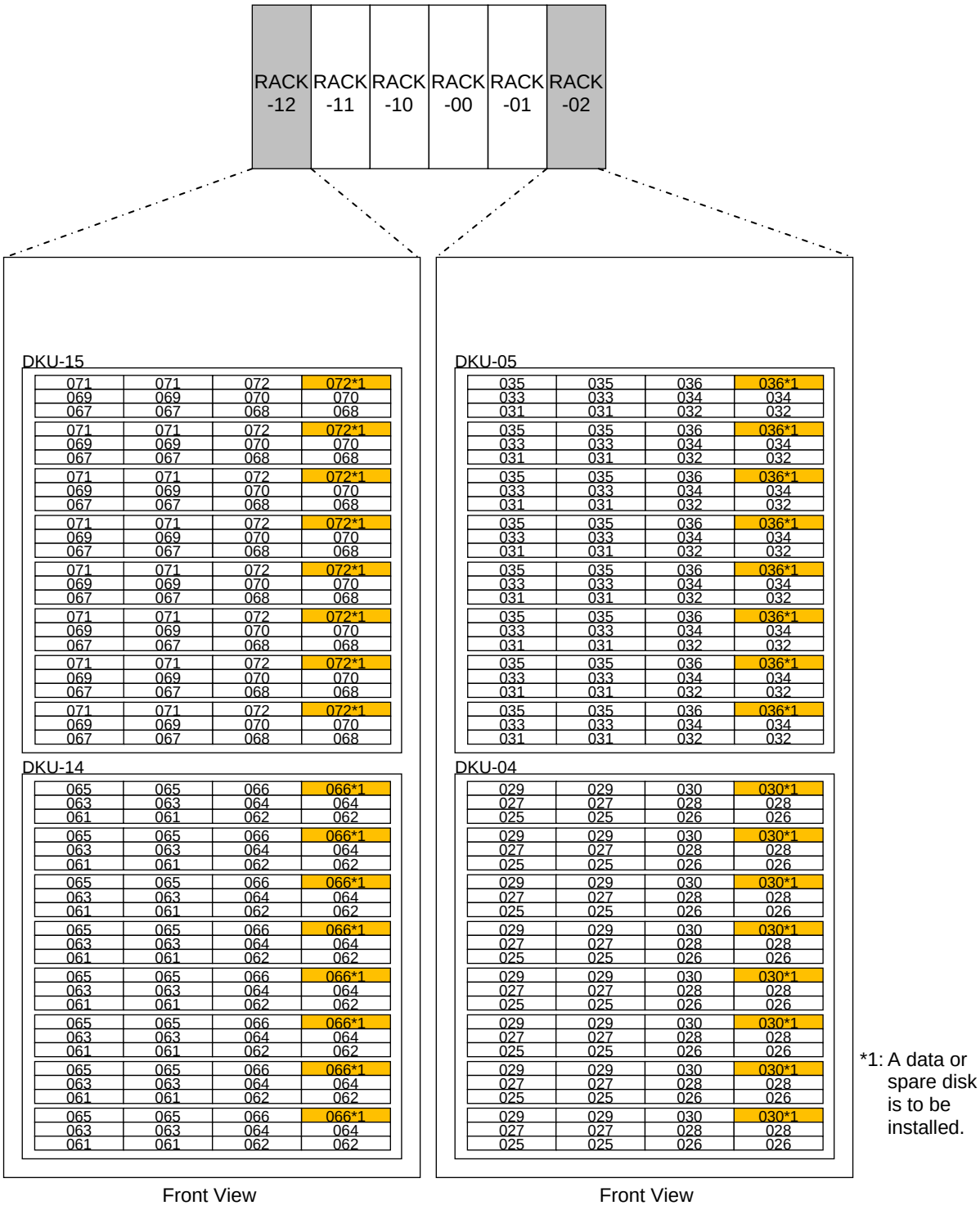


Fig. 4.1.4.3-7 (14D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-7.

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(viii) RAID6 (14D+2P), SBX (DKU for 2.5 inch Drive)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-8.

Table 4.1.4.3-8 Relation between drives installation order and RAID group number (14D+2P, SBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	013	5-1	025	9-1	037	13-1	049	17-1	061	21-1
002	1-3	014	5-3	026	9-3	038	13-3	050	17-3	062	21-3
003	1-5	015	5-5	027	9-5	039	13-5	051	17-5	063	21-5
004	1-7	016	5-7	028	9-7	040	13-7	052	17-7	064	21-7
005	1-9	017	5-9	029	9-9	041	13-9	053	17-9	065	21-9
006	1-11	018	5-11	030	9-11	042	13-11	054	17-11	066	21-11
007	1-13	019	5-13	031	9-13	043	13-13	055	17-13	067	21-13
008	1-15	020	5-15	032	9-15	044	13-15	056	17-15	068	21-15
009	1-17	021	5-17	033	9-17	045	13-17	057	17-17	069	21-17
010	1-19	022	5-19	034	9-19	046	13-19	058	17-19	070	21-19
011	1-21	023	5-21	035	9-21	047	13-21	059	17-21	071	21-21
012	1-23 Spare*1	024	5-23 Spare*1	036	9-23 Spare*1	048	13-23 Spare*1	060	17-23 Spare*1	072	21-23 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.4.3-8 Relation between drives installation order and RAID group number (14D+2P, SBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
073	3-1	085	7-1	097	11-1	109	15-1	121	19-1	133	23-1
074	3-3	086	7-3	098	11-3	110	15-3	122	19-3	134	23-3
075	3-5	087	7-5	099	11-5	111	15-5	123	19-5	135	23-5
076	3-7	088	7-7	100	11-7	112	15-7	124	19-7	136	23-7
077	3-9	089	7-9	101	11-9	113	15-9	125	19-9	137	23-9
078	3-11	090	7-11	102	11-11	114	15-11	126	19-11	138	23-11
079	3-13	091	7-13	103	11-13	115	15-13	127	19-13	139	23-13
080	3-15	092	7-15	104	11-15	116	15-15	128	19-15	140	23-15
081	3-17	093	7-17	105	11-17	117	15-17	129	19-17	141	23-17
082	3-19	094	7-19	106	11-19	118	15-19	130	19-19	142	23-19
083	3-21	095	7-21	107	11-21	119	15-21	131	19-21	143	23-21
084	3-23 Spare*1	096	7-23 Spare*1	108	11-23 Spare*1	120	15-23 Spare*1	132	19-23 Spare*1	144	23-23 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be added.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 16	SFF Disk Drive	
2	DKC-F810I-400MCM/800MCM × 16	SFF SSD Drive	

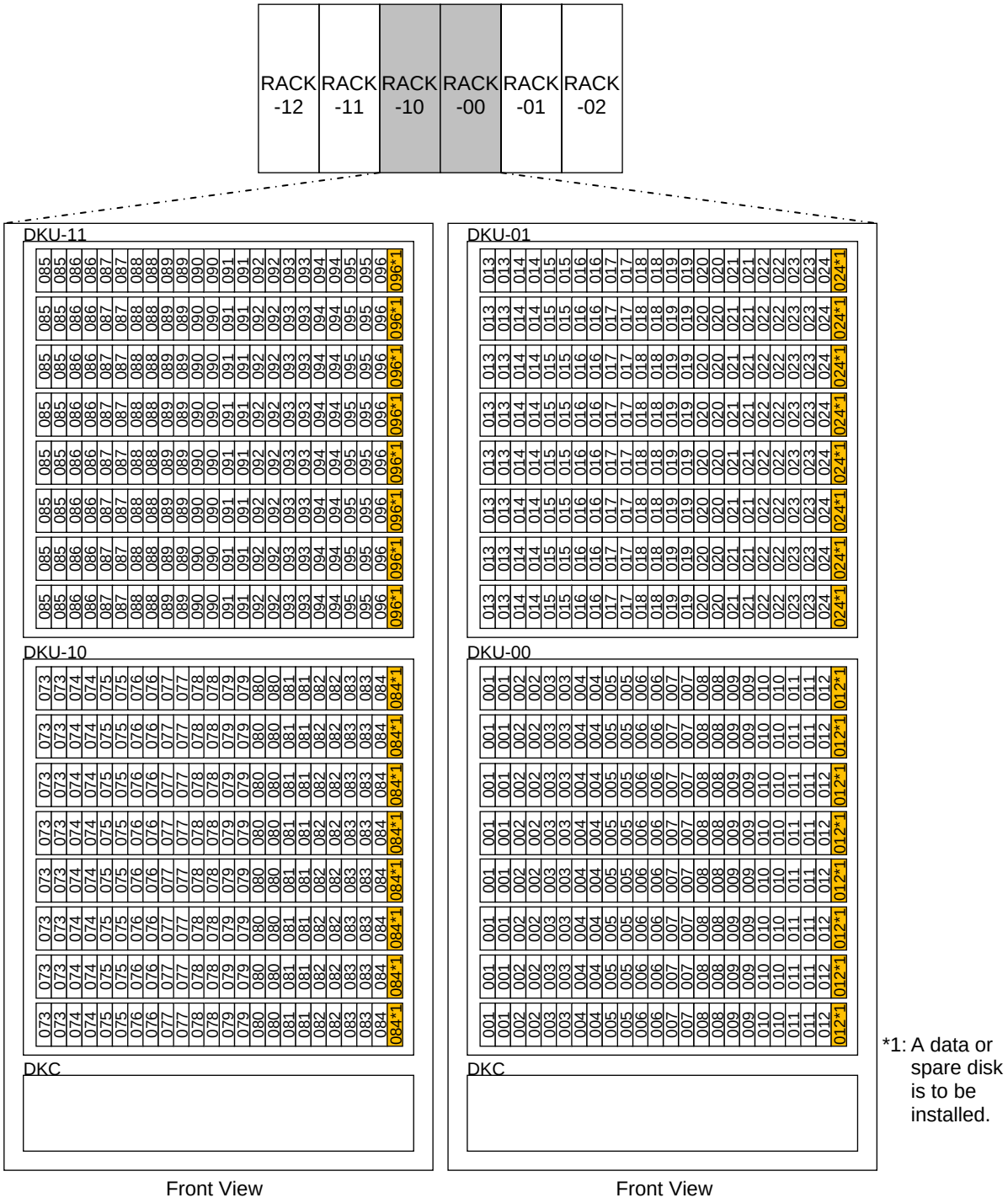


Fig. 4.1.4.3-8 (14D+2P) Data Drive/Parity Drive Expansion Sequence (1/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-8.

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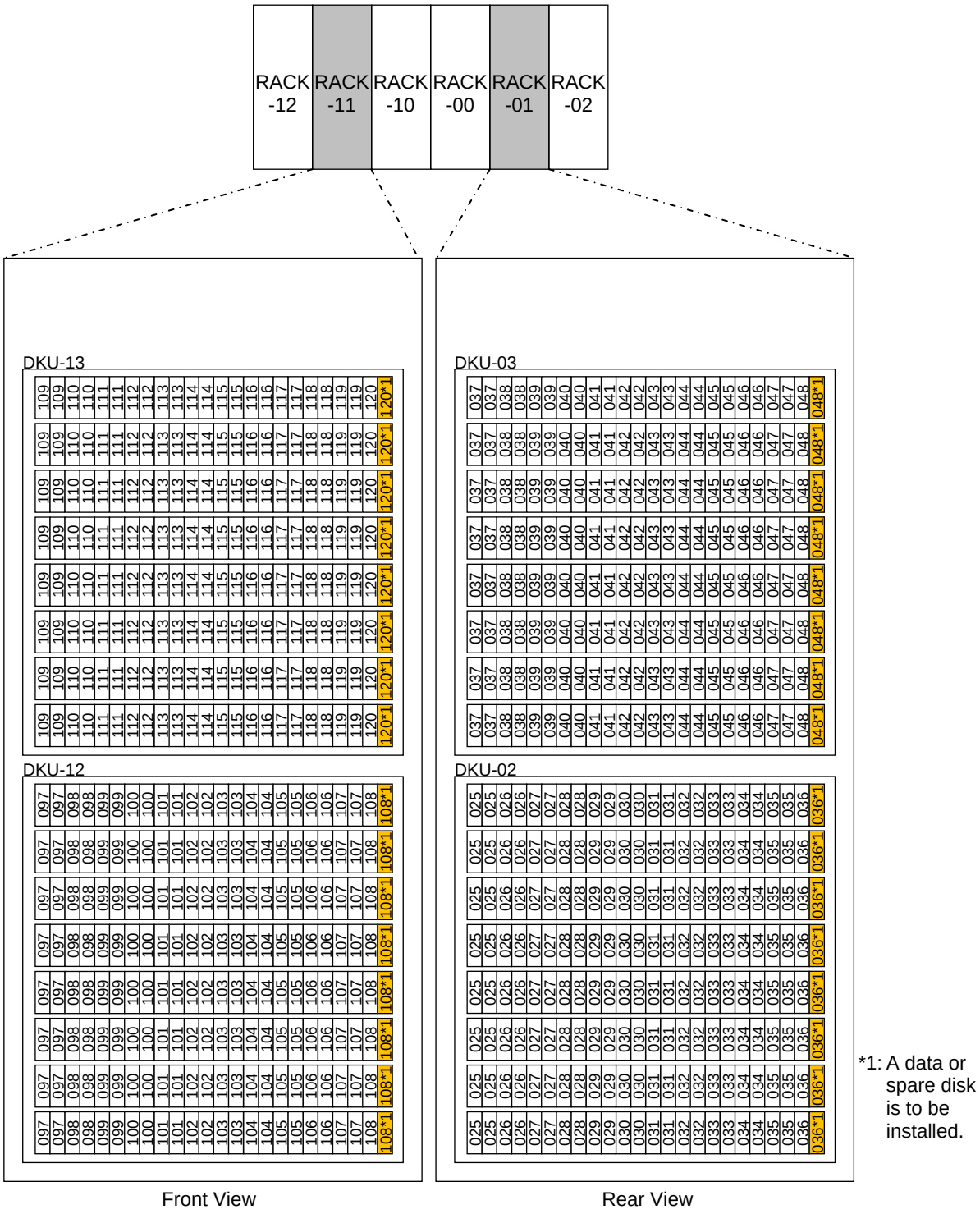


Fig. 4.1.4.3-8 (14D+2P) Data Drive/Parity Drive Expansion Sequence (2/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-8.

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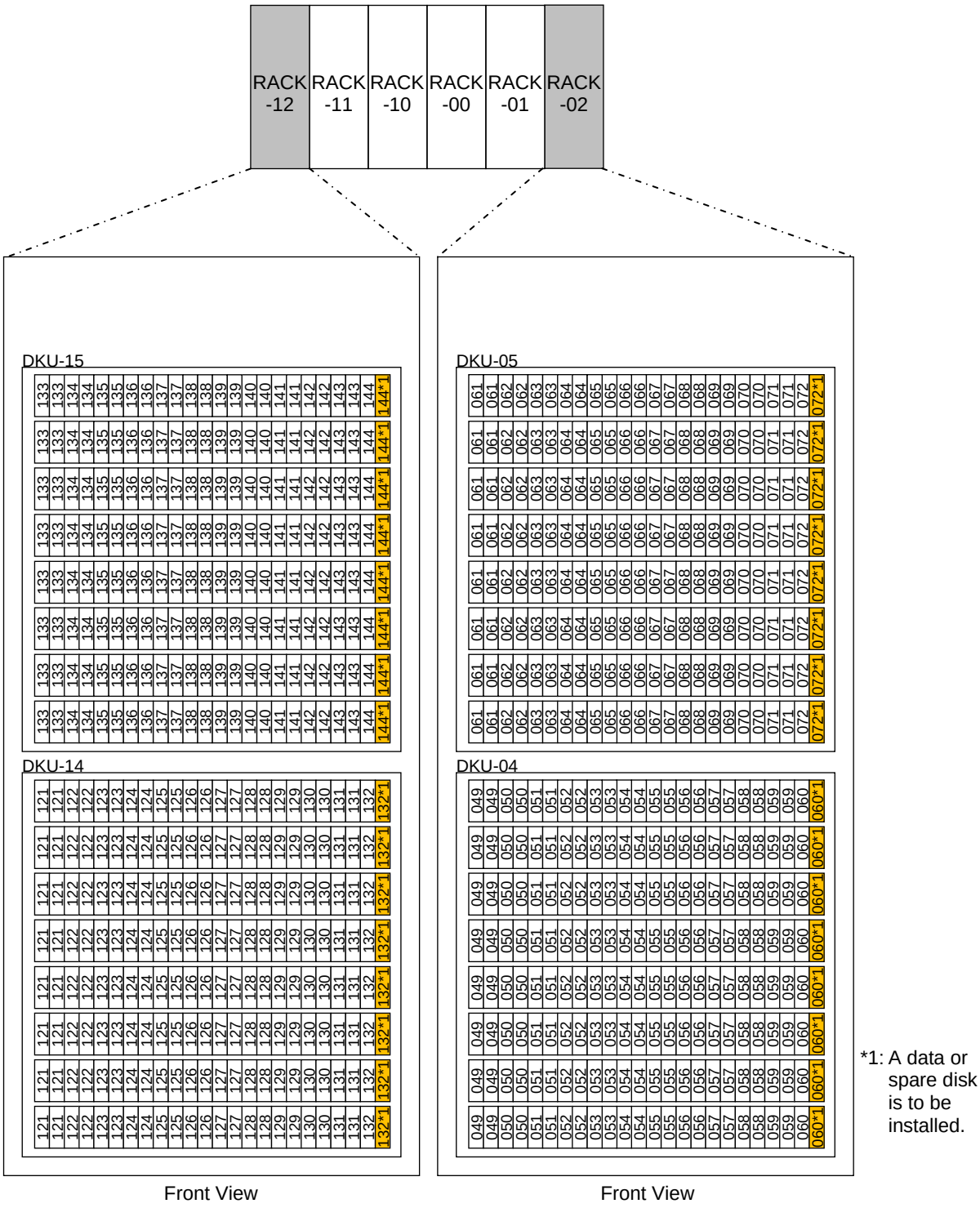


Fig. 4.1.4.3-8 (14D+2P) Data Drive/Parity Drive Expansion Sequence (3/3)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-8.

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(ix) RAID6 (14D+2P), FBX (DKU for FMD)

Relations between the installation locations of the RAID groups and the RAID group numbers set through the SVP are shown in Table 4.1.4.3-9.

Table 4.1.4.3-9 Relation between drives installation order and RAID group number (14D+2P, FBX) (1/2)

DKU-00		DKU-01		DKU-02		DKU-03		DKU-04		DKU-05	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
001	1-1	004	5-1	007	9-1	010	13-1	013	17-1	016	21-1
002	1-3	005	5-3	008	9-3	011	13-3	014	17-3	017	21-3
003	1-5 Spare*1	006	5-5 Spare*1	009	9-5 Spare*1	012	13-5 Spare*1	015	17-5 Spare*1	018	21-5 Spare*1

*1: A data or spare drive is to be installed.

Table 4.1.4.3-9 Relation between drives installation order and RAID group number (14D+2P, FBX) (2/2)

DKU-10		DKU-11		DKU-12		DKU-13		DKU-14		DKU-15	
Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.	Installation Order	RAID Group No.
019	3-1	022	7-1	025	11-1	028	15-1	031	19-1	034	23-1
020	3-3	023	7-3	026	11-3	029	15-3	032	19-3	035	23-3
021	3-5 Spare*1	024	7-5 Spare*1	027	11-5 Spare*1	030	15-5 Spare*1	033	19-5 Spare*1	036	23-5 Spare*1

*1: A data or spare drive is to be installed.

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(1) Make sure of the location where the RAID group is de-installed and that where the drive is to be removed.

No.	Model Number	Model Name	Remarks
1	DKC-F810I-1R6FM/3R2FM × 16	Flash Module Drive	FMD

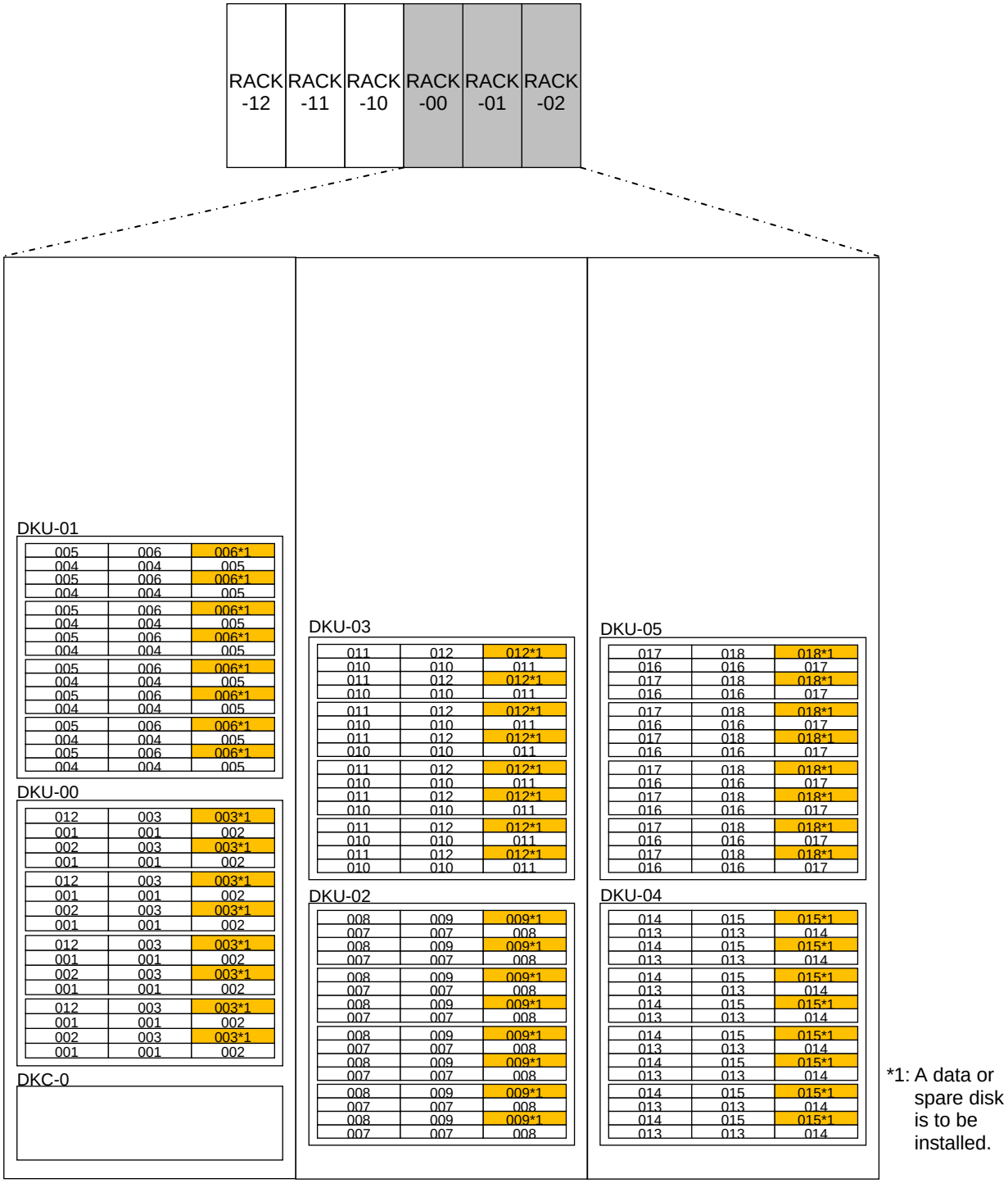


Fig. 4.1.4.3-9 (14D+2P) Data Drive/Parity Drive Expansion Sequence (1/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-9.

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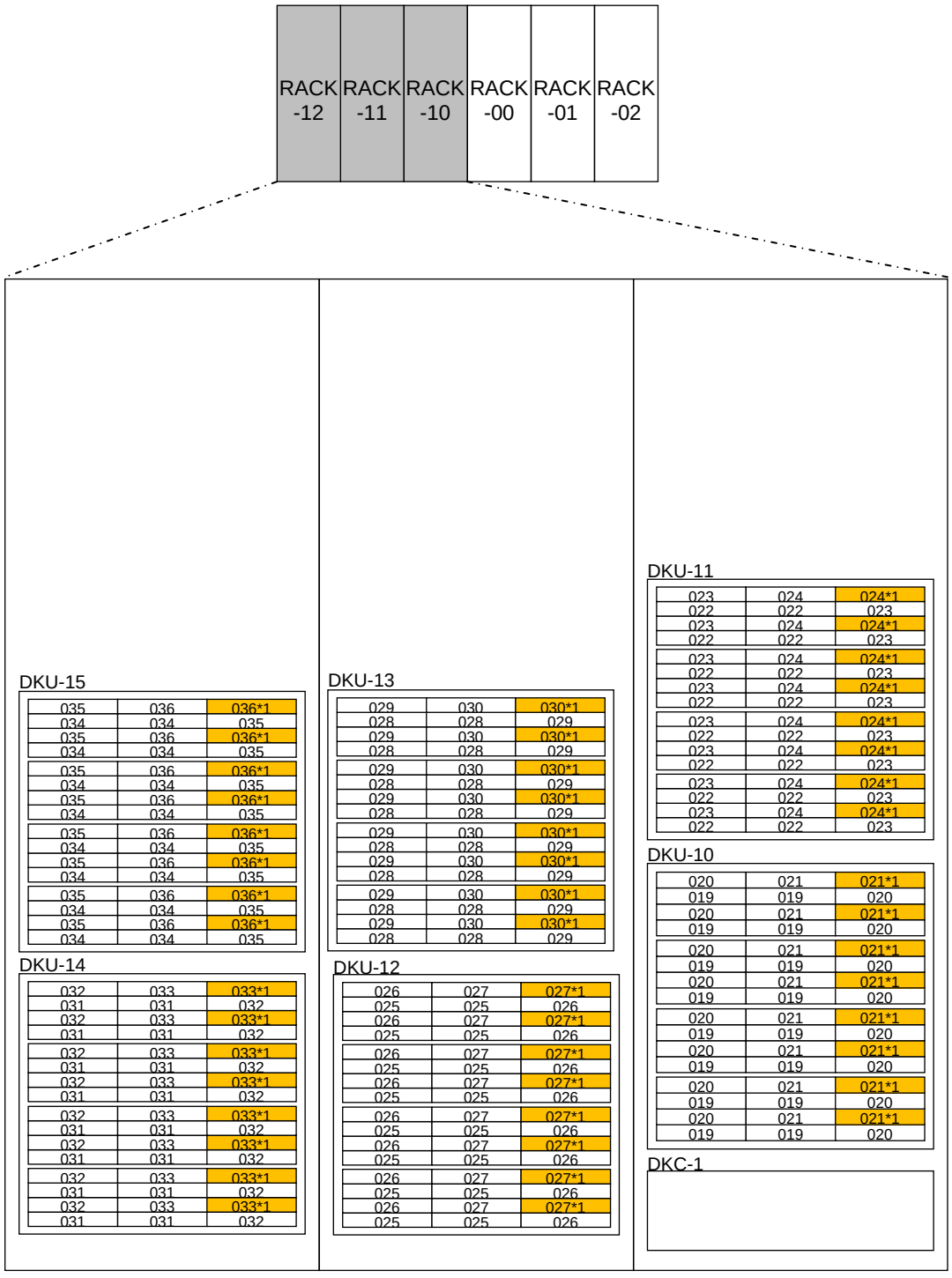


Fig. 4.1.4.3-9 (14D+2P) Data Drive/Parity Drive Expansion Sequence (2/2)

The relationship between drives installation order and RAID group number is shown in the Table 4.1.4.3-9.

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(x) Spare Drive, UBX (DKU for 3.5 inch Drive)

Table 4.1.4.3-10 Relation between Drive installation order and Spare Drive number (1/4)

DKU-00			DKU-01			DKU-02			DKU-03		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
001	1st	Spare1	009	5th	Spare1	017	9th	Spare1	025	13th	Spare1
002	1st	Spare2	010	5th	Spare2	018	9th	Spare2	026	13th	Spare2
003	1st	Spare3	011	5th	Spare3	019	9th	Spare3	027	13th	Spare3
004	1st	Spare4	012	5th	Spare4	020	9th	Spare4	028	13th	Spare4
005	2nd	Spare1	013	6th	Spare1	021	10th	Spare1	029	14th	Spare1
006	2nd	Spare2	014	6th	Spare2	022	10th	Spare2	030	14th	Spare2
007	2nd	Spare3	015	6th	Spare3	023	10th	Spare3	031	14th	Spare3
008	2nd	Spare4	016	6th	Spare4	024	10th	Spare4	032	14th	Spare4

Table 4.1.4.3-10 Relation between Drive installation order and Spare Drive number (2/4)

DKU-04			DKU-05		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
033	17th	Spare1	041	21th	Spare1
034	17th	Spare2	042	21th	Spare2
035	17th	Spare3	043	21th	Spare3
036	17th	Spare4	044	21th	Spare4
037	18th	Spare1	045	22th	Spare1
038	18th	Spare2	046	22th	Spare2
039	18th	Spare3	047	22th	Spare3
040	18th	Spare4	048	22th	Spare4

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Table 4.1.4.3-10 Relation between Drive installation order and Spare Drive number (3/4)

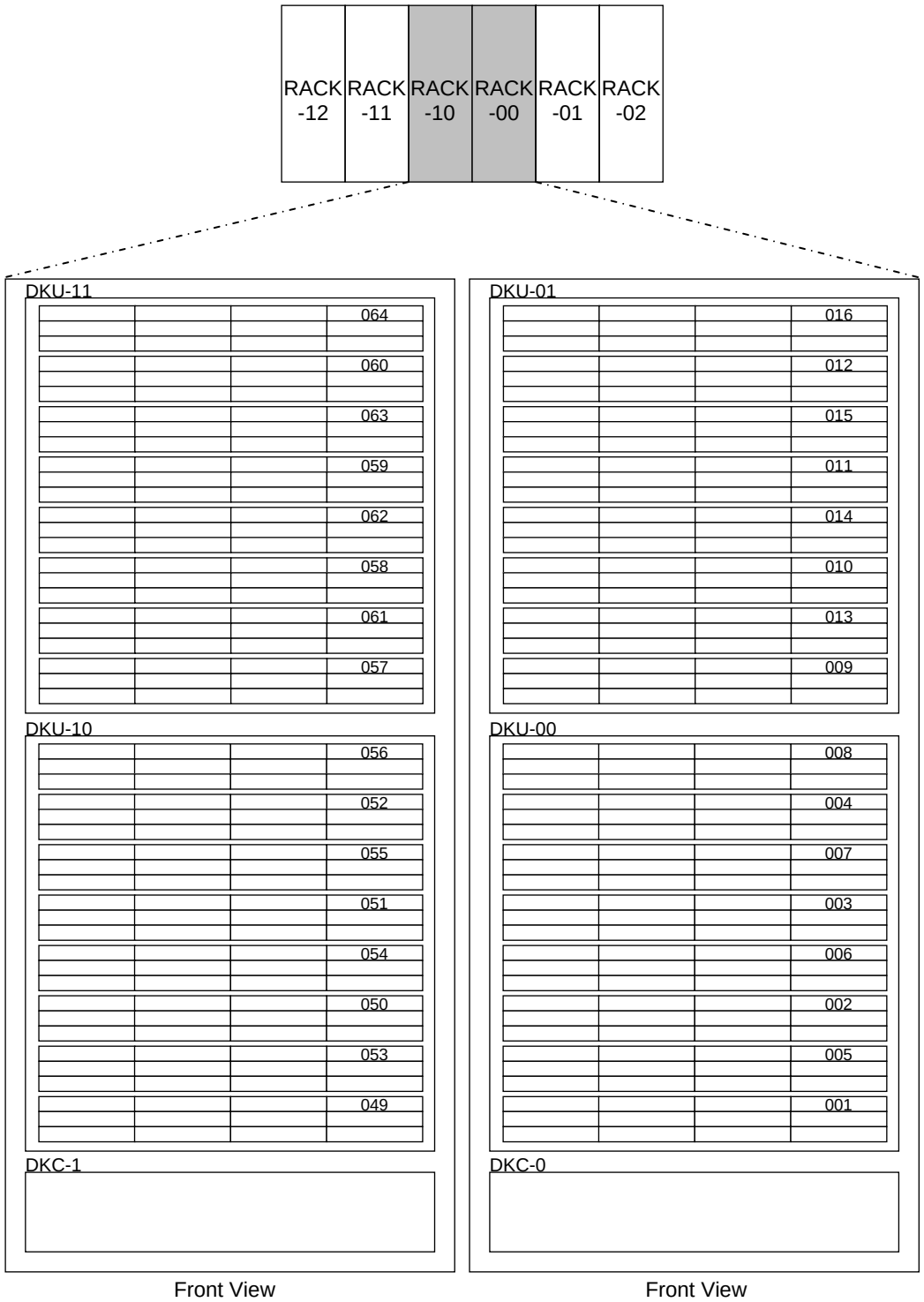
DKU-10			DKU-11			DKU-12			DKU-13		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
049	3rd	Spare1	057	7th	Spare1	065	11th	Spare1	073	15th	Spare1
050	3rd	Spare2	058	7th	Spare2	066	11th	Spare2	074	15th	Spare2
051	3rd	Spare3	059	7th	Spare3	067	11th	Spare3	075	15th	Spare3
052	3rd	Spare4	060	7th	Spare4	068	11th	Spare4	076	15th	Spare4
053	4th	Spare1	061	8th	Spare1	069	12th	Spare1	077	16th	Spare1
054	4th	Spare2	062	8th	Spare2	070	12th	Spare2	078	16th	Spare2
055	4th	Spare3	063	8th	Spare3	071	12th	Spare3	079	16th	Spare3
056	4th	Spare4	064	8th	Spare4	072	12th	Spare4	080	16th	Spare4

Table 4.1.4.3-10 Relation between Drive installation order and Spare Drive number (4/4)

DKU-14			DKU-15		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
081	19th	Spare1	089	23th	Spare1
082	19th	Spare2	090	23th	Spare2
083	19th	Spare3	091	23th	Spare3
084	19th	Spare4	092	23th	Spare4
085	20th	Spare1	093	24th	Spare1
086	20th	Spare2	094	24th	Spare2
087	20th	Spare3	095	24th	Spare3
088	20th	Spare4	096	24th	Spare4

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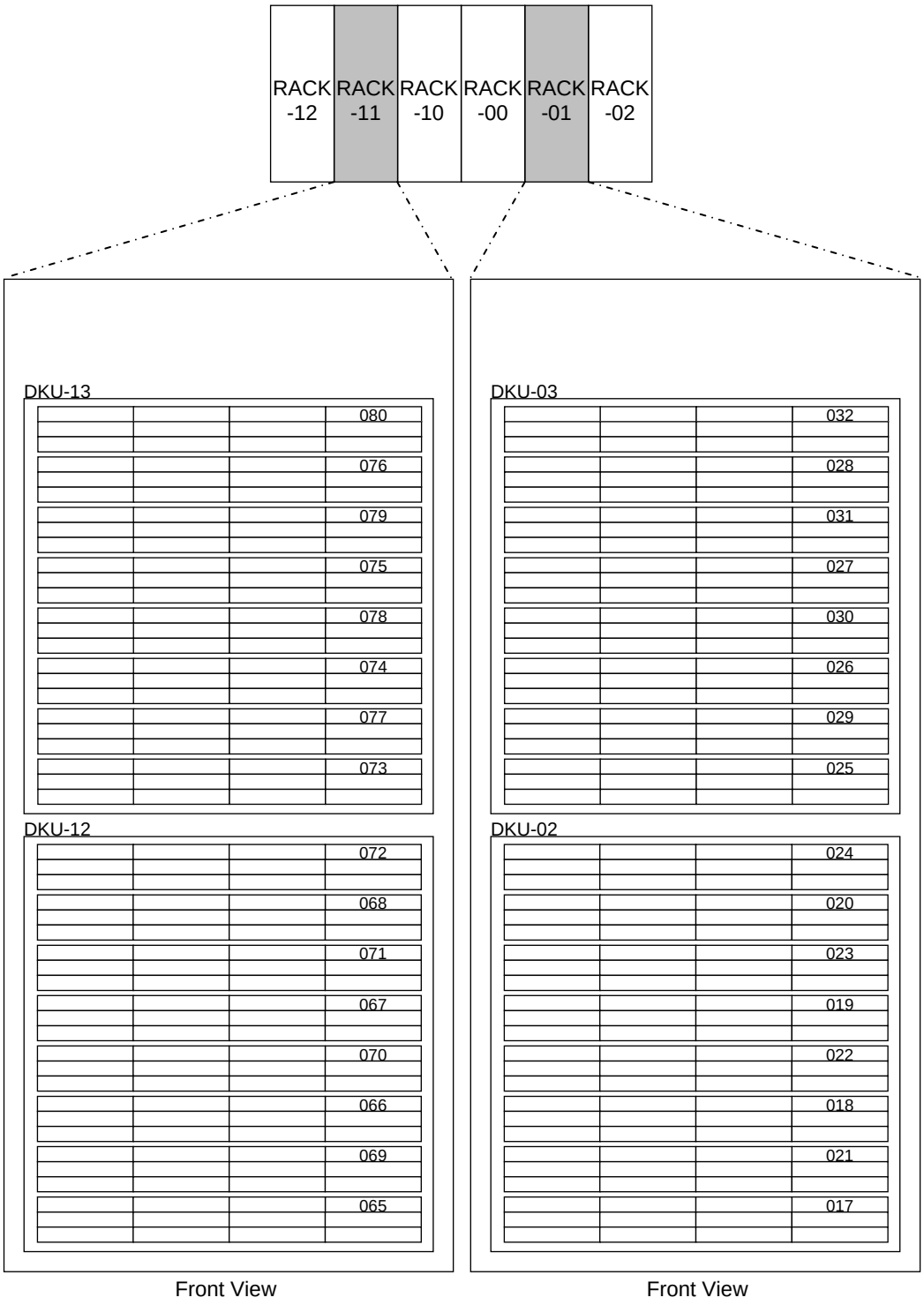
No.	Model Number	Model Name	Data and Parity
1	DKC-F810I-600J5M/3R0H3M/4R0H3M × 1	LFF Disk Drive	Spare drive
2	DKC-F810I-400M5M × 1	LFF SSD Drive	Spare drive



*1: A data or spare disk is to be installed.

Fig. 4.1.4.3-10 Spare Drive Expansion Sequence (1/3)

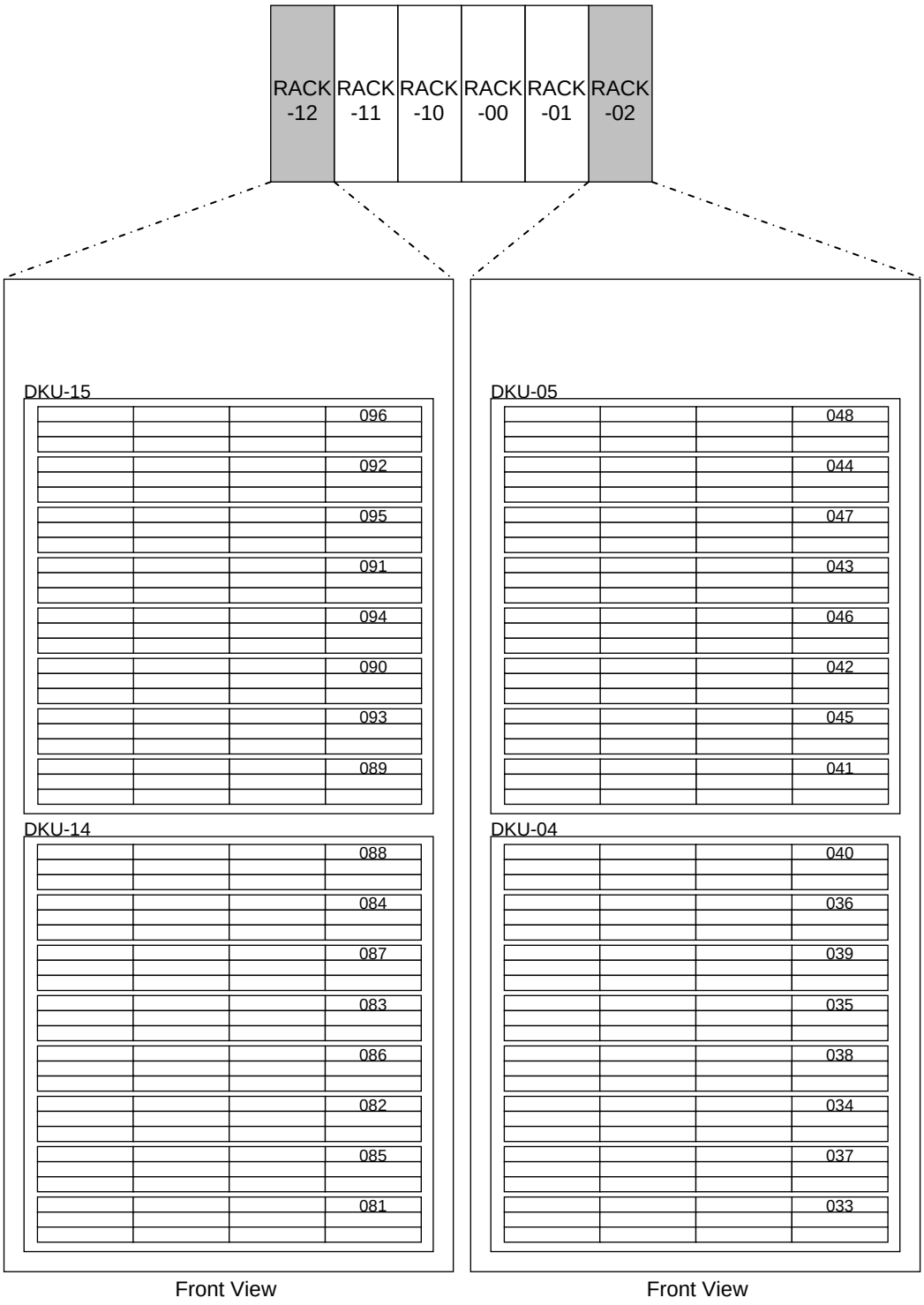
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*1: A data or spare disk is to be installed.

Fig. 4.1.4.3-10 Spare Drive Expansion Sequence (2/3)

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*1: A data or spare disk is to be installed.

Fig. 4.1.4.3-10 Spare Drive Expansion Sequence (3/3)

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(xi) Spare Drive, SBX (DKU for 2.5 inch Drive)

Table 4.1.4.3-11 Relation between Drive installation order and Spare Drive number (1/4)

DKU-00			DKU-01			DKU-02			DKU-03		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
001	1st	Spare1	009	5th	Spare1	017	9th	Spare1	025	13th	Spare1
002	1st	Spare2	010	5th	Spare2	018	9th	Spare2	026	13th	Spare2
003	1st	Spare3	011	5th	Spare3	019	9th	Spare3	027	13th	Spare3
004	1st	Spare4	012	5th	Spare4	020	9th	Spare4	028	13th	Spare4
005	2nd	Spare1	013	6th	Spare1	021	10th	Spare1	029	14th	Spare1
006	2nd	Spare2	014	6th	Spare2	022	10th	Spare2	030	14th	Spare2
007	2nd	Spare3	015	6th	Spare3	023	10th	Spare3	031	14th	Spare3
008	2nd	Spare4	016	6th	Spare4	024	10th	Spare4	032	14th	Spare4

Table 4.1.4.3-11 Relation between Drive installation order and Spare Drive number (2/4)

DKU-04			DKU-05		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
033	17th	Spare1	041	21th	Spare1
034	17th	Spare2	042	21th	Spare2
035	17th	Spare3	043	21th	Spare3
036	17th	Spare4	044	21th	Spare4
037	18th	Spare1	045	22th	Spare1
038	18th	Spare2	046	22th	Spare2
039	18th	Spare3	047	22th	Spare3
040	18th	Spare4	048	22th	Spare4

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Table 4.1.4.3-11 Relation between Drive installation order and Spare Drive number (3/4)

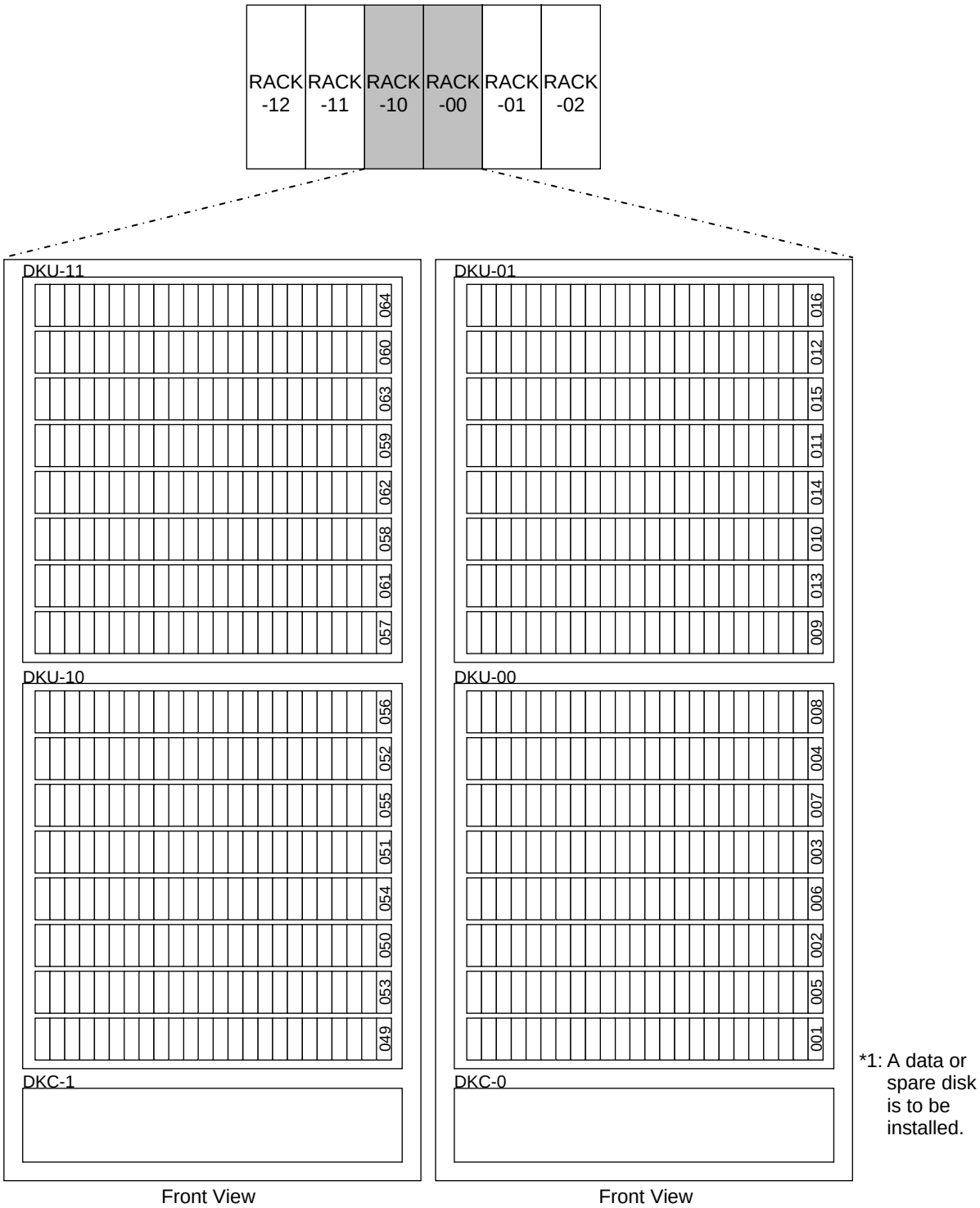
DKU-10			DKU-11			DKU-12			DKU-13		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
049	3rd	Spare1	057	7th	Spare1	065	11th	Spare1	073	15th	Spare1
050	3rd	Spare2	058	7th	Spare2	066	11th	Spare2	074	15th	Spare2
051	3rd	Spare3	059	7th	Spare3	067	11th	Spare3	075	15th	Spare3
052	3rd	Spare4	060	7th	Spare4	068	11th	Spare4	076	15th	Spare4
053	4th	Spare1	061	8th	Spare1	069	12th	Spare1	077	16th	Spare1
054	4th	Spare2	062	8th	Spare2	070	12th	Spare2	078	16th	Spare2
055	4th	Spare3	063	8th	Spare3	071	12th	Spare3	079	16th	Spare3
056	4th	Spare4	064	8th	Spare4	072	12th	Spare4	080	16th	Spare4

Table 4.1.4.3-11 Relation between Drive installation order and Spare Drive number (4/4)

DKU-14			DKU-15		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
081	19th	Spare1	089	23th	Spare1
082	19th	Spare2	090	23th	Spare2
083	19th	Spare3	091	23th	Spare3
084	19th	Spare4	092	23th	Spare4
085	20th	Spare1	093	24th	Spare1
086	20th	Spare2	094	24th	Spare2
087	20th	Spare3	095	24th	Spare3
088	20th	Spare4	096	24th	Spare4

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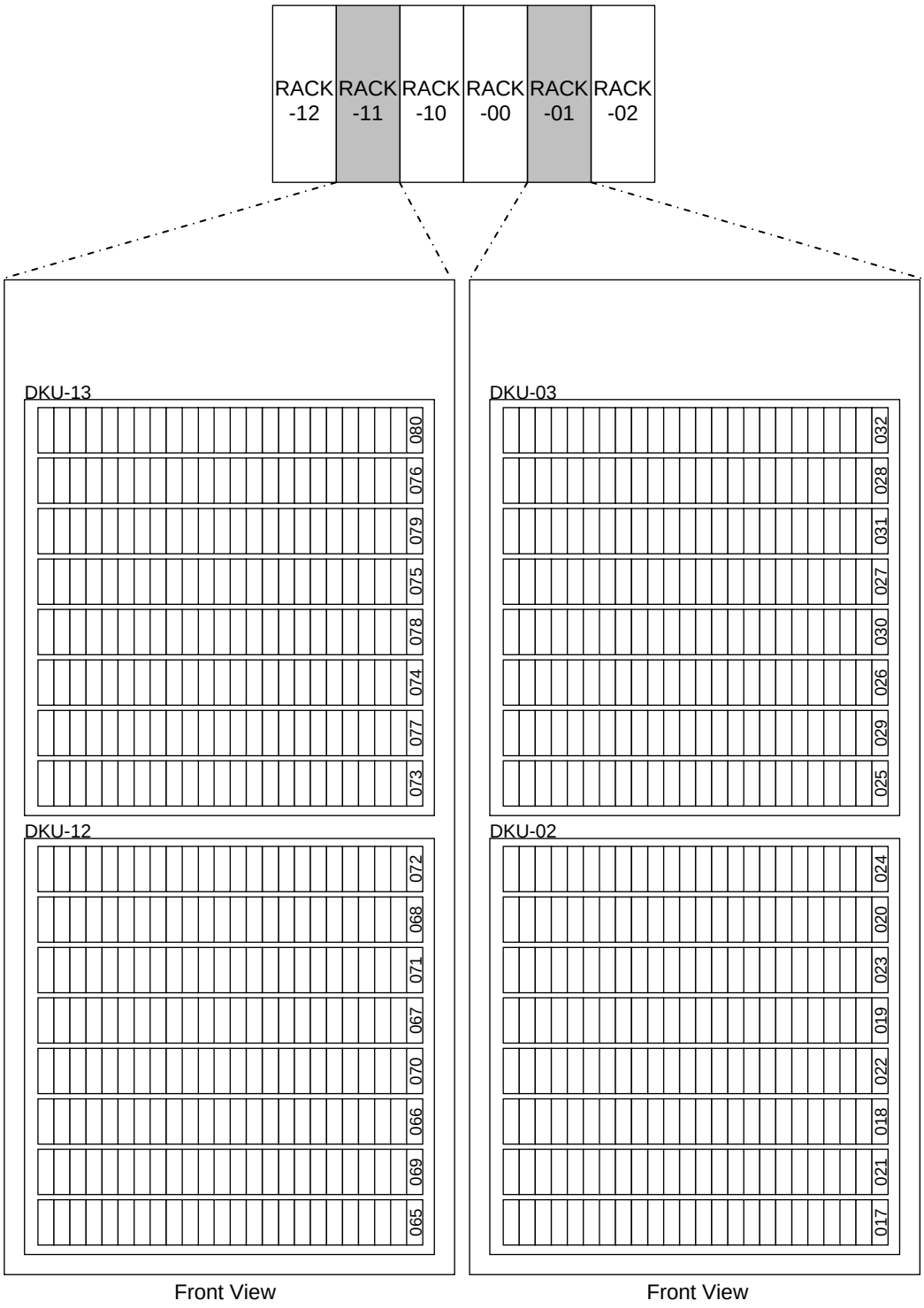
No.	Model Number	Model Name	Remarks
1	DKC-F810I-300KCM/600JCM/900JCM/1R2JCM × 1	SFF Disk Drive	Spare Drive
2	DKC-F810I-400MCM/800MCM × 1	SFF SSD Drive	Spare Drive



*1: A data or spare disk is to be installed.

Fig. 4.1.4.3-11 Spare Drive Expansion Sequence (1/3)

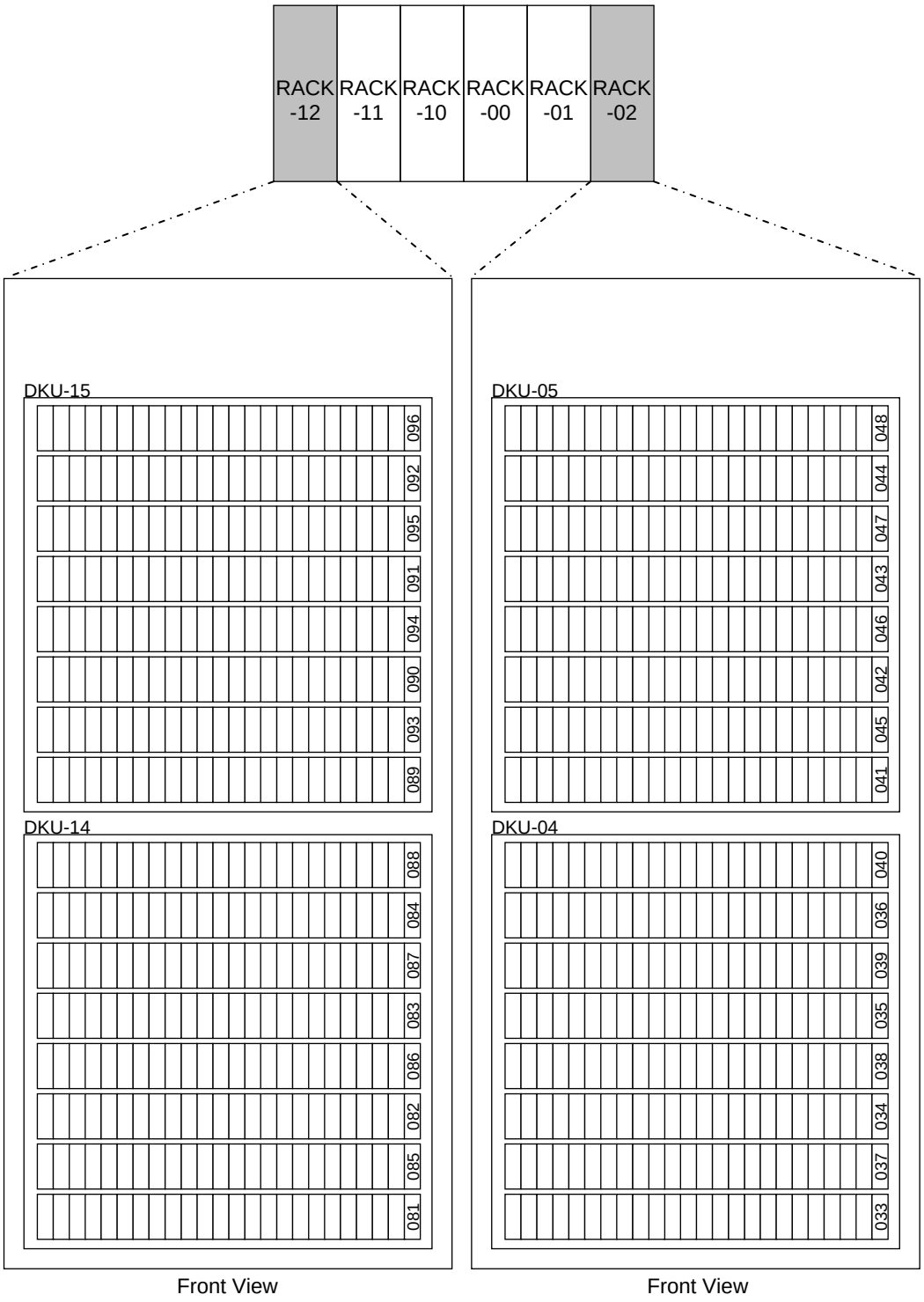
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*1: A data or spare disk is to be installed.

Fig. 4.1.4.3-11 Spare Drive Expansion Sequence (2/3)

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*1: A data or spare disk is to be installed.

Fig. 4.1.4.3-11 Spare Drive Expansion Sequence (3/3)

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(xii) Spare Drive, FBX (DKU for FMD)

Table 4.1.4.3-12 Relation between Drive installation order and Spare Drive number (1/4)

DKU-00			DKU-01			DKU-02			DKU-03		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
001	1st	Spare1	009	5th	Spare1	017	9th	Spare1	025	13th	Spare1
002	1st	Spare2	010	5th	Spare2	018	9th	Spare2	026	13th	Spare2
003	1st	Spare3	011	5th	Spare3	019	9th	Spare3	027	13th	Spare3
004	1st	Spare4	012	5th	Spare4	020	9th	Spare4	028	13th	Spare4
005	2nd	Spare1	013	6th	Spare1	021	10th	Spare1	029	14th	Spare1
006	2nd	Spare2	014	6th	Spare2	022	10th	Spare2	030	14th	Spare2
007	2nd	Spare3	015	6th	Spare3	023	10th	Spare3	031	14th	Spare3
008	2nd	Spare4	016	6th	Spare4	024	10th	Spare4	032	14th	Spare4

Table 4.1.4.3-12 Relation between Drive installation order and Spare Drive number (2/4)

DKU-04			DKU-05		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
033	17th	Spare1	041	21th	Spare1
034	17th	Spare2	042	21th	Spare2
035	17th	Spare3	043	21th	Spare3
036	17th	Spare4	044	21th	Spare4
037	18th	Spare1	045	22th	Spare1
038	18th	Spare2	046	22th	Spare2
039	18th	Spare3	047	22th	Spare3
040	18th	Spare4	048	22th	Spare4

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Table 4.1.4.3-12 Relation between Drive installation order and Spare Drive number (3/4)

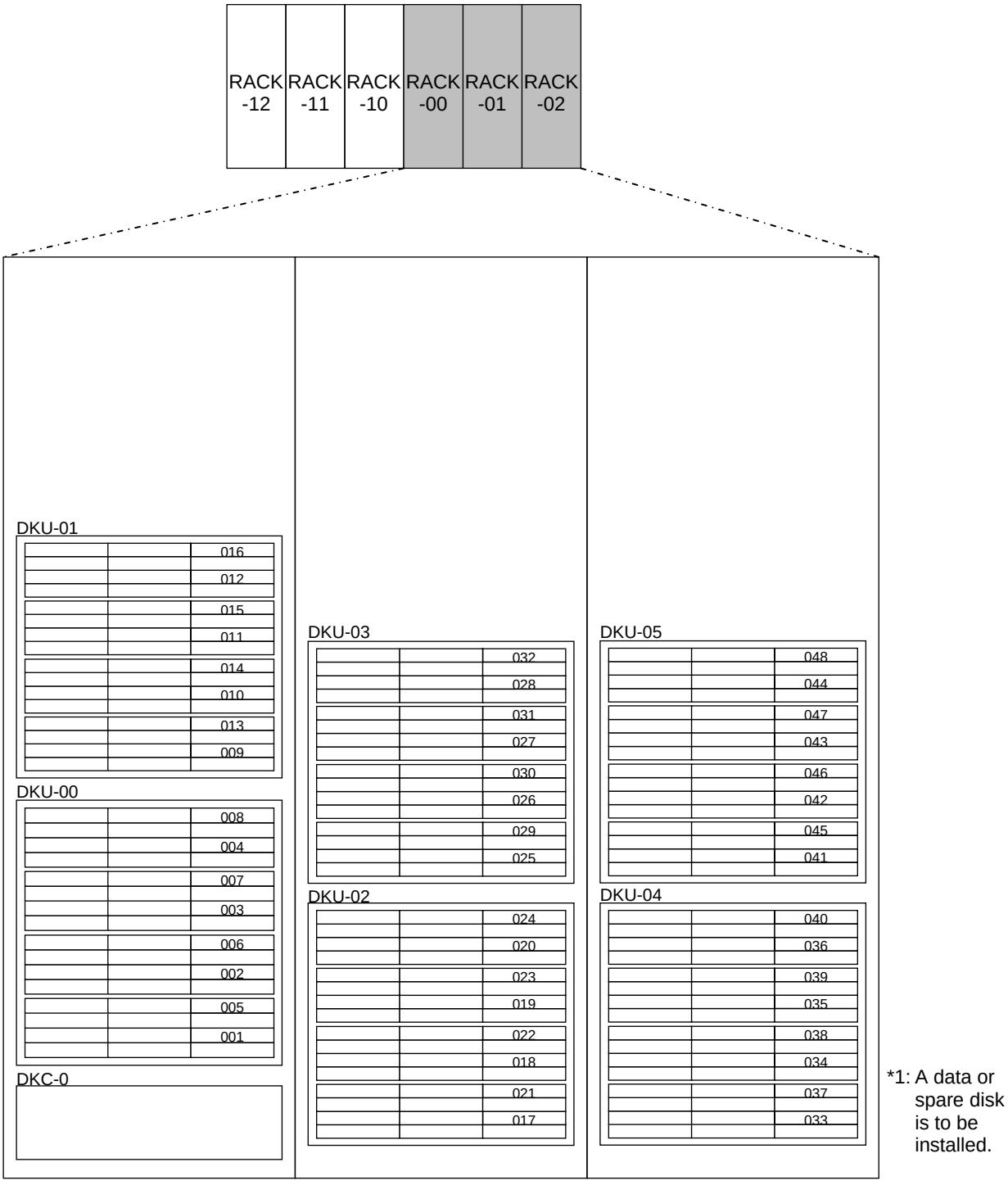
DKU-10			DKU-11			DKU-12			DKU-13		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
049	3rd	Spare1	057	7th	Spare1	065	11th	Spare1	073	15th	Spare1
050	3rd	Spare2	058	7th	Spare2	066	11th	Spare2	074	15th	Spare2
051	3rd	Spare3	059	7th	Spare3	067	11th	Spare3	075	15th	Spare3
052	3rd	Spare4	060	7th	Spare4	068	11th	Spare4	076	15th	Spare4
053	4th	Spare1	061	8th	Spare1	069	12th	Spare1	077	16th	Spare1
054	4th	Spare2	062	8th	Spare2	070	12th	Spare2	078	16th	Spare2
055	4th	Spare3	063	8th	Spare3	071	12th	Spare3	079	16th	Spare3
056	4th	Spare4	064	8th	Spare4	072	12th	Spare4	080	16th	Spare4

Table 4.1.4.3-12 Relation between Drive installation order and Spare Drive number (4/4)

DKU-14			DKU-15		
Installation Order	B4 No.	Spare drive No.	Installation Order	B4 No.	Spare drive No.
081	19th	Spare1	089	23th	Spare1
082	19th	Spare2	090	23th	Spare2
083	19th	Spare3	091	23th	Spare3
084	19th	Spare4	092	23th	Spare4
085	20th	Spare1	093	24th	Spare1
086	20th	Spare2	094	24th	Spare2
087	20th	Spare3	095	24th	Spare3
088	20th	Spare4	096	24th	Spare4

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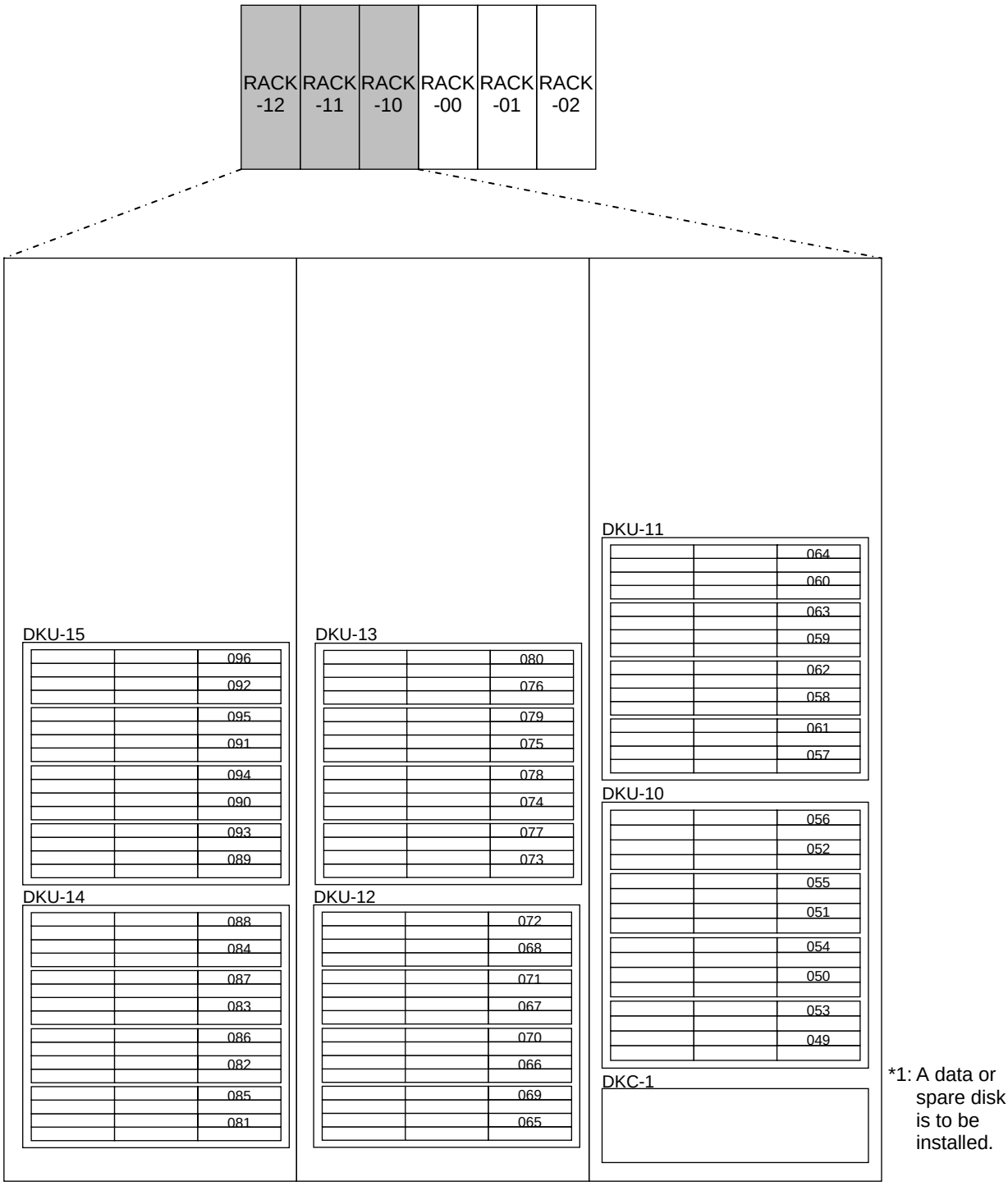
No.	Model Number	Model Name	Data and Parity
1	DKC-F810I-1R6FM/3R2FM × 1	Flash Module Drive (FMD)	Spare Drive



Front View

Fig. 4.1.4.3-12 Spare Drive Expansion Sequence (1/2)

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*1: A data or spare disk is to be installed.

Front View

Fig. 4.1.4.3-12 Spare Drive Expansion Sequence (2/2)

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2. Check the Shut Down LED

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

2-1 In case of UBX

a. Check that the Shut Down LED on drive is turned on.

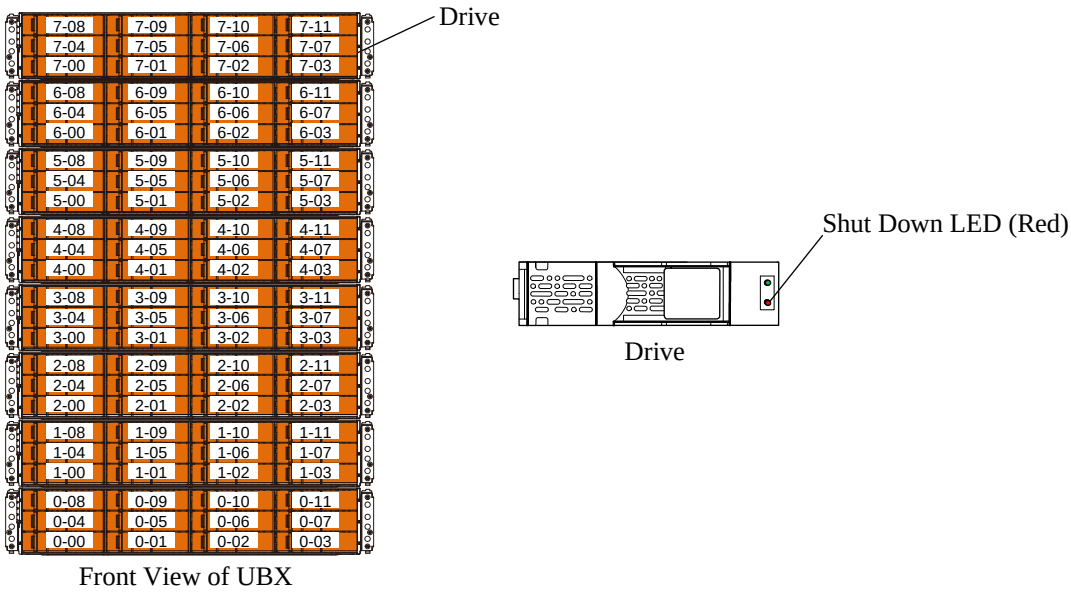


Fig. 4.1.4.3-13 Checking of Shut Down LED (In case of UBX)

2-2 In case of SBX

a. Check that the Shut Down LED on drive is turned on.

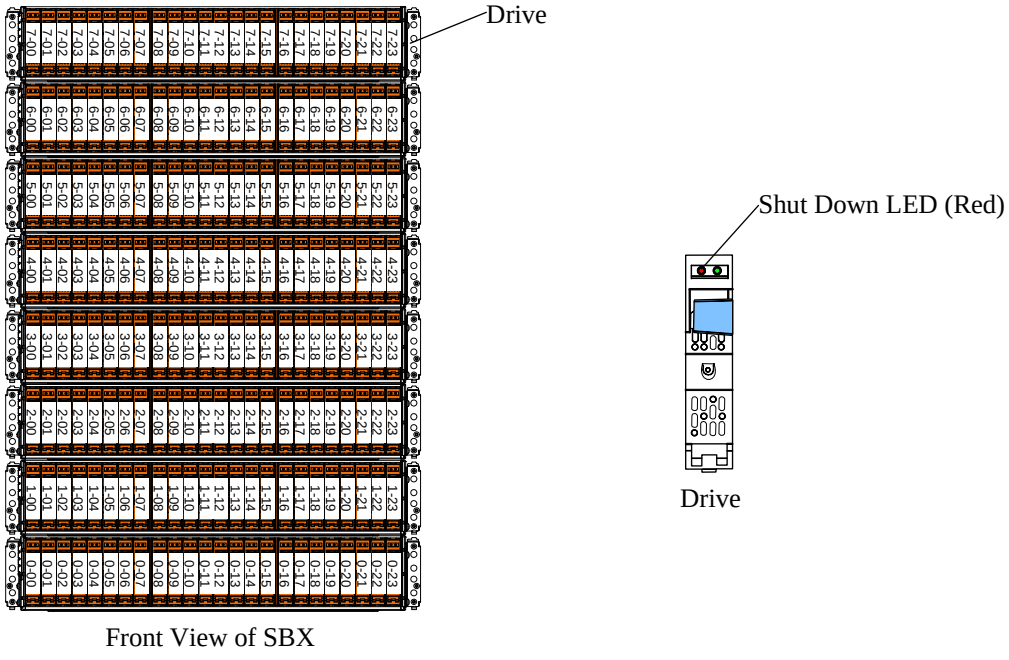


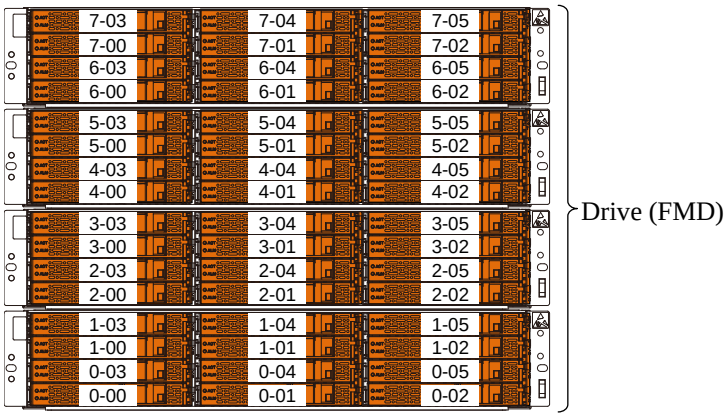
Fig. 4.1.4.3-14 Checking of Shut Down LED (In case of SBX)

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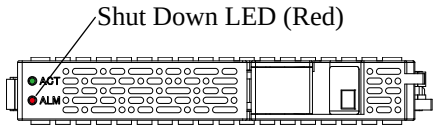
2-3 In case of FBX

NOTICE: Just after the FMD is removed, the fans of the DKUPS equipped in the rear of the FBX rotate at the highest speed. In 30 minutes after the removal of the FMD, the fans of the DKUPS rotate at the speed suitable for environmental temperature.

a. Check that the Shut Down LED on drive is turned on.



Front View of FBX



Front View of Drive (FMD)

Fig. 4.1.4.3-15 Checking of Shut Down LED (In case of FBX)

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3. Remove the drive.

NOTICE:	Since the HDD is a precision component, handle it very carefully not to apply a vibration or shock to it.

3-1 In case of UBX

a. Pull the stopper of the drive handle toward you to have the lock off.
b. Tilt the handle toward you, and then remove the drive by pulling it out taking care not to apply a shock to it.

NOTE: When handling the drive, hold the rail side because the shield spring is subject to breakage.

c. Insert the dummy (drive) to the drive chassis.

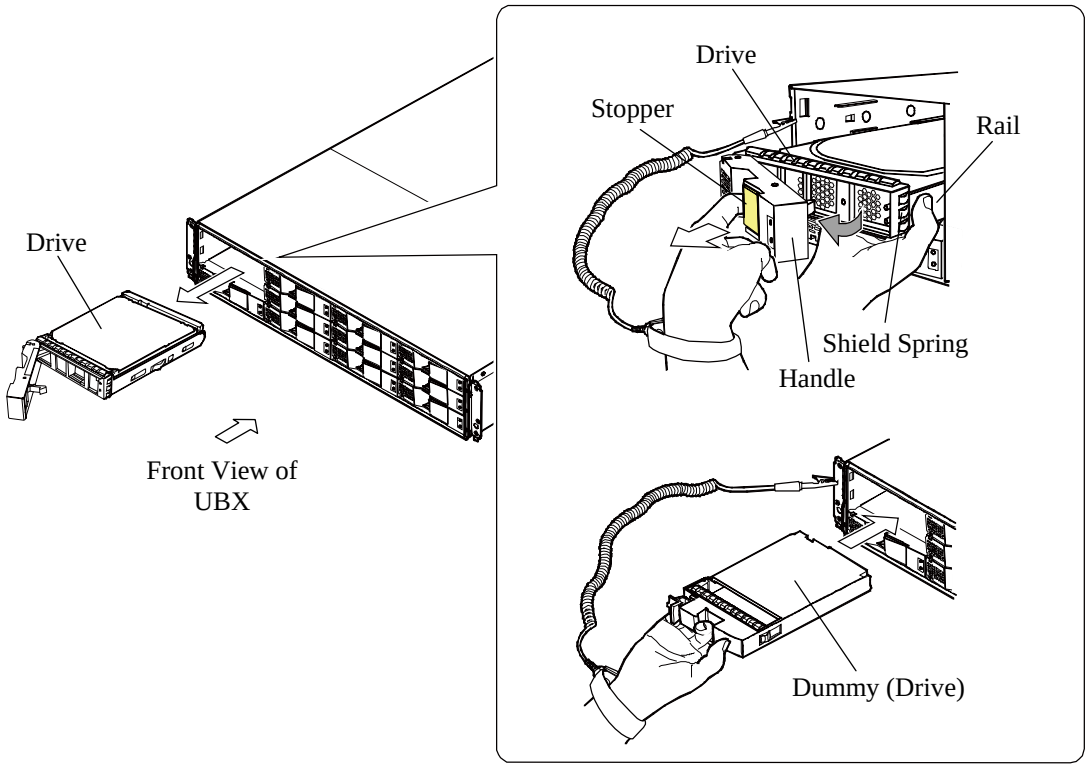


Fig. 4.1.4.3-16 Removal of Drive (In case of UBX)

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3-2 In case of SBX

a. Pull up the stopper of the drive handle toward you to release the lock.
b. Open the handle toward you, and then pull out and remove the drive to be replaced not to give a shock.
c. Insert the dummy (drive) to the drive chassis.

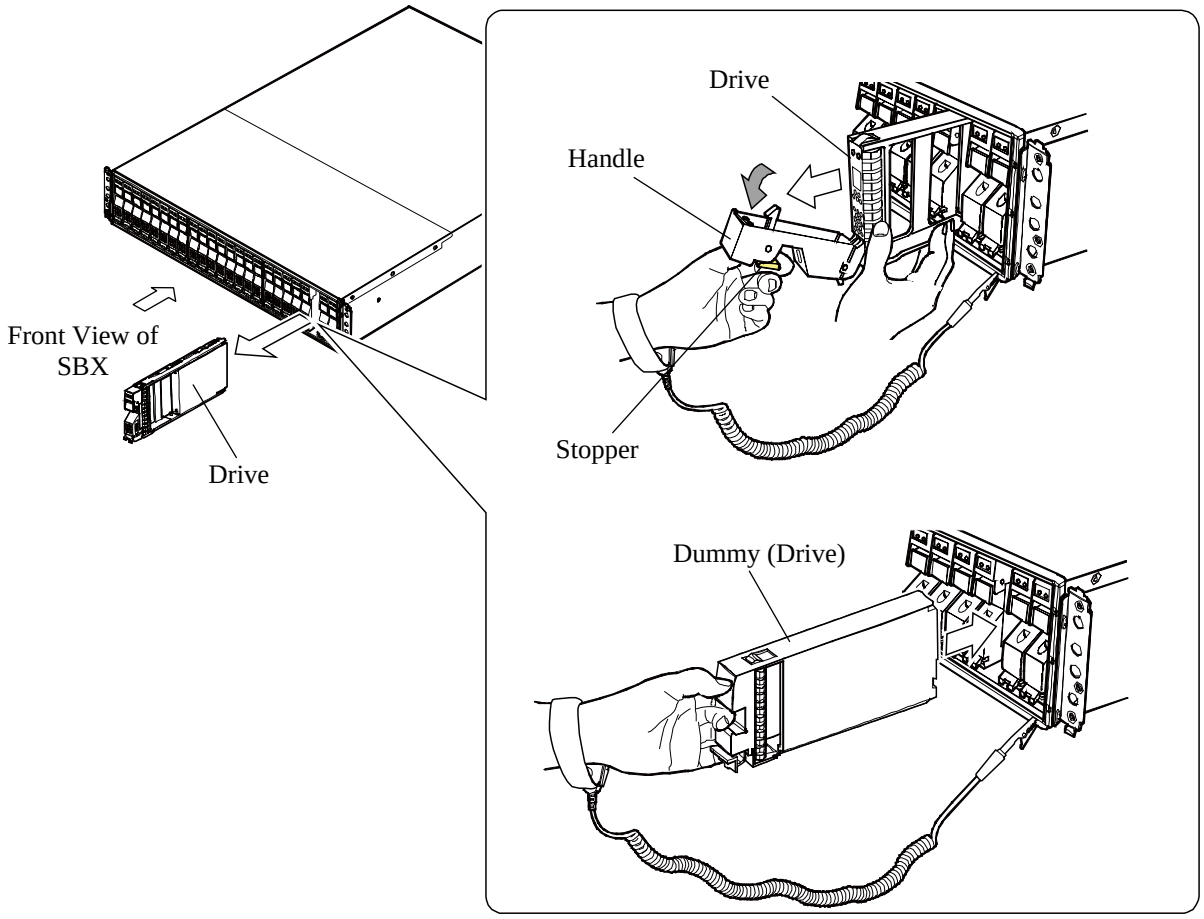
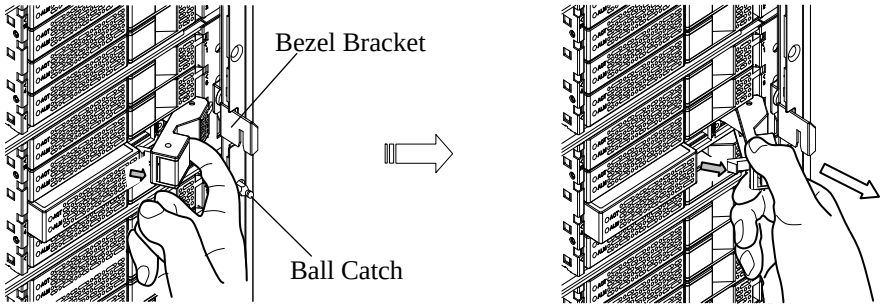


Fig. 4.1.4.3-17 Removal of Drive (In case of SBX)

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3-3 In case of FBX

NOTICE: When extracting drives (FMD) centered on the right side of the FBX, be careful not to get your finger caught in the Bezel Bracket and/or the Ball Catch. Slightly pull the Stopper with your fingertip and then extract a drive with holding upper and bottom sides of the Handle as shown in the figure below.



a. Pull the stopper of the drive handle toward you to have the lock off.
b. Tilt the handle toward you, and then remove the drive by pulling it out taking care not to apply a shock to it.

NOTE: When handling the drive, hold the rail side because the shield spring is subject to breakage.

c. Install the dummy FMD into de-installation position of a drive.

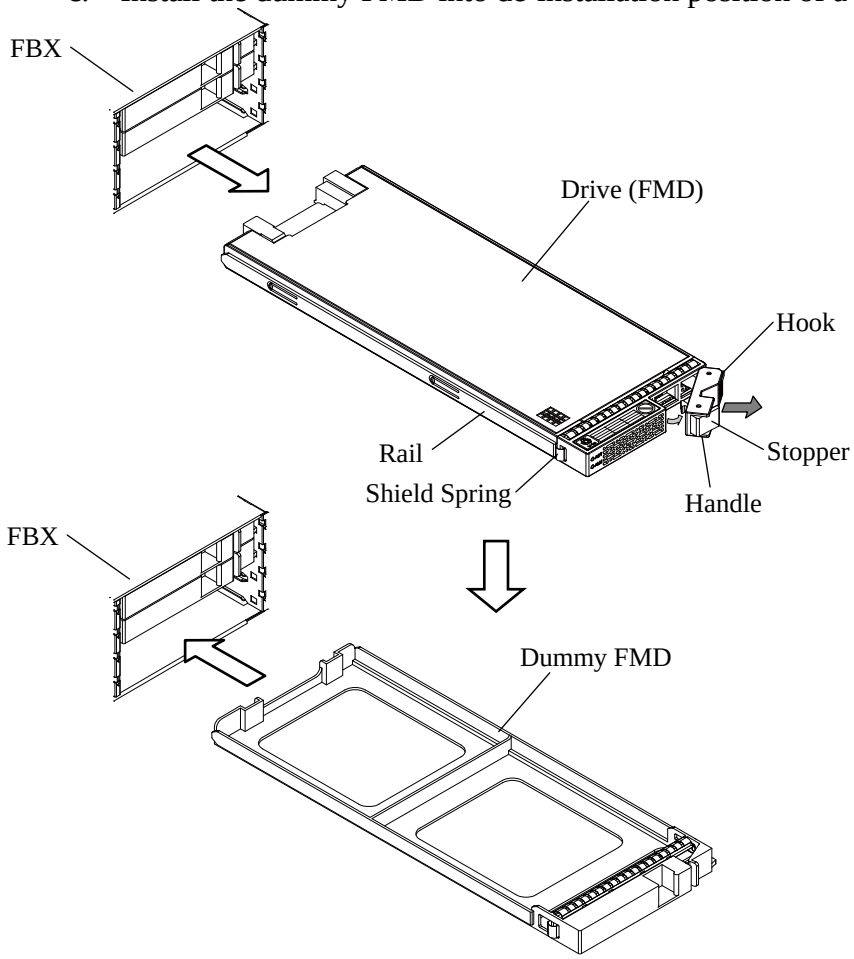


Fig. 4.1.4.3-18 Removal of Drive (In case of FBX)

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4.1.4.4 De-installation Procedure of Device Interface Cable CC1 (DKC-F810I-CC1)

NOTE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

De-Installation Condition

DKC-F810I-CC1 is a cable option to connect between FBX and FBX in one rack. When the upper FBX is de-installed, the cable option must also be de-installed.
Refer to below Table 4.1.4.4-1 for the condition of DKC-F810I-CC1 de-installation, and go to the appropriate page.

Table 4.1.4.4-1 Work Procedure Table

No.	Condition of Work Procedure	Page
1	When Device Interface Cable CC1 (DKC-F810I-CC1) is required to remove.	INST04-01C-790
2	When Device Interface Cable CC1 (DKC-F810I-CC1) is not required to remove.	INST04-01C-830

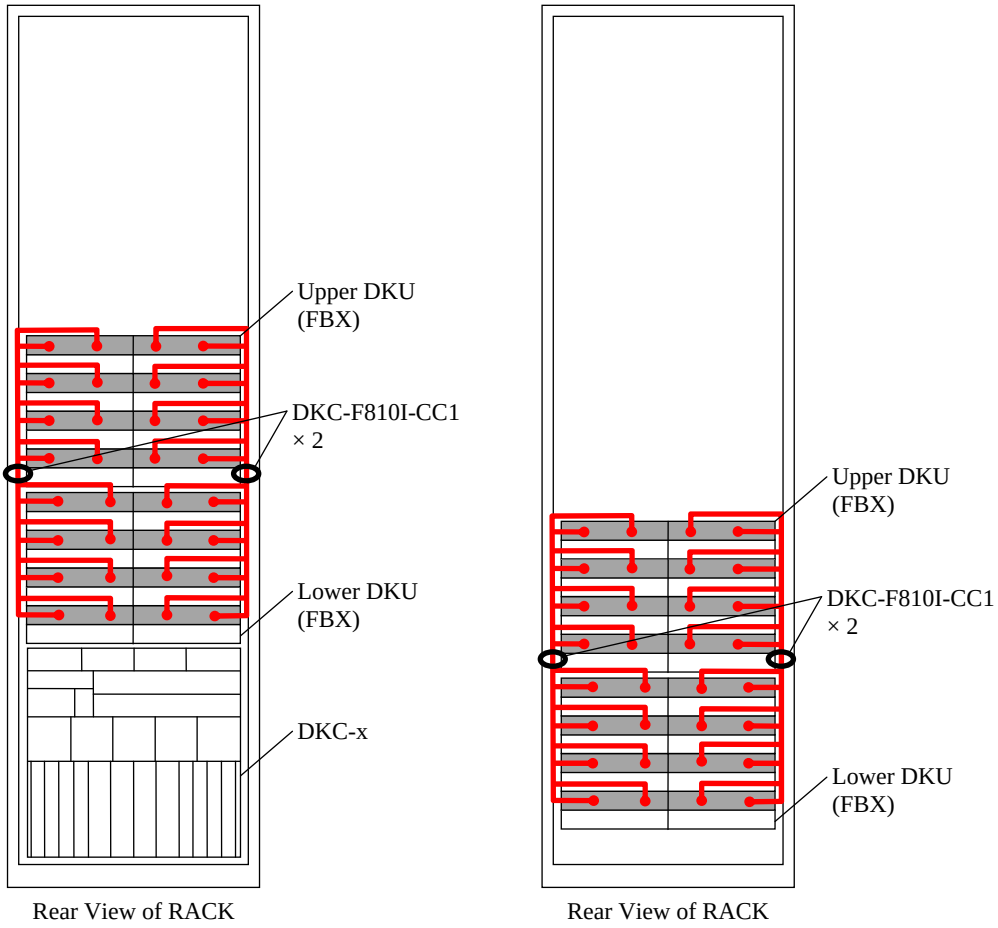


Fig. 4.1.4.4-1 Mounting Position of Device Interface Cable

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1. Disconnection of Cables
   a. Disconnect the sixteen cables from the SSWs in the lower DKU.
   b. Attach the caps to the disconnected cables.

> **⚠ CAUTION**
> A serious failure occurs if a wrong cable or connector is removed.
> Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

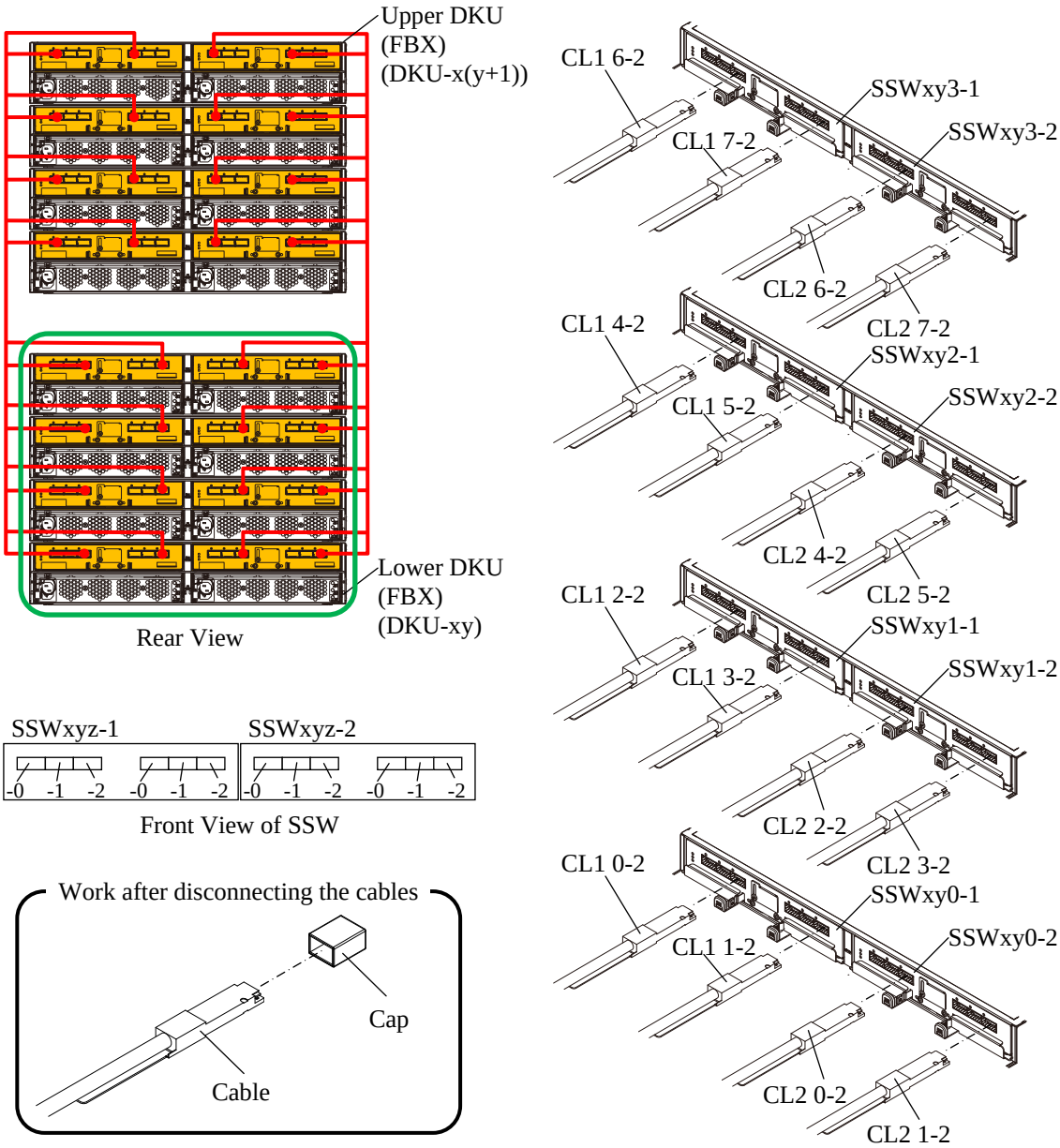


Fig. 4.1.4.4-2 Disconnection of Cables (CC1_DKU-xy)

c. Disconnect the sixteen cables from the SSWs in the upper DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

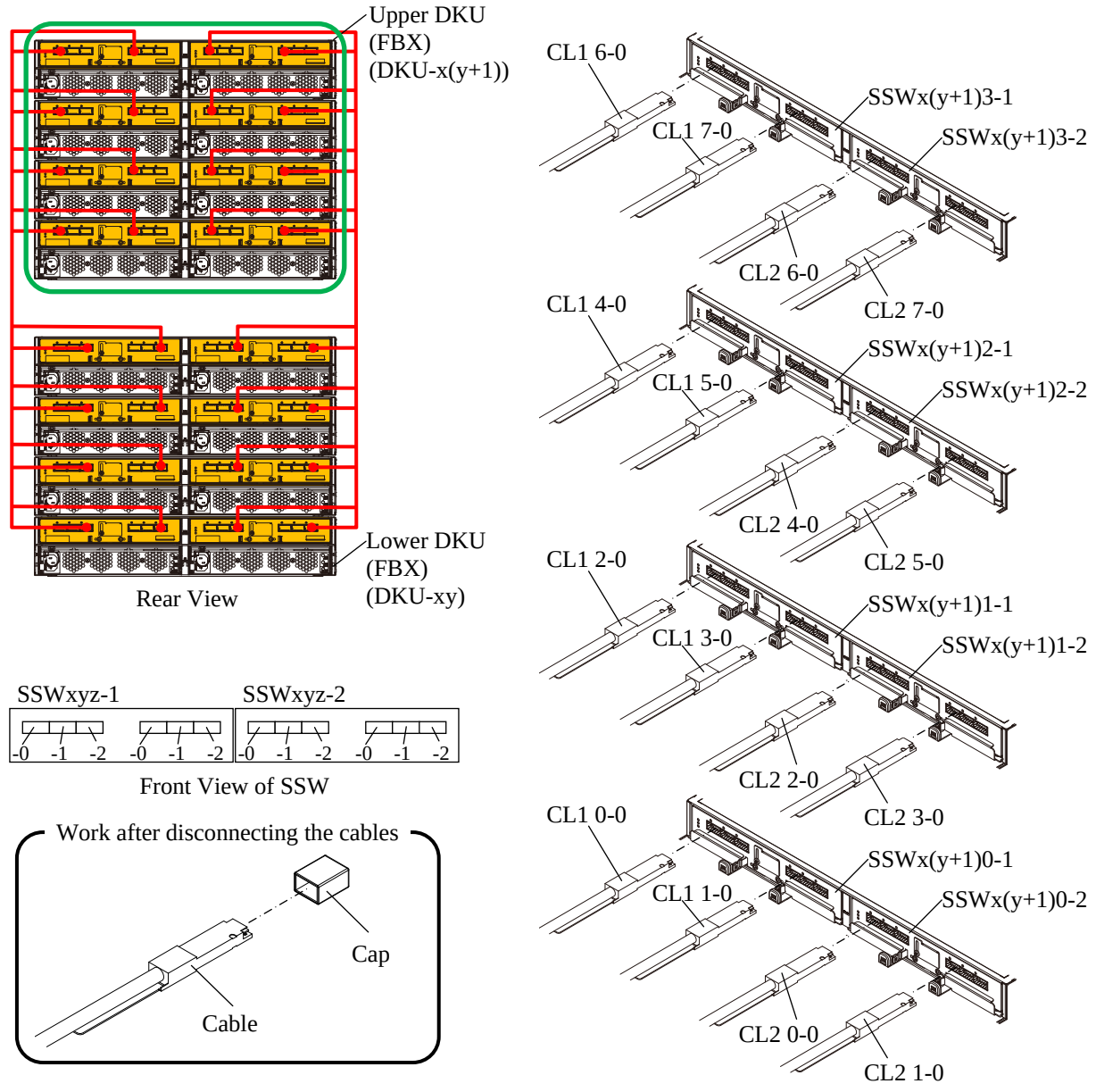


Fig. 4.1.4.4-3 Disconnection of Cables (CC1_DKU-x(y+1))

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2. Removal of Cables
   a. Open the loop cable ties and remove the eight cables in the cluster 1.

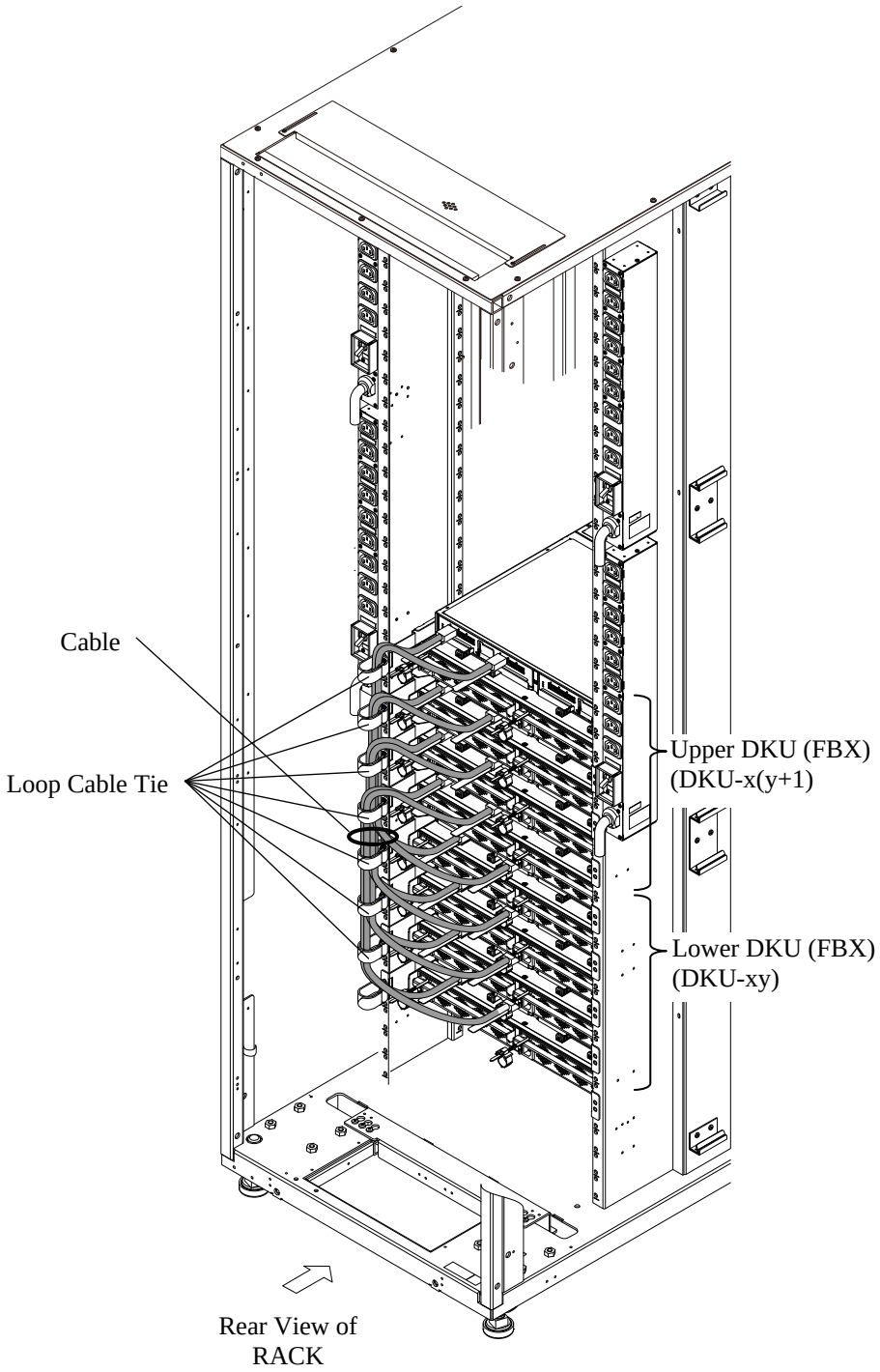


Fig. 4.1.4.4-4 Removal of Cables (DKU-xy (FBX) – DKU-x(y+1) (FBX))

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b. Open the loop cable ties and remove the eight cables in the cluster 2.

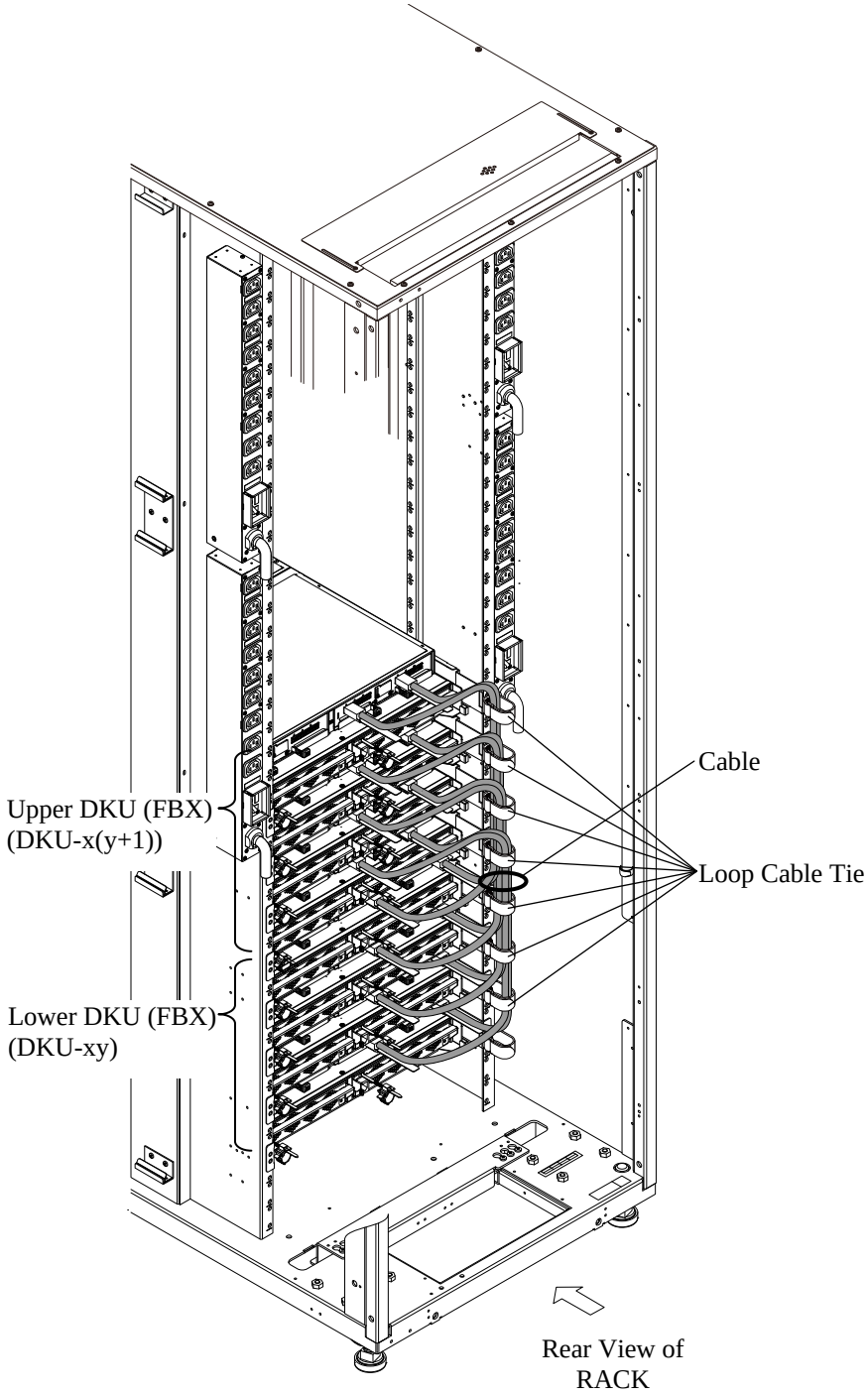


Fig. 4.1.4.4-5 Removal of Cables (DKU-xy (FBX) – DKU-x(y+1) (FBX))

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4.1.4.5 De-installation Procedure of Device Interface Cable CC2 (DKC-F810I-CC2)

NOTE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

De-Installation Condition

DKC-F810I-CC2 is a cable option to connect UBX/SBX and UBX/SBX/FBX in one rack. When the upper DKU is de-installed, the cable option must also be de-installed. (See Fig. 4.1.4.5-1 and Fig. 4.1.4.5-2.)
Refer to below Table 4.1.4.5-1 for the condition of DKC-F810I-CC2 de-installation, and go to the appropriate page.

Table 4.1.4.5-1 Work Procedure Table

No.	Condition of Work Procedure	Page
1	When Device Interface Cable CC2 (DKC-F810I-CC2) is required to remove.	INST04-01C-850
2	When Device Interface Cable CC2 (DKC-F810I-CC2) is not required to remove.	INST04-01C-1010

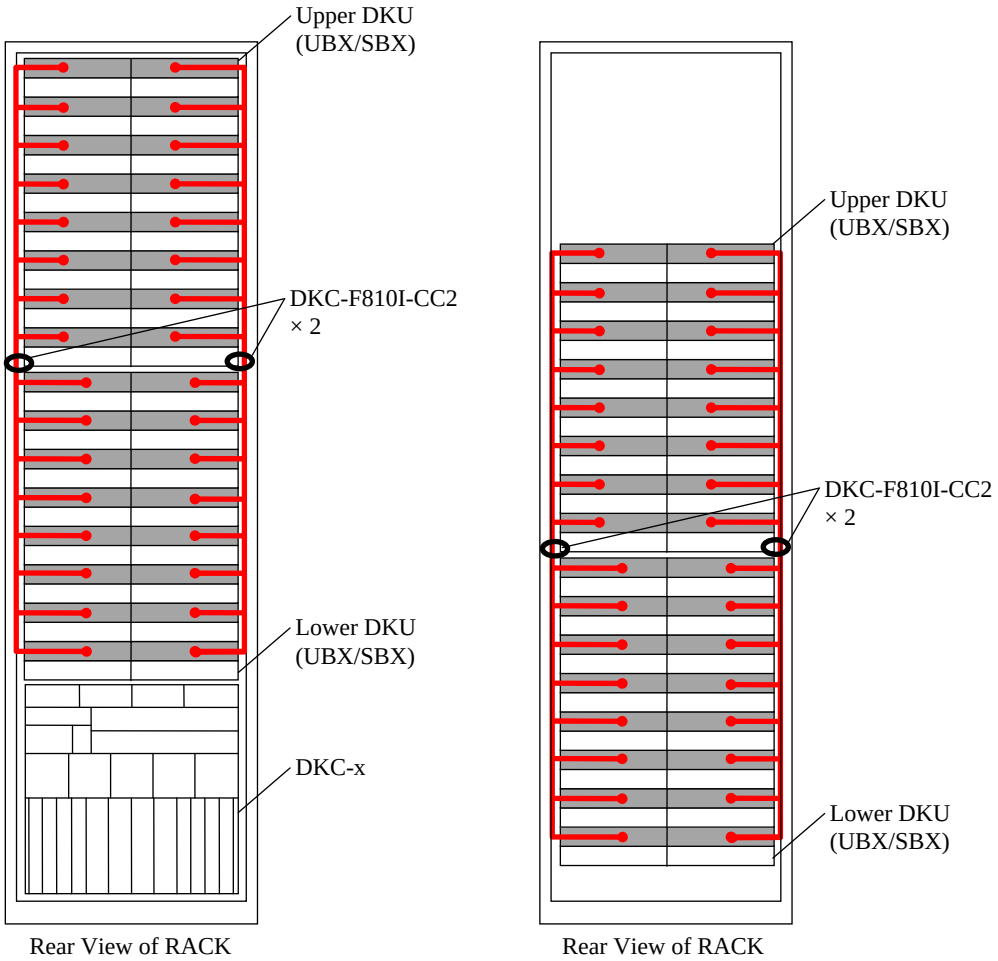


Fig. 4.1.4.5-1 Mounting Position of Device Interface Cable

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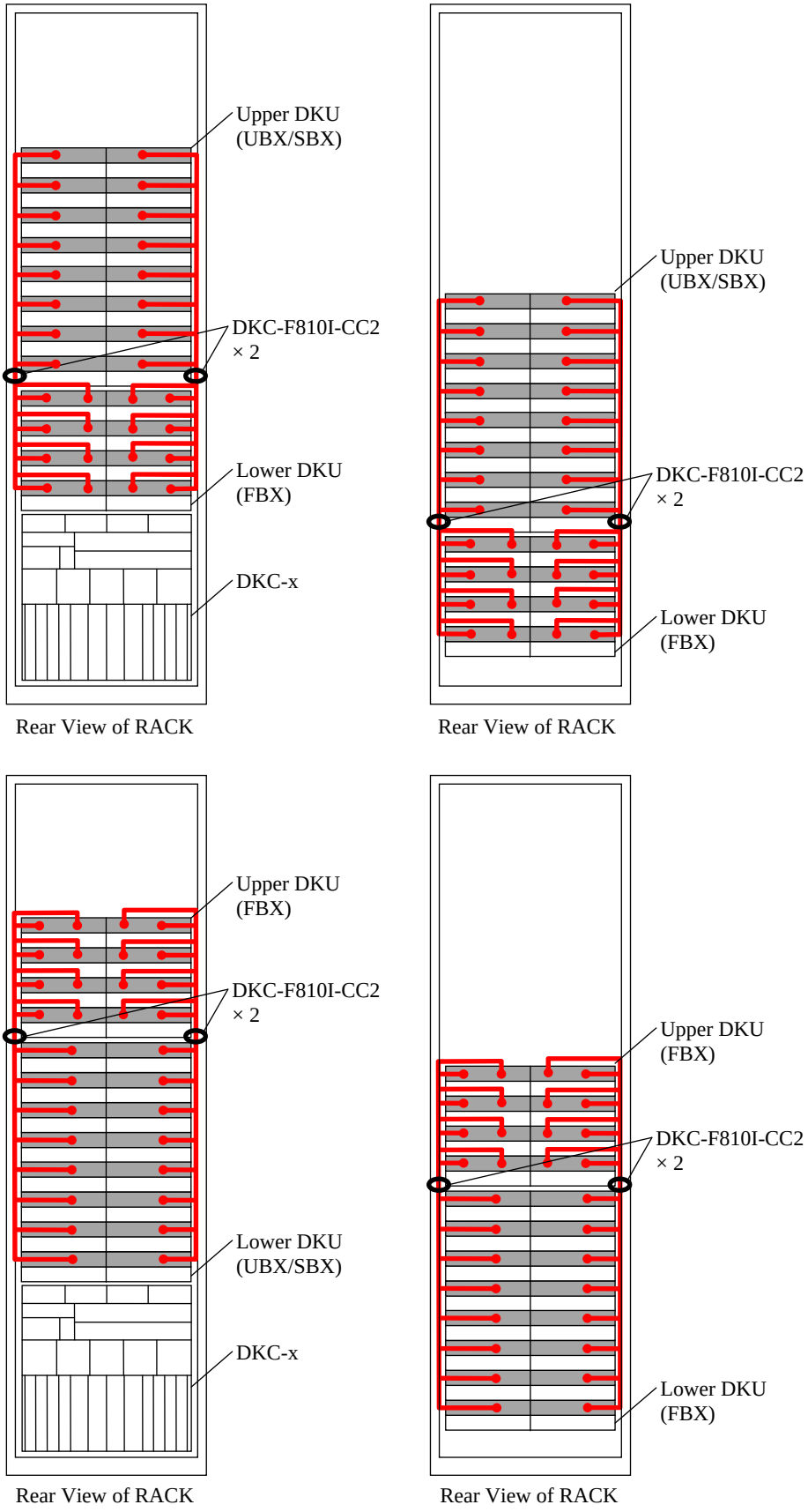


Fig. 4.1.4.5-2 Mounting Position of Device Interface Cable

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1. Disconnection of Cables

When disconnecting upper DKU (UBX/SBX) with lower DKU (UBX/SBX)

a. Disconnect the sixteen cables from the SSWs in the lower DKU. (Refer to Fig. 4.1.4.5-3 and Fig. 4.1.4.5-4.)
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

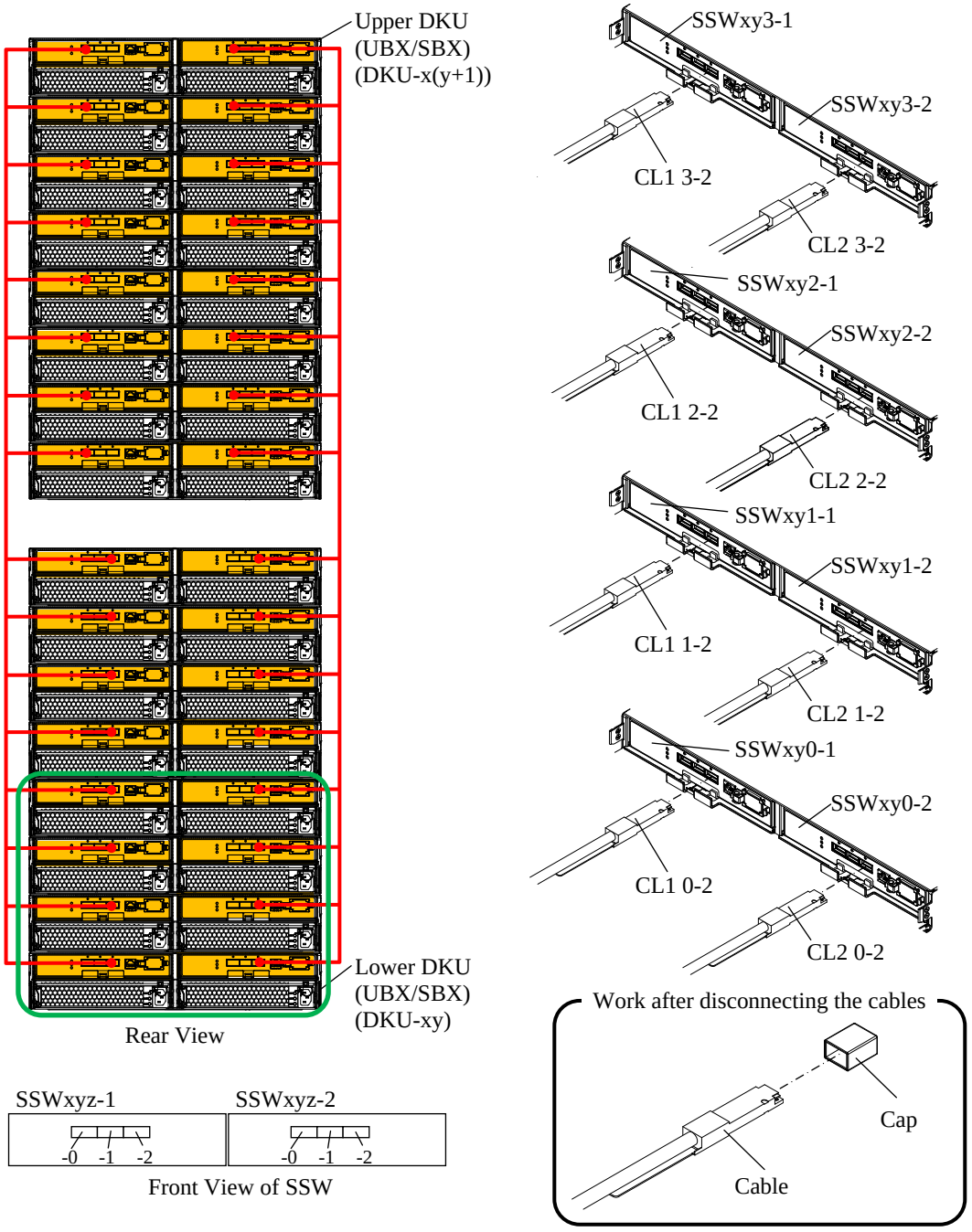


Fig. 4.1.4.5-3 Disconnection of Cables (CC2_DKU-xy_L)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

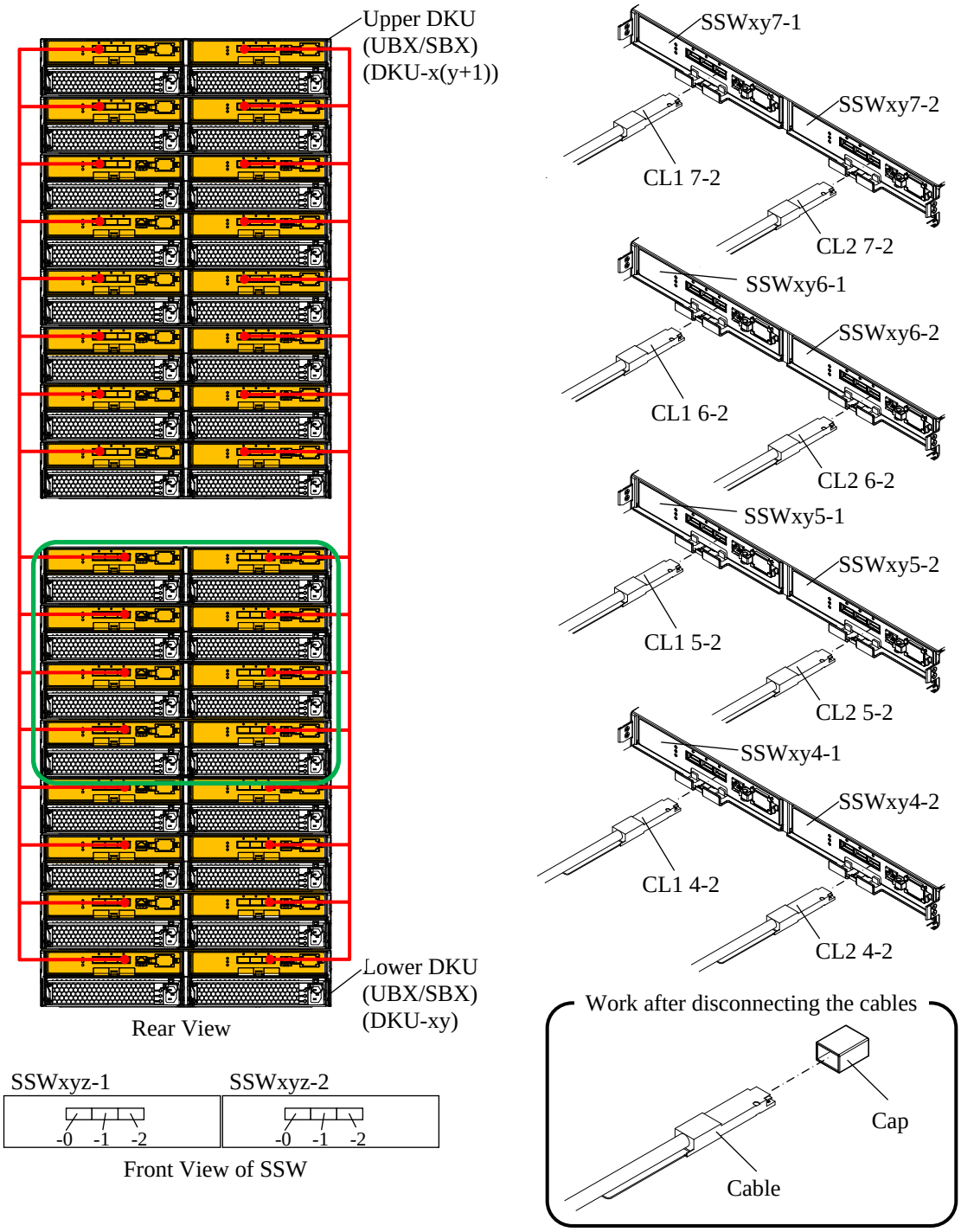


Fig. 4.1.4.5-4 Disconnection of Cables (CC2_DKU-xy_U)

c. Disconnect the sixteen cables from the SSWs in the upper DKU. (Refer to Fig. 4.1.4.5-5 and Fig. 4.1.4.5-6.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

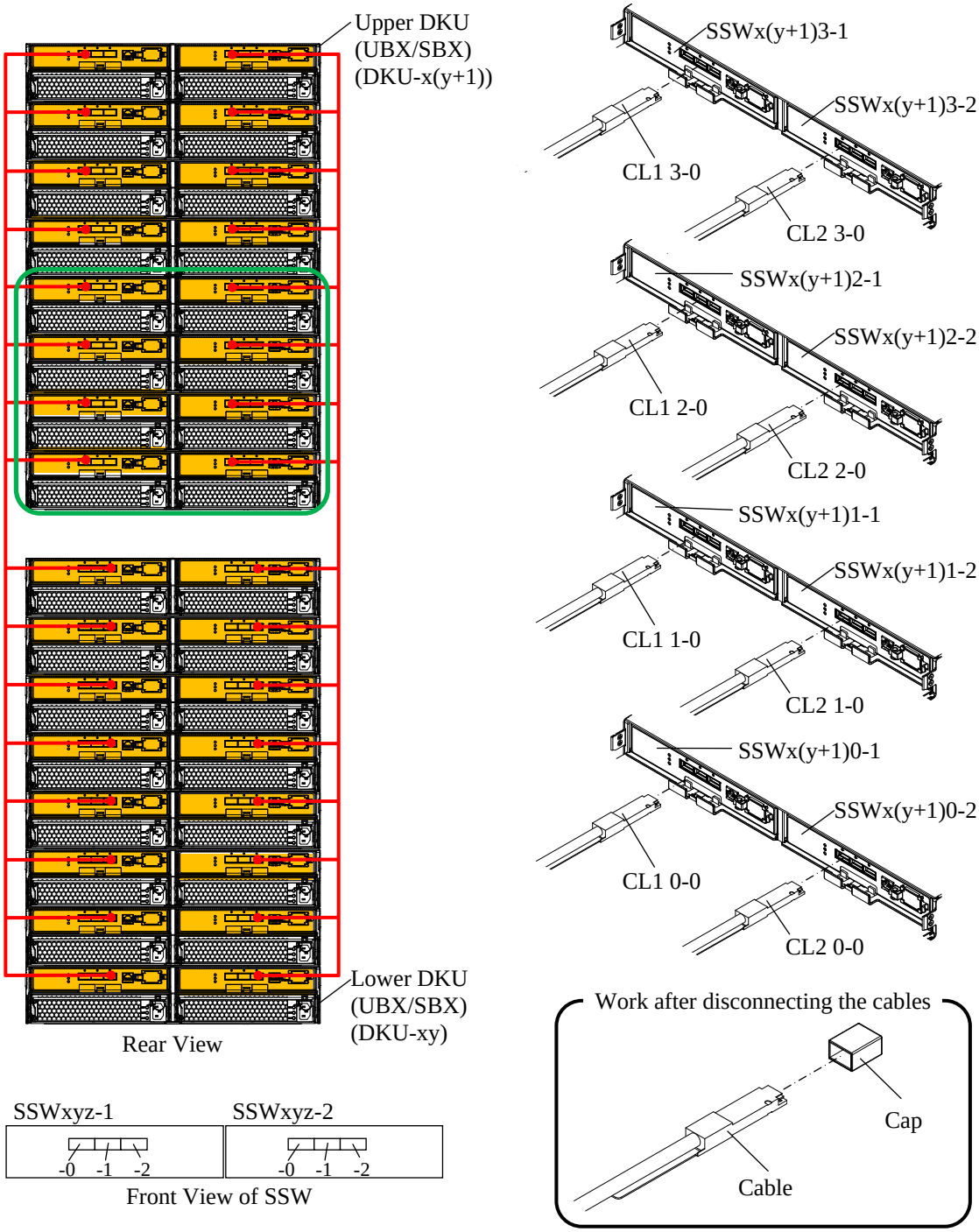


Fig. 4.1.4.5-5 Disconnection of Cables (CC2_DKU-x(y+1)_L)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

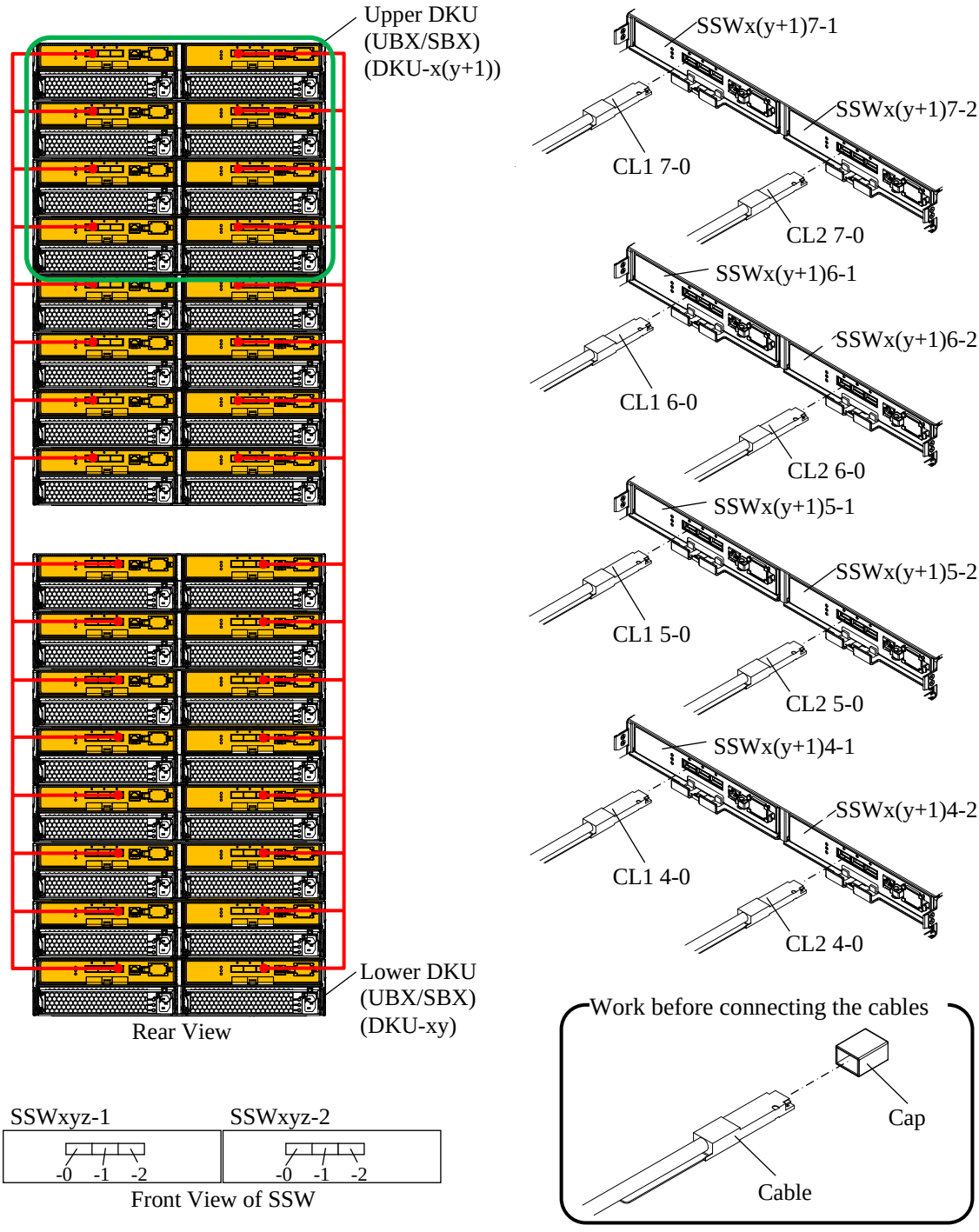


Fig. 4.1.4.5-6 Disconnection of Cables (CC2_DKU-x(y+1)_U)

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When disconnecting upper DKU (UBX/SBX) with lower DKU (FBX)

a. Disconnect the sixteen cables from the SSWs in the lower DKU.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

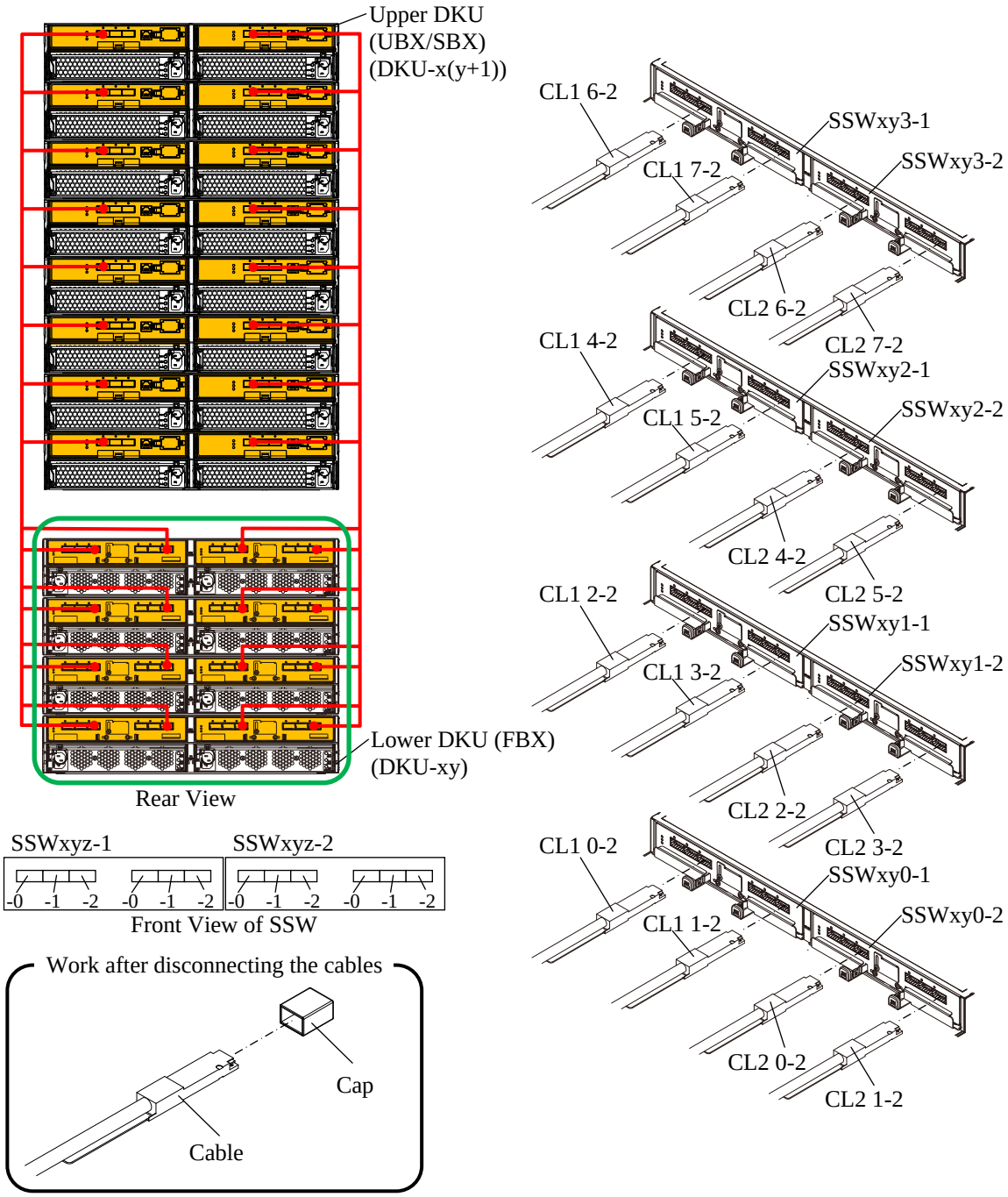


Fig. 4.1.4.5-7 Disconnection of Cables (CC2_DKU-xy)

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c. Disconnect the sixteen cables from the SSWs in the upper DKU. (Refer to Fig. 4.1.4.5-8 and Fig. 4.1.4.5-9.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

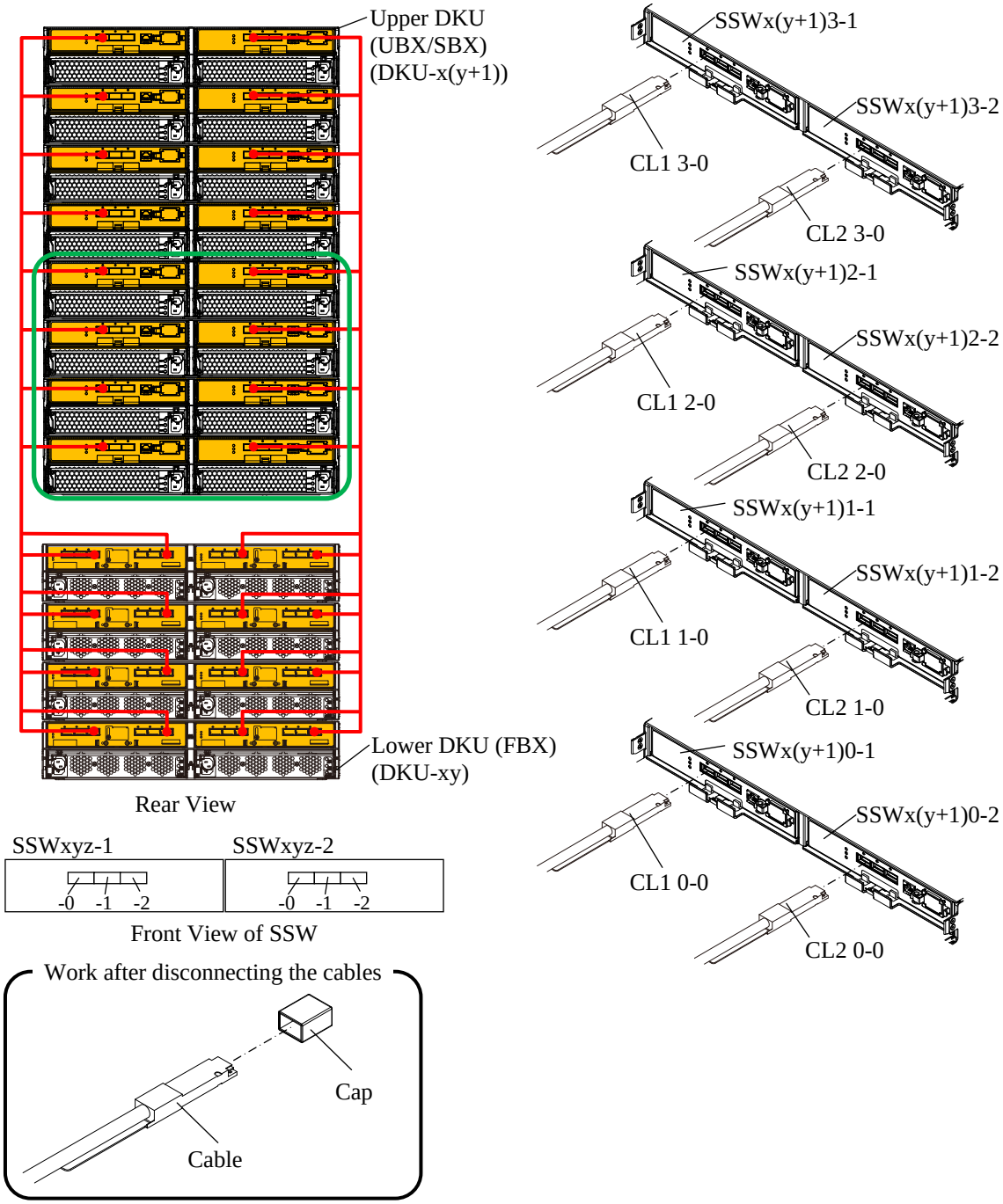


Fig. 4.1.4.5-8 Disconnection of Cables (CC2_DKU-x(y+1)_L)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

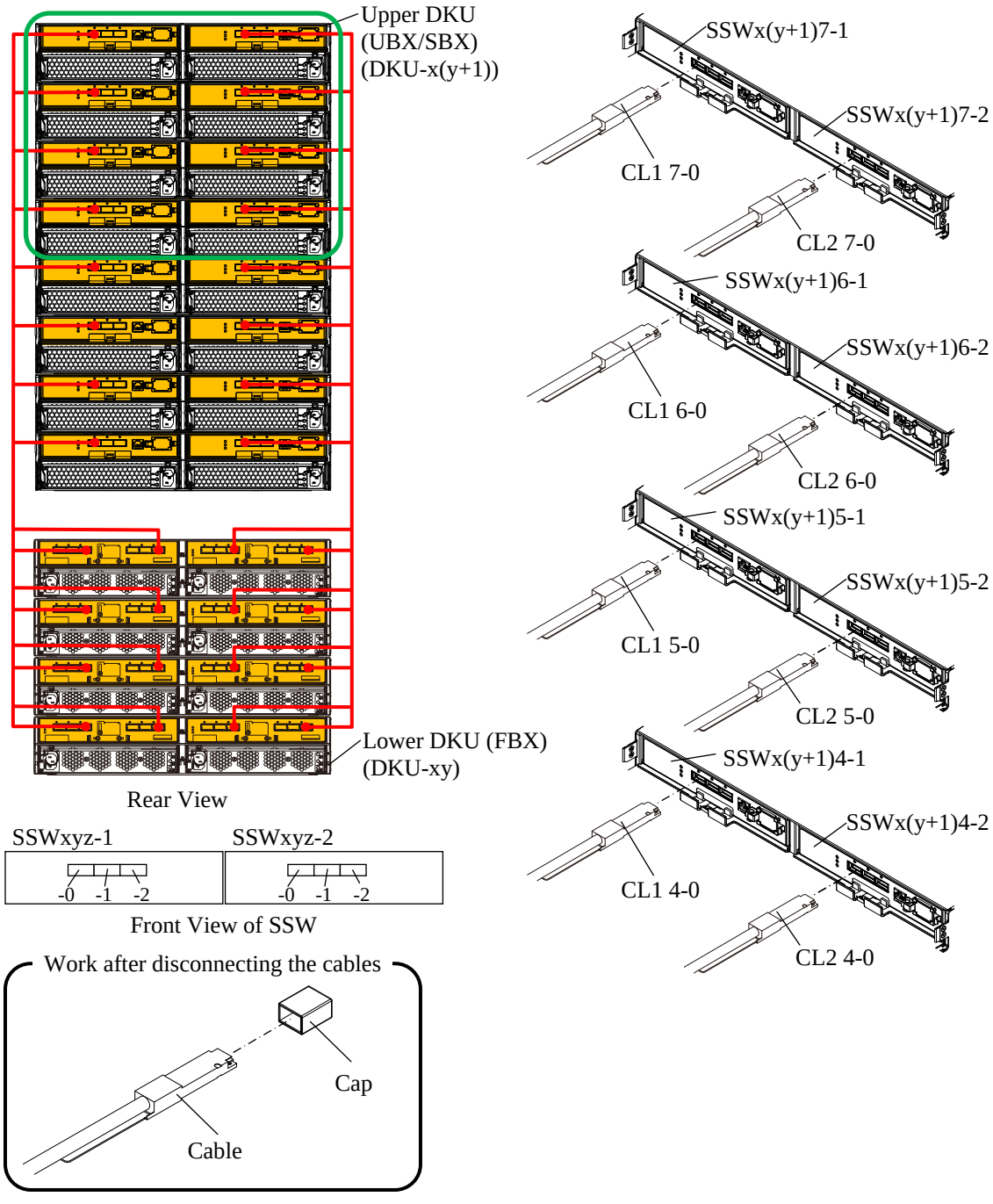


Fig. 4.1.4.5-9 Disconnection of Cables (CC2_DKU-x(y+1)_U)

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When disconnecting upper DKU (FBX) with lower DKU (UBX/SBX)

a. Disconnect the sixteen cables from the SSWs in the lower DKU. (Refer to Fig. 4.1.4.5-10 and Fig. 4.1.4.5-11.)
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

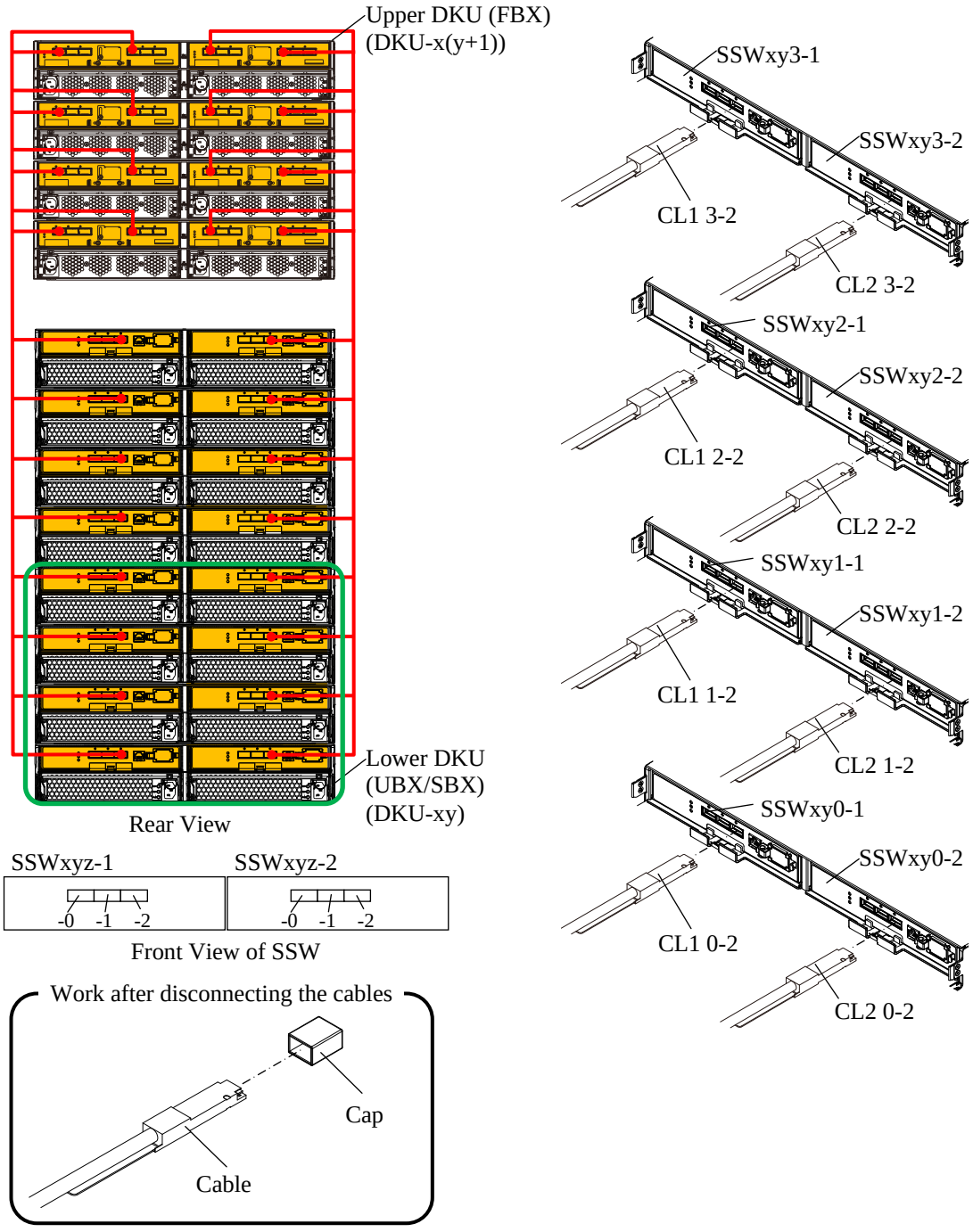


Fig. 4.1.4.5-10 Disconnection of Cables (CC2_DKU-xy_L)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

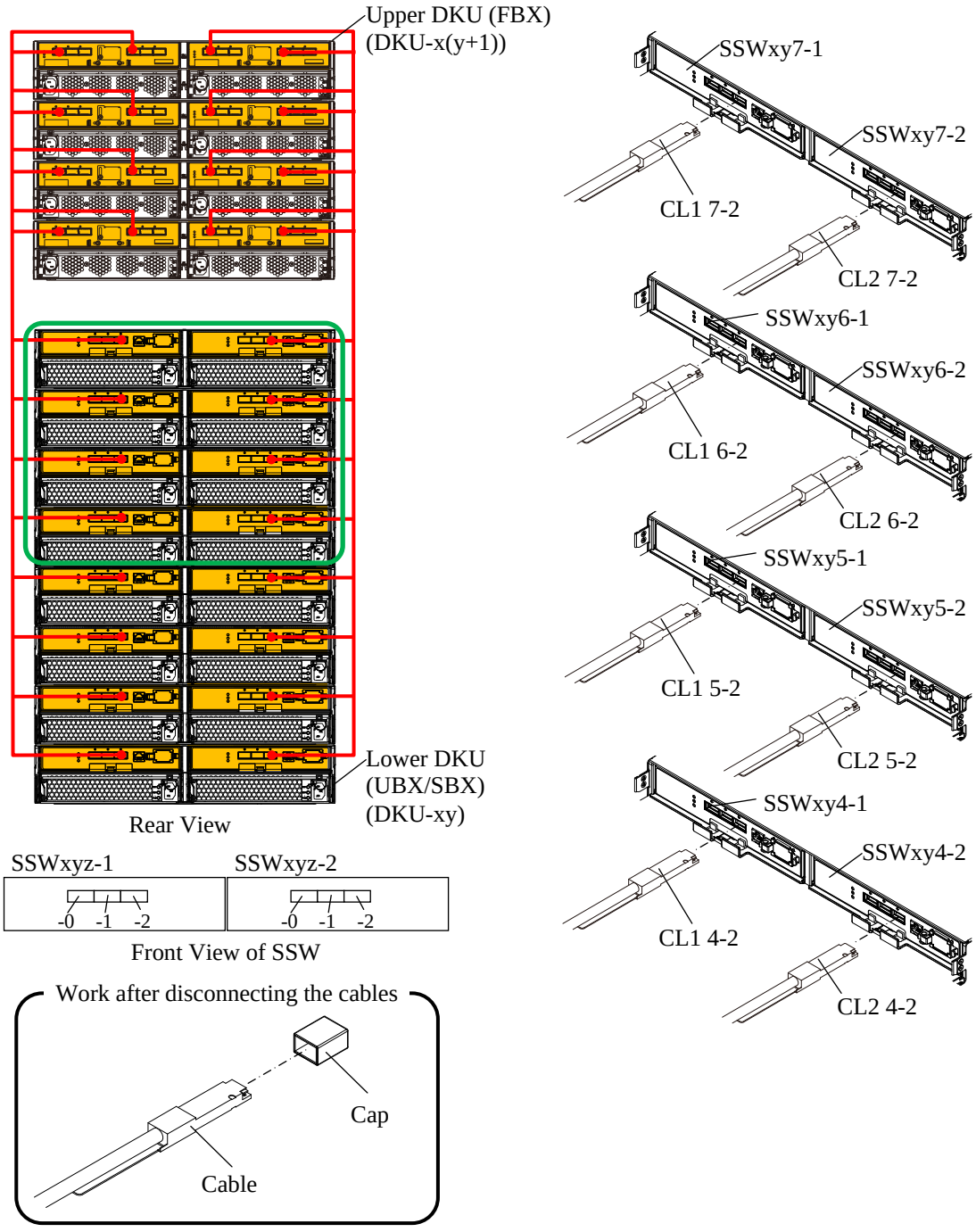


Fig. 4.1.4.5-11 Disconnection of Cables (CC2_DKU-xy_U)

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c. Disconnect the sixteen cables from the SSWs in the upper DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

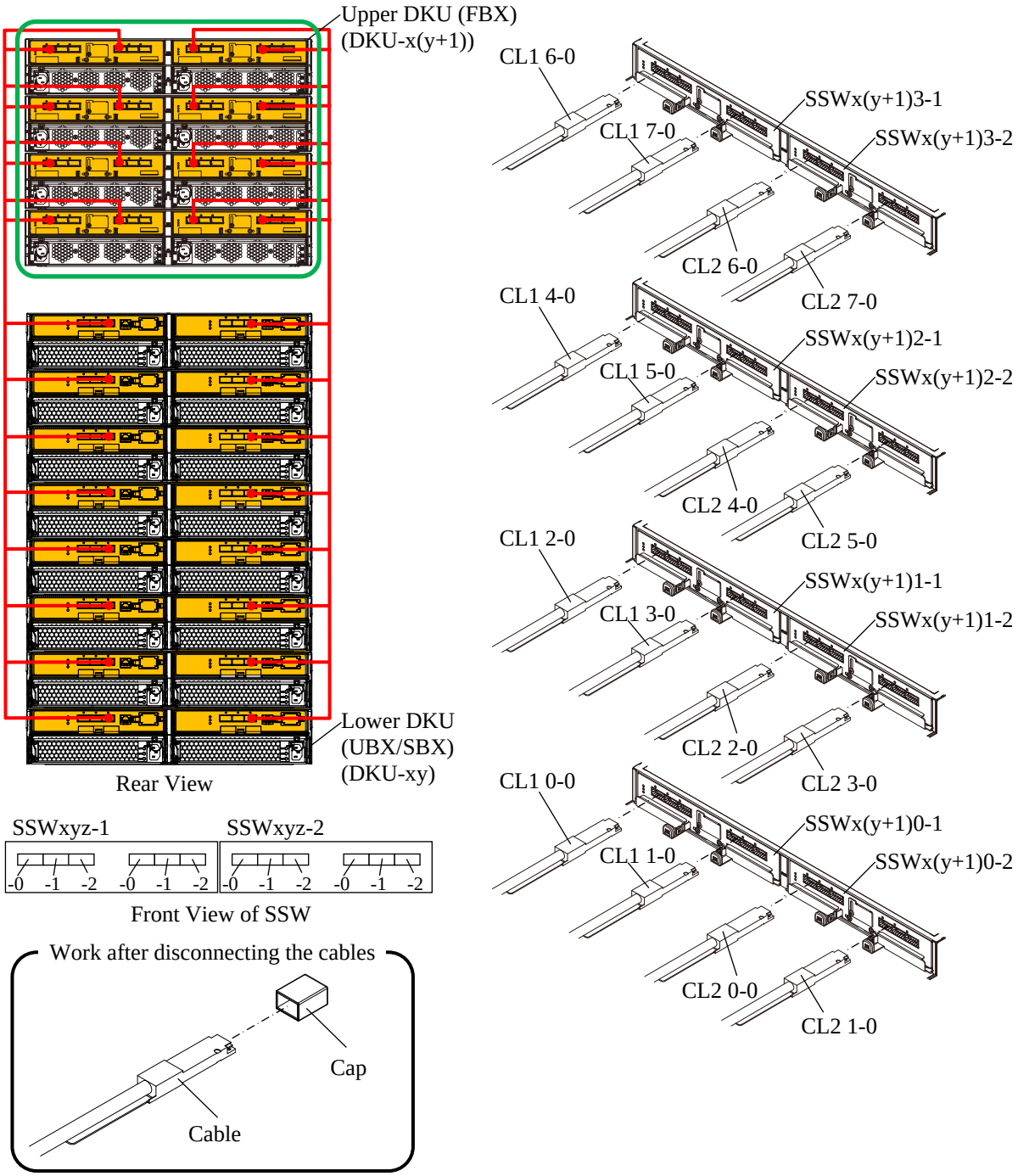


Fig. 4.1.4.5-12 Disconnection of Cables (CC2_DKU-x(y+1))

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2. Removal of Cables
   a. Open the loop cable ties and remove the eight cables in the cluster 1. (Refer to Fig. 4.1.4.5-13, Fig. 4.1.4.5-14 or Fig. 4.1.4.5-15.)

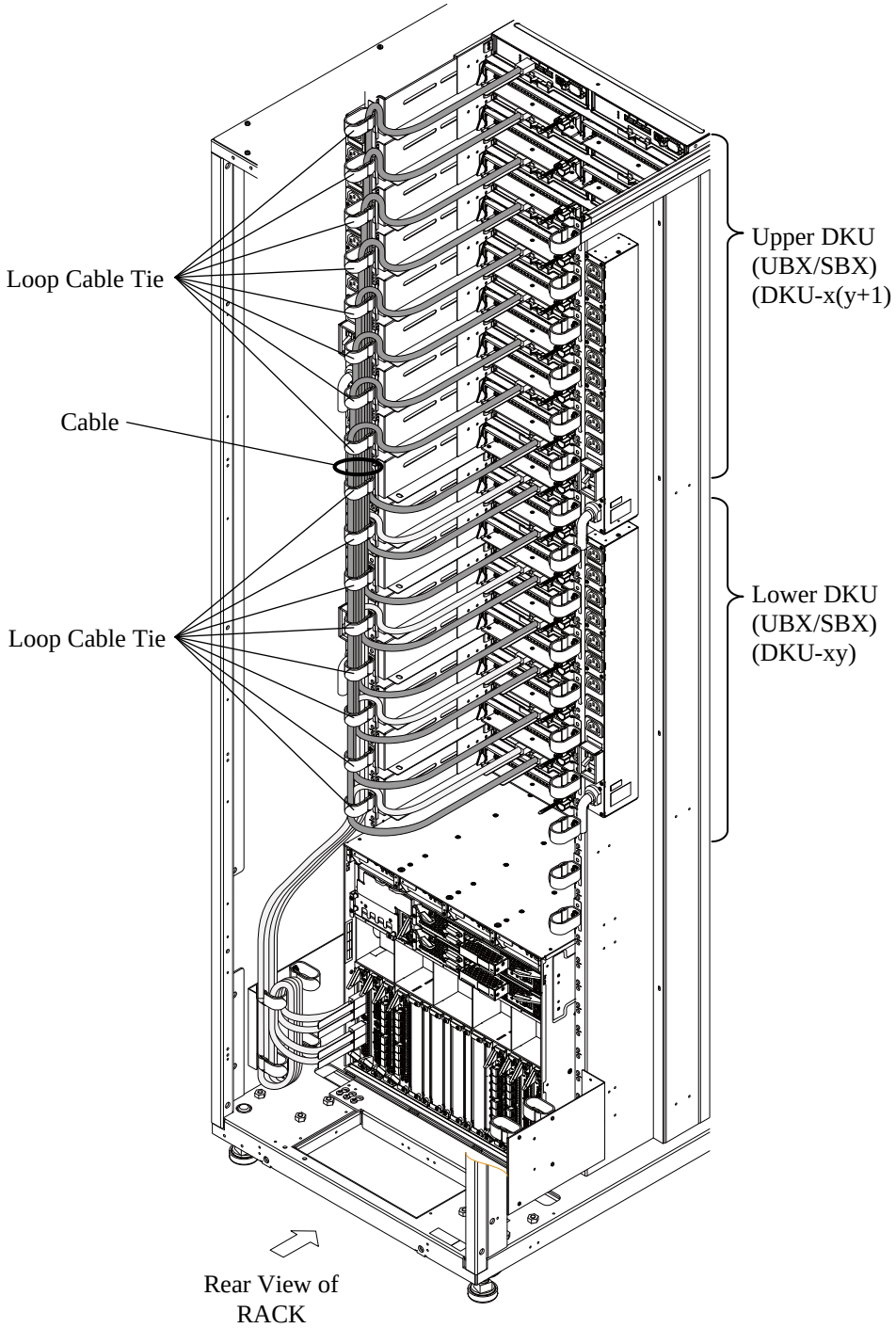


Fig. 4.1.4.5-13 Removal of Cables (DKU-xy (UBX/SBX) – DKU-x(y+1) (UBX/SBX))

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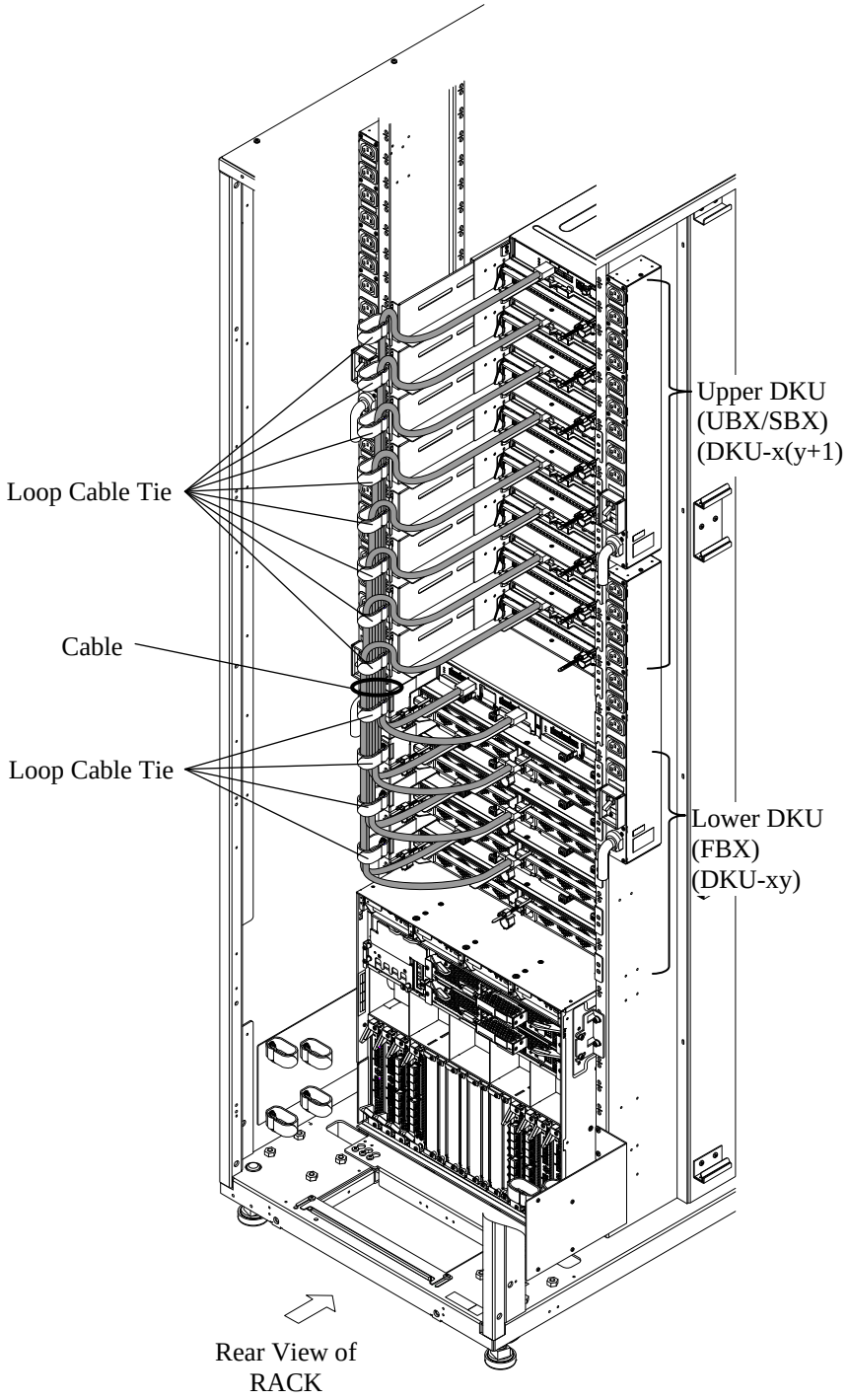


Fig. 4.1.4.5-14 Removal of Cables (DKU-xy (FBX) – DKU-x(y+1) (UBX/SBX))

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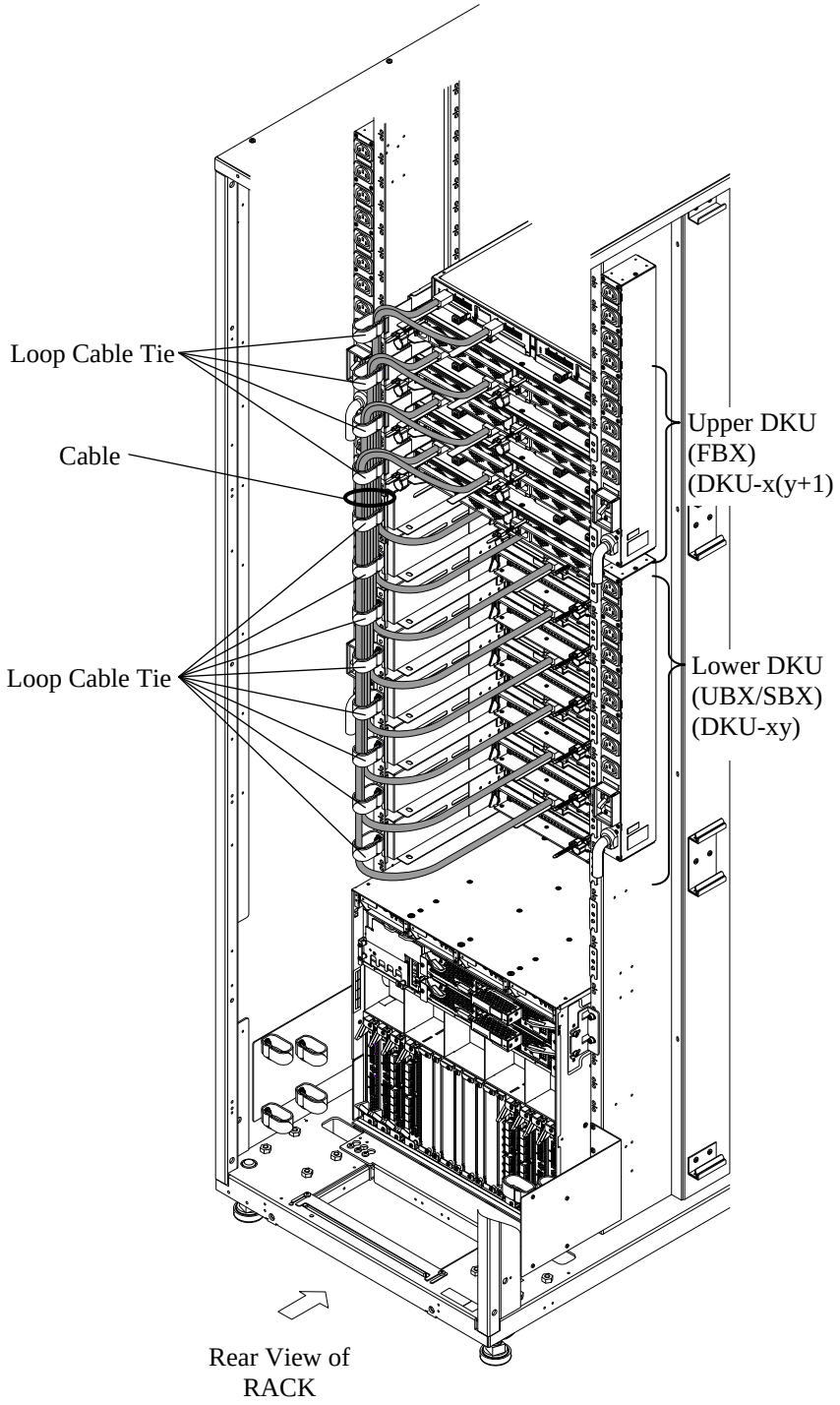


Fig. 4.1.4.5-15 Removal of Cables (DKU-xy (UBX/SBX) – DKU-x(y+1) (FBX))

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b. Open the loop cable ties and remove the eight cables in the cluster 2. (Refer to Fig. 4.1.4.5-16, Fig. 4.1.4.5-17 or Fig. 4.1.4.5-18.)

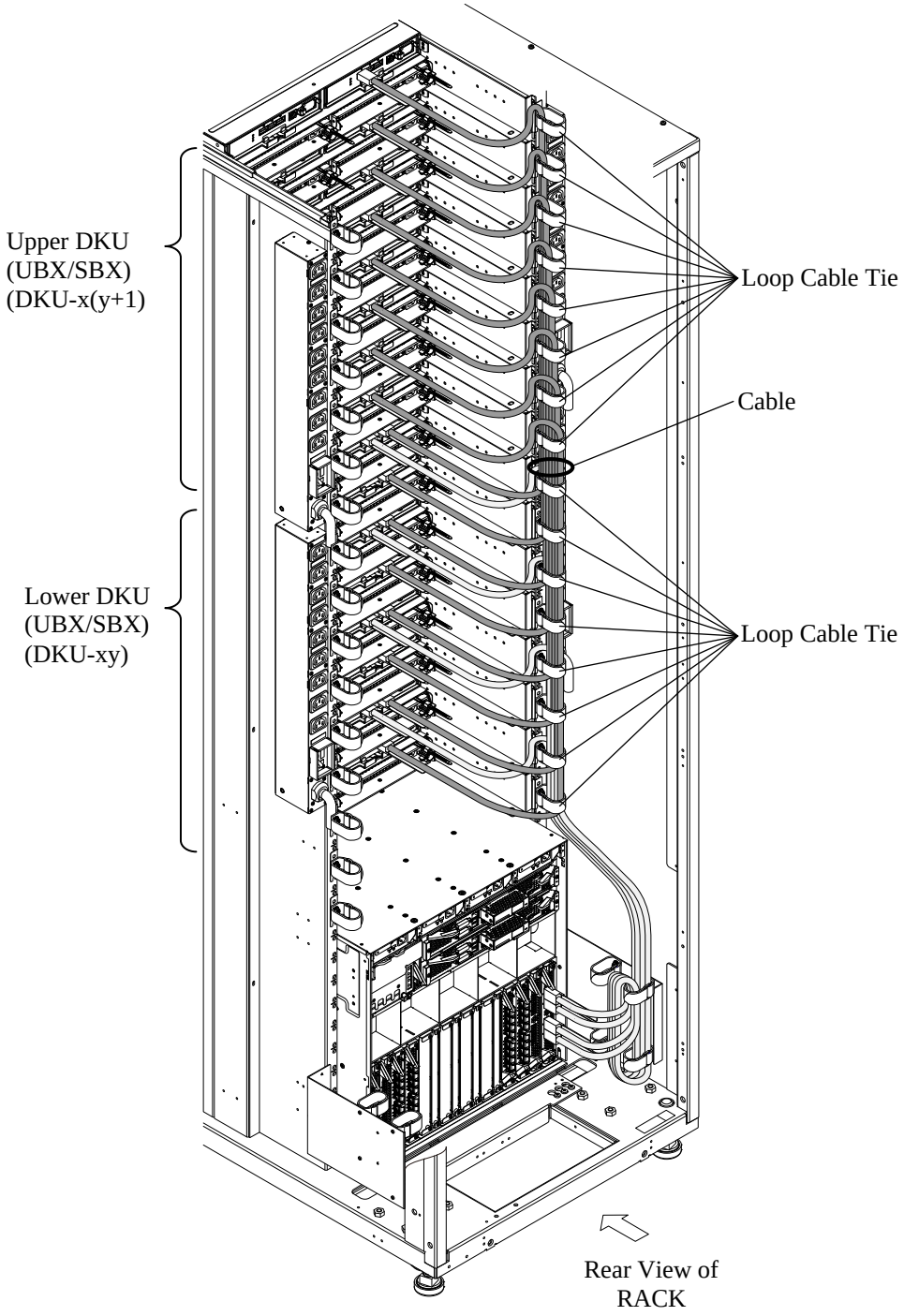


Fig. 4.1.4.5-16 Removal of Cables (DKU-xy (UBX/SBX) – DKU-x(y+1) (UBX/SBX))

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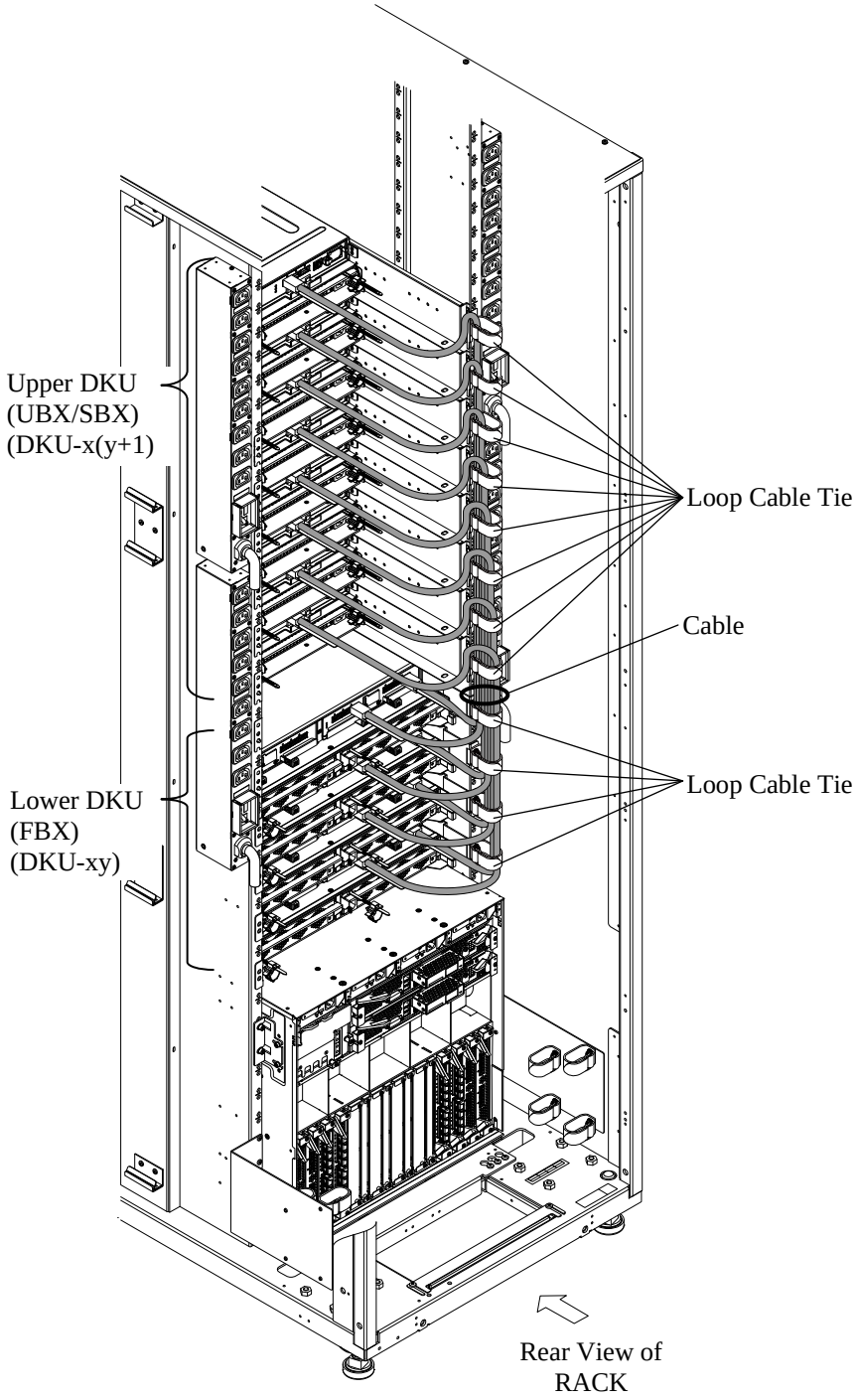


Fig. 4.1.4.5-17 Removal of Cables (DKU-xy (FBX) – DKU-x(y+1) (UBX/SBX))

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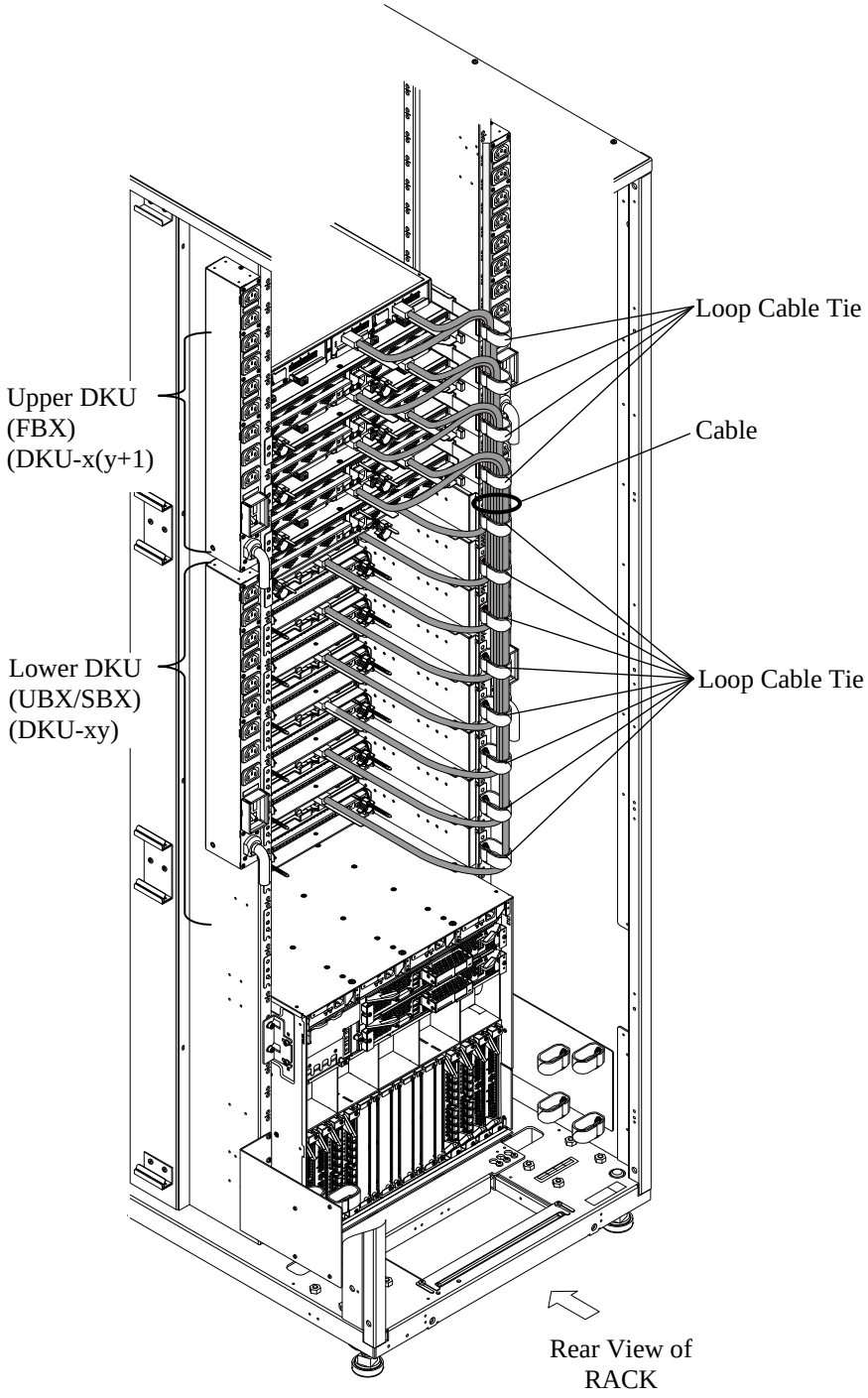


Fig. 4.1.4.5-18 Removal of Cables (DKU-xy (UBX/SBX) – DKU-x(y+1) (FBX))

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4.1.4.6 De-installation Procedure of Device Interface Cable CC4 (DKC-F810I-CC4)

NOTE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

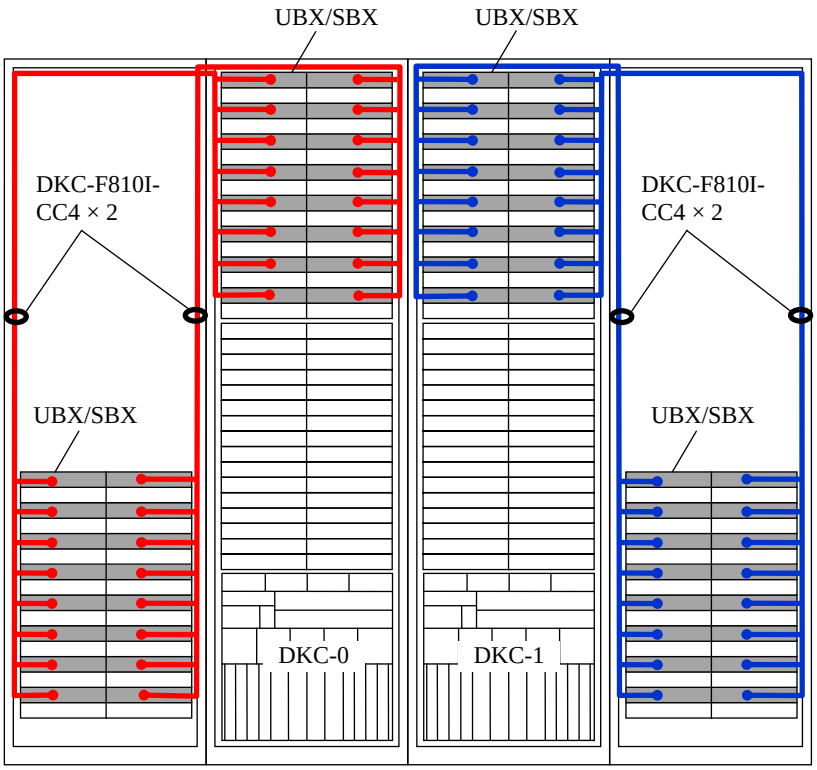
De-Installation Condition

DKC-F810I-CC4 is a cable option to connect between DKU (UBX/SBX/FBX) and DKU (UBX/SBX/FBX) in two racks. When one rack is de-installed, the cable option must also be de-installed. (See Fig. 4.1.4.6-1 through Fig. 4.1.4.6-4.)
Refer to below Table 4.1.4.6-1 for the condition of DKC-F810I-CC4 de-installation, and go to the appropriate page.

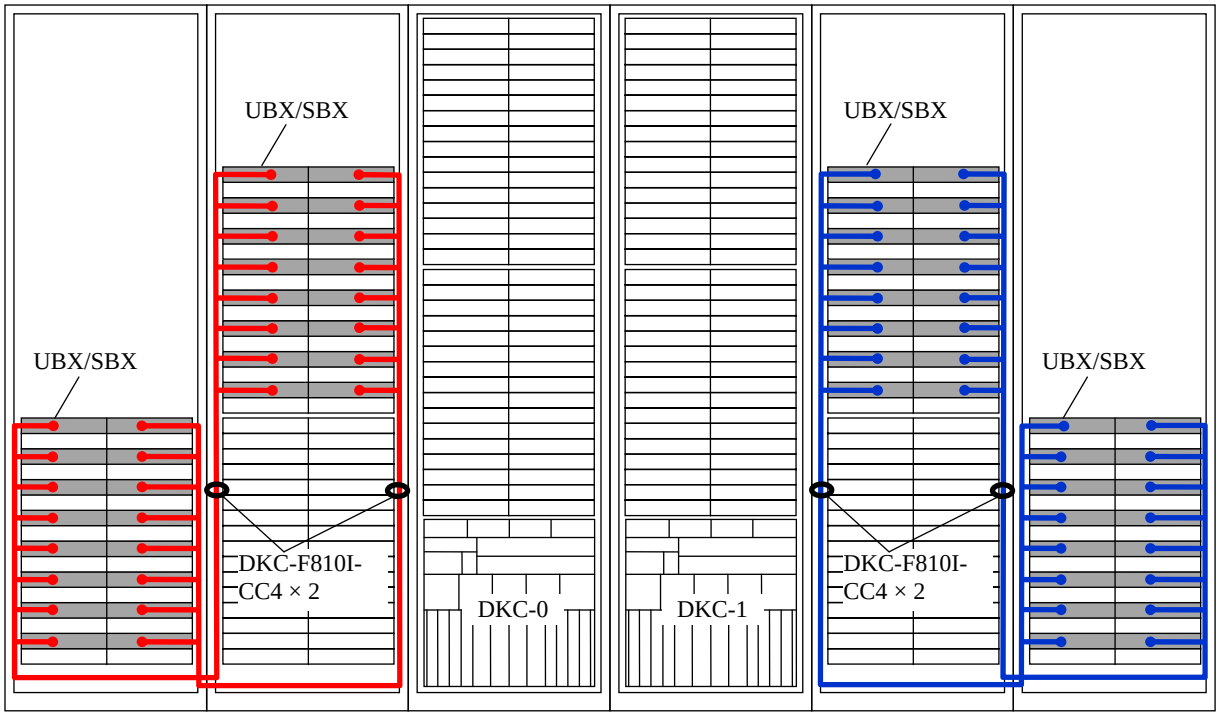
Table 4.1.4.6-1 Work Procedure Table

No.	Condition of Work Procedure	Page
1	When Device Interface Cable CC4 (DKC-F810I-CC4) is required to remove.	INST04-01C-1060
2	When Device Interface Cable CC4 (DKC-F810I-CC4) is not required to remove.	INST04-01C-1310

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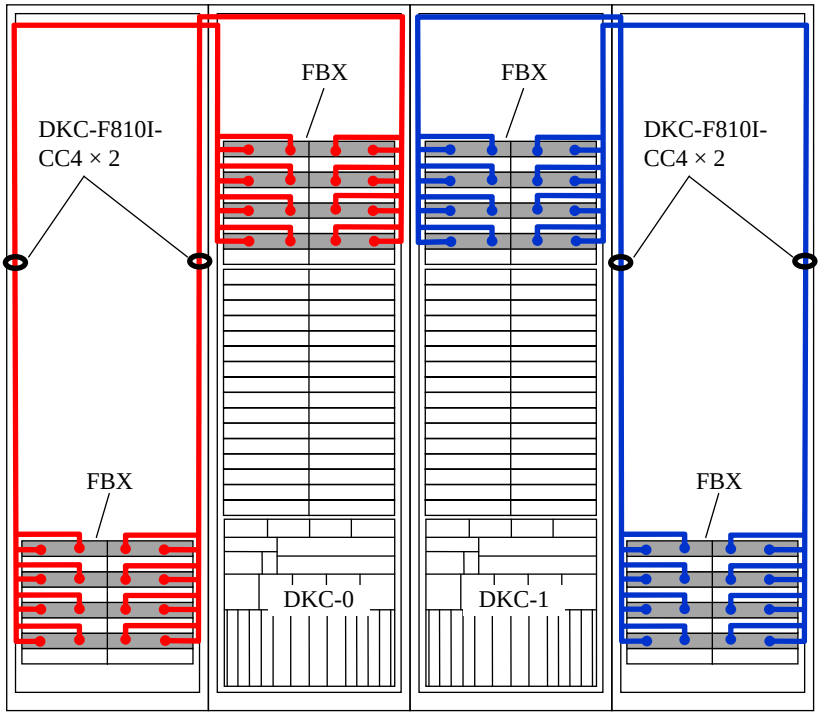
Rear View of RACK



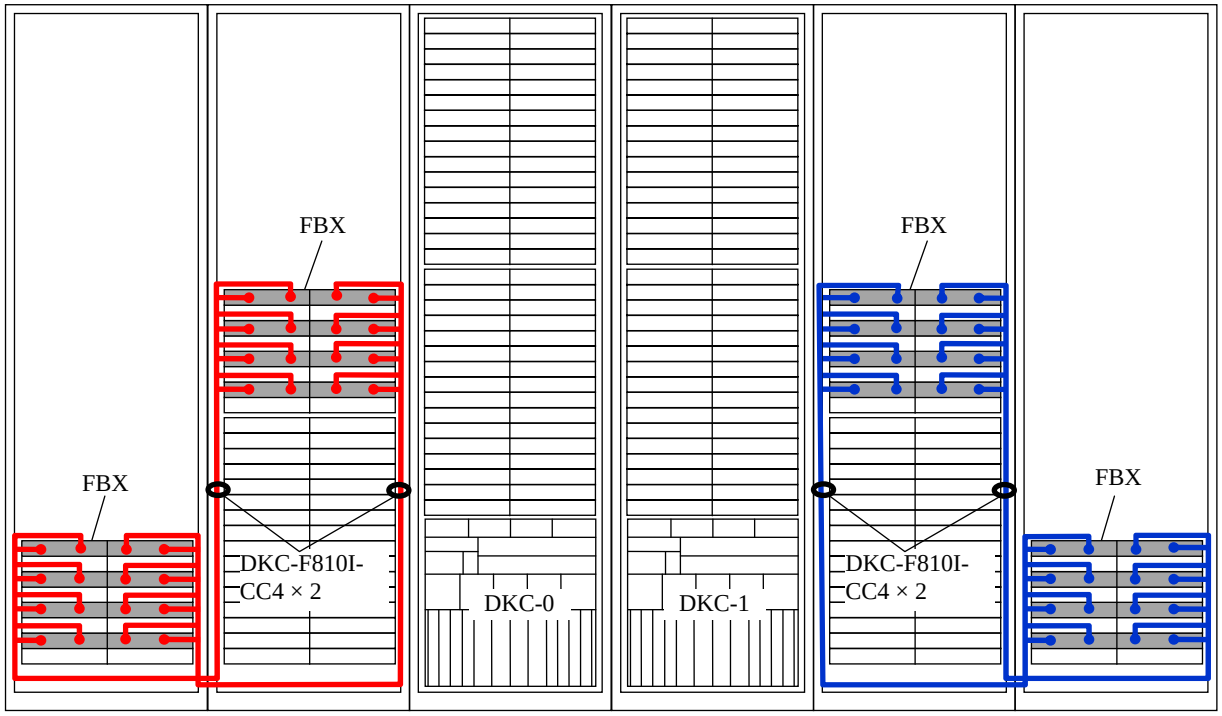
Rear View of RACK

Fig. 4.1.4.6-1 Mounting Position of Device Interface Cable (UBX/SBX – UBX/SBX)

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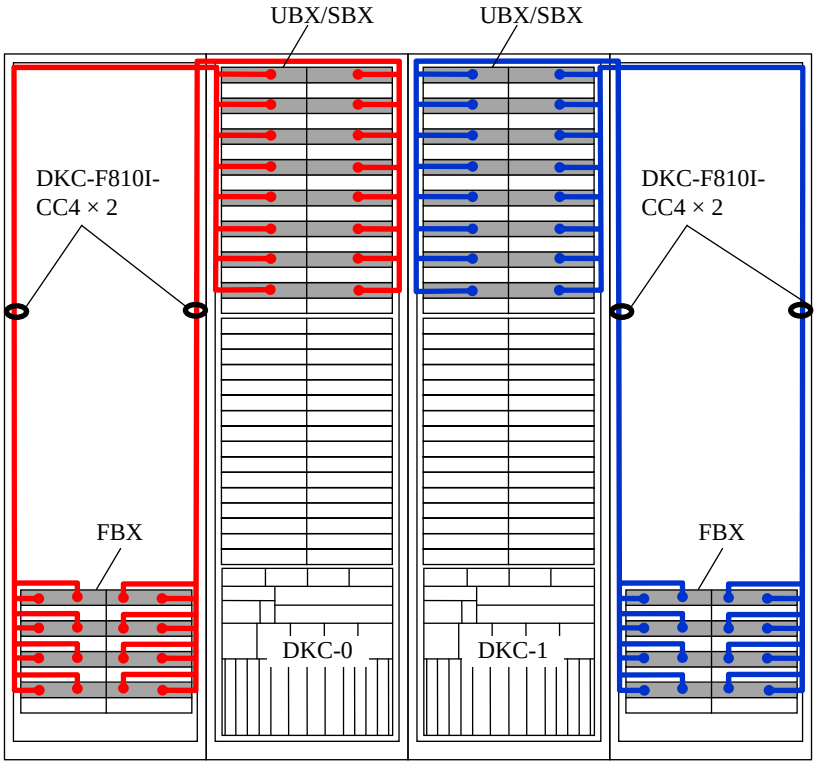
Rear View of RACK



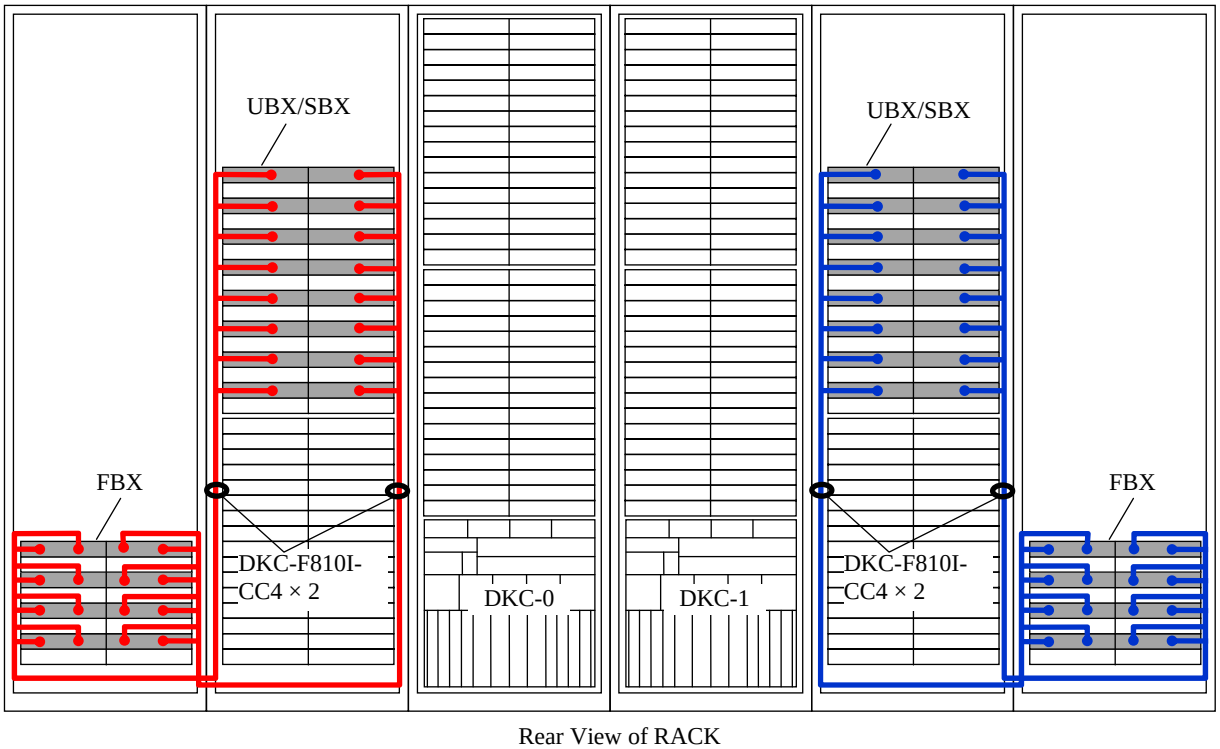
Rear View of RACK

Fig. 4.1.4.6-2 Mounting Position of Device Interface Cable (FBX – FBX)

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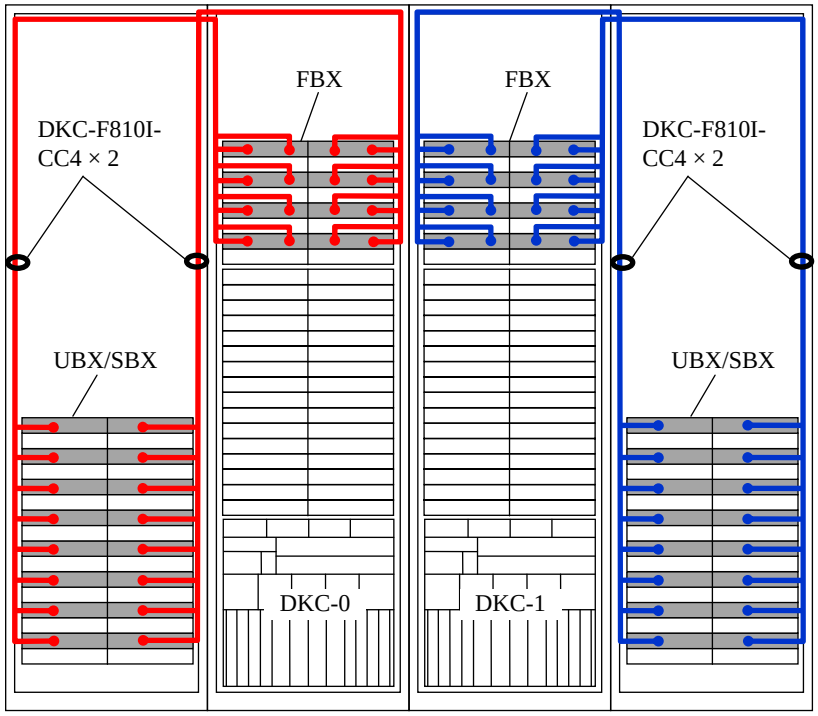
Rear View of RACK



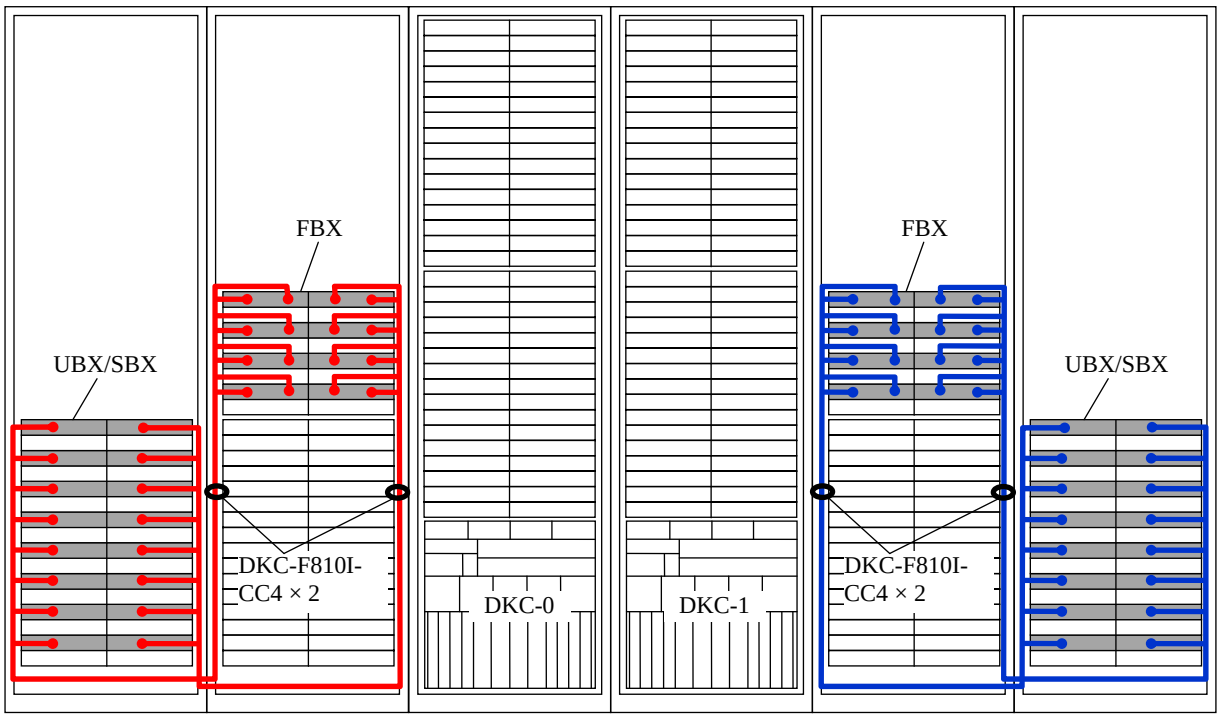
Rear View of RACK

Fig. 4.1.4.6-3 Mounting Position of Device Interface Cable (UBX/SBX – FBX)

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Rear View of RACK



Rear View of RACK

Fig. 4.1.4.6-4 Mounting Position of Device Interface Cable (FBX – UBX/SBX)

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1. Pattern of Cable De-installation

Before starting the following procedure, remember the names and locations shown below.
In the following procedure, the rack from which the cable is connected is named as a connection source rack, and the DKU from which the cable is connected is named as a connection source DKU. The rack to which the cable is connected is named as a connection destination rack, and the DKU to which the cable is connected is named as a connection destination DKU.
There are a total of four patterns of cable de-installation between racks regardless of the type of DKU.
If a DKC is installed in a connection source rack, the cables must be removed from the top of the rack. If no DKC is installed in a connection source rack, the cables must be removed from the bottom of the rack.

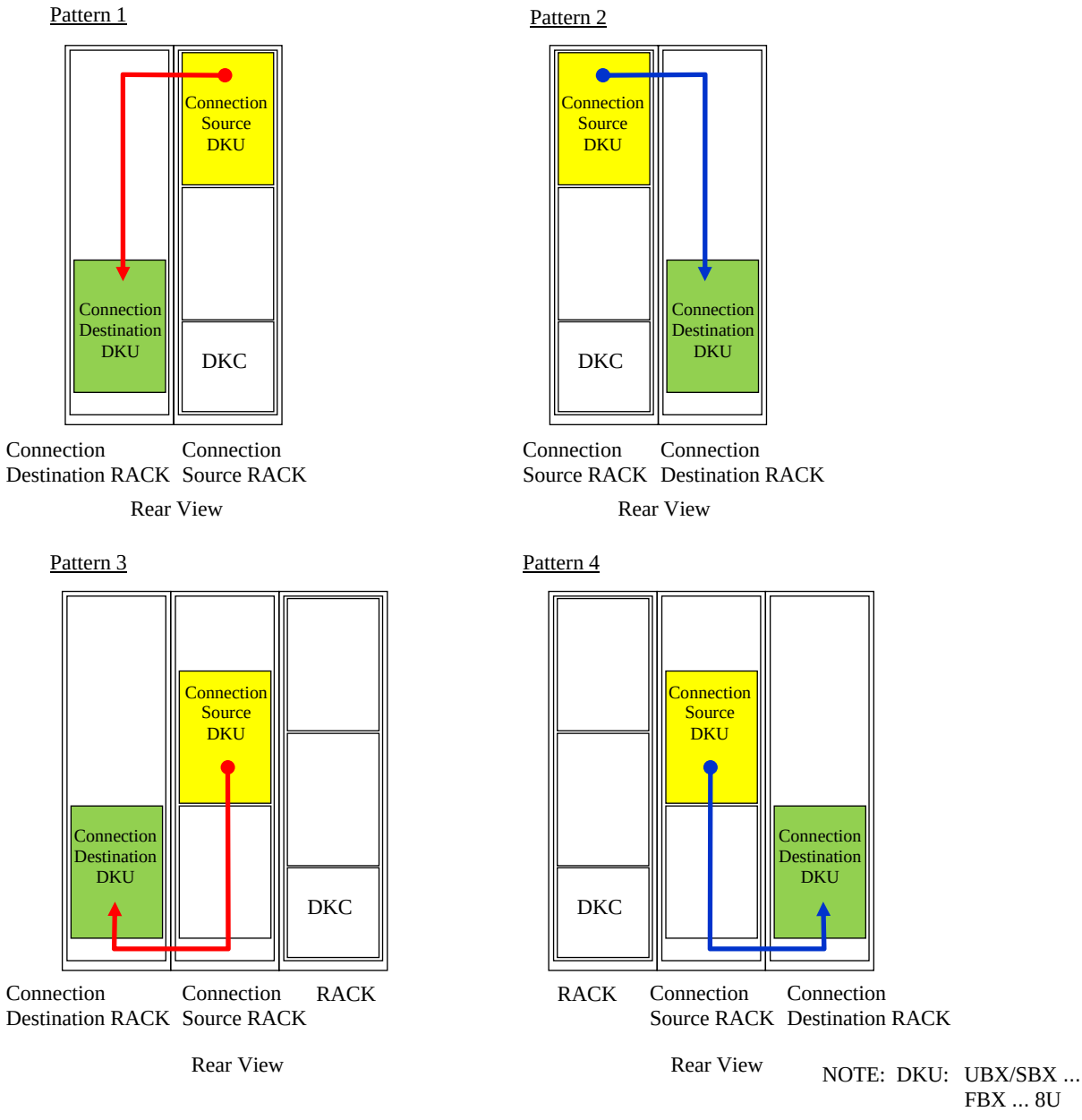


Fig. 4.1.4.6-5 Pattern of Cable De-installation

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2. Disconnection of Cables

When disconnecting Connection Destination DKU (UBX/SBX) with Connection Source DKU (UBX/SBX)

a. Disconnect the sixteen cables form the SSWs in the connection source DKU. (Refer to Fig. 4.1.4.6-6 and Fig. 4.1.4.6-7.)
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

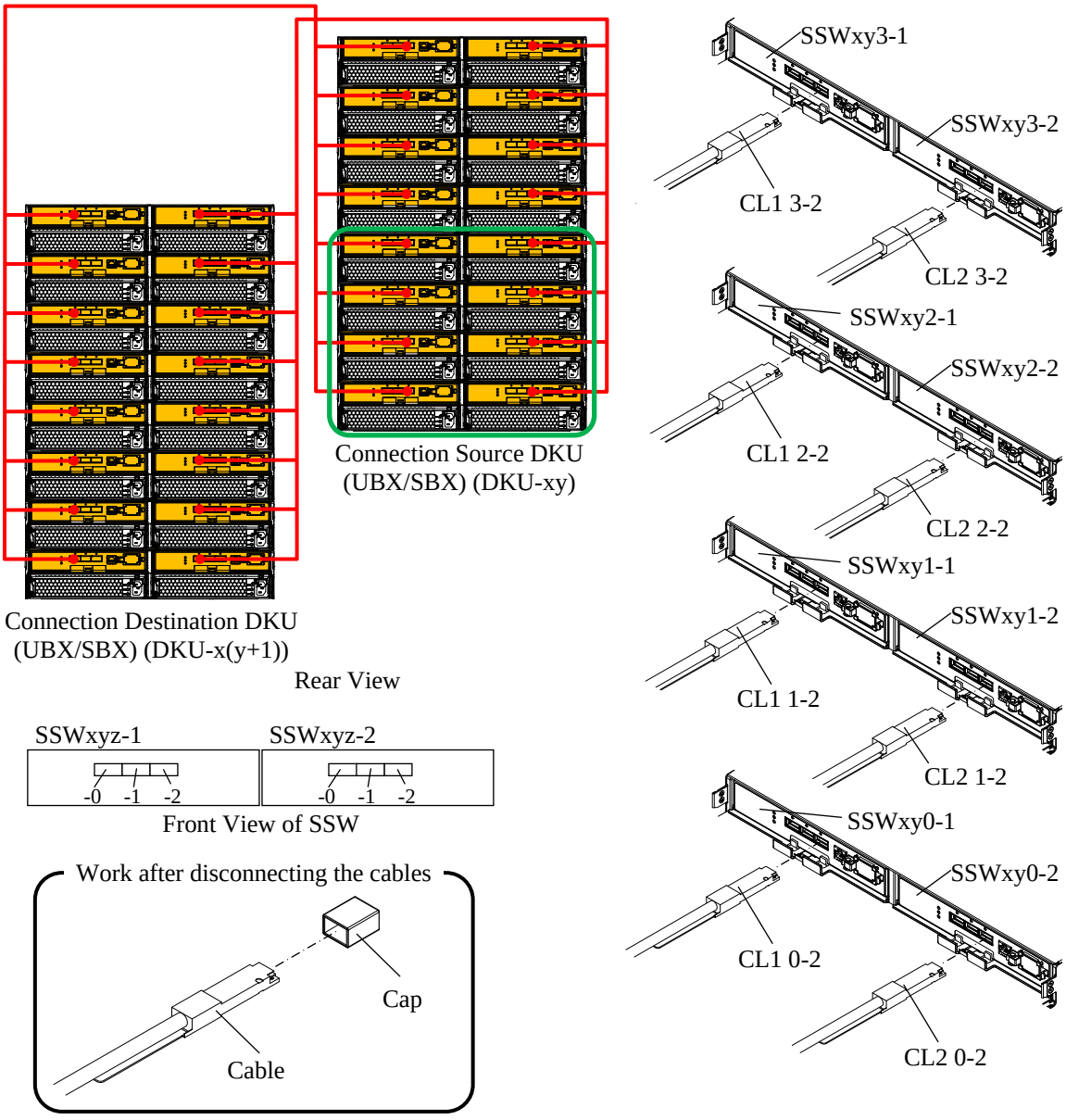


Fig. 4.1.4.6-6 Disconnection of Cables (CC4_DKU-xy_L)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

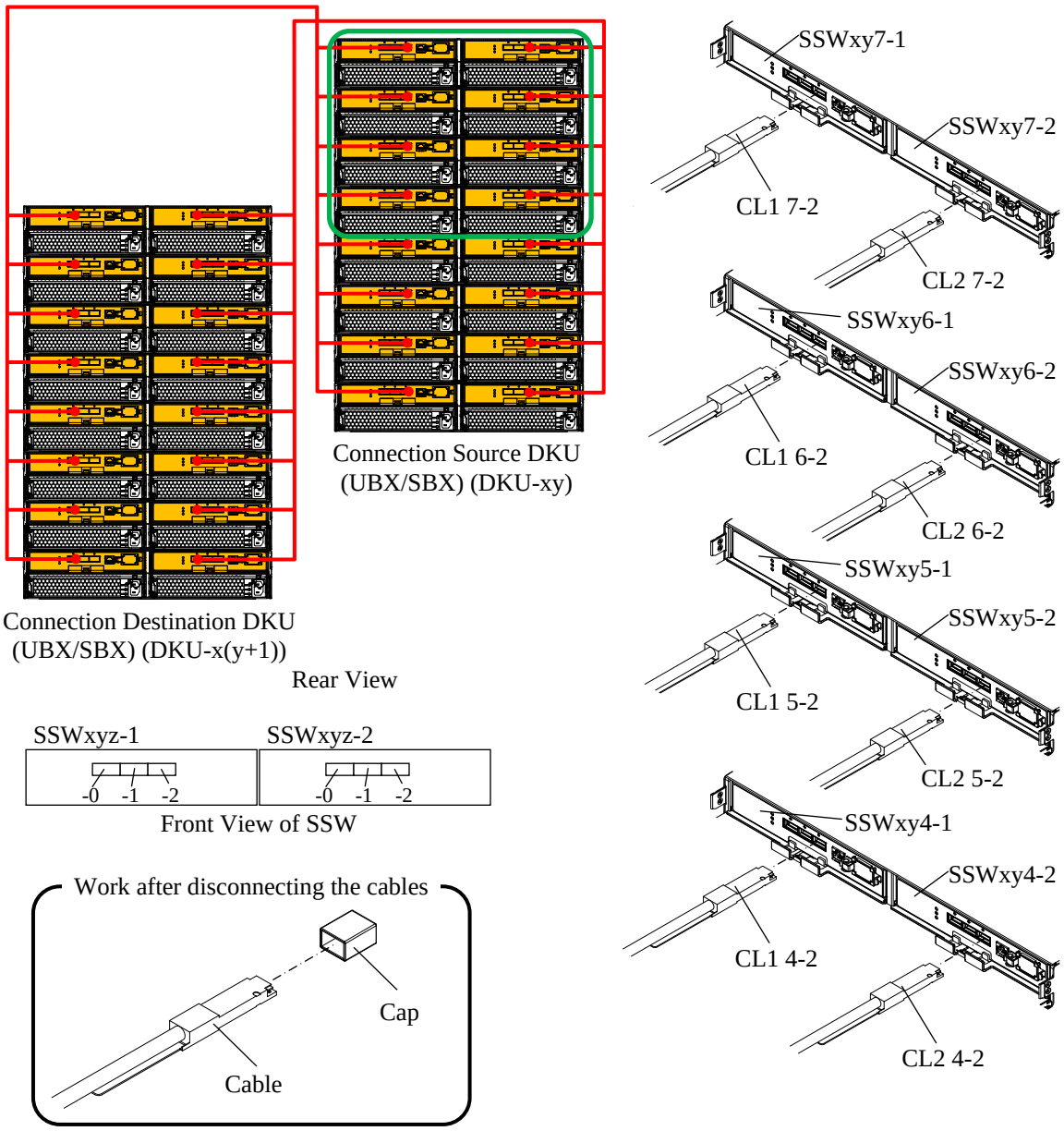


Fig. 4.1.4.6-7 Disconnection of Cables (CC4_DKU-xy_U)

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c. Disconnect the sixteen cables to the SSWs in the connection destination DKU. (Refer to Fig. 4.1.4.6-8 and Fig. 4.1.4.6-9.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

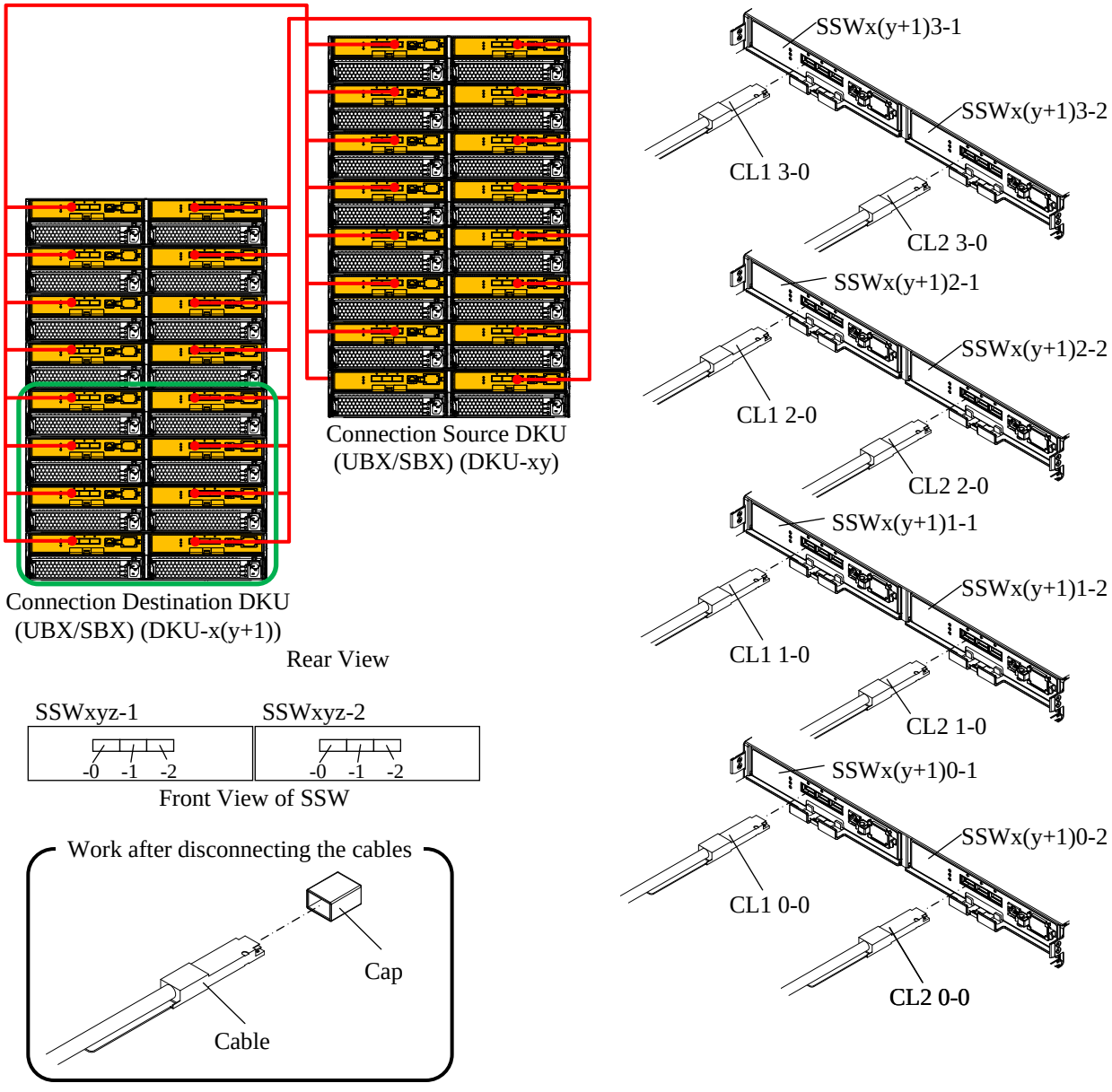


Fig. 4.1.4.6-8 Disconnection of Cables (CC4_DKU-x(y+1)_L)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

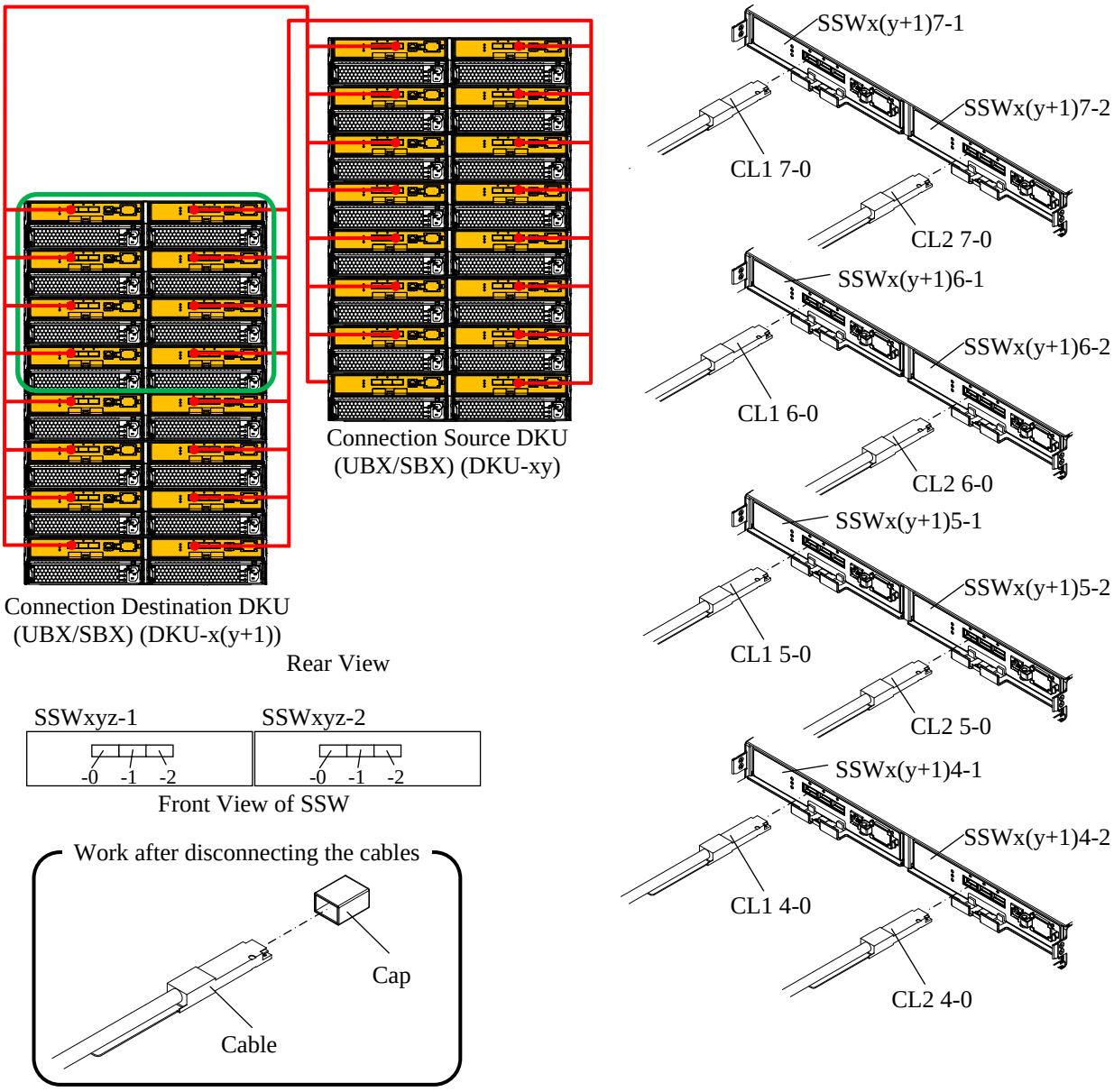


Fig. 4.1.4.6-9 Disconnection of Cables (CC4_DKU-x(y+1)_U)

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When disconnecting Connection Destination DKU (FBX) with Connection Source DKU (FBX)

a. Disconnect the sixteen cables form the SSWs in the connection source DKU.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

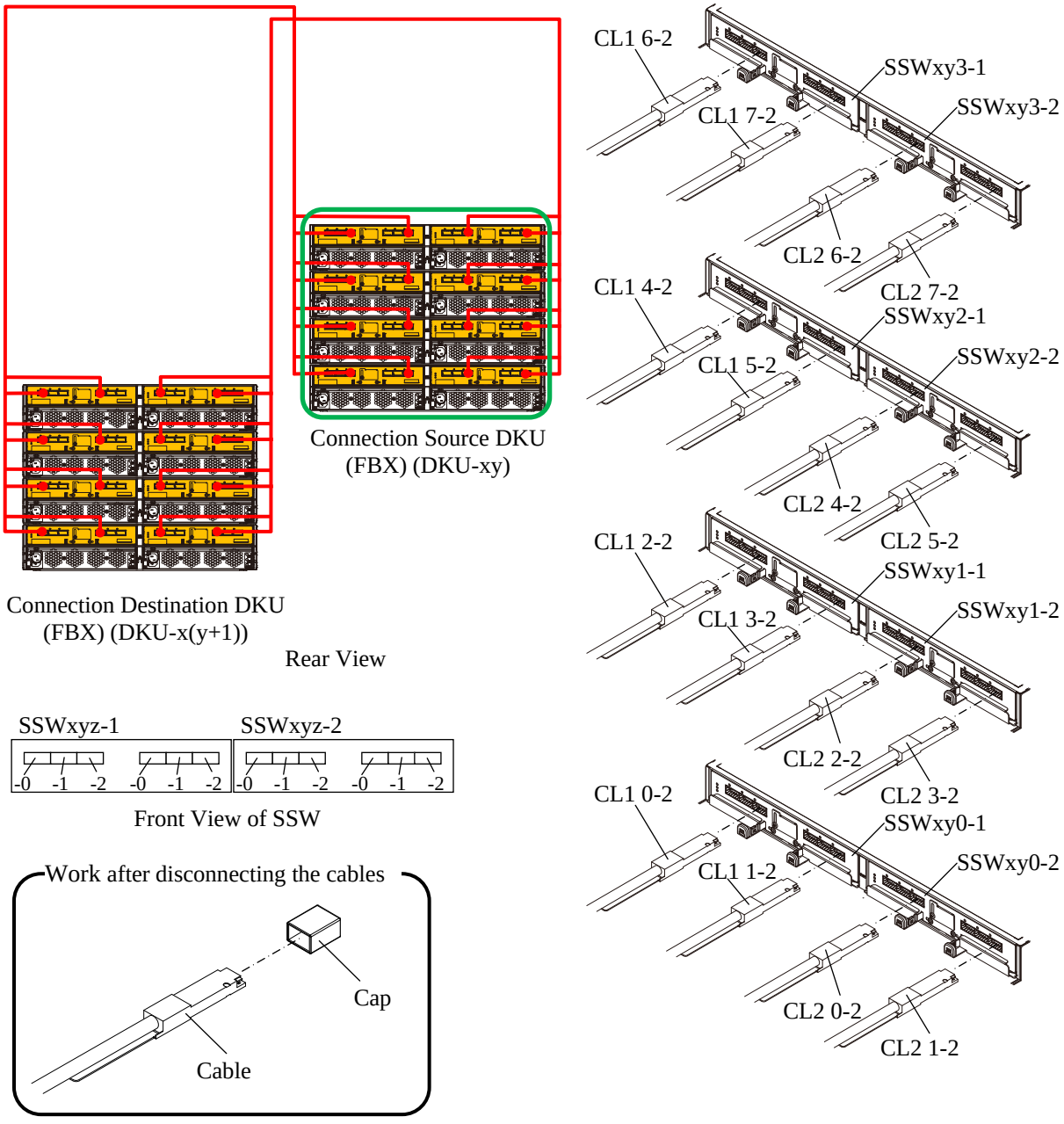


Fig. 4.1.4.6-10 Disconnection of Cables (CC4_DKU-xy)

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c. Disconnect the sixteen cables to the SSWs in the connection destination DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

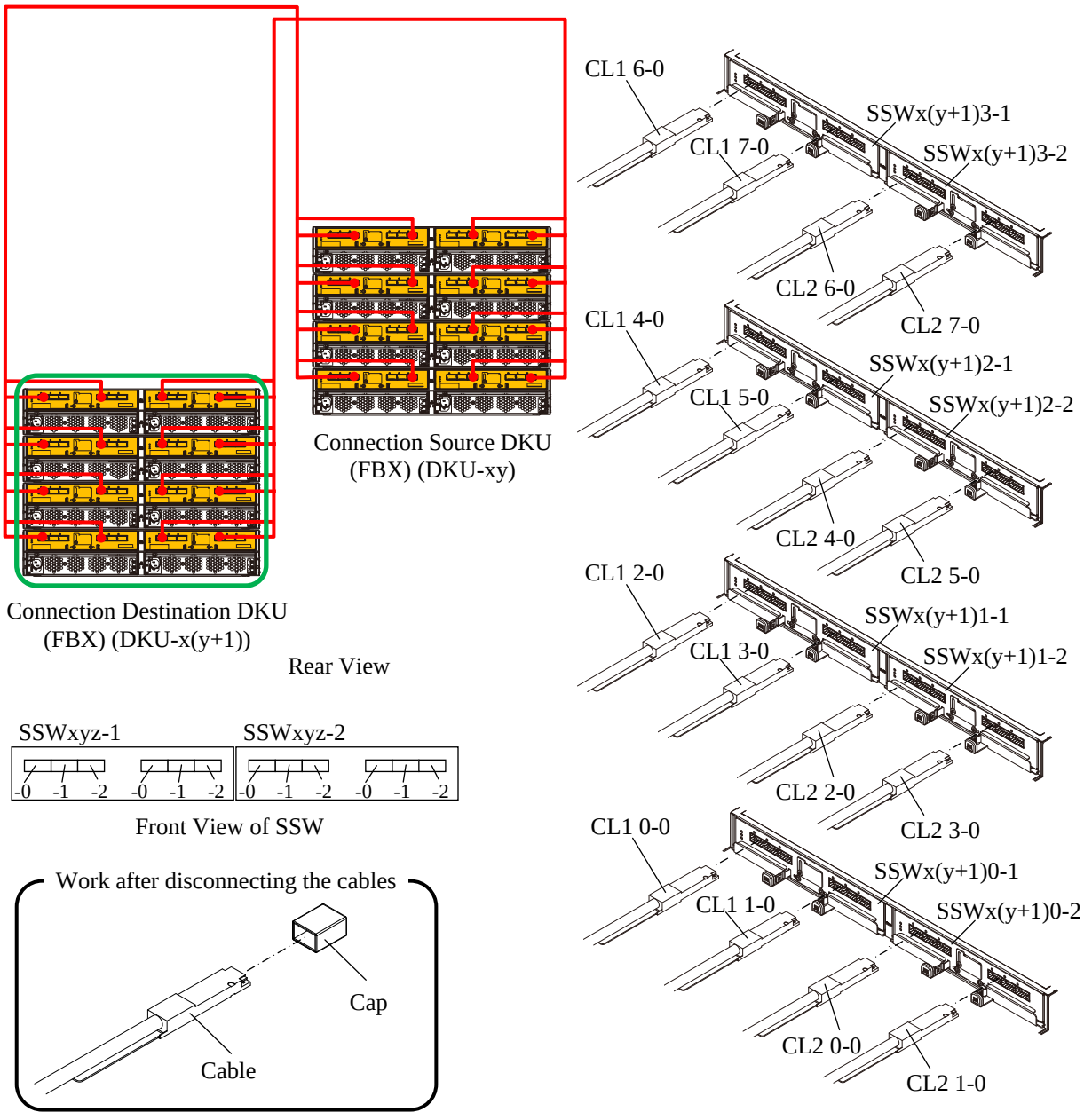


Fig. 4.1.4.6-11 Disconnection of Cables (CC4_DKU-x(y+1))

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When disconnecting Connection Destination DKU (UBX/SBX) with Connection Source DKU (FBX)

a. Disconnect the sixteen cables form the SSWs in the connection source DKU.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

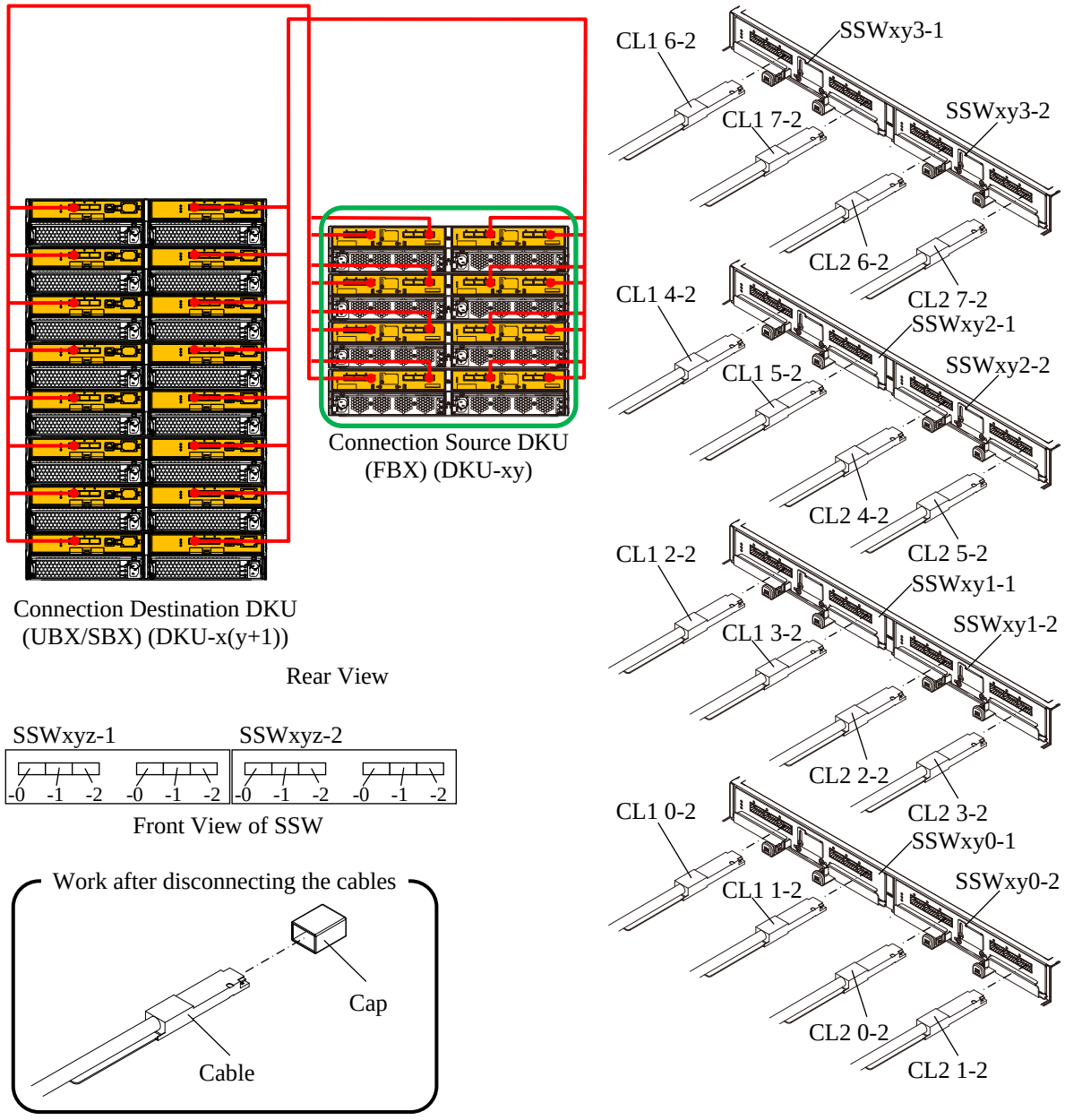


Fig. 4.1.4.6-12 Disconnection of Cables (CC4_DKU-xy)

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c. Disconnect the sixteen cables to the SSWs in the connection destination DKU. (Refer to Fig. 4.1.4.6-13 and Fig. 4.1.4.6-14.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

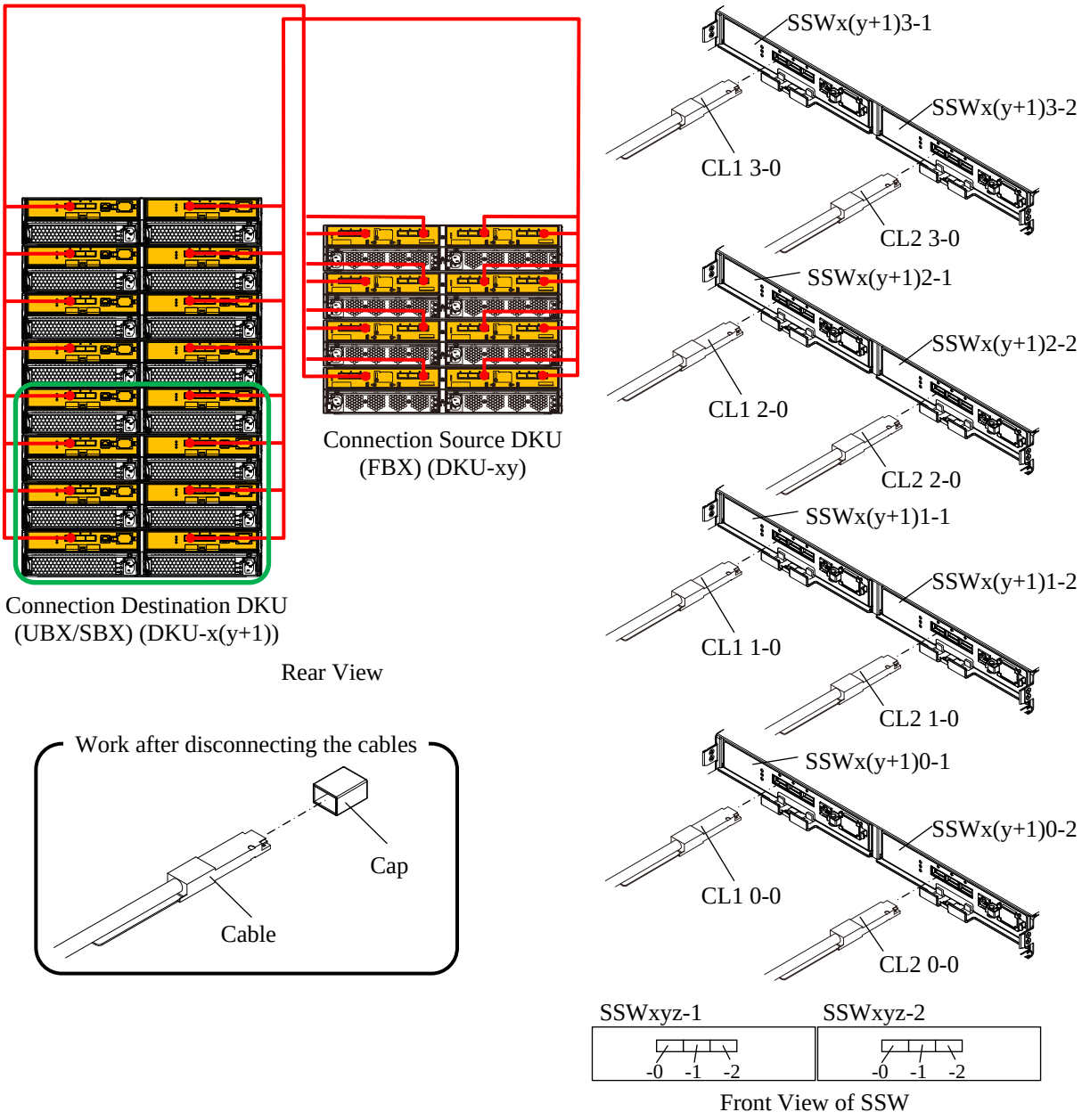


Fig. 4.1.4.6-13 Disconnection of Cables (CC4_DKU-x(y+1)_L)

Copyright © 2014, Hitachi, Ltd.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

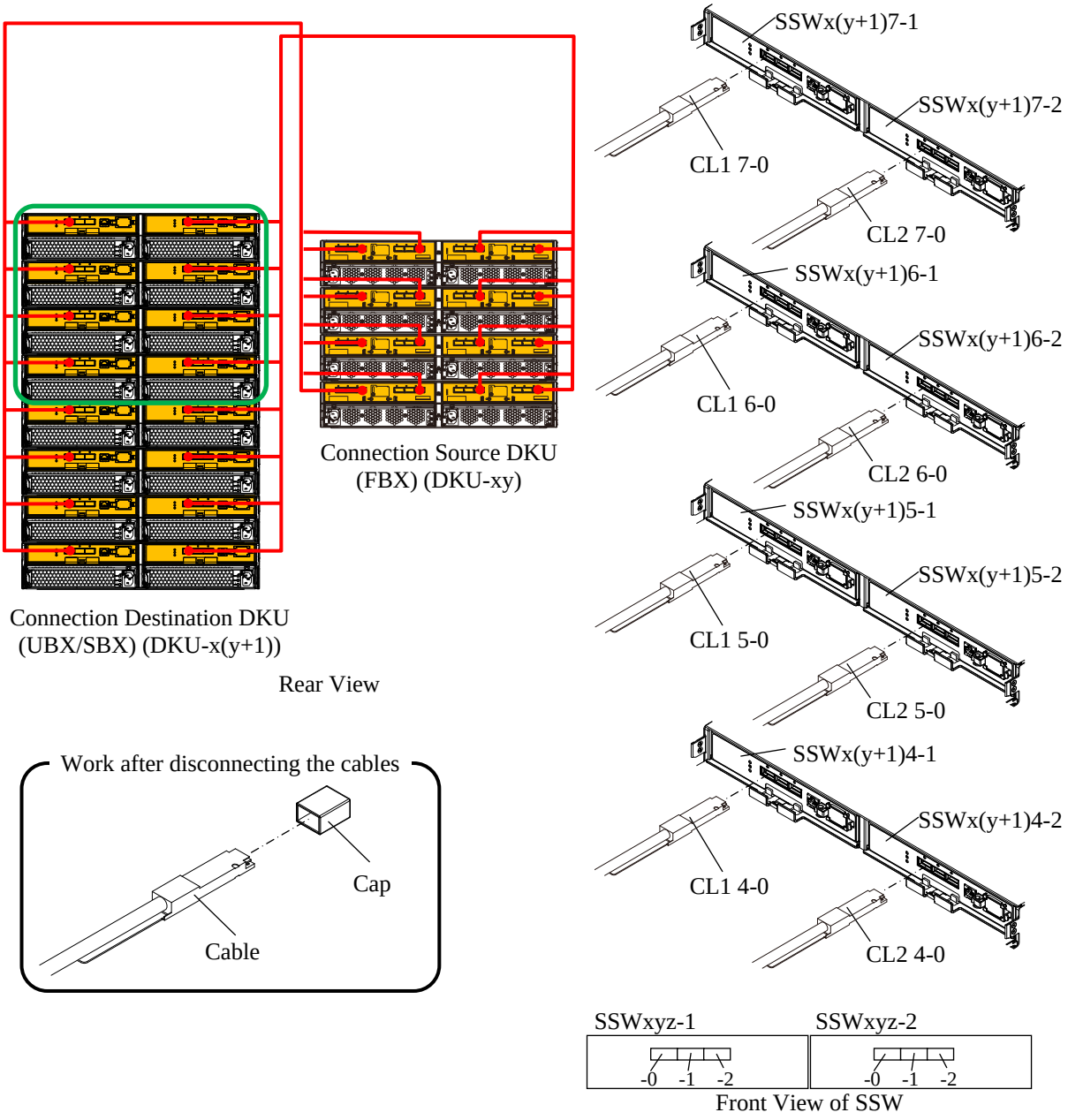


Fig. 4.1.4.6-14 Disconnection of Cables (CC4_DKU-x(y+1)_U)

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When disconnecting Connection Destination DKU (FBX) with Connection Source DKU (UBX/SBX)

a. Disconnect the sixteen cables form the SSWs in the connection source DKU. (Refer to Fig. 4.1.4.6-15 and Fig. 4.1.4.6-16.)
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

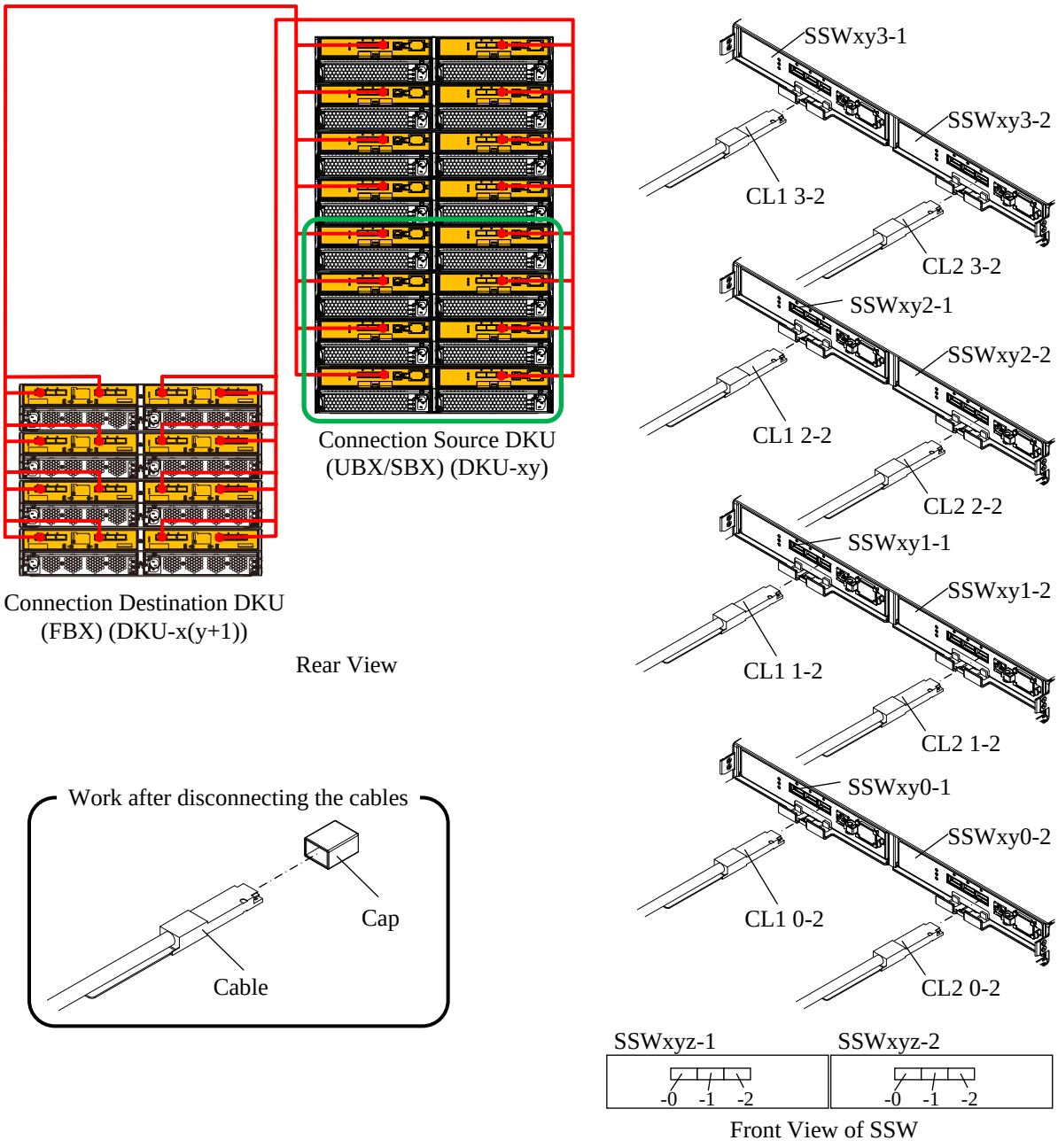


Fig. 4.1.4.6-15 Disconnection of Cables (CC4_DKU-xy_L)

Copyright © 2014, Hitachi, Ltd.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

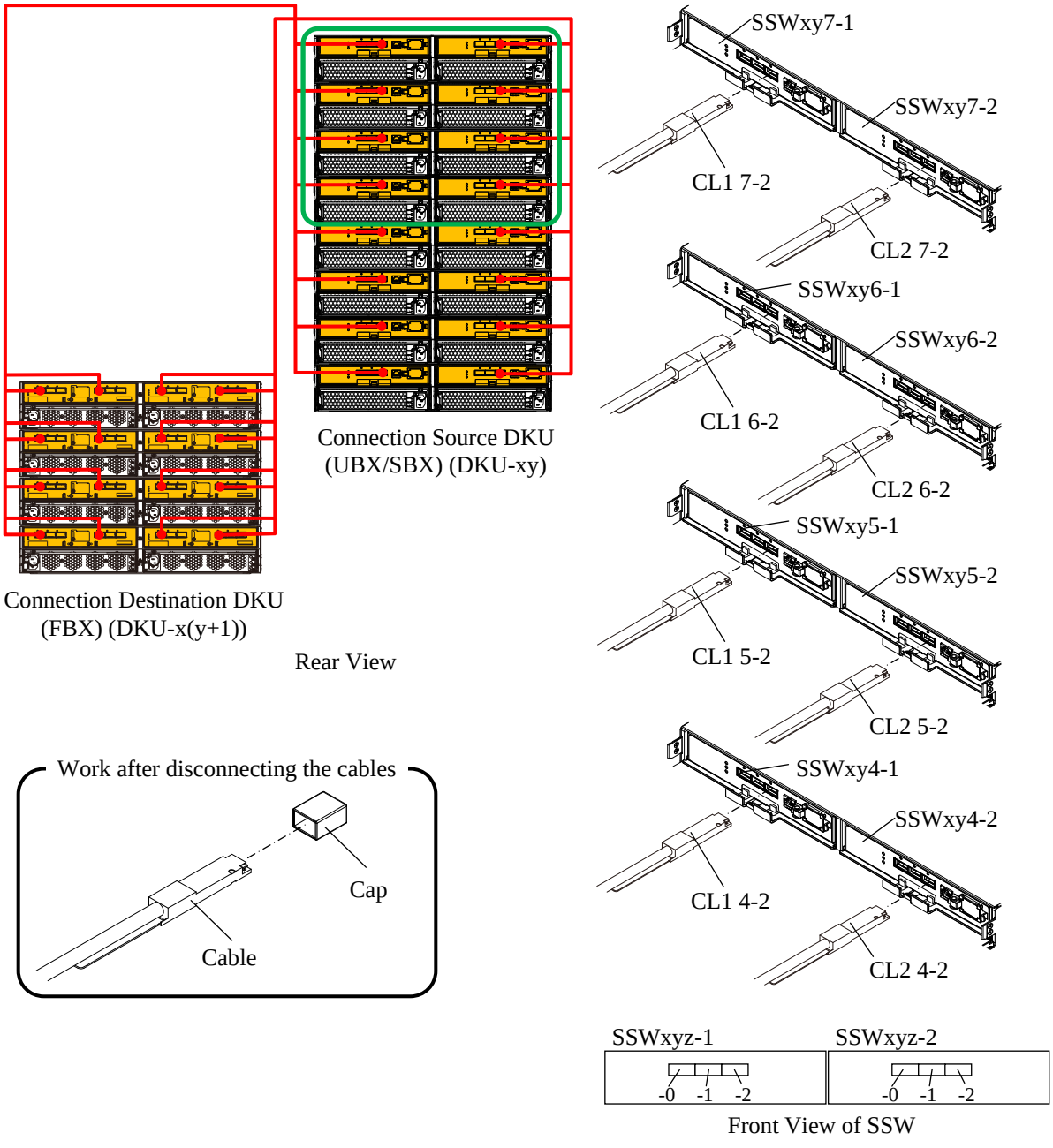


Fig. 4.1.4.6-16 Disconnection of Cables (CC4_DKU-xy_U)

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c. Disconnect the sixteen cables to the SSWs in the connection destination DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

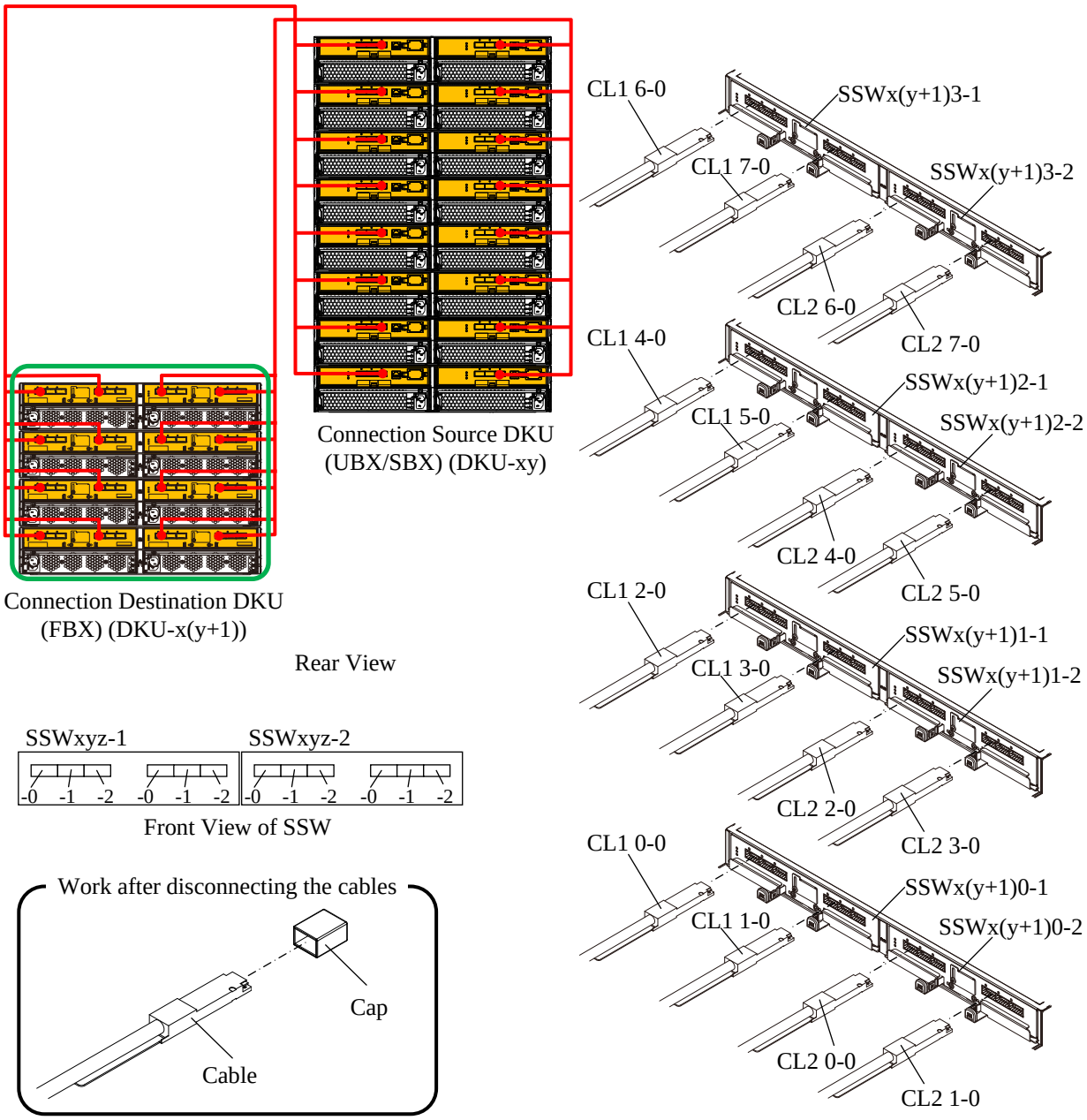


Fig. 4.1.4.6-17 Disconnection of Cables (CC4_DKU-x(y+1))

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3. Removal of Cables

In the case of cable de-installation between DKU in RACK-00 and DKU in RACK-01

a. Open the loop cable ties and remove the eight cables in the cluster 1.
In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

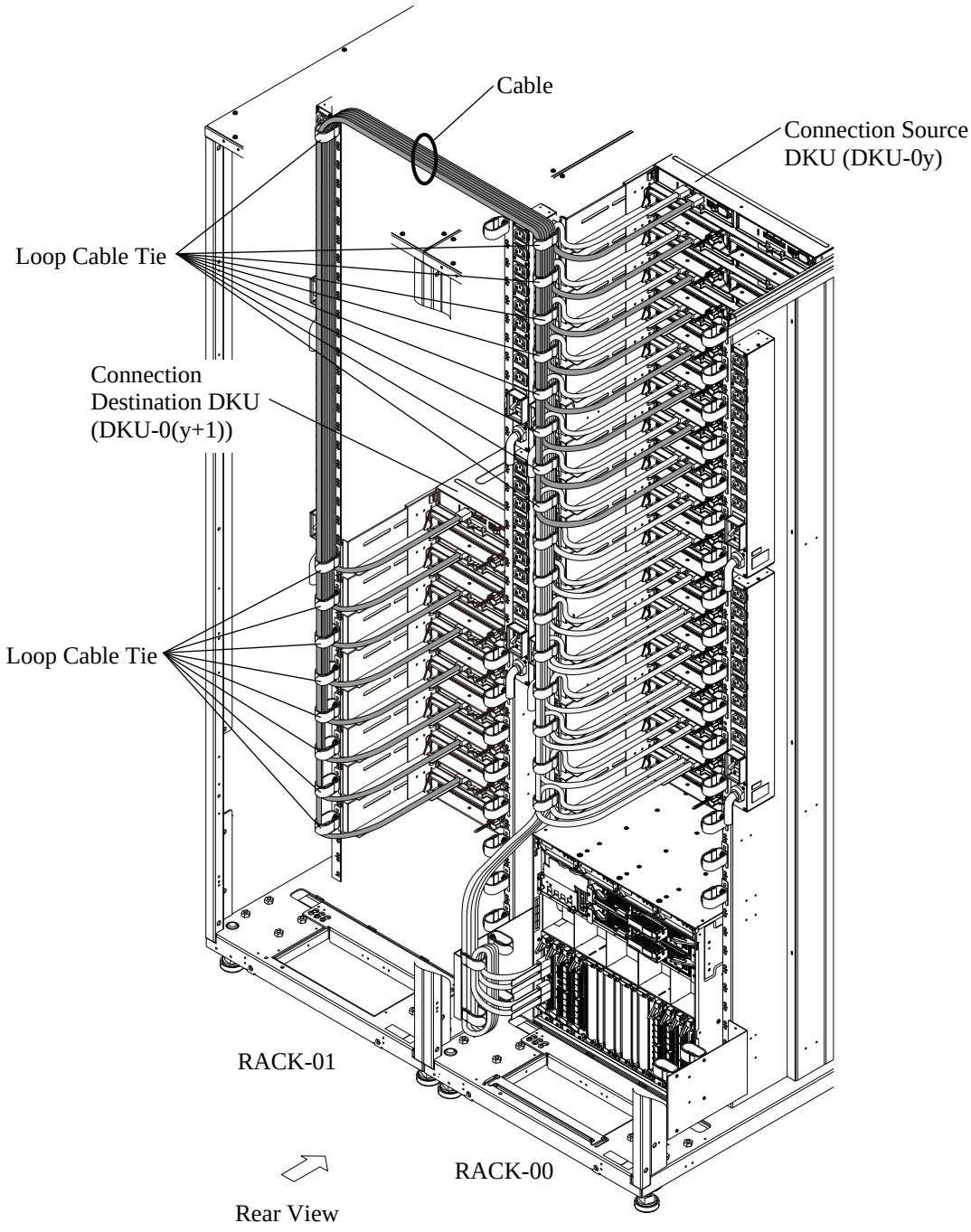


Fig. 4.1.4.6-18 Removal of Cables (RACK-00 – RACK-01)

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b. Open the loop cable ties and remove the eight cables in the cluster 2.
In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

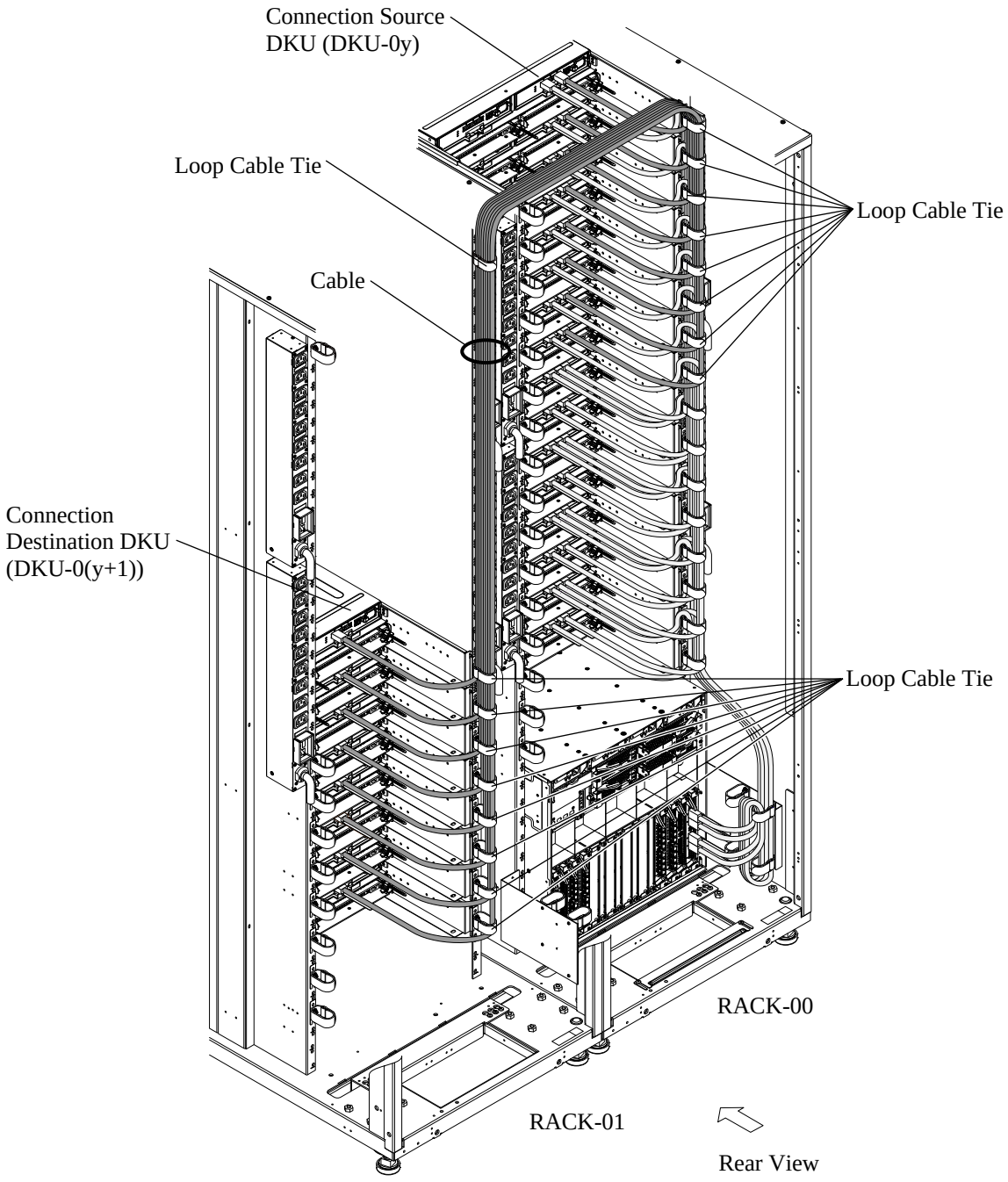


Fig. 4.1.4.6-19 Removal of Cables (RACK-00 – RACK-01)

c. Remove the two screws and the two loop cable ties from the rear side of the RACK-01.

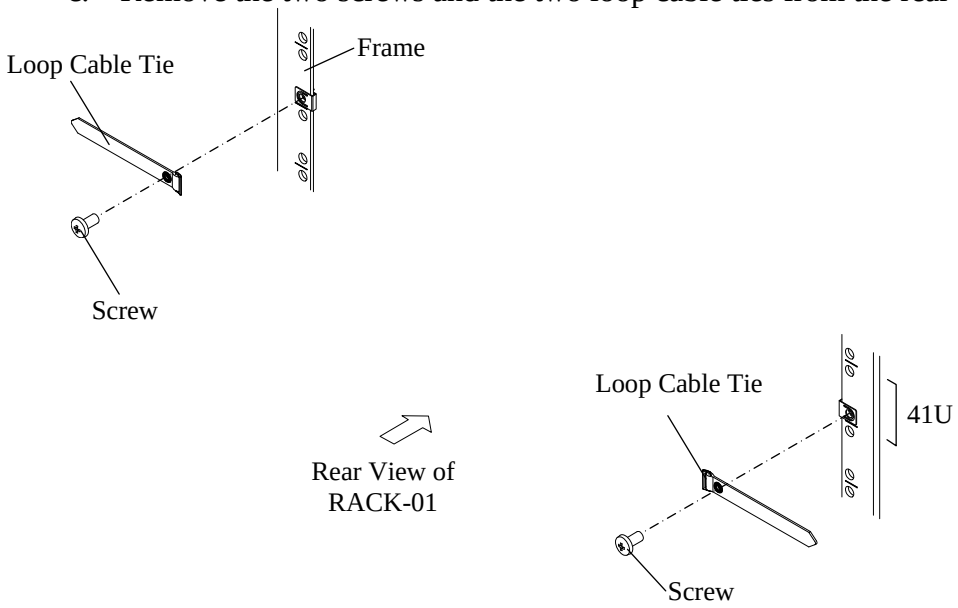
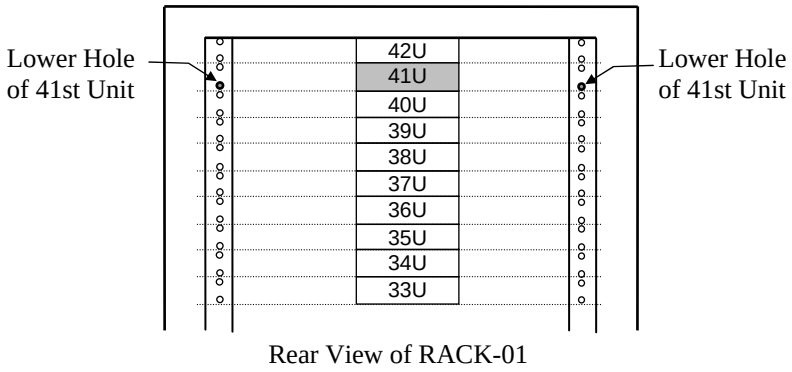
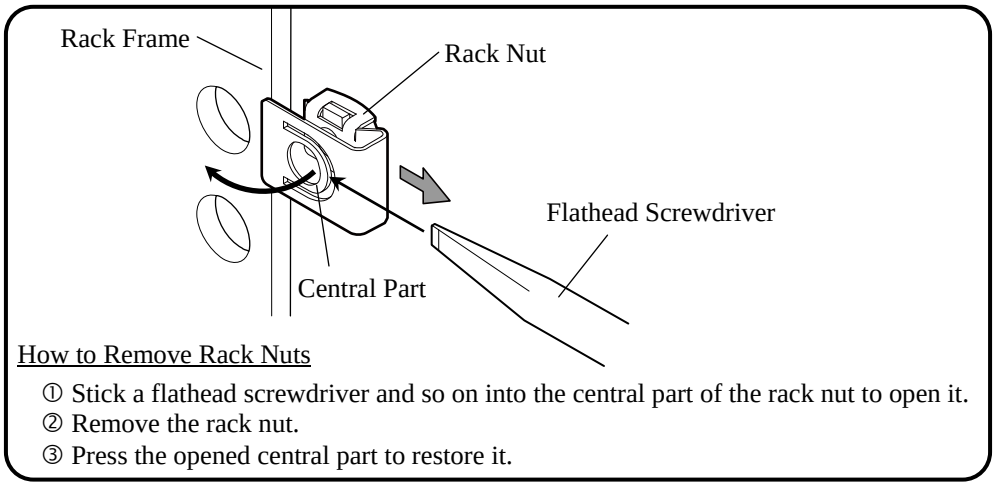


Fig. 4.1.4.6-20 Removal of Loop Cable Ties

d. Remove the two rack nuts from the rear side of the RACK-01.





How to Remove Rack Nuts

① Stick a flathead screwdriver and so on into the central part of the rack nut to open it.
② Remove the rack nut.
③ Press the opened central part to restore it.

Fig. 4.1.4.6-21 Removal of Rack Nuts

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In the case of cable de-installation between DKU in RACK-10 and DKU in RACK-11

a. Open the loop cable ties and remove the eight cables in the cluster 1.
   In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

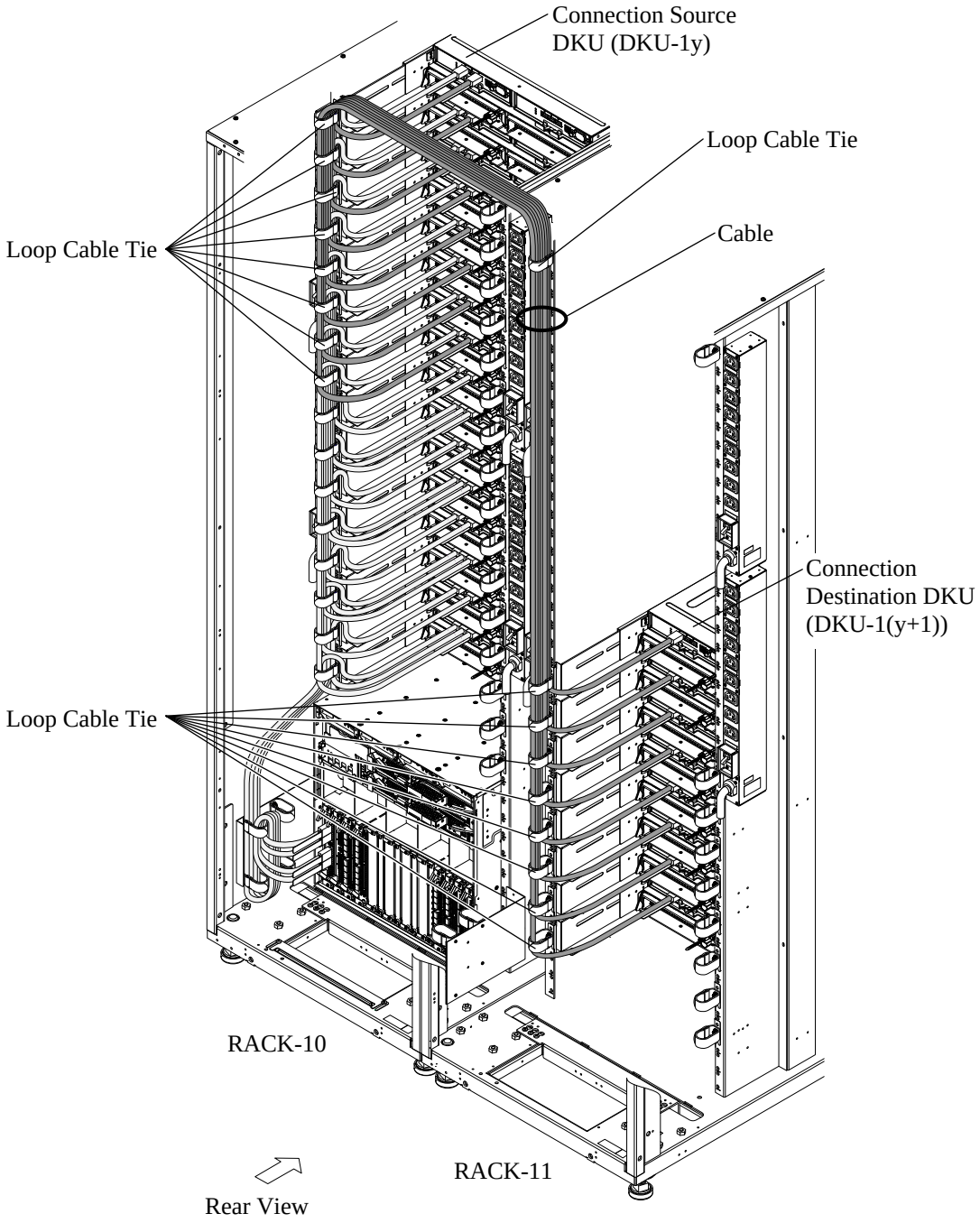


Fig. 4.1.4.6-22 Removal of Cables (RACK-10 – RACK-11)

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b. Open the loop cable ties and remove the eight cables in the cluster 2.
In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

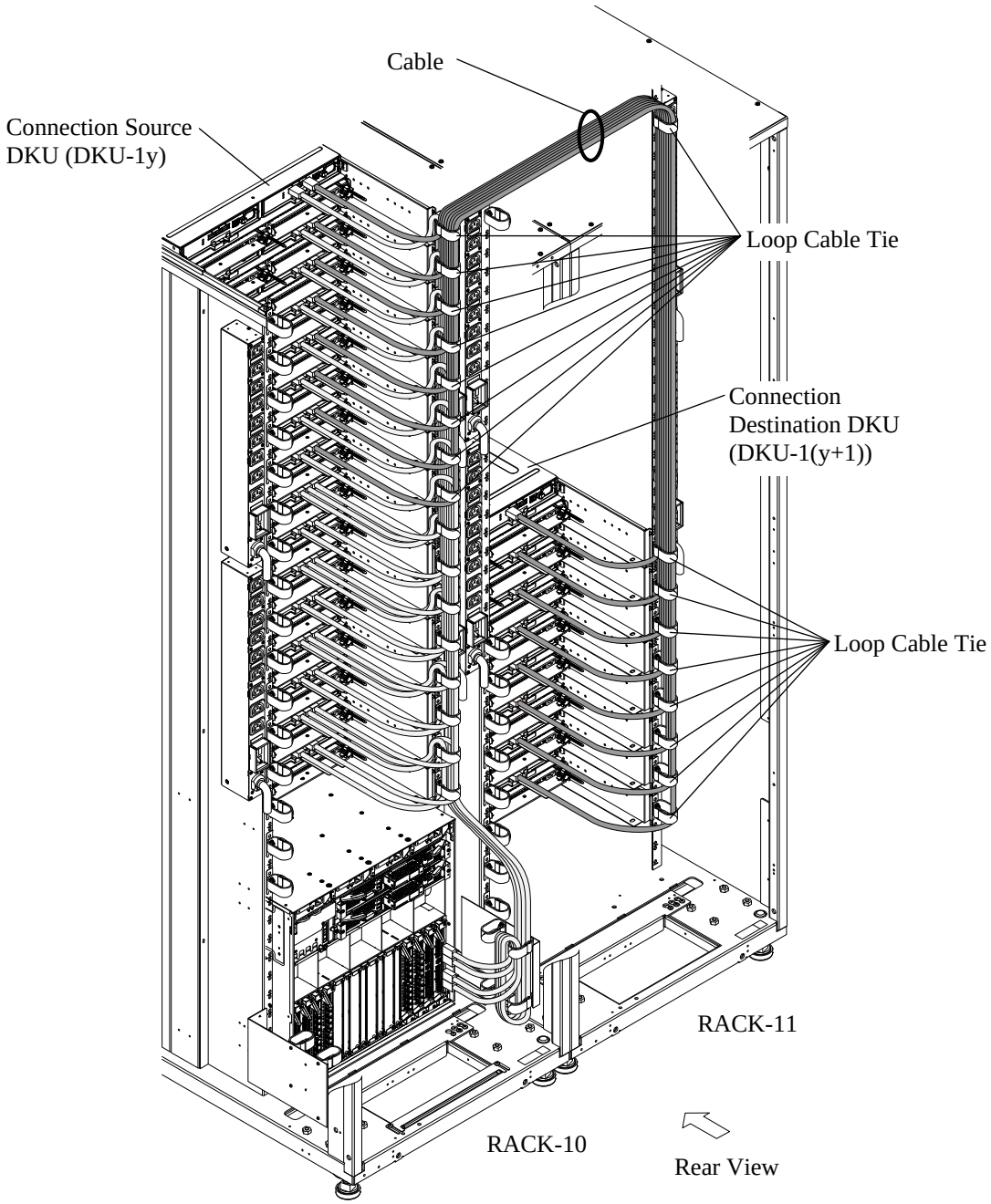


Fig. 4.1.4.6-23 Removal of Cables (RACK-10 – RACK-11)

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c. Remove the two screws and the two loop cable ties from the rear side of the RACK-11.

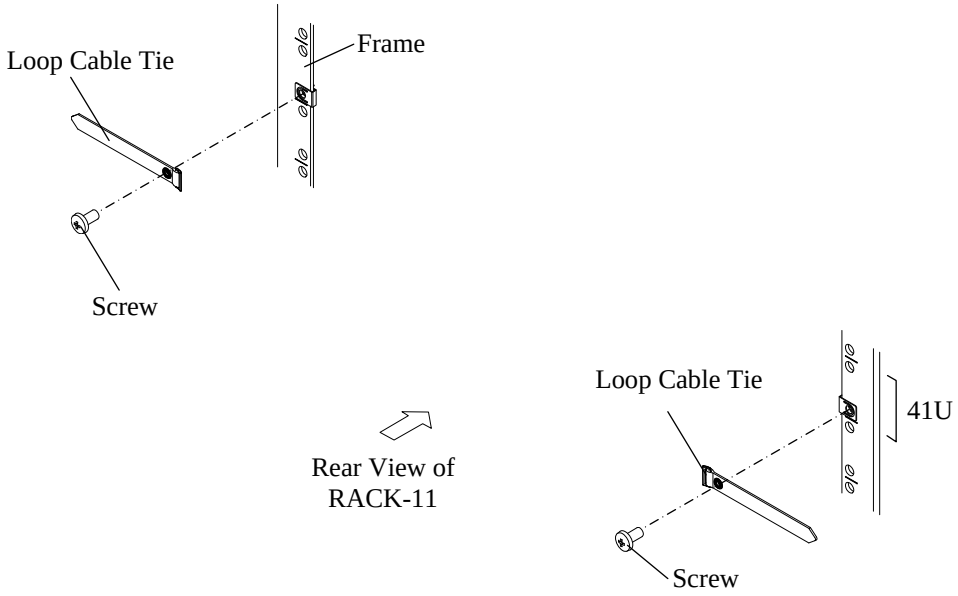
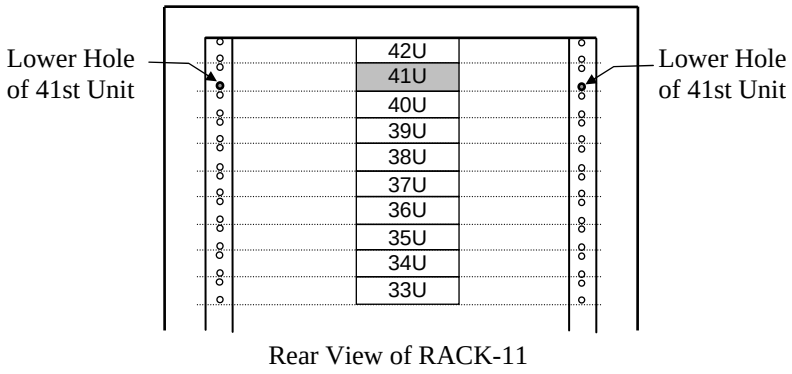


Fig. 4.1.4.6-24 Removal of Loop Cable Ties

d. Remove the two rack nuts from the rear side of the RACK-11.



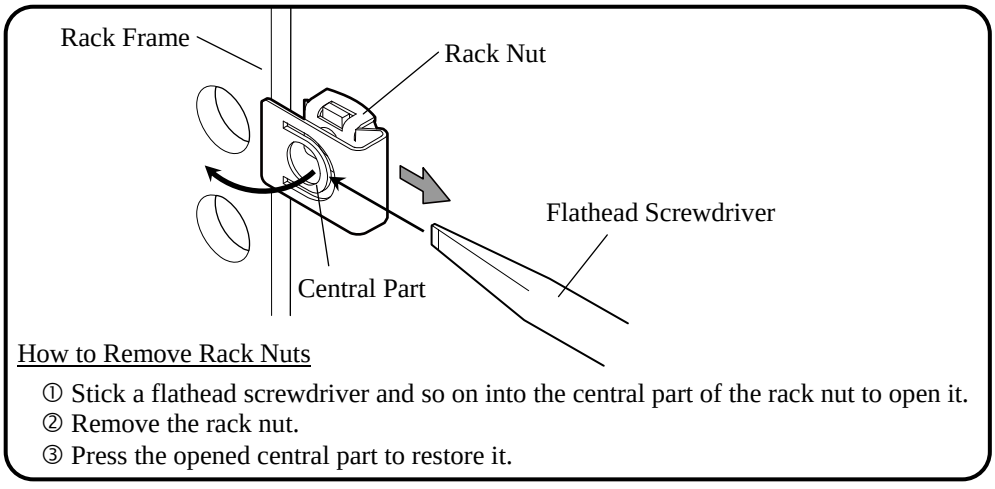


Fig. 4.1.4.6-25 Removal of Rack Nuts

Copyright © 2014, Hitachi, Ltd.

In the case of cable de-installation between DKU in RACK-01 and DKU in RACK-02

a. Open the loop cable ties and remove the eight cables in the cluster 1.
   In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

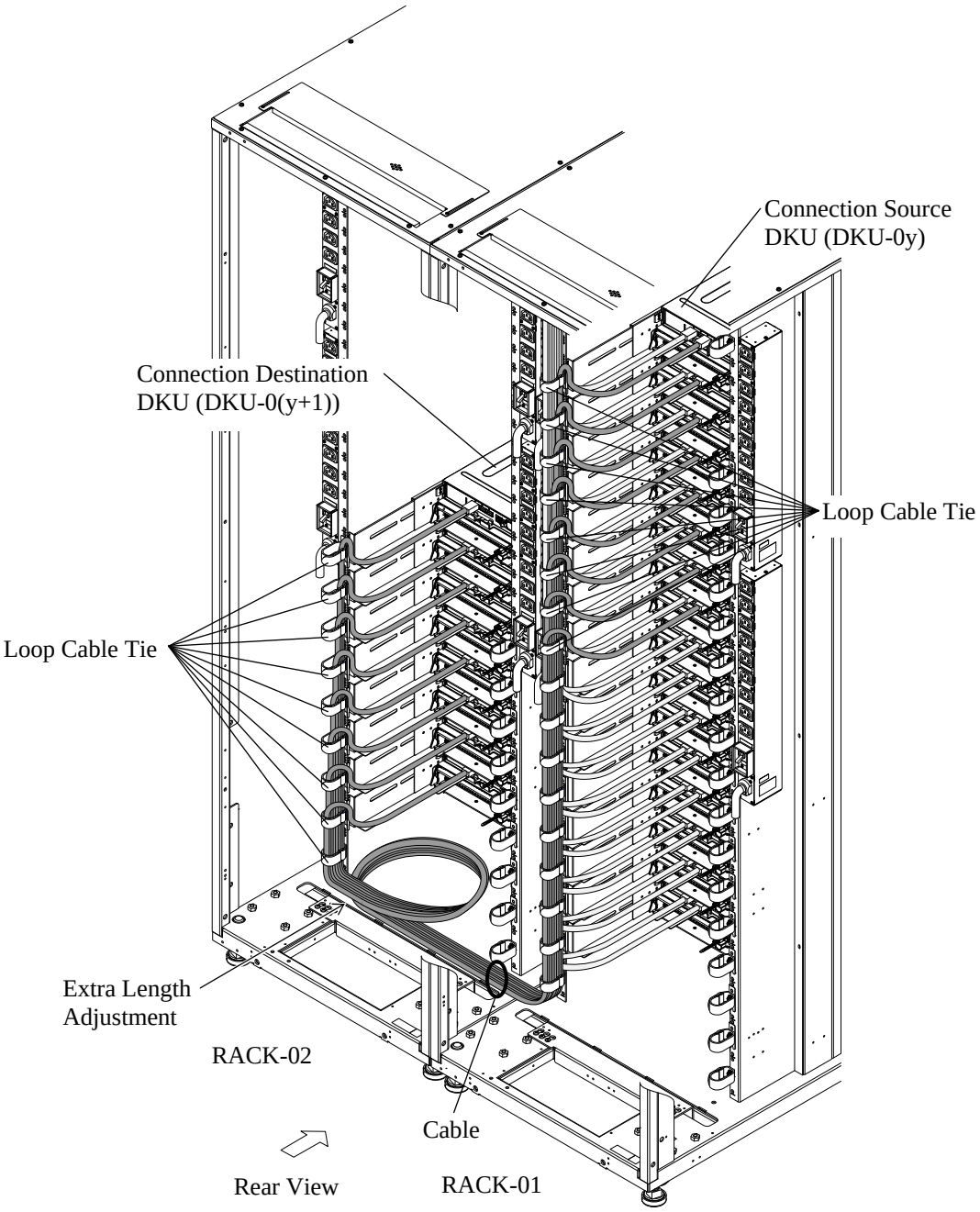


Fig. 4.1.4.6-26 Removal of Cables (RACK-01 – RACK-02)

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b. Open the loop cable ties and remove the eight cables in the cluster 2.
In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

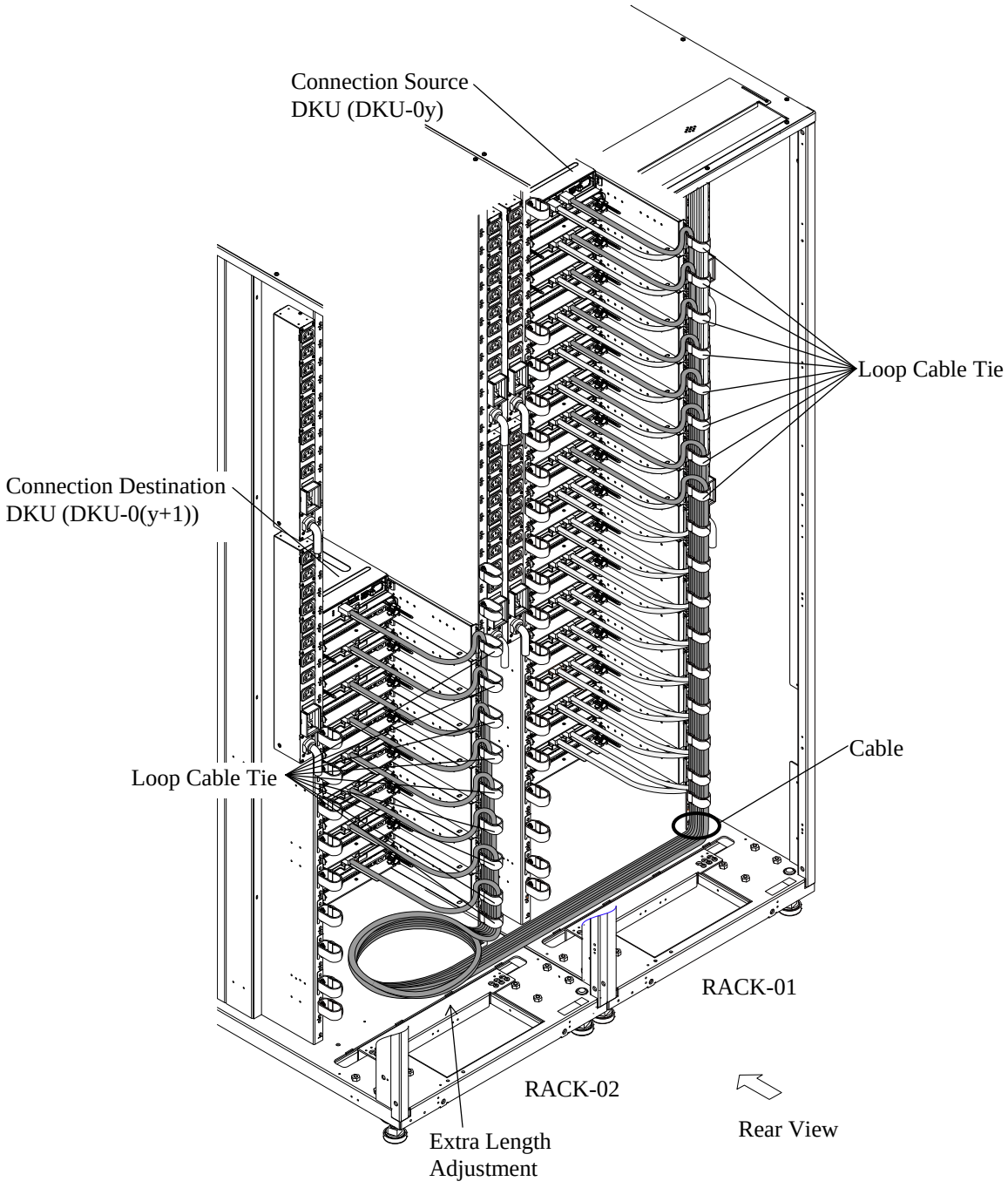


Fig. 4.1.4.6-27 Removal of Cables (RACK-01 – RACK-02)

c. Remove the two screws and the two loop cable ties from the rear side of the RACK-02.

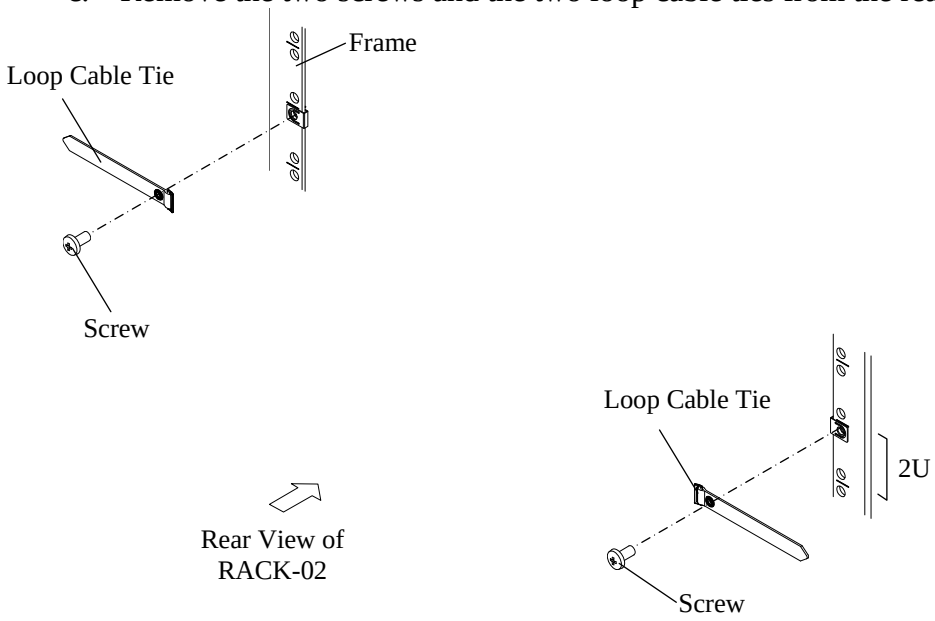
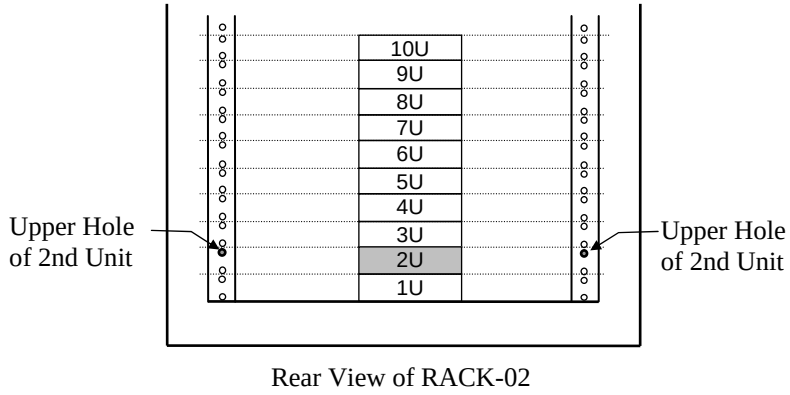


Fig. 4.1.4.6-28 Removal of Loop Cable Ties

d. Remove the two rack nuts from the rear side of the RACK-02.



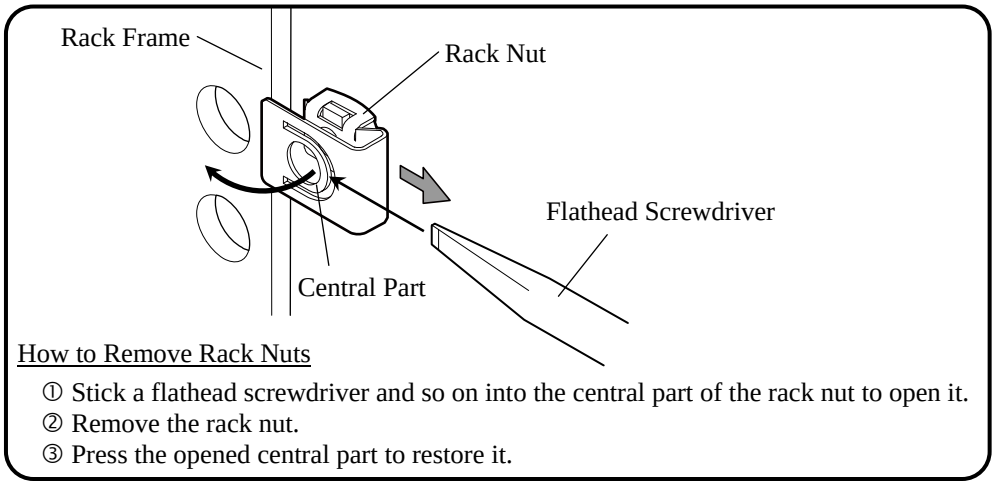


Fig. 4.1.4.6-29 Removal of Rack Nuts

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In the case of cable de-installation between DKU in RACK-11 and DKU in RACK-12

a. Open the loop cable ties and remove the eight cables in the cluster 1.
   In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

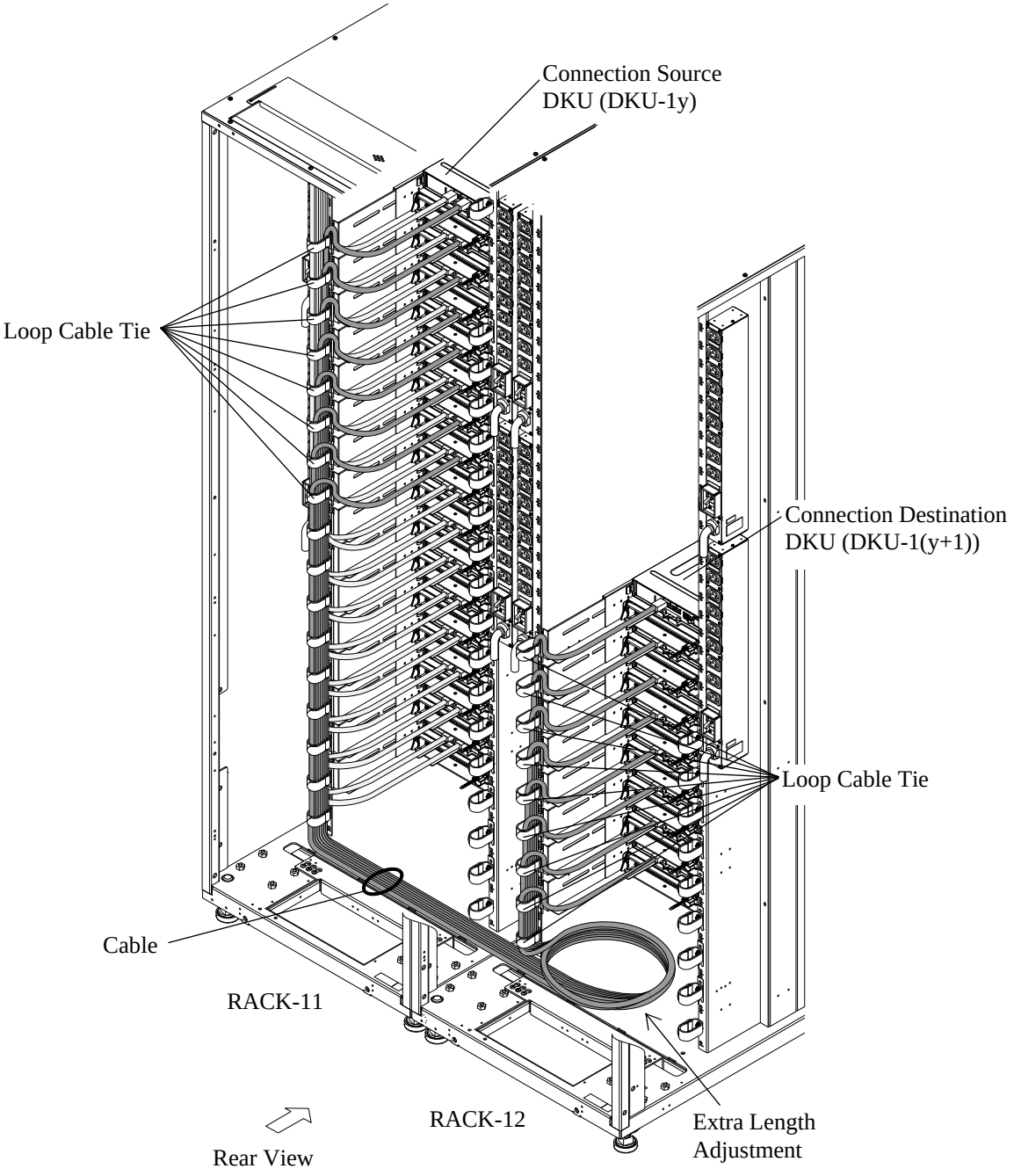


Fig. 4.1.4.6-30 Removal of Cables (RACK-11 – RACK-12)

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b. Open the loop cable ties and remove the eight cables in the cluster 2.
In the case of FBX, the cable routing is the same. Remove the cables seeing the figure below.

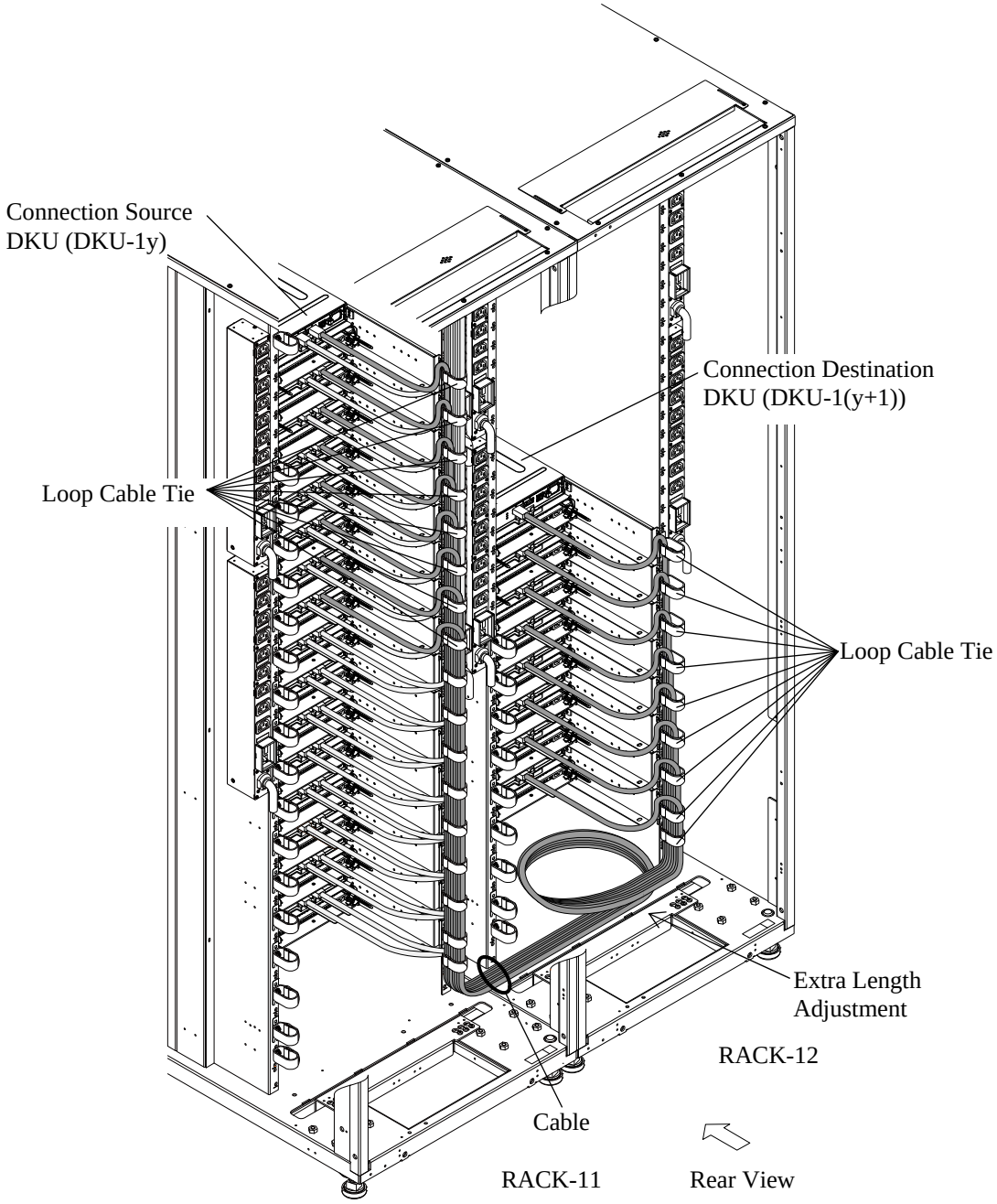


Fig. 4.1.4.6-31 Removal of Cables (RACK-11 – RACK-12)

c. Remove the two screws and the two loop cable ties from the rear side of the RACK-12.

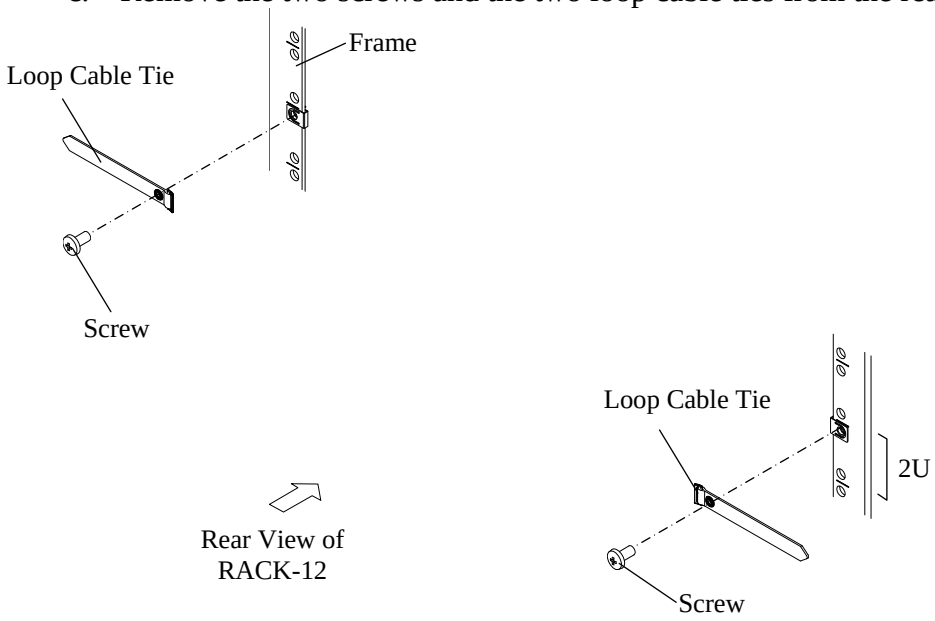
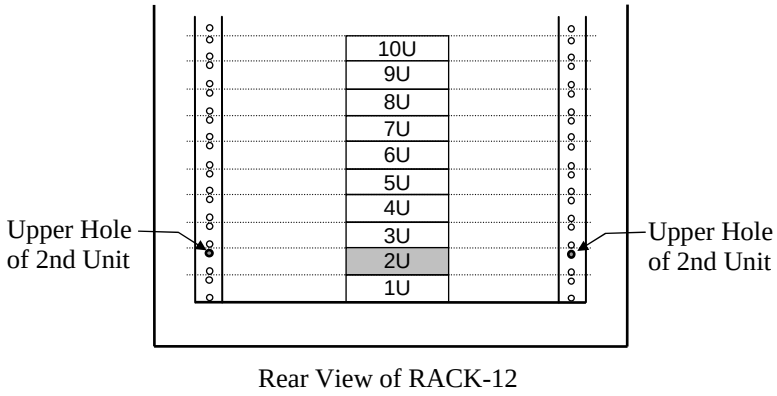


Fig. 4.1.4.6-32 Removal of Loop Cable Ties

d. Remove the two rack nuts from the rear side of the RACK-12.



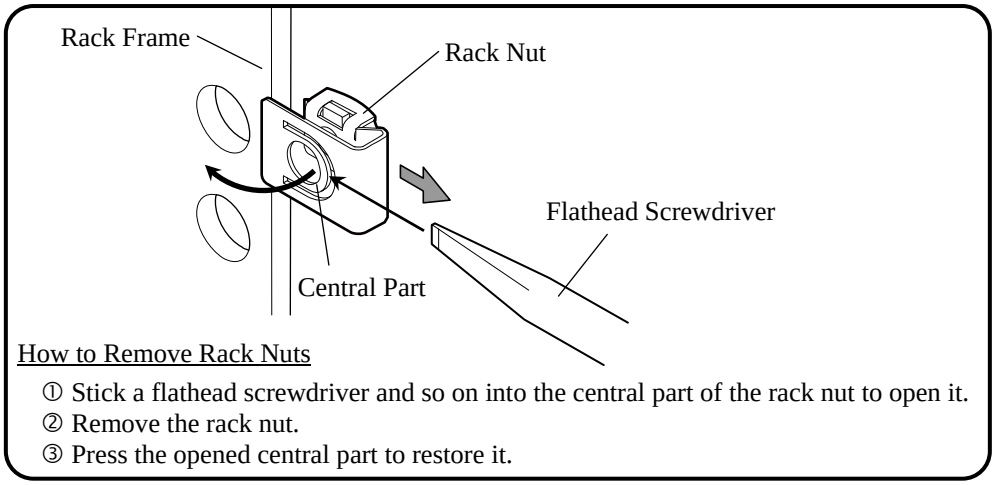


Fig. 4.1.4.6-33 Removal of Rack Nuts

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4.1.4.7 De-Installation Procedure of Device Interface Cable CC1/CC2 in the Standard Model that Accompanies the Removal of the DKU-00/10 (DKC-F810I-CC1/CC2)

De-Installation Condition

To disconnect the DKA from the DKU-00/10 in the standard model, DKC-F810I-CC1/CC2 cable options must be de-installed.

Judge whether it is necessary to de-install DKC-F810I-CC1/CC2 cable options and go to the appropriate page. (See Table 4.1.4.7-1.)

Table 4.1.4.7-1 Work Procedure Table

No.	Condition of Work Procedure	Page
1	When Device Interface Cable CC1/CC2 (DKC-F810I-CC1/CC2) to connect DKA to DKU-00/10 is required to de-install in the standard model.	INST04-11C-1320
2	When Device Interface Cable CC1/CC2 (DKC-F810I-CC1/CC2) to connect DKA to DKU-00/10 is not required to de-install.	INST04-11C-1470

Standard Model

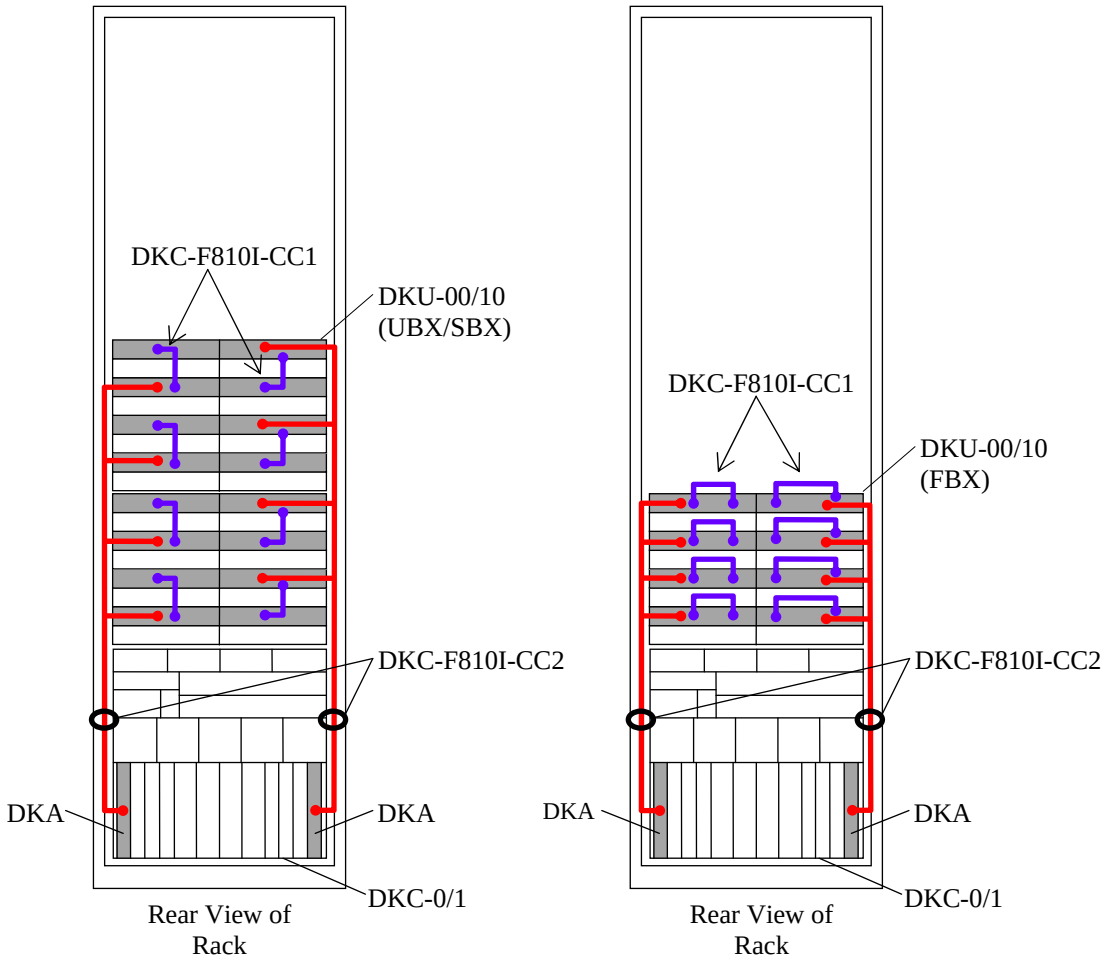


Fig. 4.1.4.7-1 Cable Routing

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1. Disconnect of Cables (CC1)

When the DKU-x0 is the UBX/SBX

a. Disconnect the cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.7-2 and Fig. 4.1.4.7-3.)
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

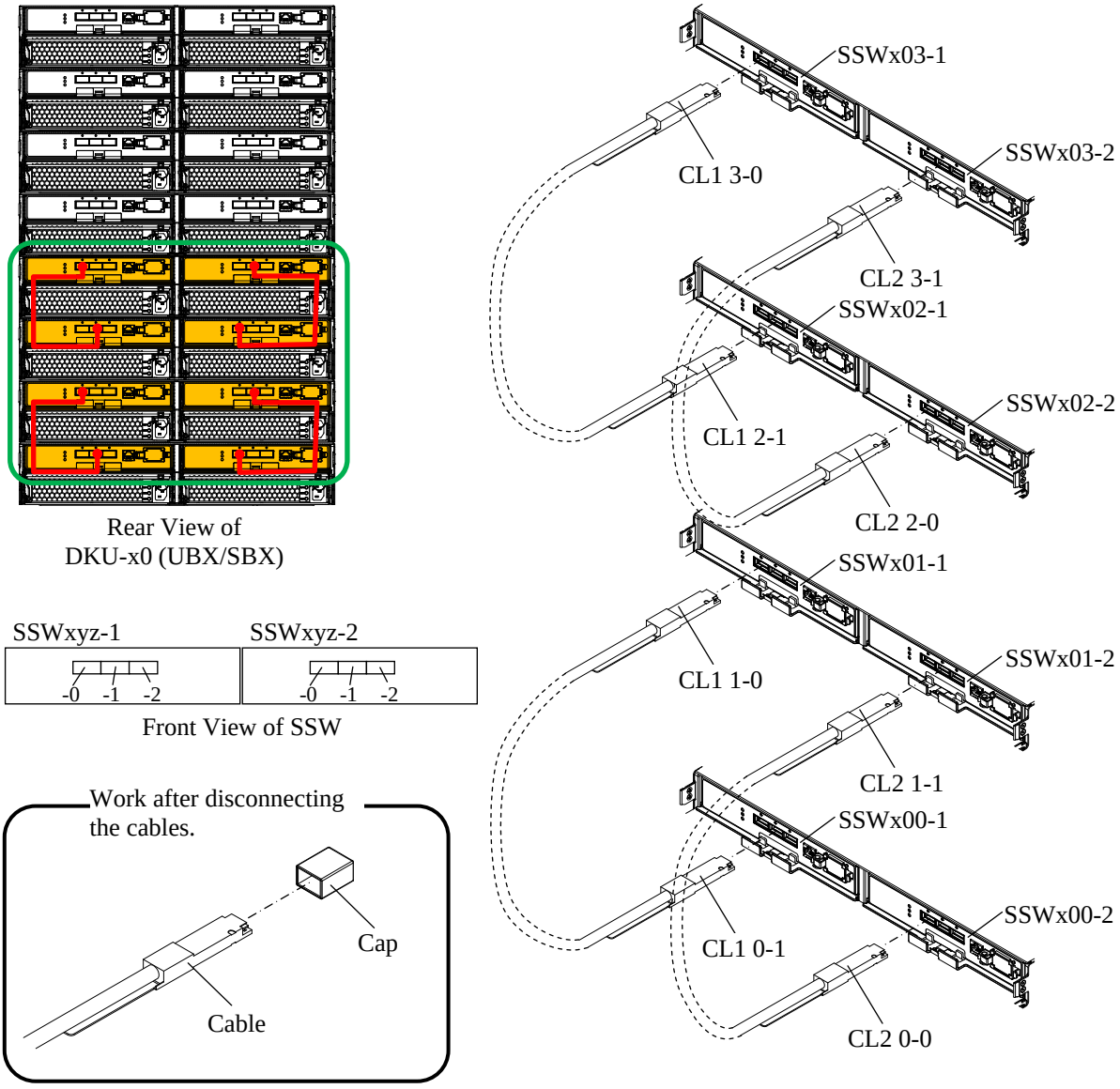
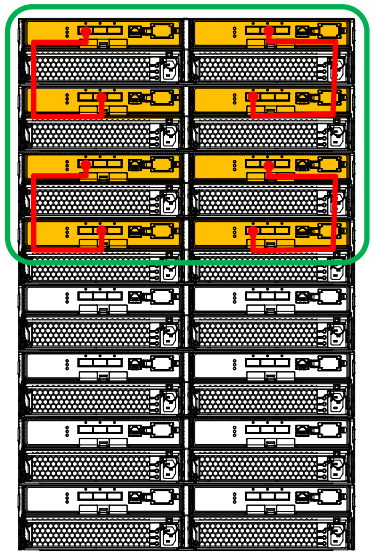


Fig. 4.1.4.7-2 Disconnection of Cables (UBX/SBX_CC1_CL1/CL2_L)

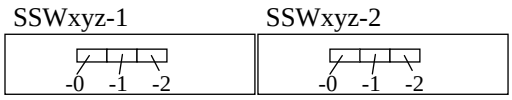
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⚠ CAUTION

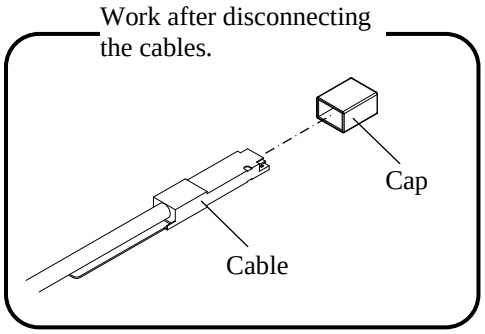
A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.



Rear View of
DKU-x0 (UBX/SBX)



Front View of SSW



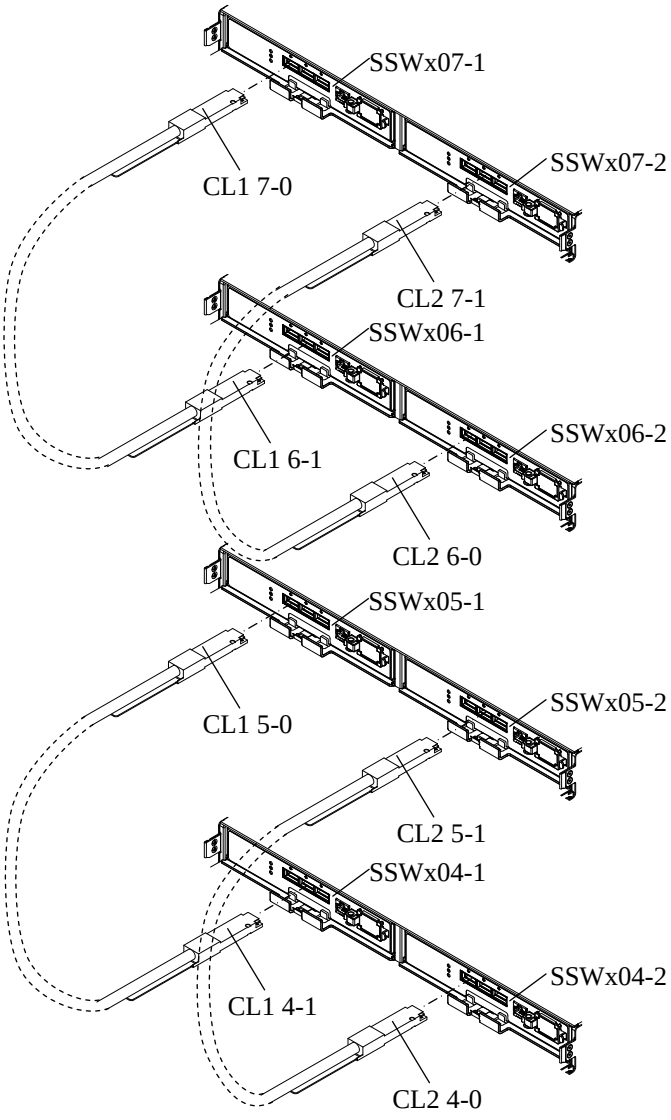


Fig. 4.1.4.7-3 Disconnection of Cables (UBX/SBX_CC1_CL1/CL2_U)

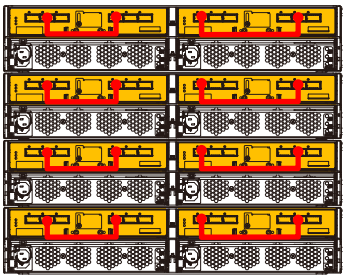
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When the DKU-x0 is the FBX

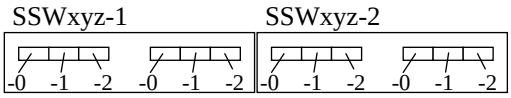
a. Disconnect the cables from the SSWs in the DKU.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

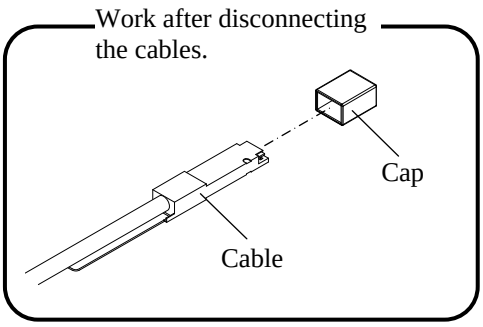
A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.



Rear View of
DKU-x0 (FBX)



Front View of SSW



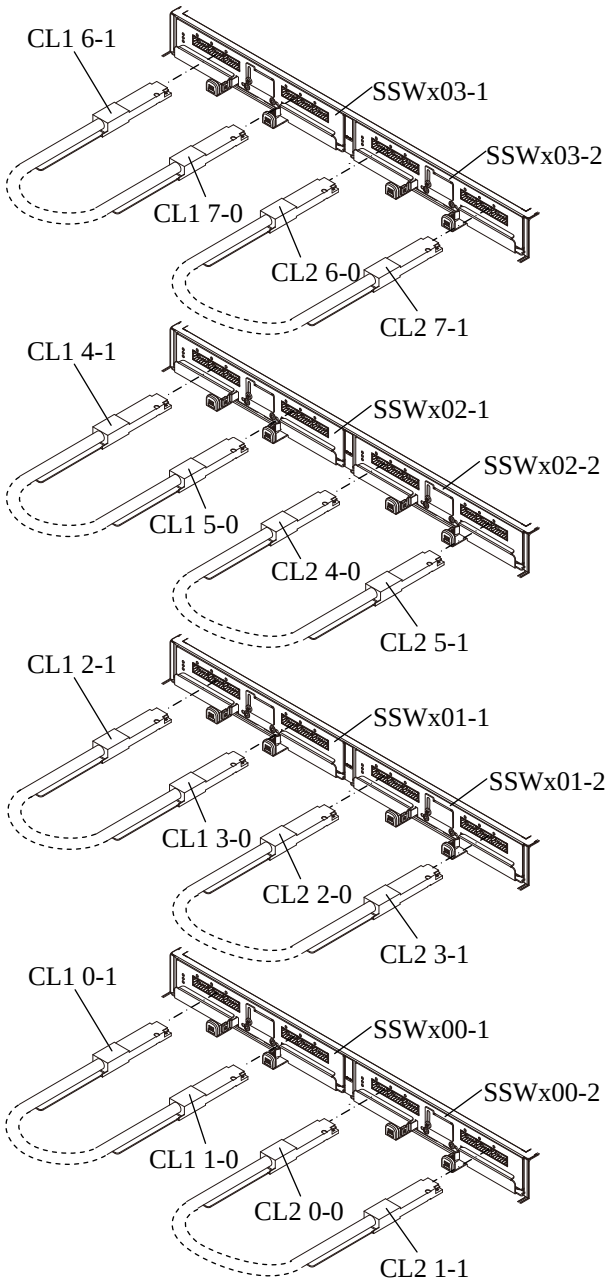


Fig. 4.1.4.7-4 Disconnection of Cables (FBX_CC1_CL1/CL2)

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2. Disconnection of Cables (CC2)

In the case of cable de-installation between DKA-1PA/2PA and DKU-00

a. Disconnect the eight cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

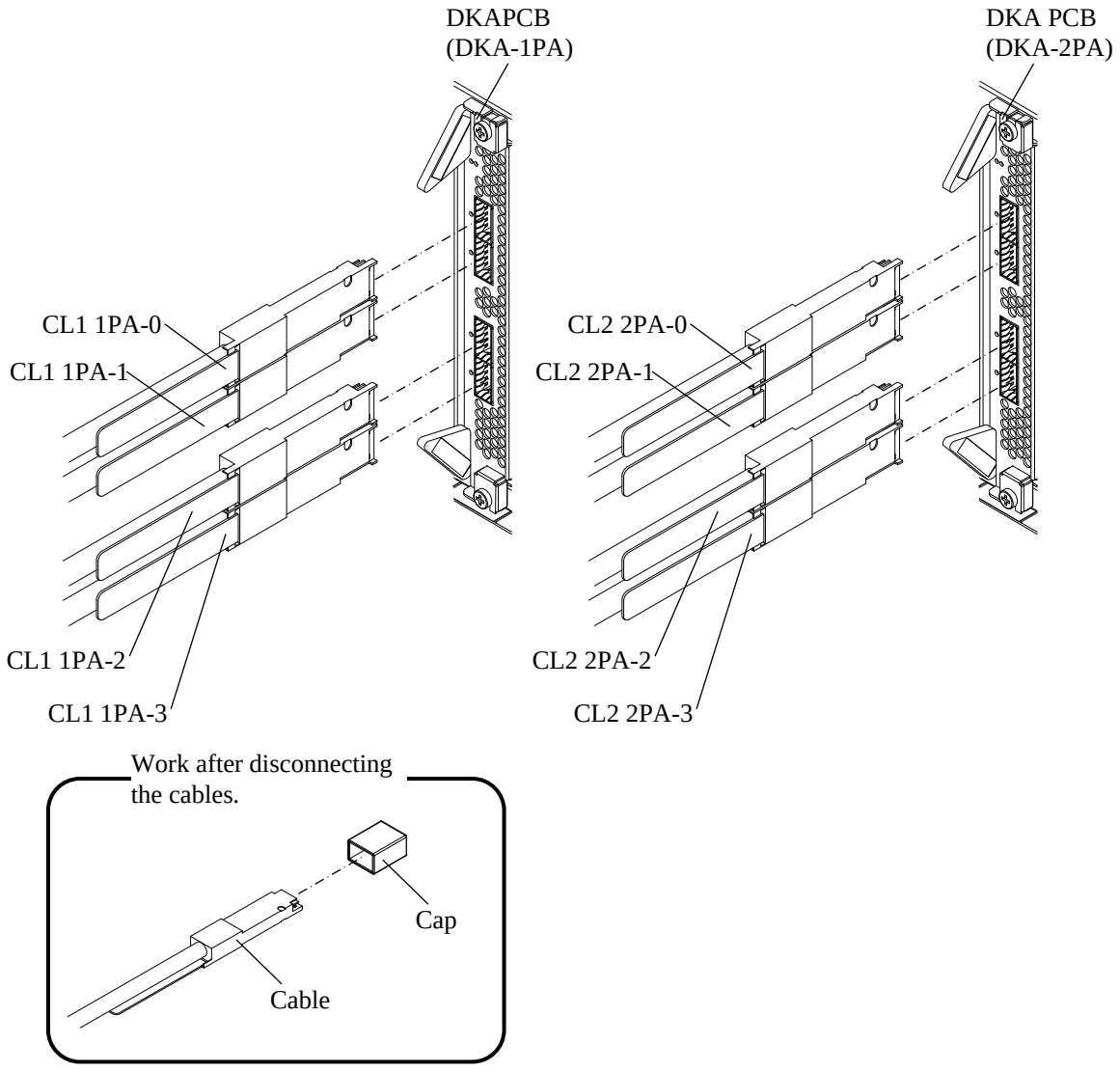


Fig. 4.1.4.7-5 Disconnection of Cables (Basic in DKC-0)

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When the DKU-00 is the UBX/SBX

c. Disconnect the eight cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.7-6 and Fig. 4.1.4.7-7.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

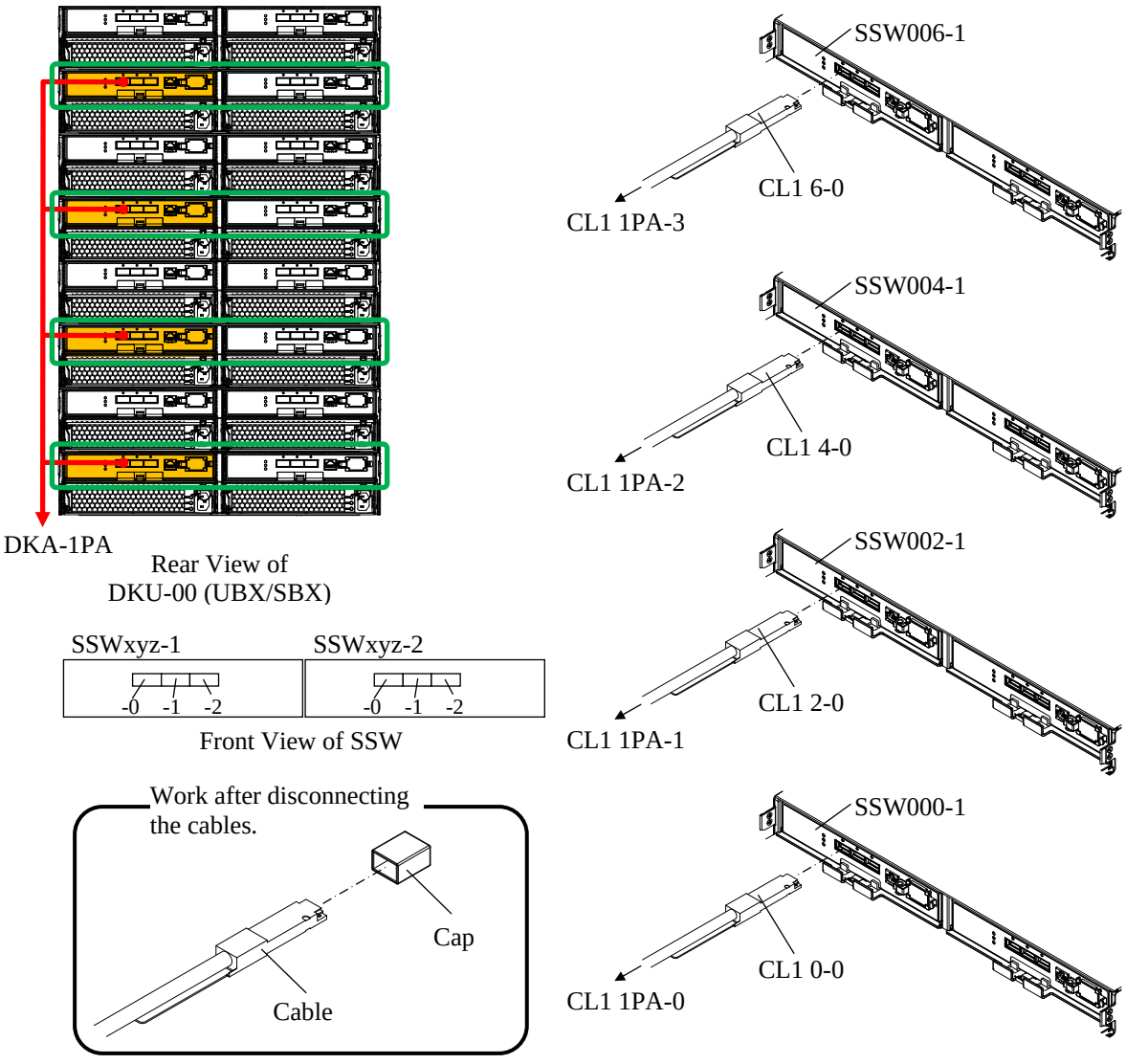


Fig. 4.1.4.7-6 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL1)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

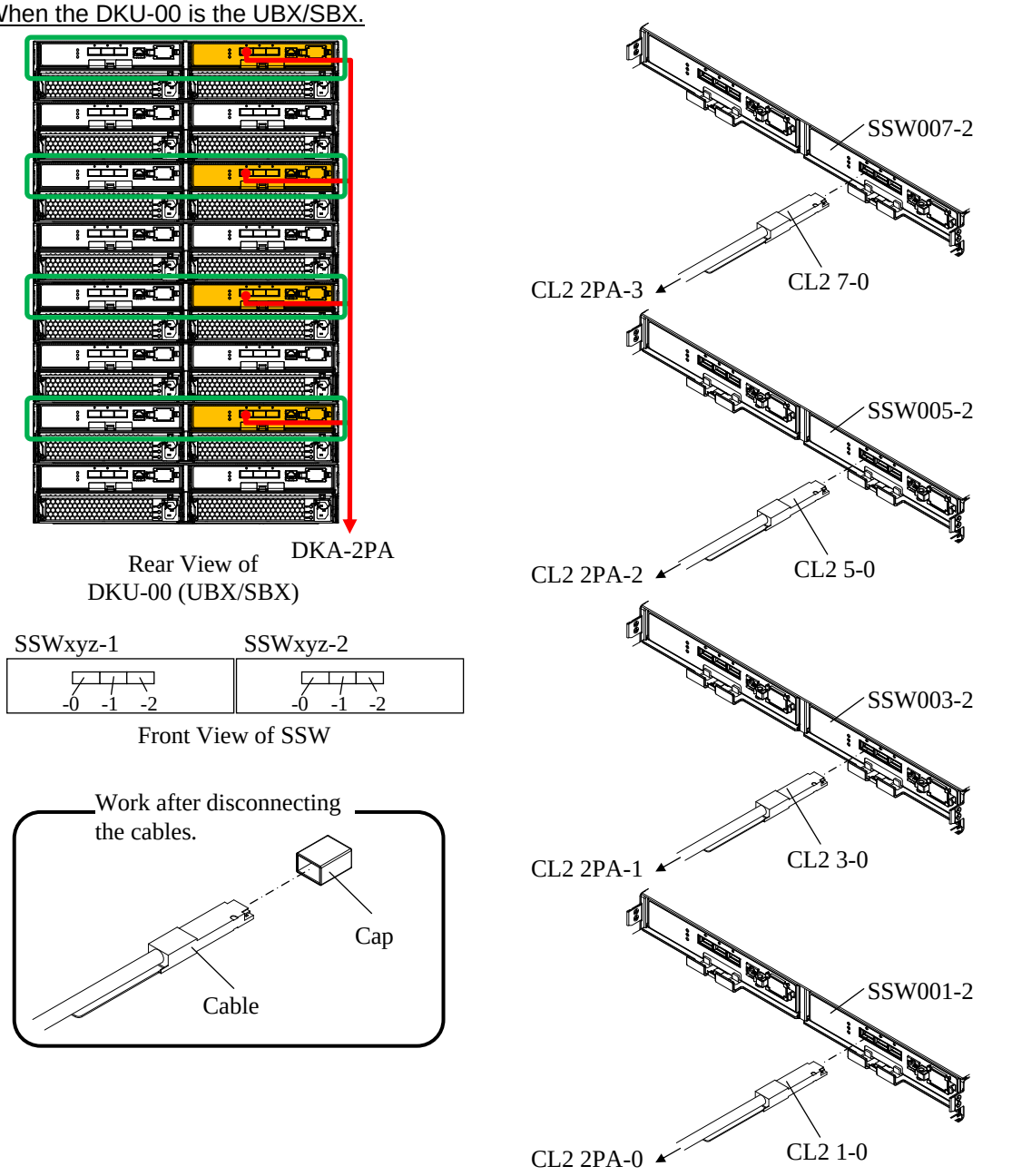


Fig. 4.1.4.7-7 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL2)

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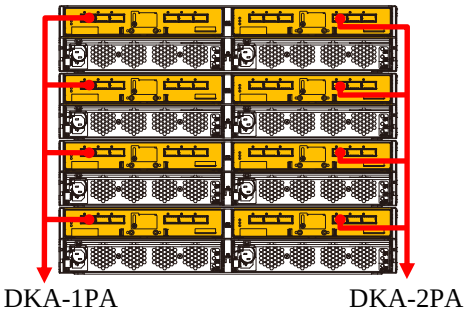
When the DKU-00 is the FBX

c. Disconnect the eight cables from the SSWs in the DKU.
d. Attach the caps to the disconnected cables.

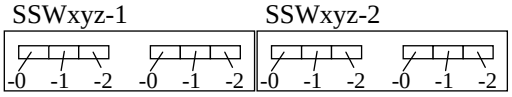
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

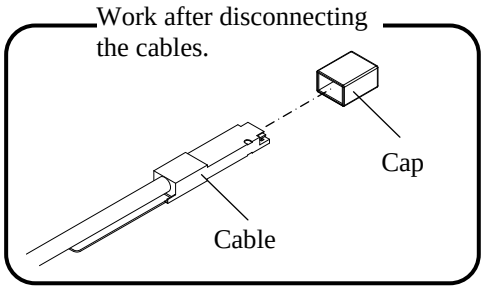
When the DKU-00 is the FBX.



Rear View of DKU-00 (FBX)



Front View of SSW



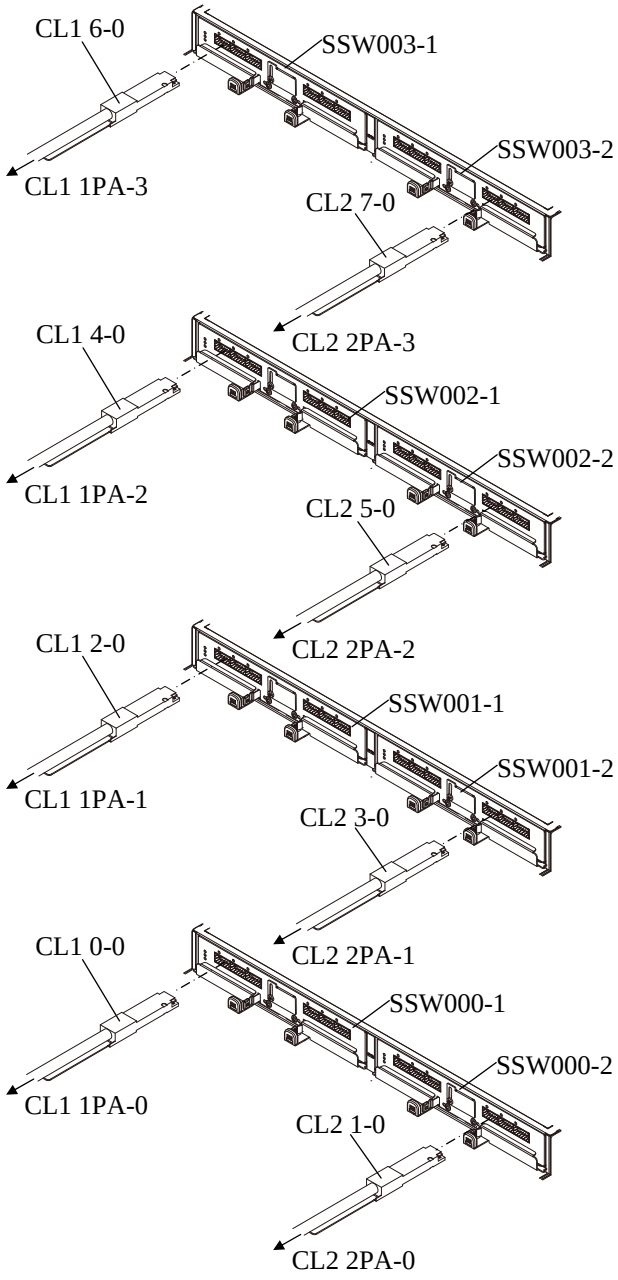


Fig. 4.1.4.7-8 Disconnection of Cables (CC2_DKU-00 (FBX)_CL1/CL2)

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In the case of cable de-installation between DKA-1PG/2PG and DKU-10

a. Disconnect the eight cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

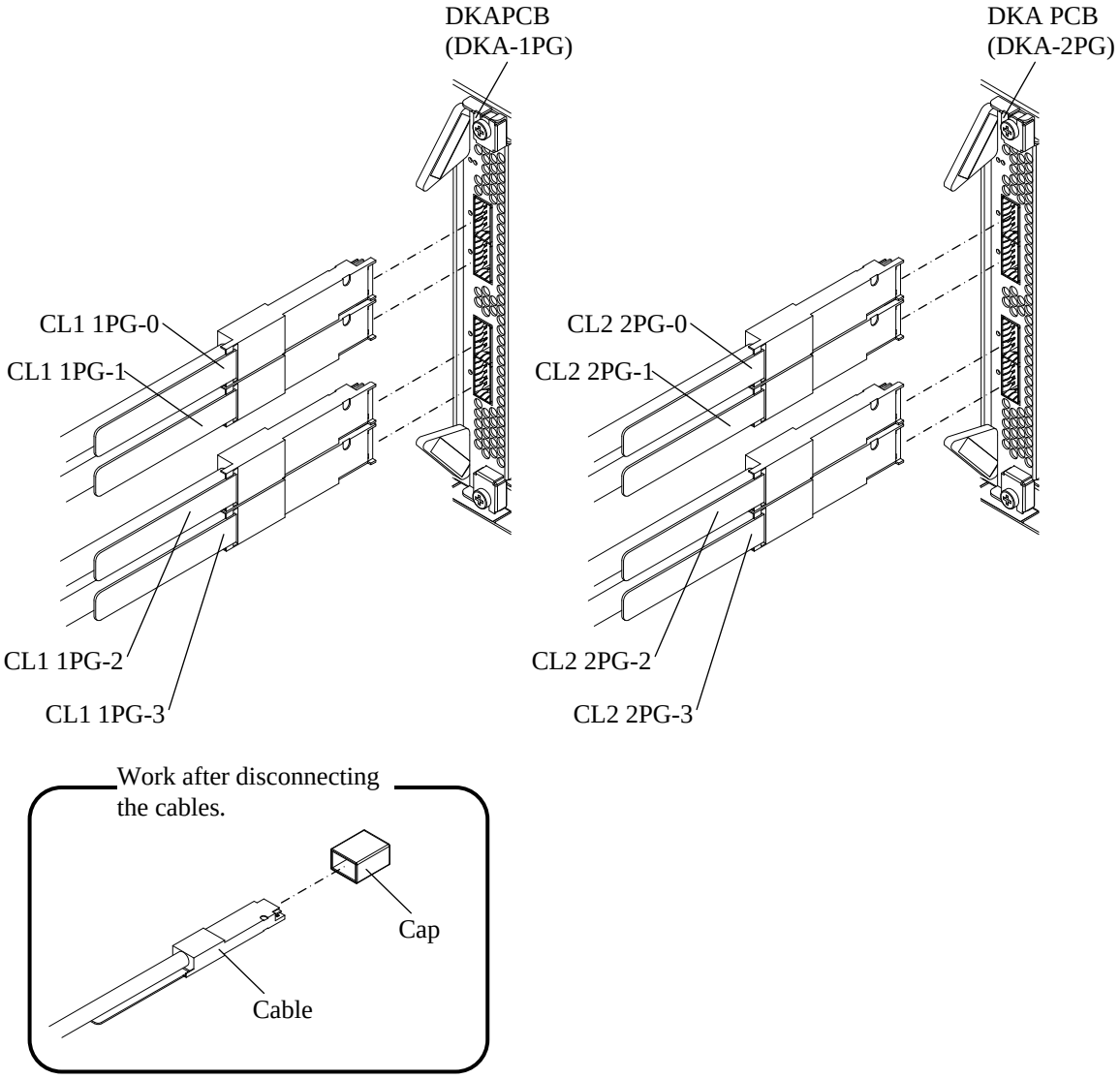


Fig. 4.1.4.7-9 Disconnection of Cables (Option 2 in DKC-1)

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When the DKU-10 is the UBX/SBX

c. Disconnect the eight cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.7-10 and Fig. 4.1.4.7-11.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the UBX/SBX.

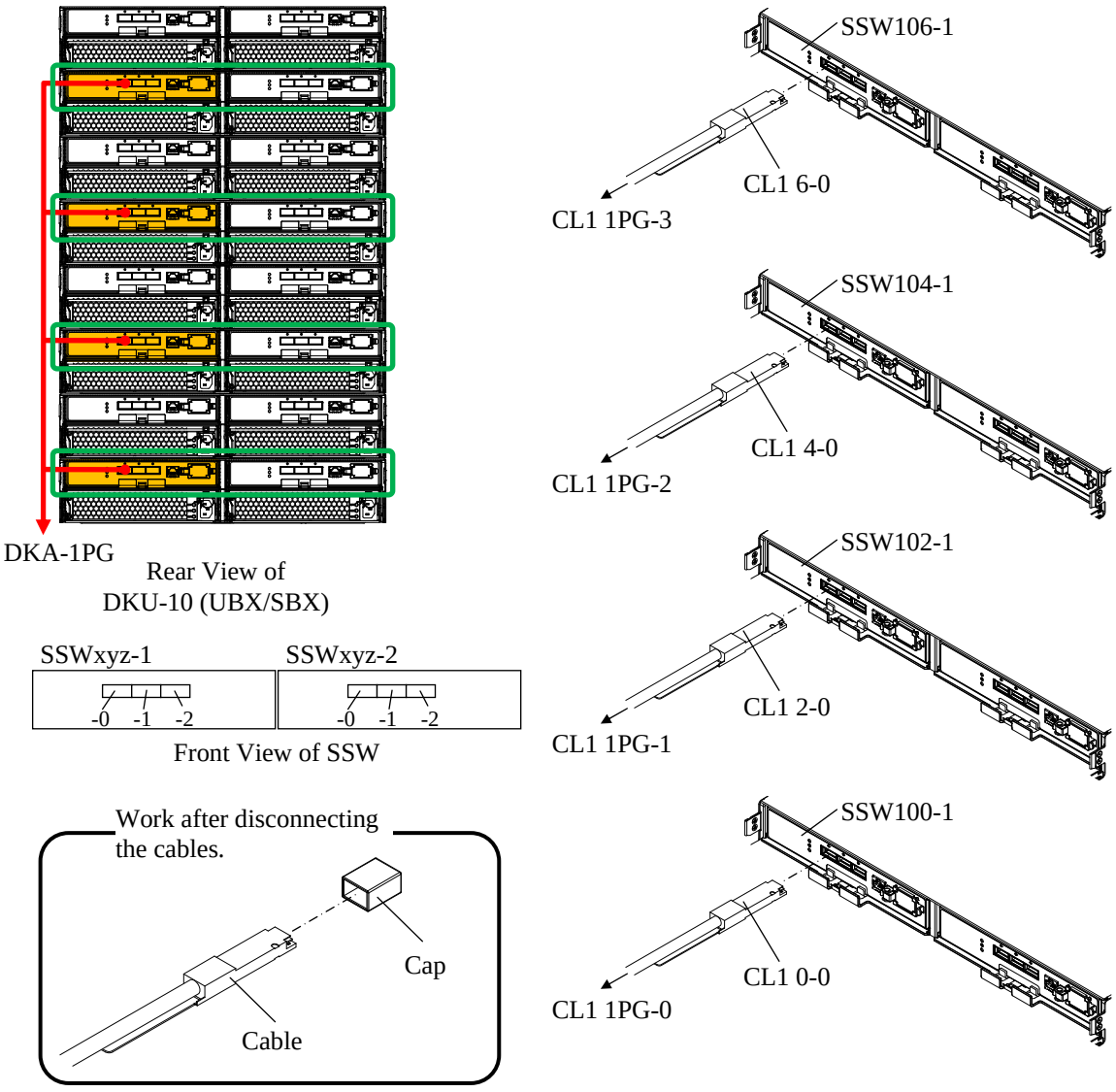


Fig. 4.1.4.7-10 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL1)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the UBX/SBX.

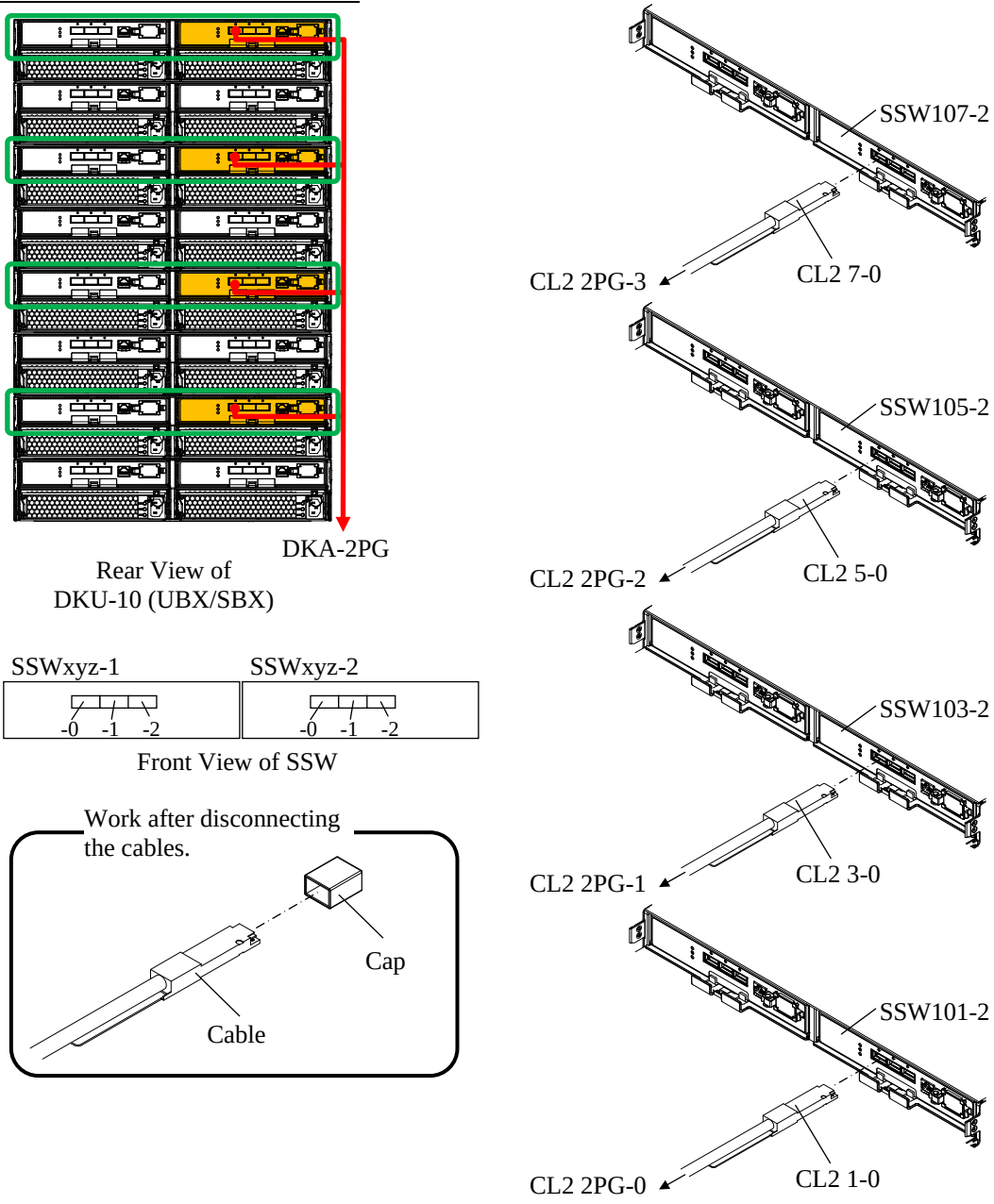


Fig. 4.1.4.7-11 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL2)

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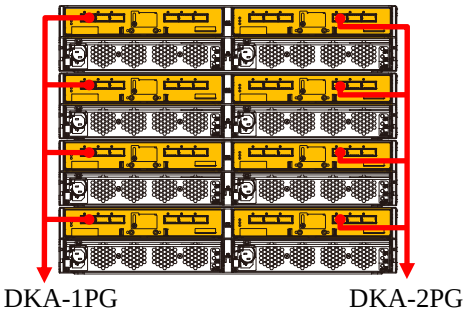
When the DKU-10 is the FBX

c. Disconnect the eight cables from the SSWs in the DKU.
d. Attach the caps to the disconnected cables.

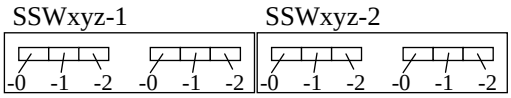
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

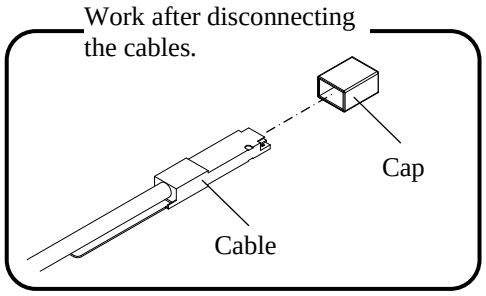
When the DKU-10 is the FBX.



Rear View of DKU-10 (FBX)



Front View of SSW



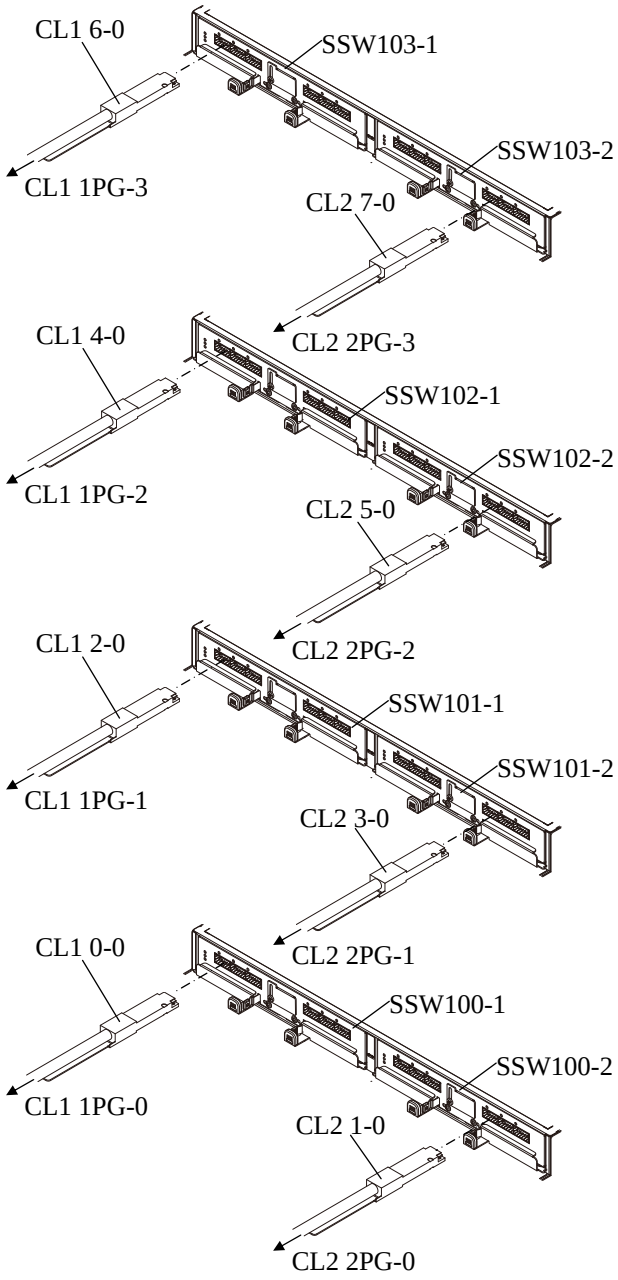


Fig. 4.1.4.7-12 Disconnection of Cables (CC2_DKU-10 (FBX)_CL1/CL2)

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3. Removal of Cables
   a. Open the loop cable ties and remove the eight cables in the cluster 1.
   (Refer to Fig. 4.1.4.7-13 or Fig. 4.1.4.7-14.)

When the DKU-x0 is the UBX/SBX.

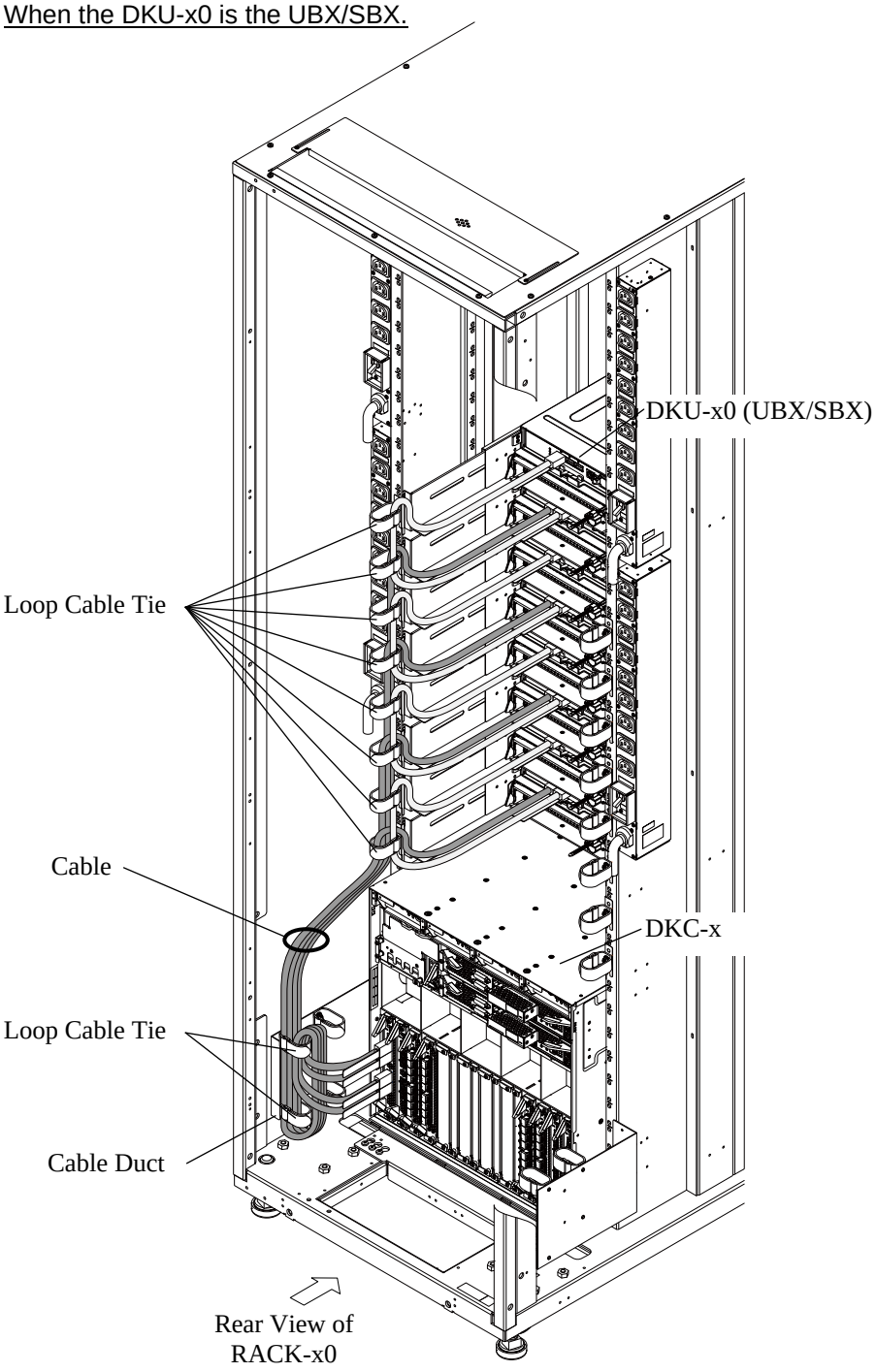


Fig. 4.1.4.7-13 Removal of Cables
(DKA-1PA – DKU-00 (UBX/SBX) or DKA-1PG – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX.

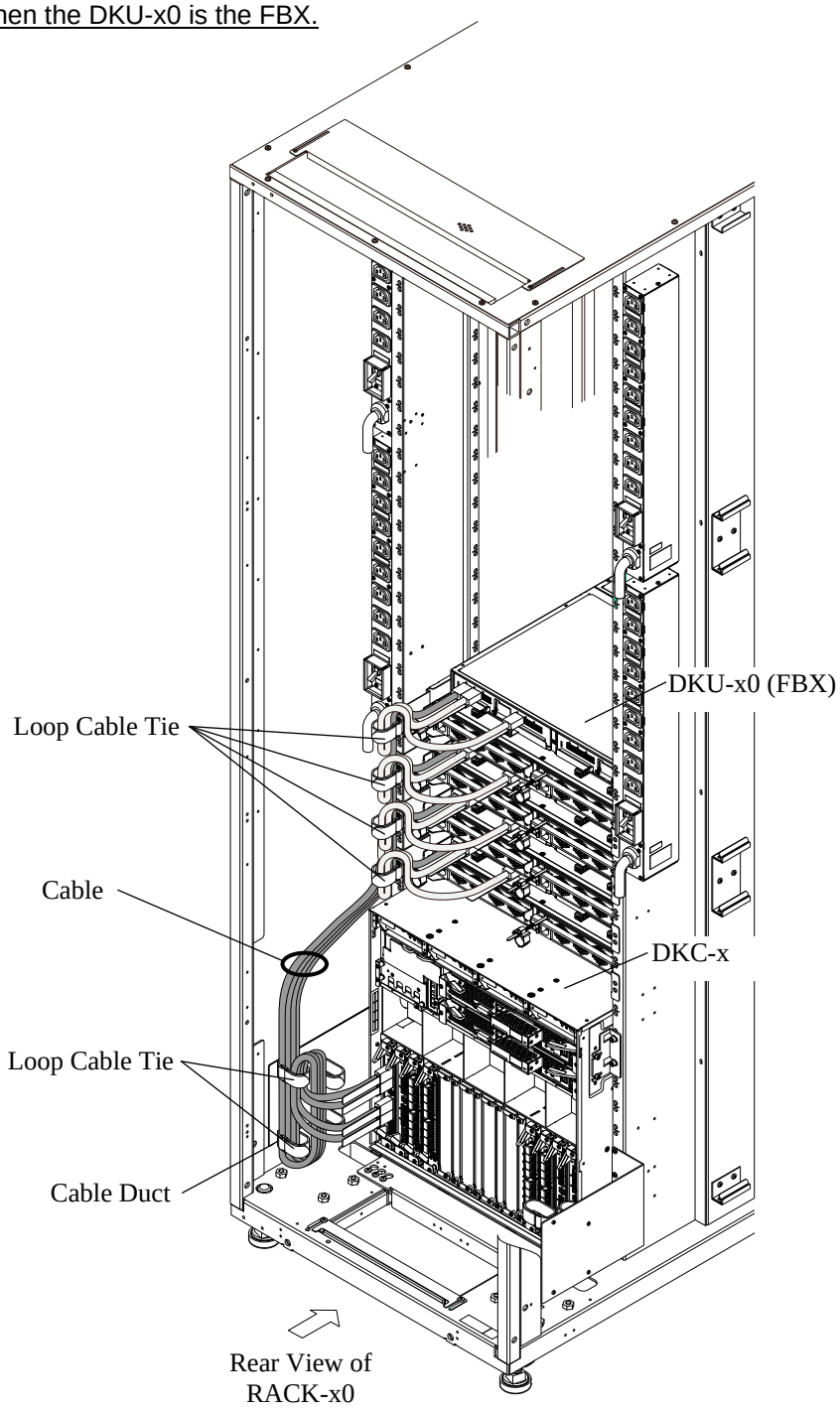


Fig. 4.1.4.7-14 Removal of Cables
(DKA-1PA – DKU-00 (FBX) or DKA-1PG – DKU-10 (FBX))

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b. Open the loop cable ties and remove the eight cables in the cluster 2.
(Refer to Fig. 4.1.4.7-15 or Fig. 4.1.4.7-16.)

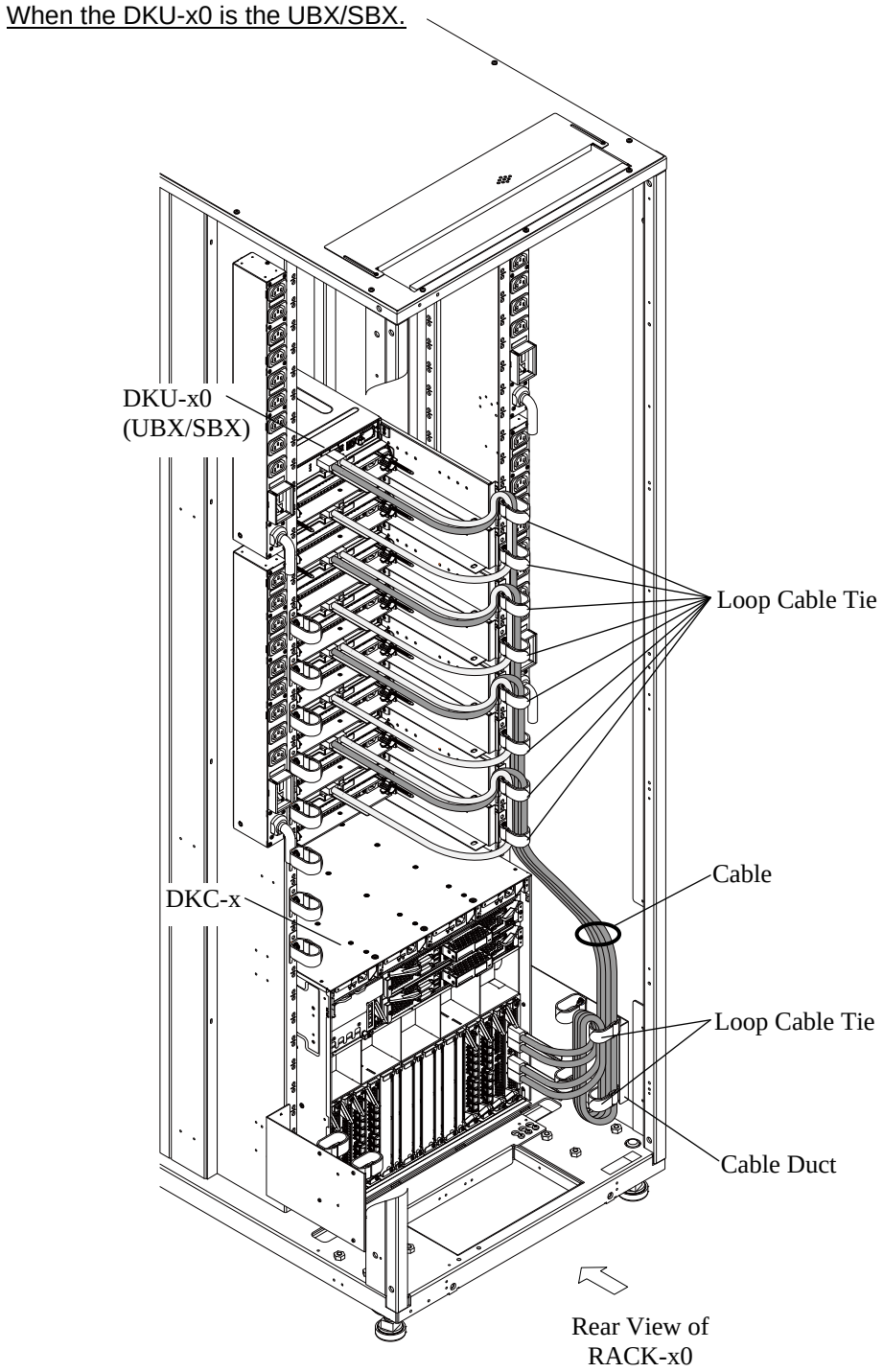


Fig. 4.1.4.7-15 Removal of Cables
(DKA-2PA – DKU-00 (UBX/SBX) or DKA-2PG – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX.

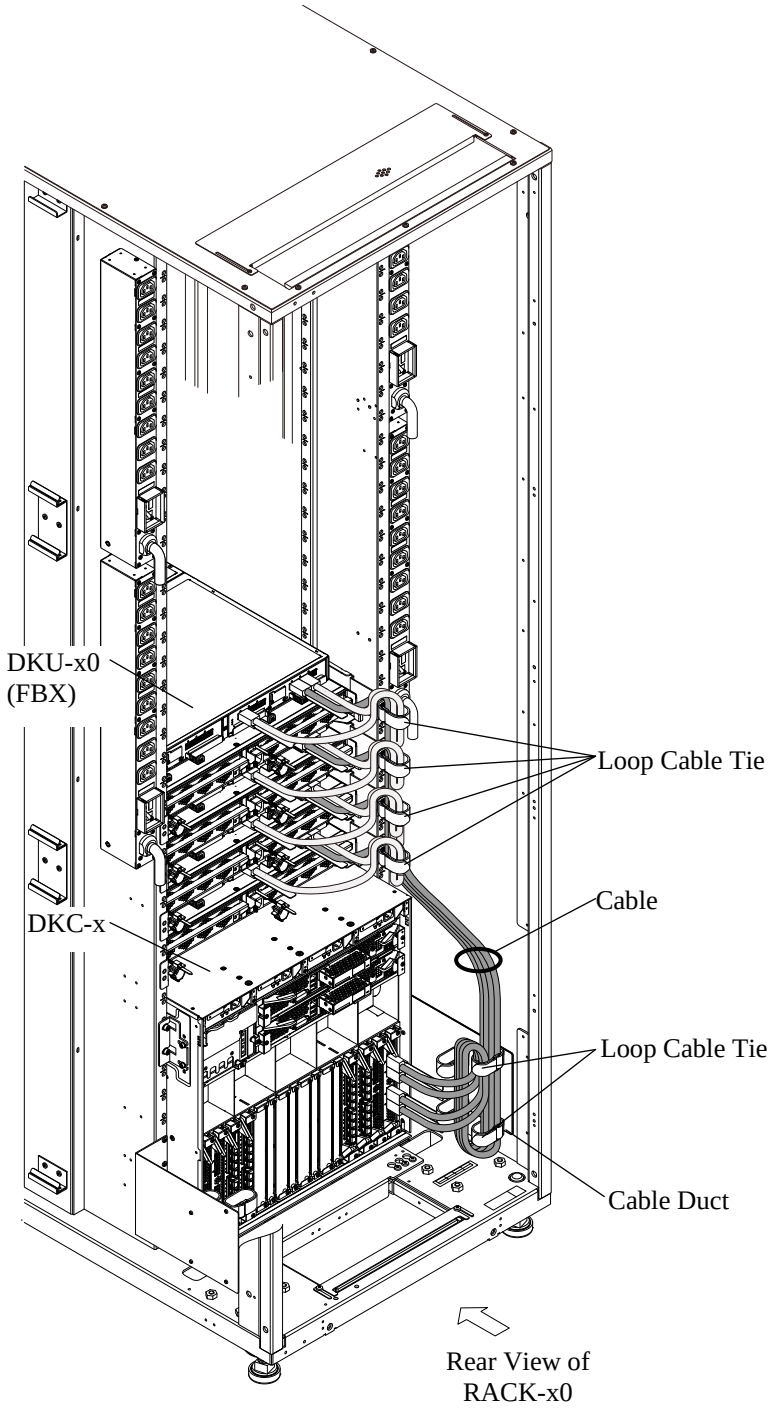


Fig. 4.1.4.7-16 Removal of Cables
(DKA-2PA – DKU-00 (FBX) or DKA-2PG – DKU-10 (FBX))

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4.1.4.8 De-Installation Procedure of Device Interface Cable CC2 in the High-Performance Model that Accompanies the Removal of the DKU-00/10 (DKC-F810I-CC2)

De-Installation Condition

To disconnect the DKA from the DKU-00/10 in the standard model, DKC-F810I-CC2 cable options must be de-installed.

Judge whether it is necessary to de-install DKC-F810I-CC2 cable options and go to the appropriate page. (See Table4.1.4.8-1.)

Table 4.1.4.8-1 Work Procedure Table

No.	Condition of Work Procedure	Page
1	When Device Interface Cable CC2 (DKC-F810I-CC2) to connect DKA to DKU-00/10 is required to de-install in the high-performance model.	INST04-11C-1480
2	When Device Interface Cable CC2 (DKC-F810I-CC2) to connect DKA to DKU-00/10 is not required to de-install.	INST04-11C-1680

High-Performance Model

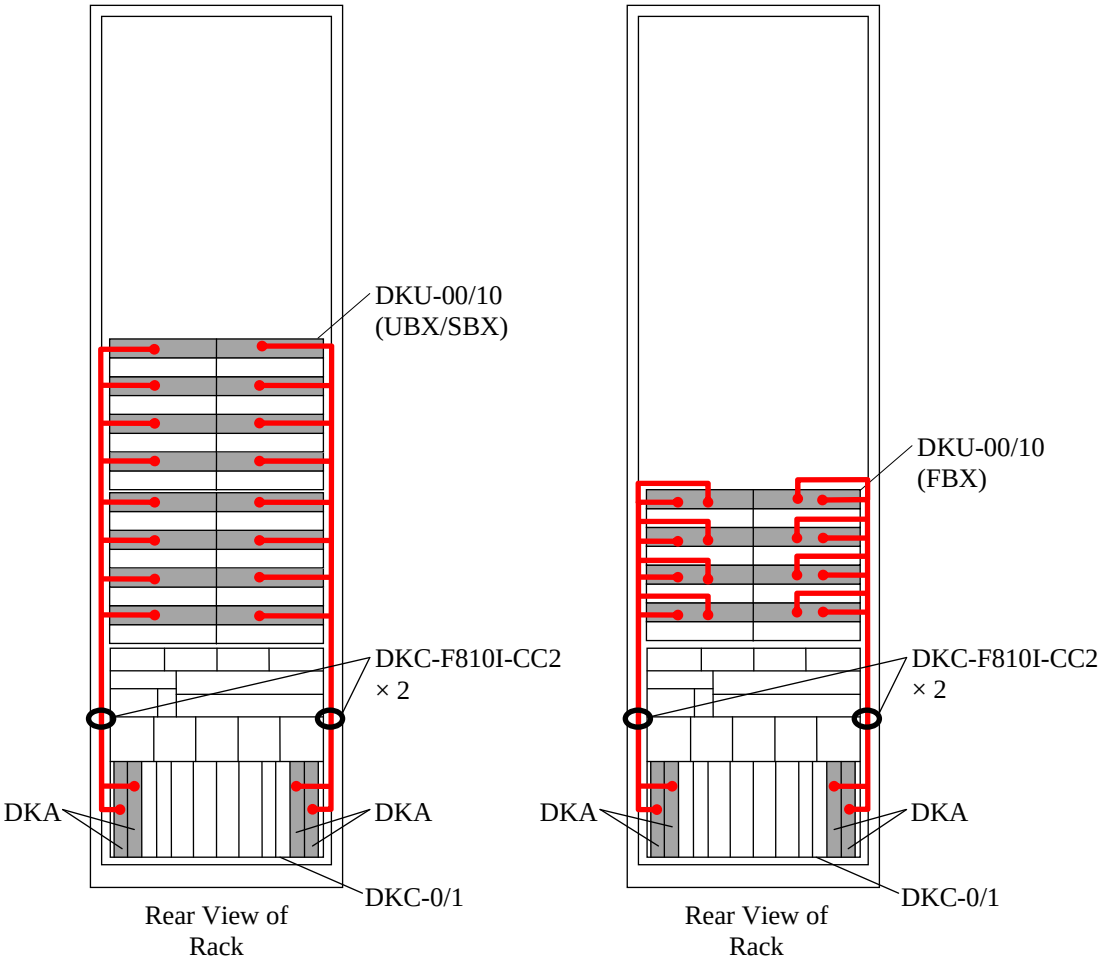


Fig. 4.1.4.8-1 Cable Routing

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1. Disconnection of Cables (CC2)

In the case of cable de-installation between DKA-1PA/2PA and DKU-00

a. Disconnect the eight cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

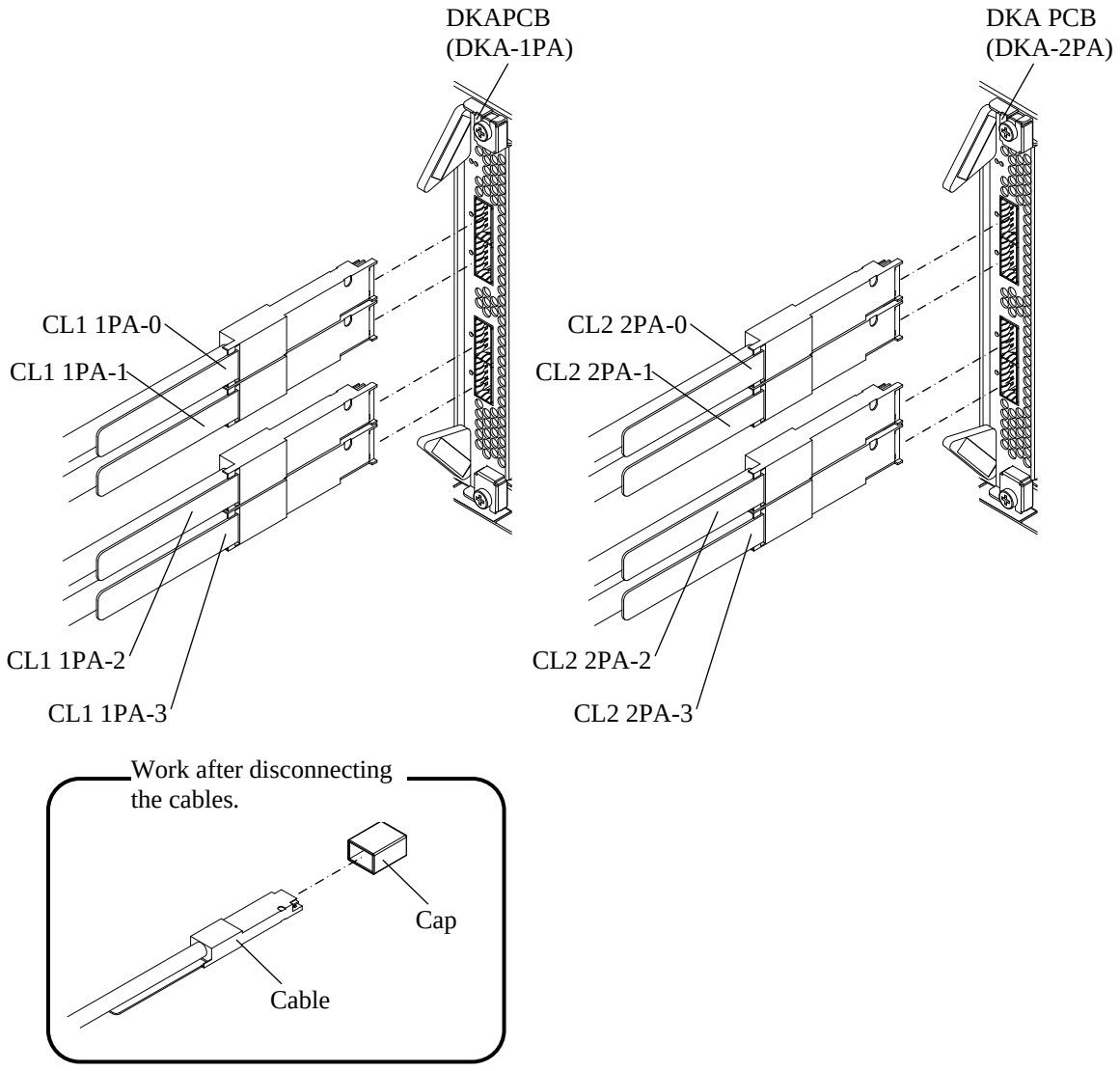


Fig. 4.1.4.8-2 Disconnection of Cables (Basic in DKC-0)

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When the DKU-00 is the UBX/SBX

c. Disconnect the eight cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.8-3 and Fig. 4.1.4.8-4.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

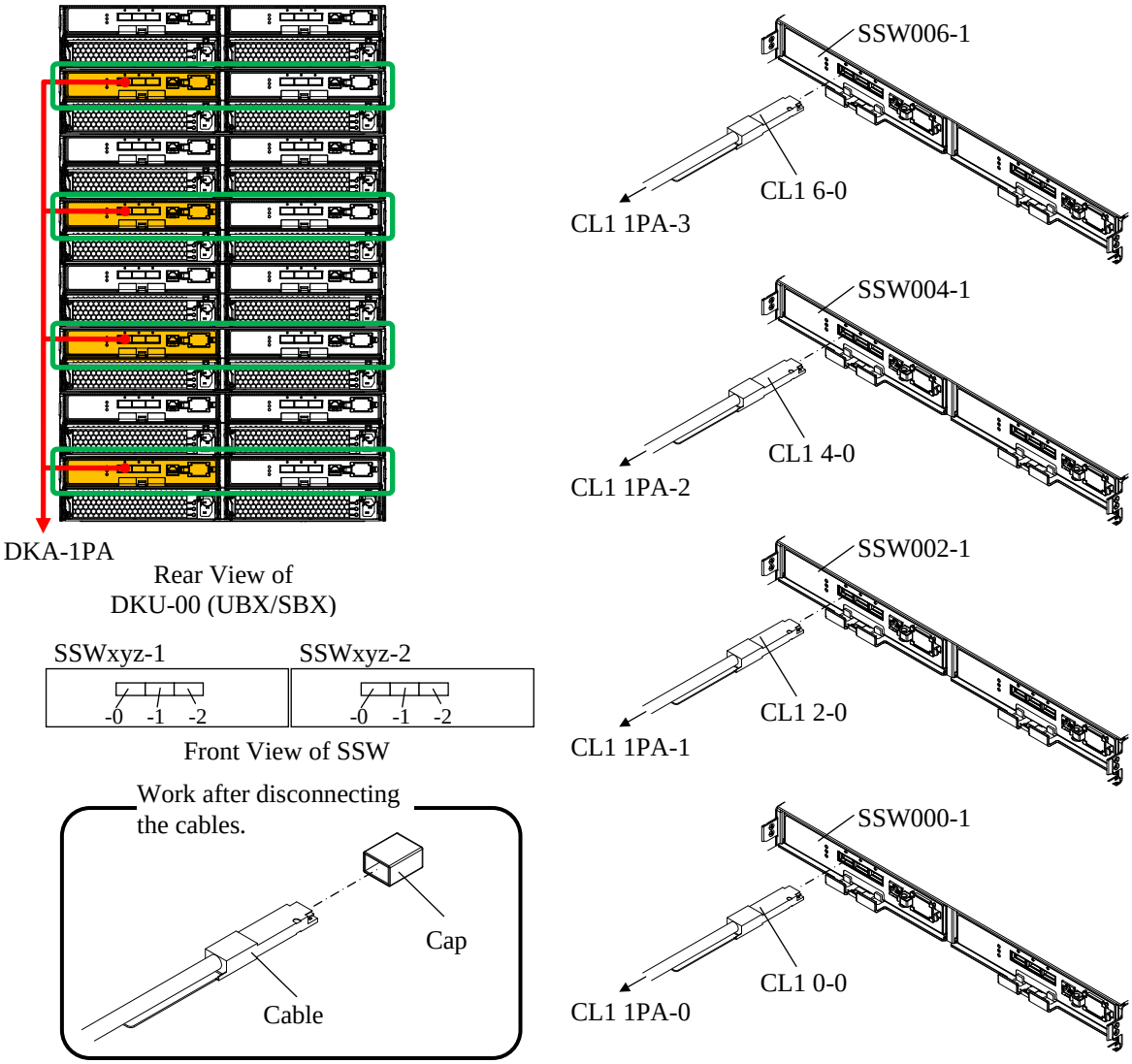


Fig. 4.1.4.8-3 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL1)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

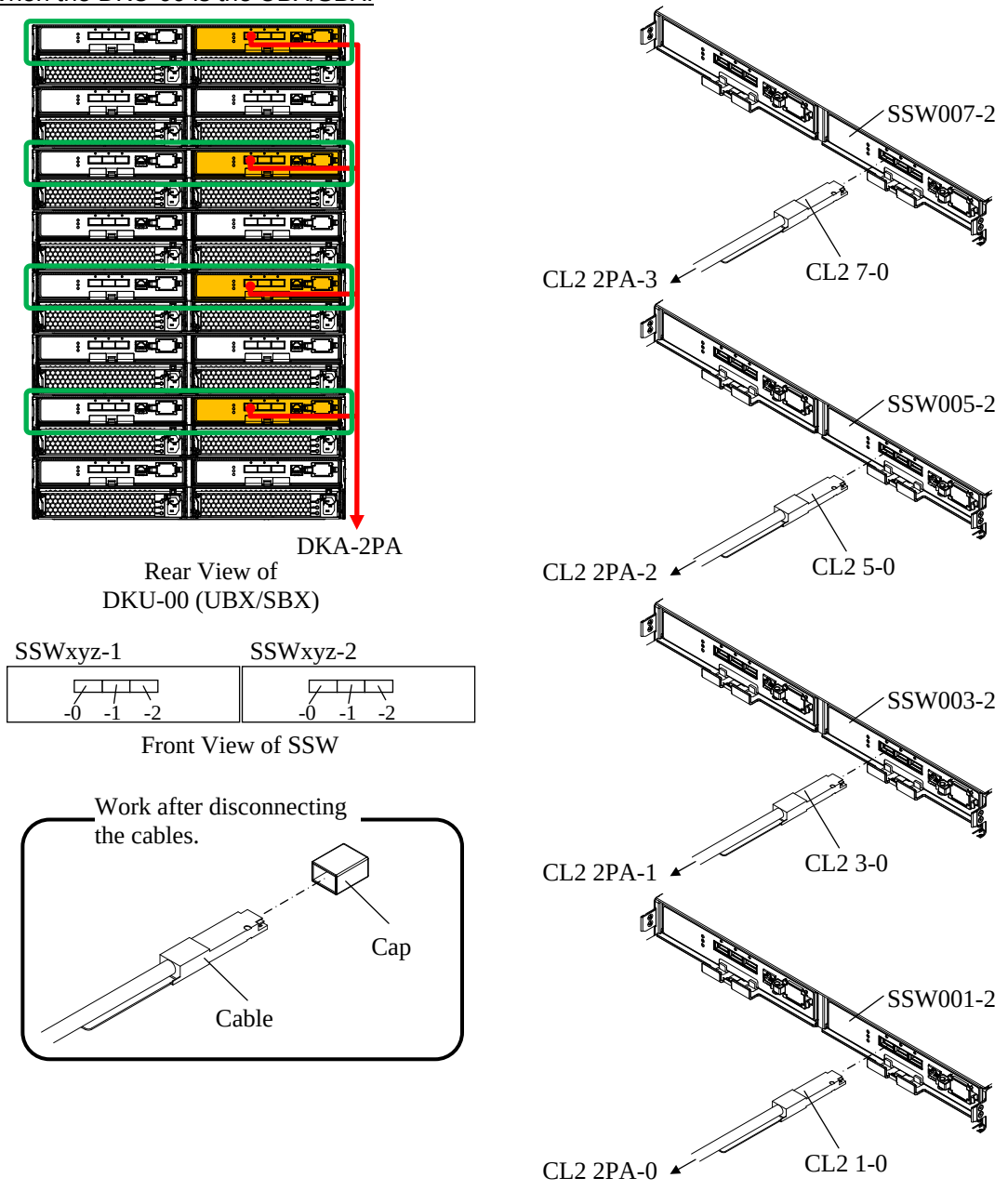


Fig. 4.1.4.8-4 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL2)

When the DKU-00 is the FBX

c. Disconnect the eight cables from the SSWs in the DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the FBX.

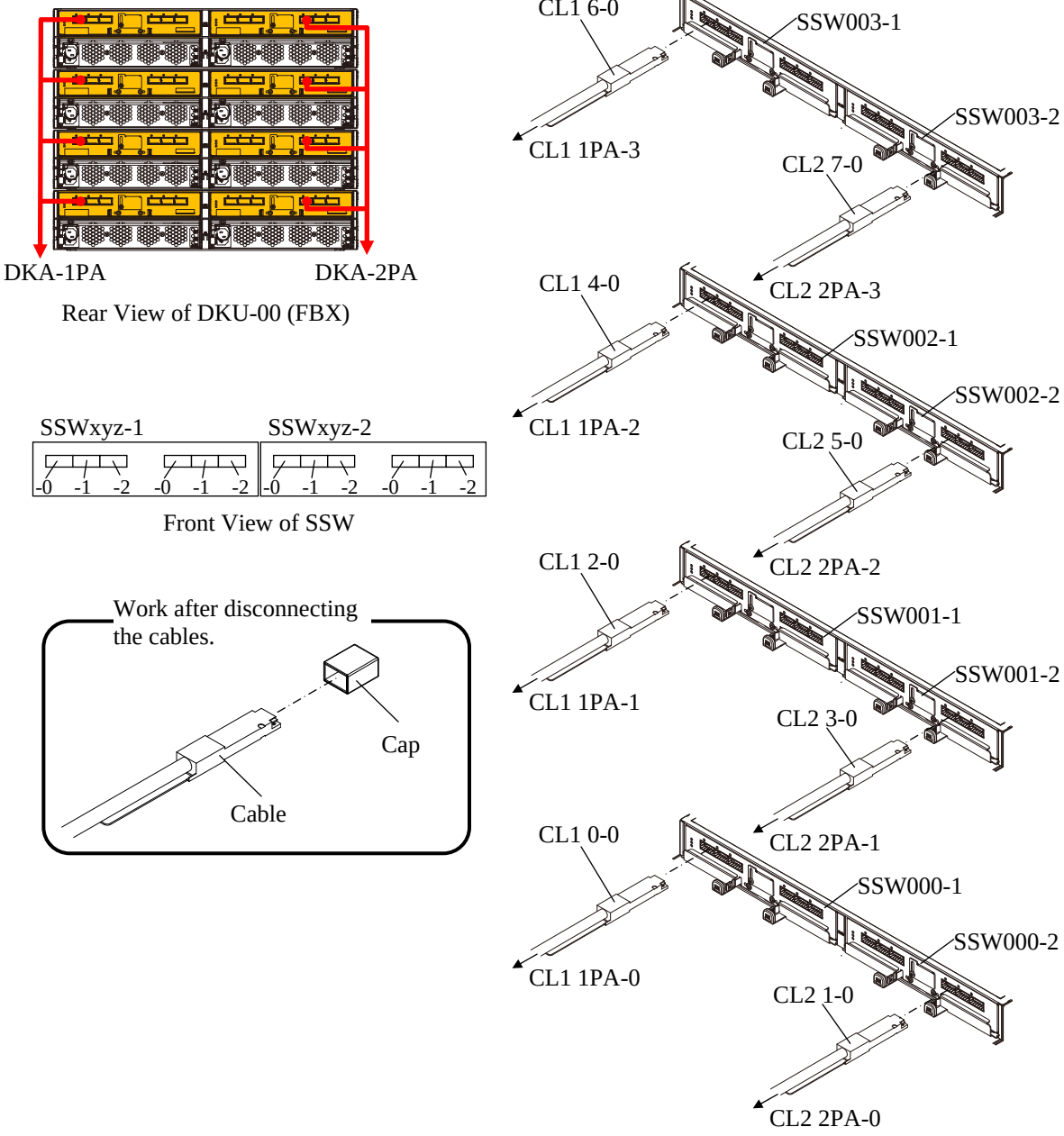


Fig. 4.1.4.8-5 Disconnection of Cables (CC2_DKU-00 (FBX)_CL1/CL2)

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In the case of cable de-installation between DKA-1PB/2PB and DKU-00

a. Disconnect the eight cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

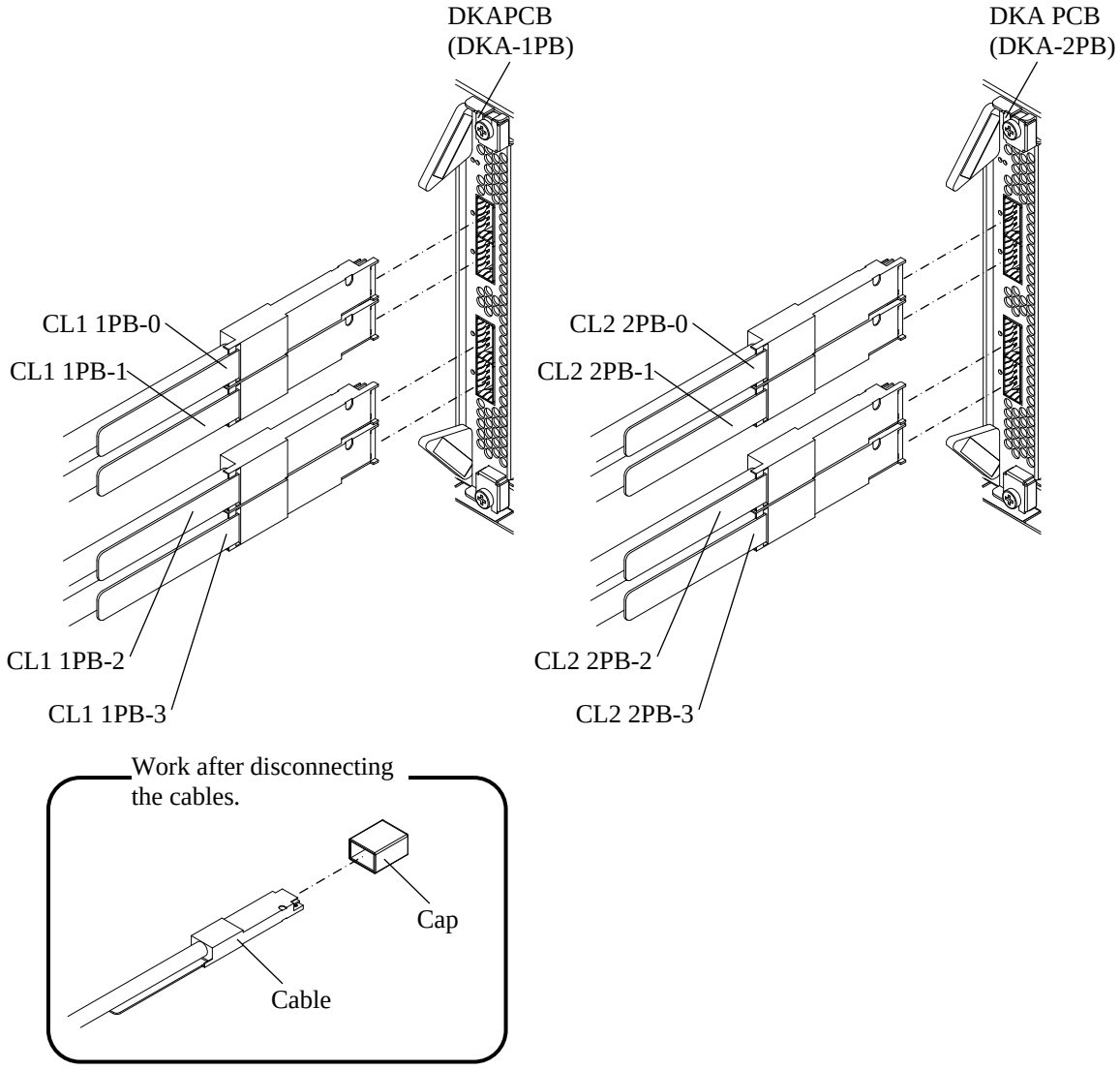


Fig. 4.1.4.8-6 Disconnection of Cables (Option 1 in DKC-0)

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When the DKU-00 is the UBX/SBX

c. Disconnect the eight cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.8-7 and Fig. 4.1.4.8-8.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

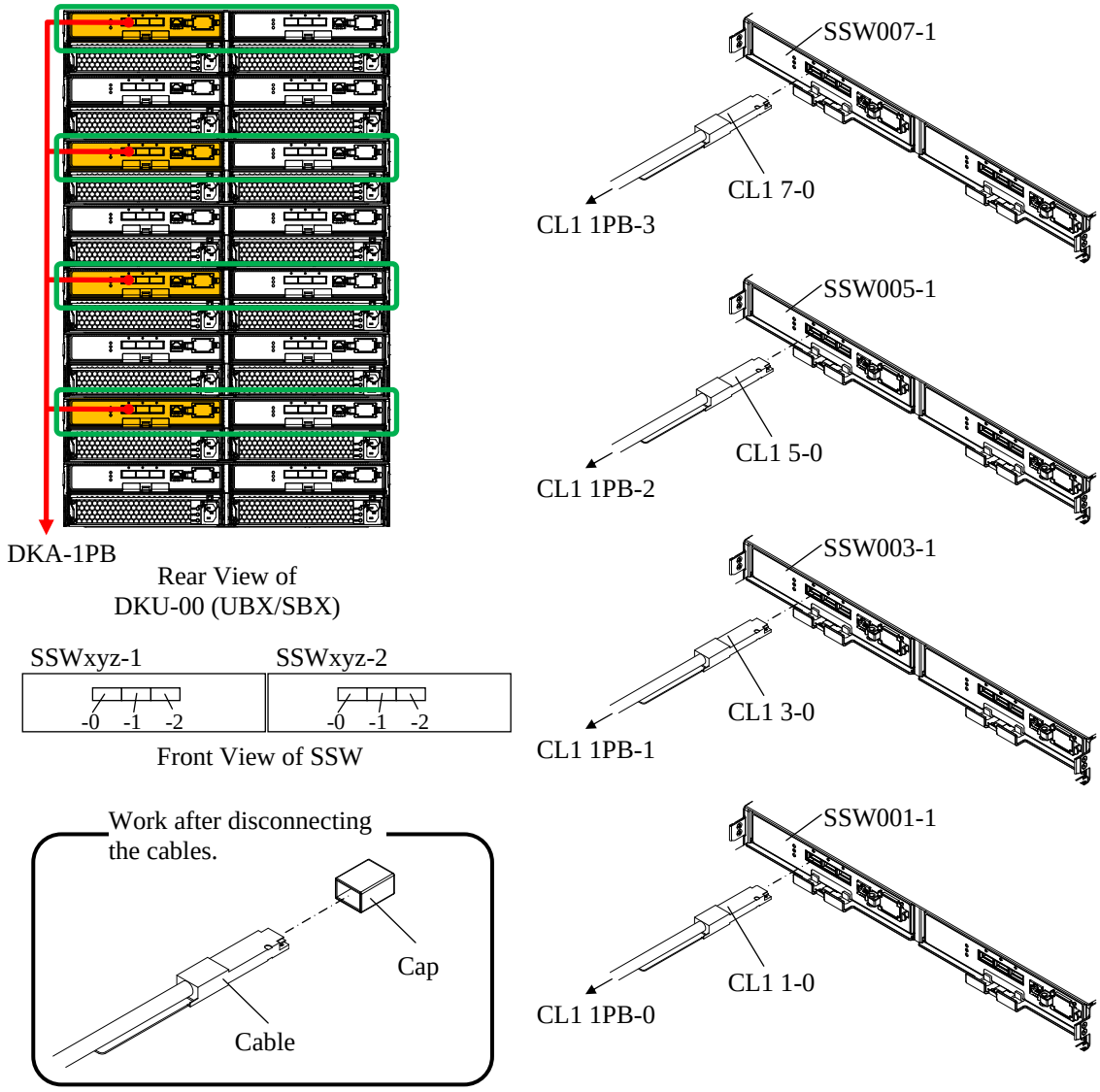


Fig. 4.1.4.8-7 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL1)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-00 is the UBX/SBX.

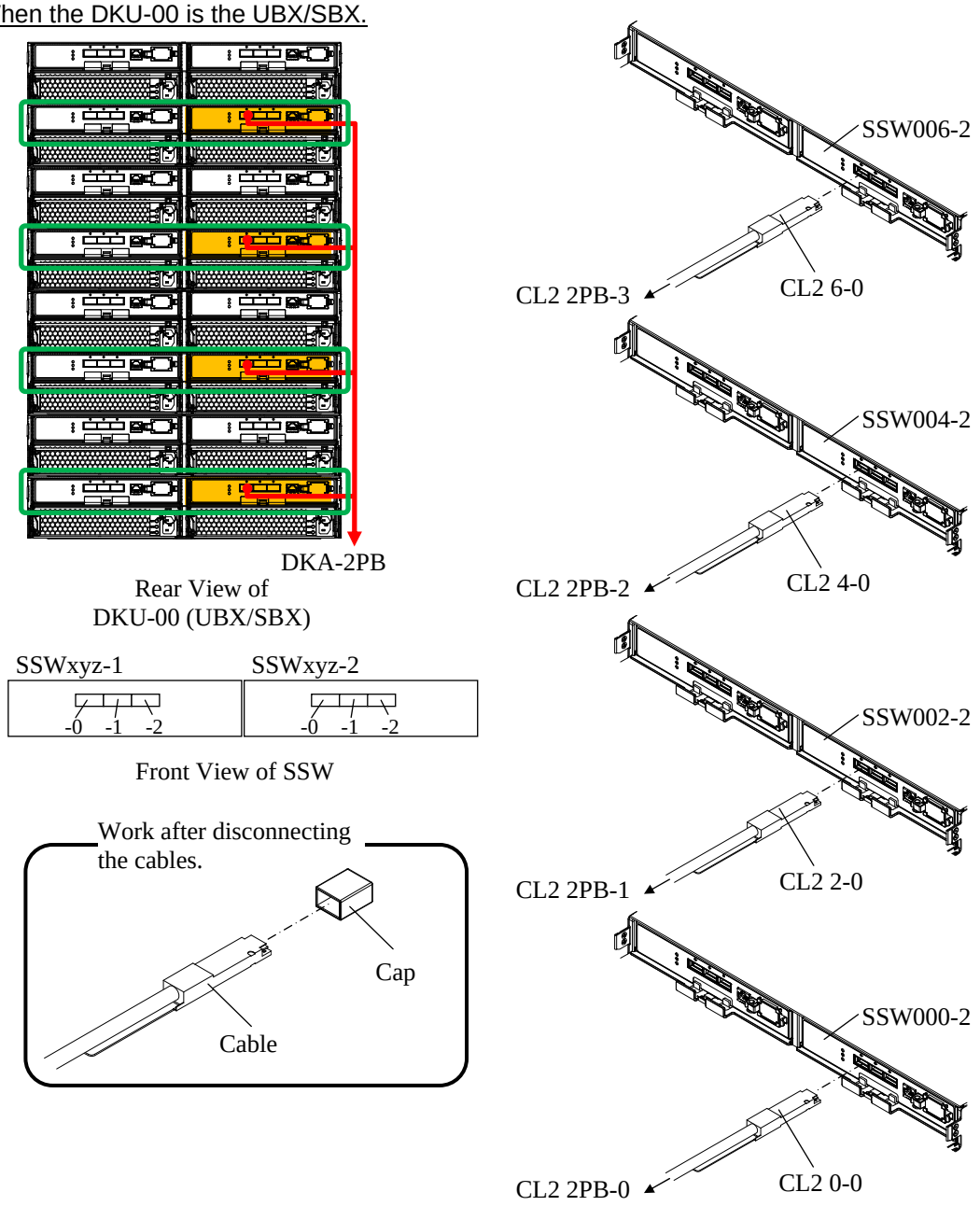


Fig. 4.1.4.8-8 Disconnection of Cables (CC2_DKU-00 (UBX/SBX)_CL2)

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When the DKU-00 is the FBX

c. Disconnect the eight cables from the SSWs in the DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

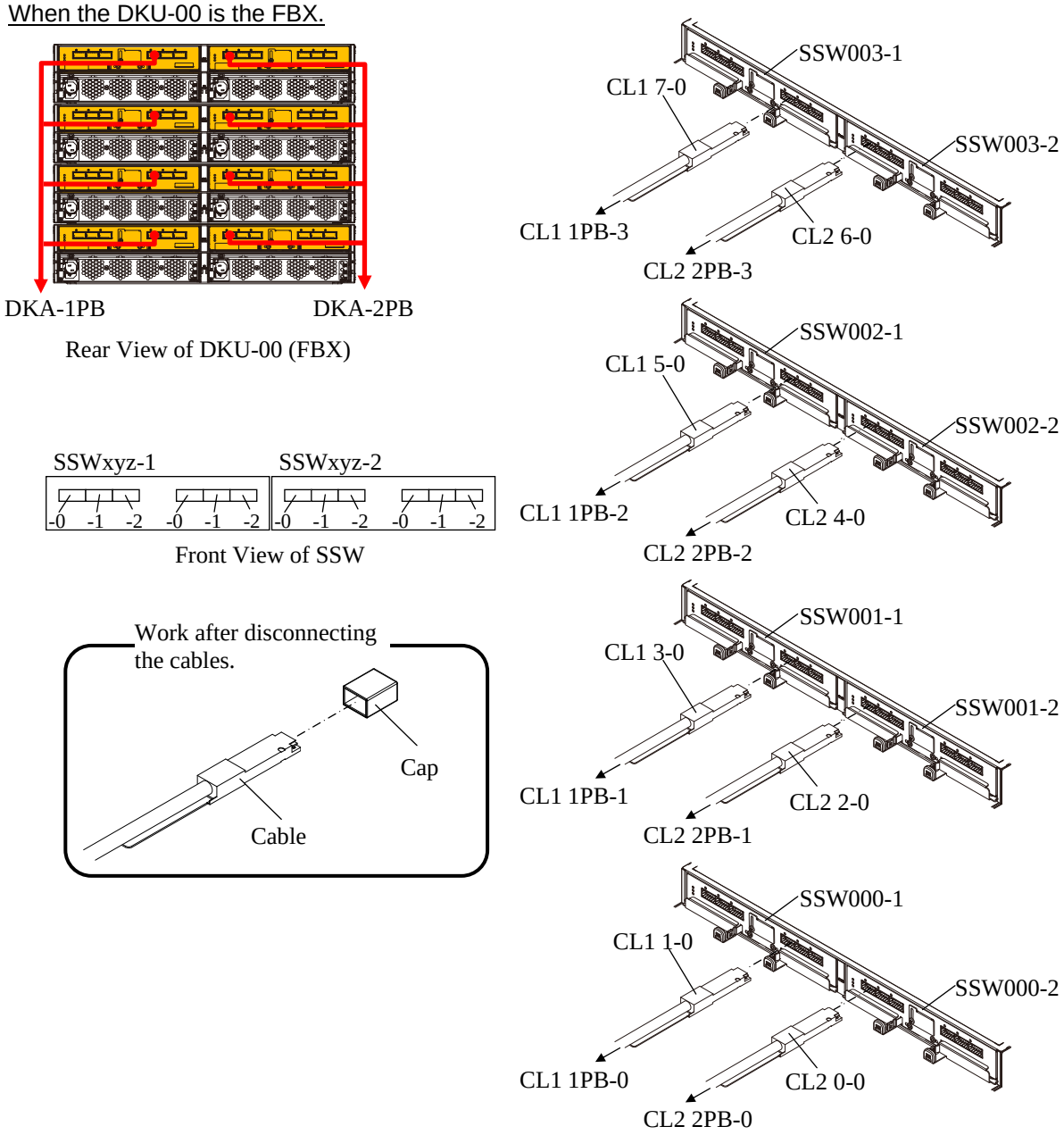


Fig. 4.1.4.8-9 Disconnection of Cables (CC2_DKU-00 (FBX)_CL1/CL2)

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In the case of cable de-installation between DKA-1PG/2PG and DKU-10

a. Disconnect the eight cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

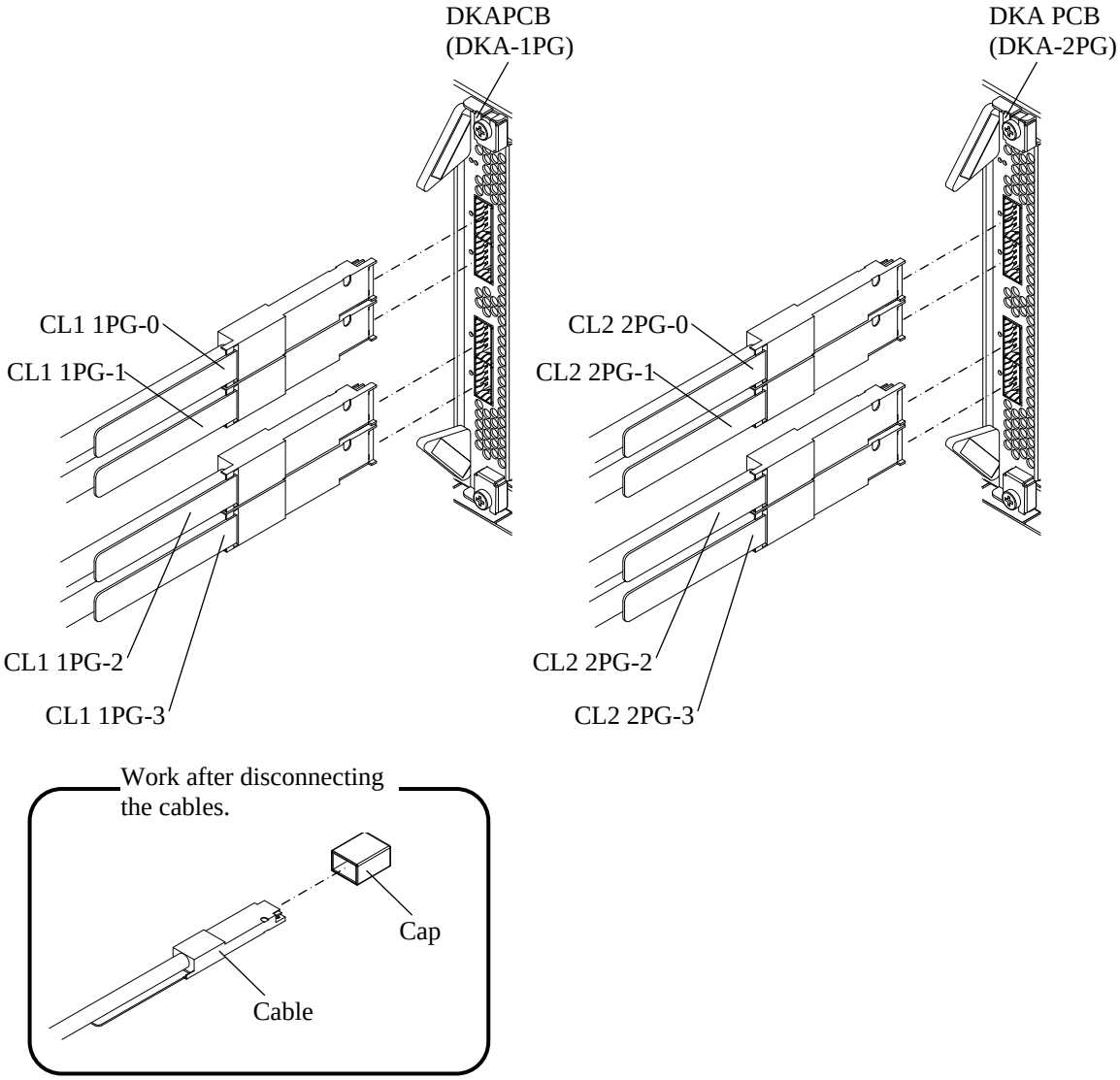


Fig. 4.1.4.8-10 Disconnection of Cables (Option 2 in DKC-1)

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When the DKU-10 is the UBX/SBX

c. Disconnect the eight cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.8-11 and Fig. 4.1.4.8-12.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the UBX/SBX.

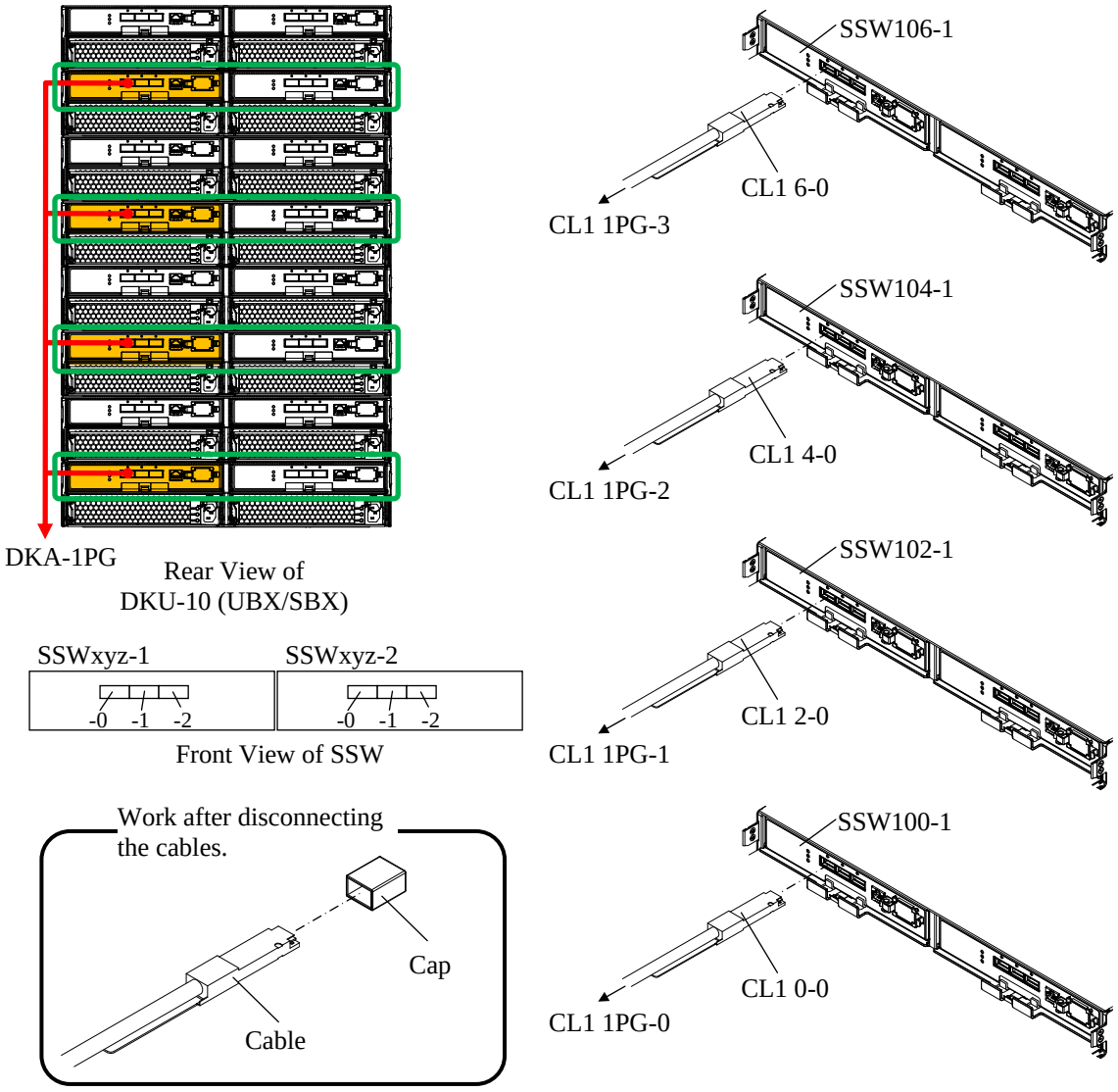


Fig. 4.1.4.8-11 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL1)

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⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the UBX/SBX.

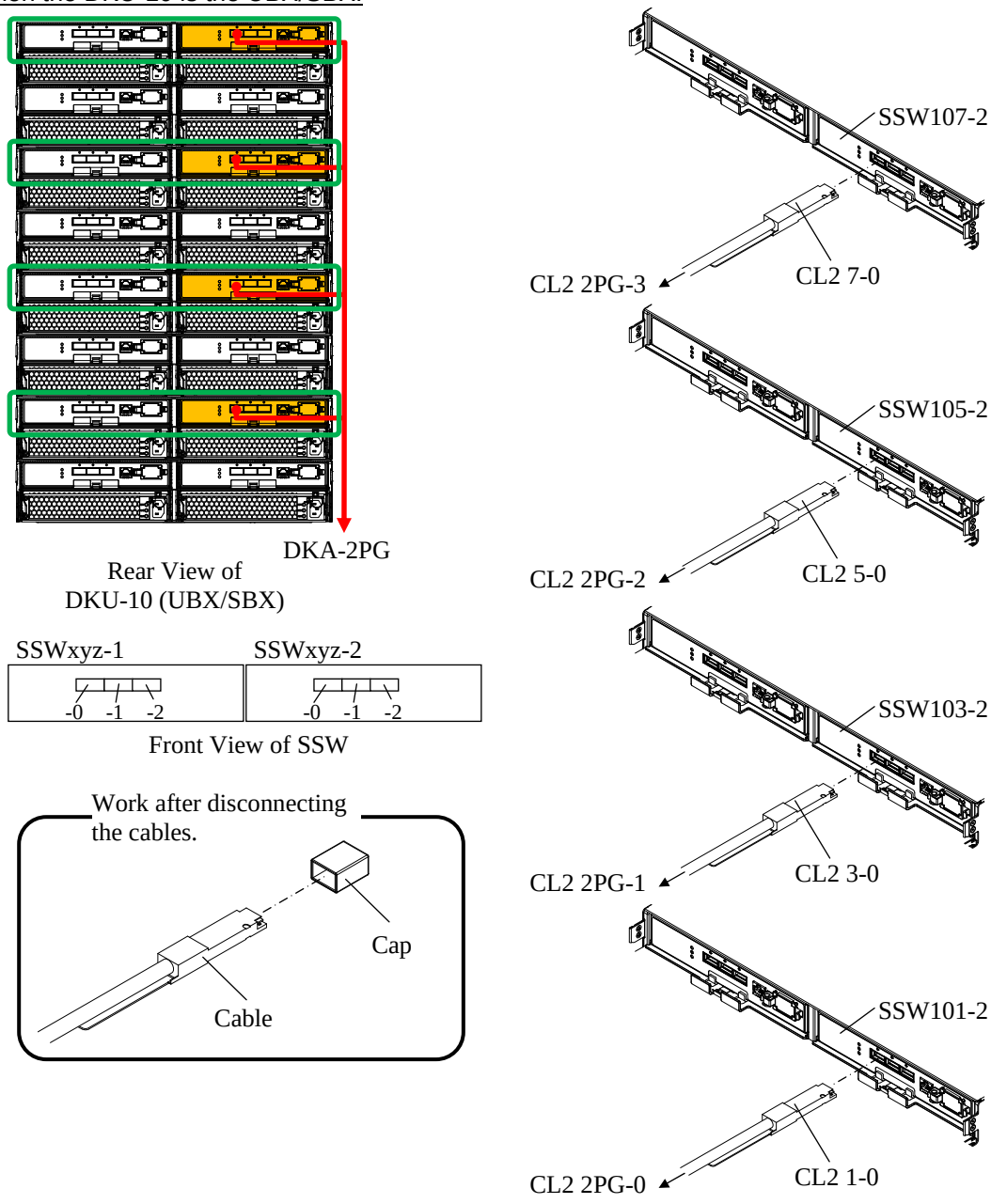


Fig. 4.1.4.8-12 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL2)

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When the DKU-10 is the FBX

c. Disconnect the eight cables from the SSWs in the DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

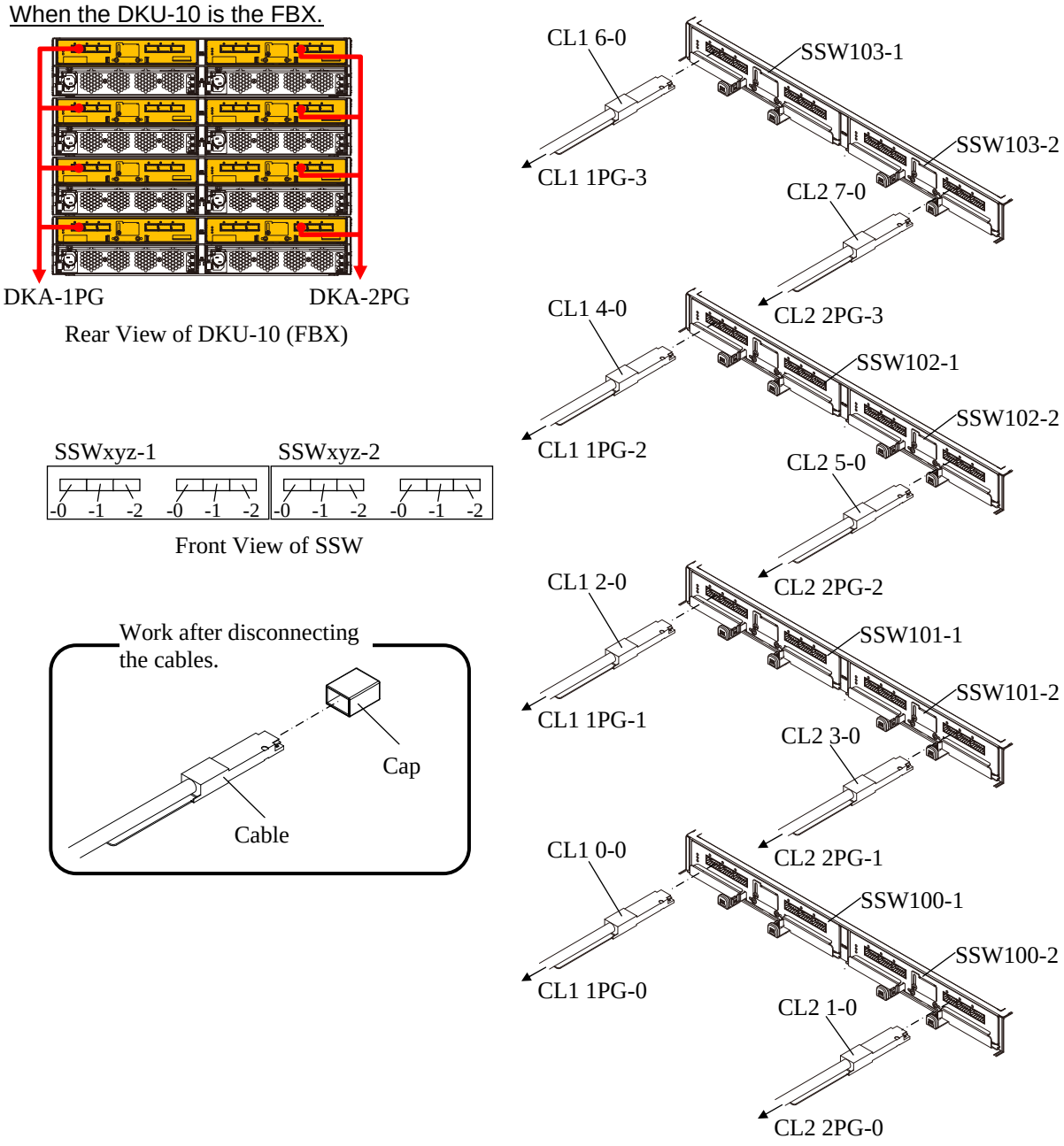


Fig. 4.1.4.8-13 Disconnection of Cables (CC2_DKU-10 (FBX)_CL1/CL2)

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In the case of cable de-installation between DKA-1PH/2PH and DKU-10

a. Disconnect the eight cables from the DKA PCBs.
b. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

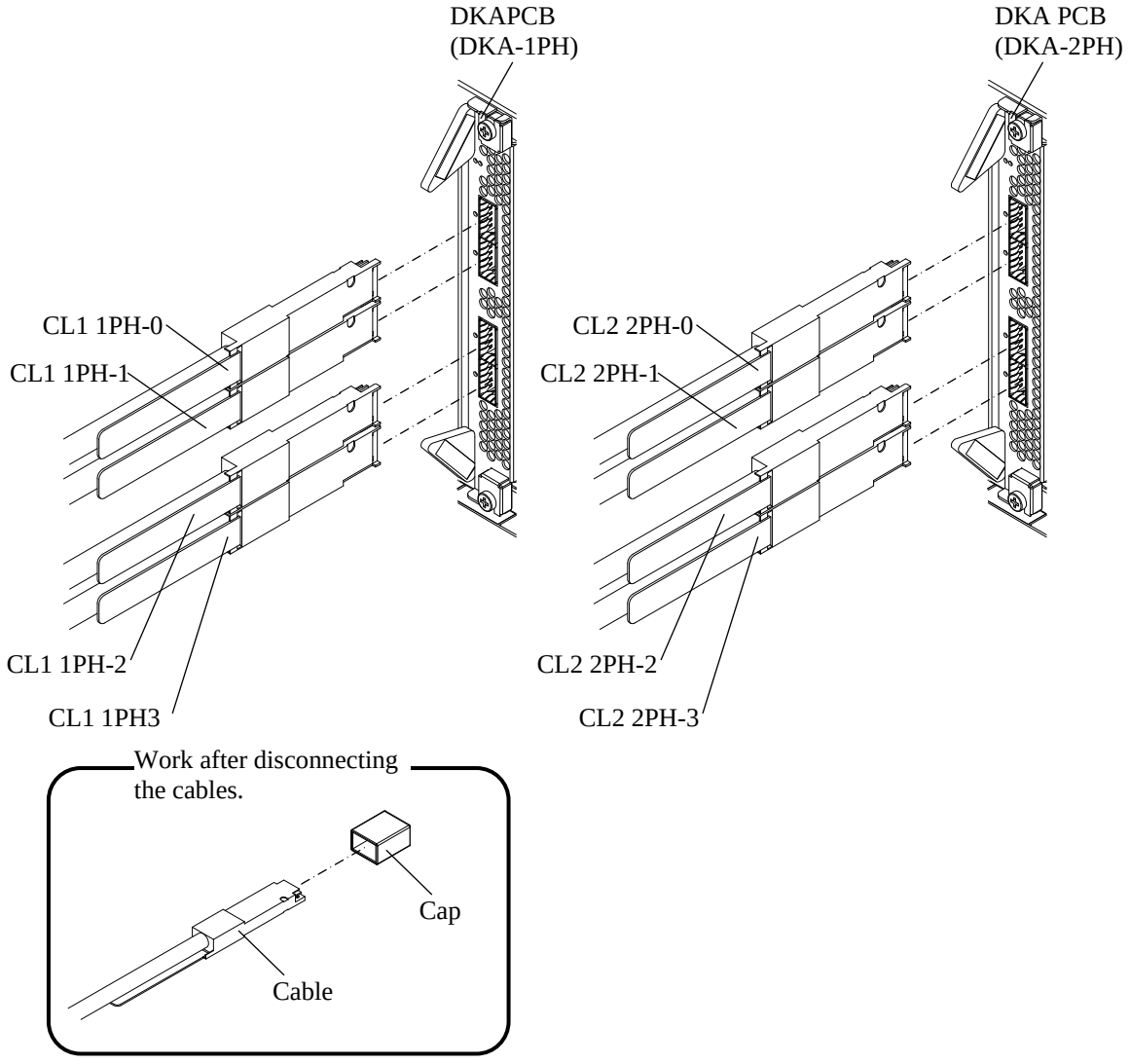


Fig. 4.1.4.8-14 Disconnection of Cables (Option 3 in DKC-1)

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When the DKU-10 is the UBX/SBX

c. Disconnect the eight cables from the SSWs in the DKU. (Refer to Fig. 4.1.4.8-15 and Fig. 4.1.4.8-16.)
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the UBX/SBX.

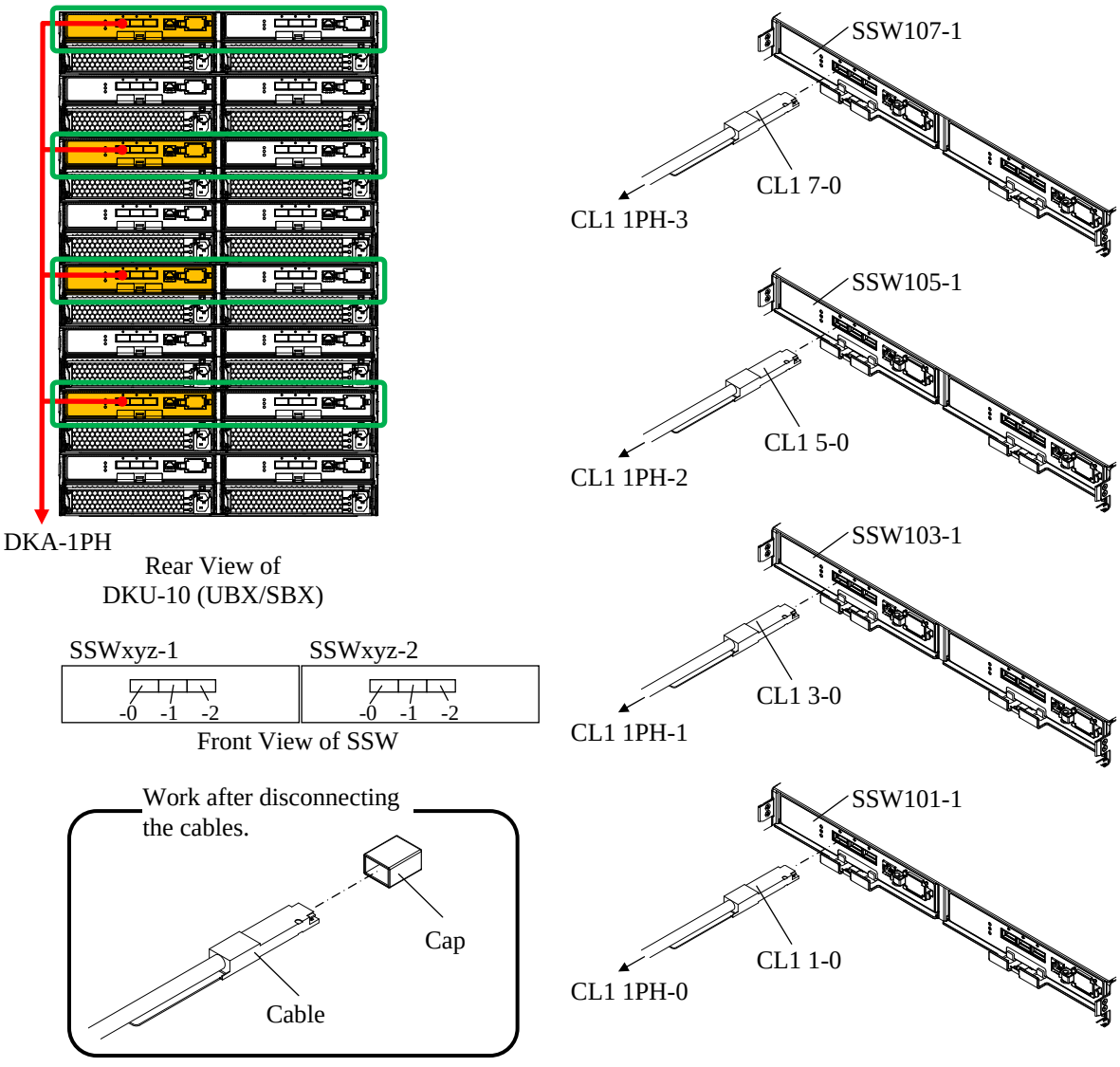


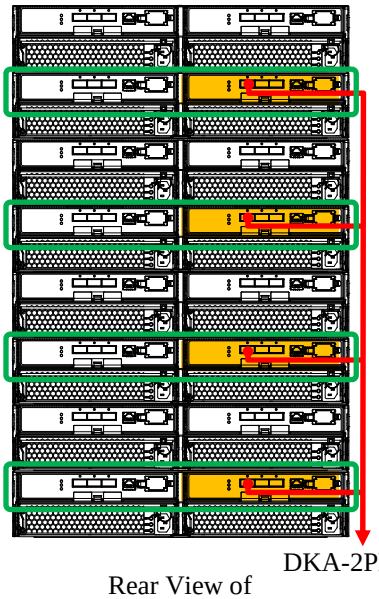
Fig. 4.1.4.8-15 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL1)

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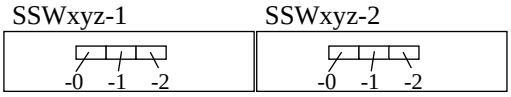
⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

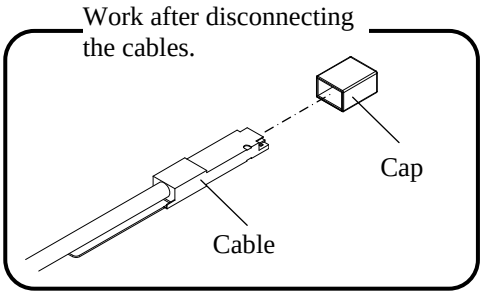
When the DKU-10 is the UBX/SBX.



Rear View of
DKU-10 (UBX/SBX)



Front View of SSW



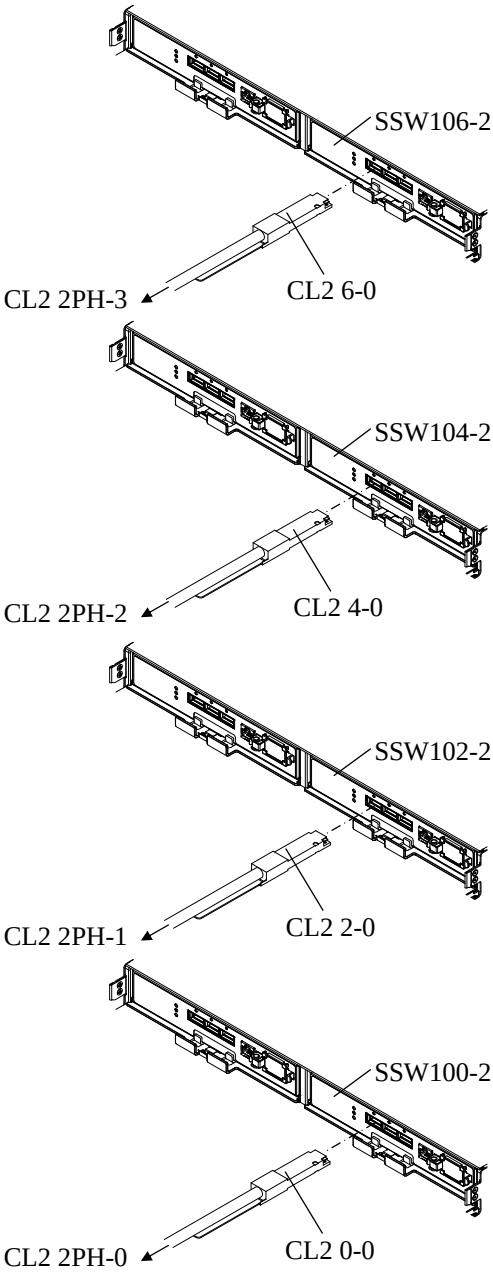


Fig. 4.1.4.8-16 Disconnection of Cables (CC2_DKU-10 (UBX/SBX)_CL2)

When the DKU-10 is the FBX

c. Disconnect the eight cables from the SSWs in the DKU.
d. Attach the caps to the disconnected cables.

⚠ CAUTION

A serious failure occurs if a wrong cable or connector is removed.
Since a label bearing a connection destination is affixed on each cable or connector to be removed, work very carefully referring to it and the wiring diagram.

When the DKU-10 is the FBX.

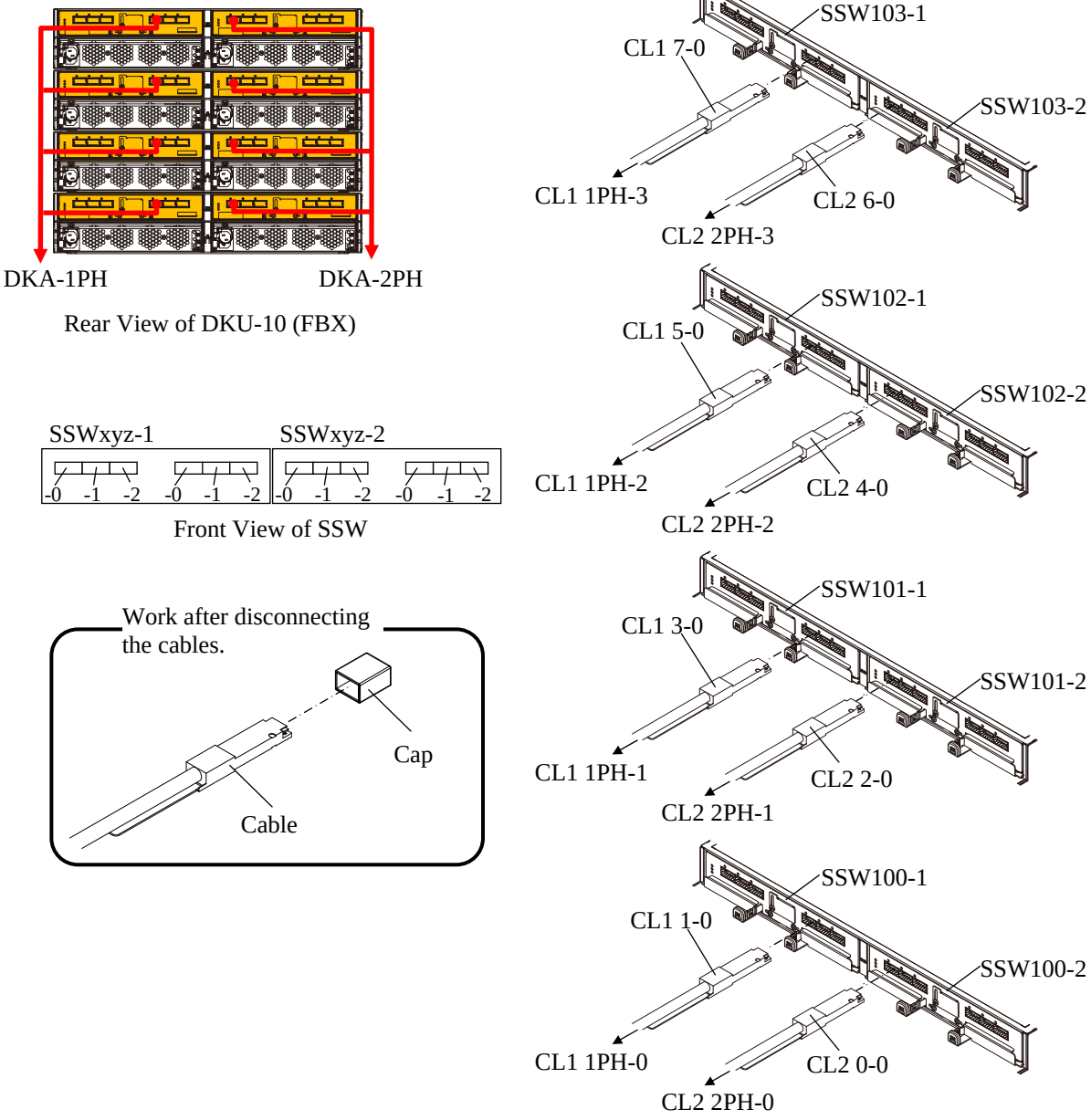


Fig. 4.1.4.8-17 Disconnection of Cables (CC2_DKU-10 (FBX)_CL1/CL2)

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2. Removal of Cables
   a. Open the loop cable ties and remove the eight cables in the cluster 1. (Refer to Fig. 4.1.4.8-18 or Fig. 4.1.4.8-19.)

When the DKU-x0 is the UBX/SBX.

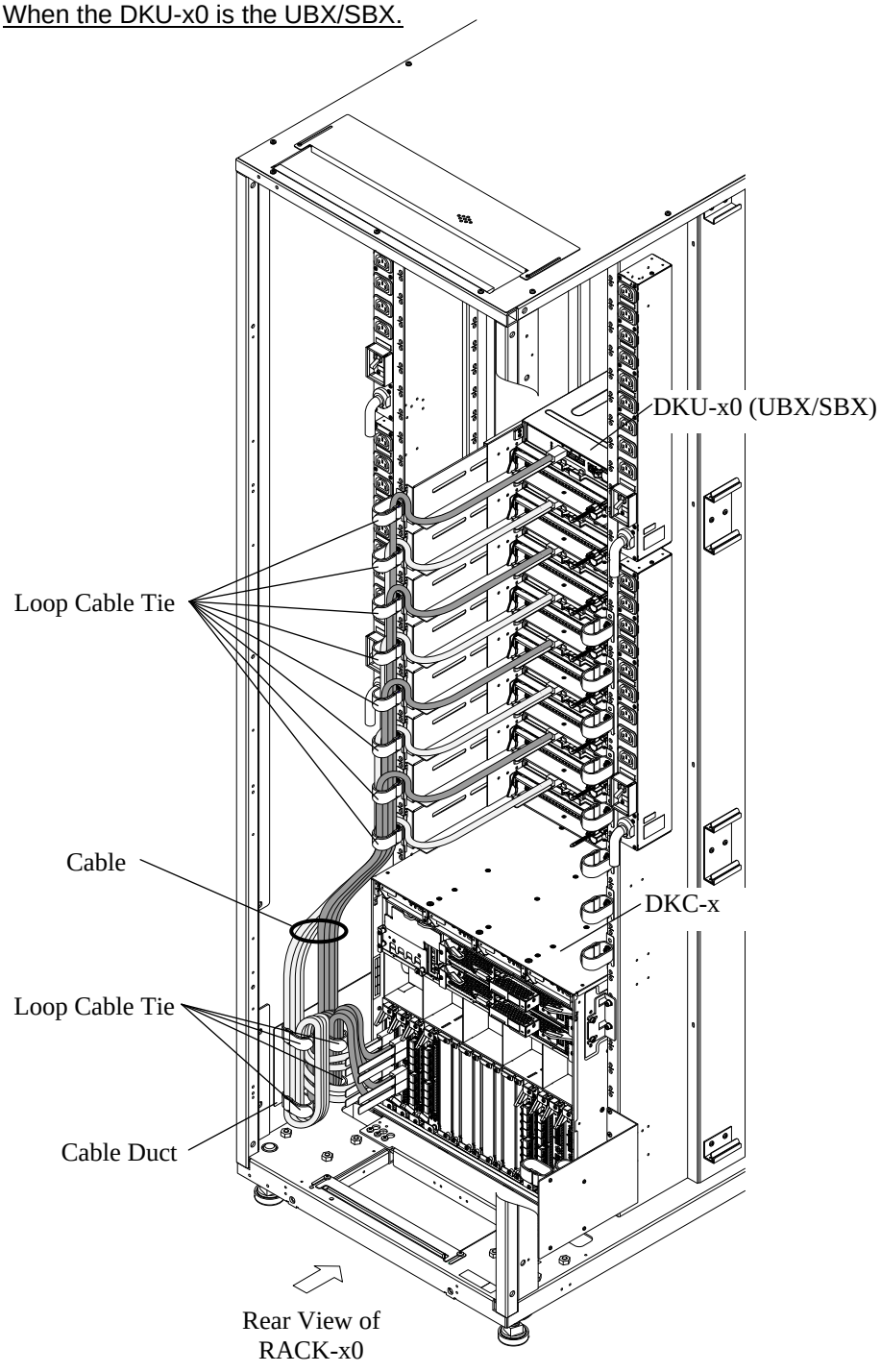


Fig. 4.1.4.8-18 Removal of Cables (DKA-1PA/1PB – DKU-00 (UBX/SBX) or DKA-1PG/1PH – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX.

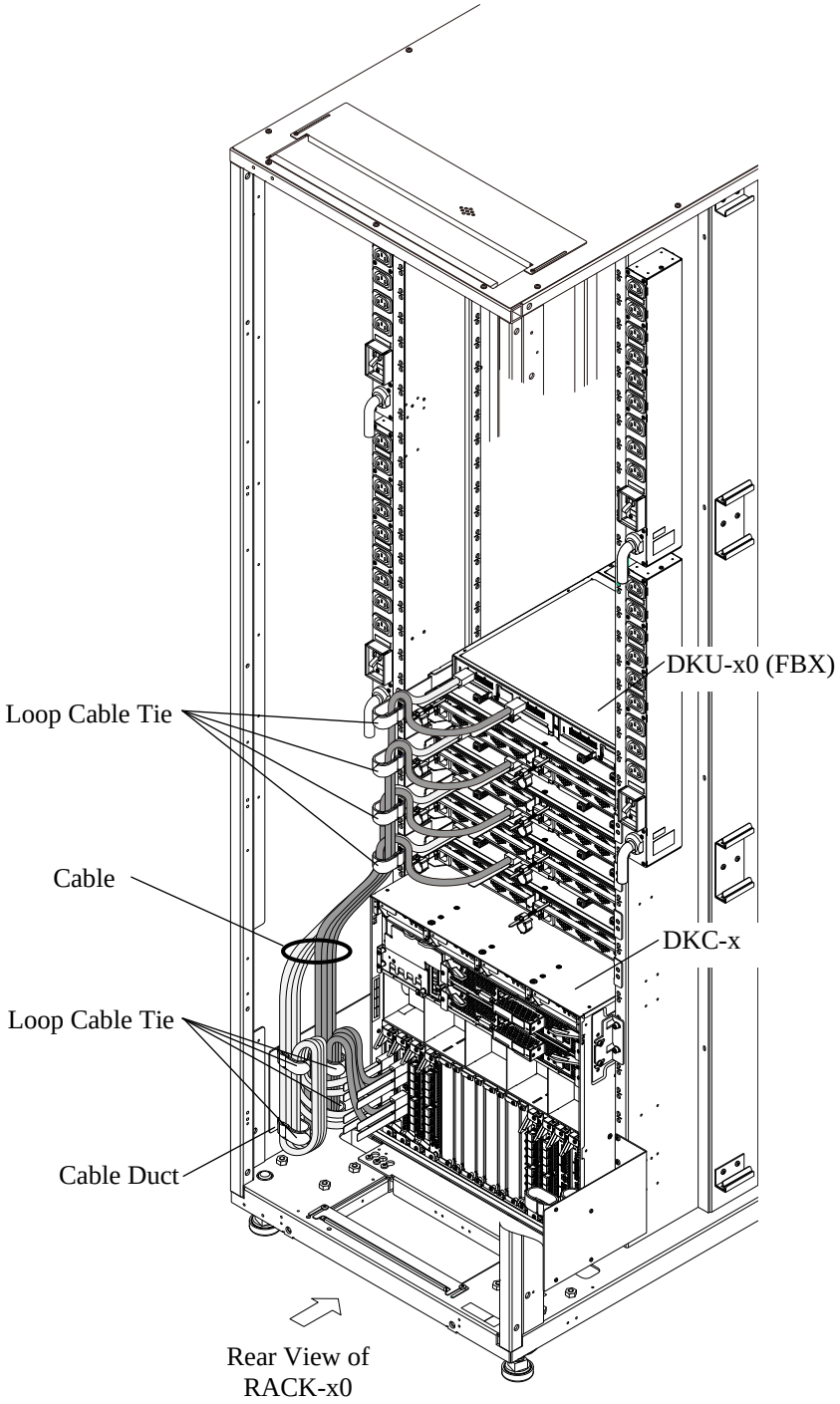


Fig. 4.1.4.8-19 Removal of Cables
(DKA-1PA/1PB – DKU-00 (FBX) or DKA-1PG/1PH – DKU-10 (FBX))

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b. Open the loop cable ties and remove the eight cables in the cluster 2. (Refer to Fig. 4.1.4.8-20 or Fig. 4.1.4.8-21.)

When the DKU-x0 is the UBX/SBX

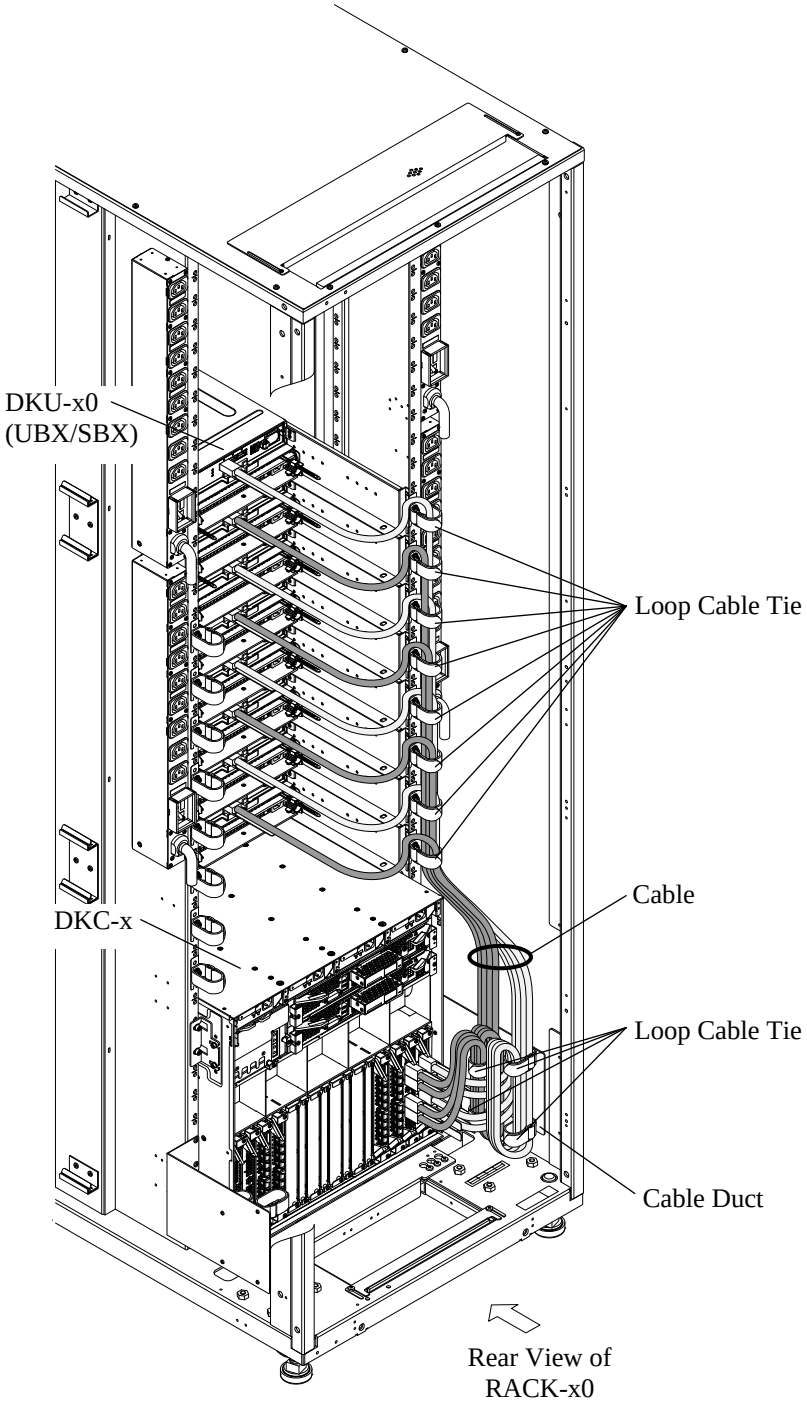


Fig. 4.1.4.8-20 Removal of Cables (DKA-2PA/2PB – DKU-00 (UBX/SBX) or DKA-2PG/2PH – DKU-10 (UBX/SBX))

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When the DKU-x0 is the FBX

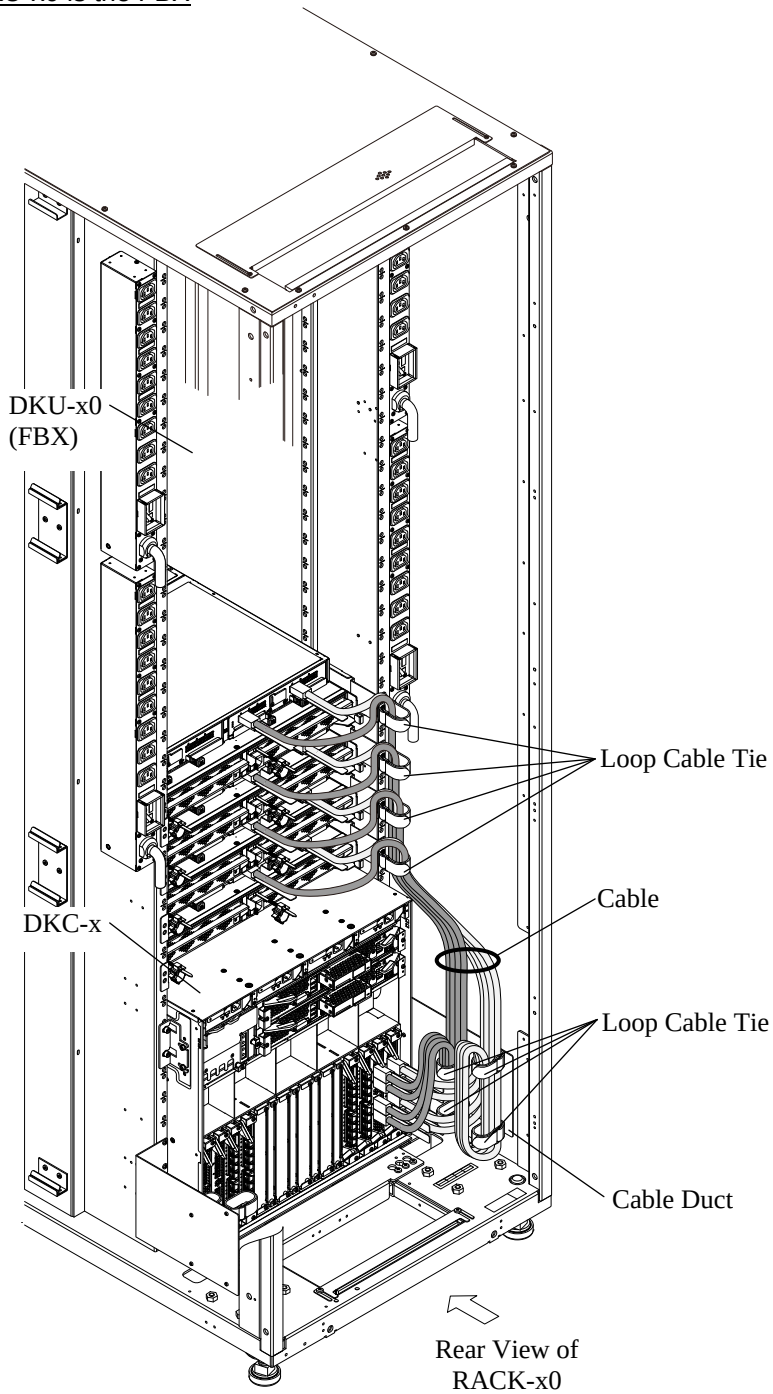
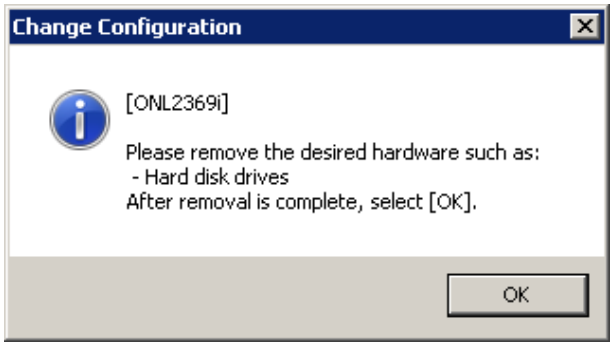


Fig. 4.1.4.8-21 Removal of Cables
(DKA-2PA/2PB – DKU-00 (FBX) or DKA-2PG/2PH – DKU-10 (FBX))

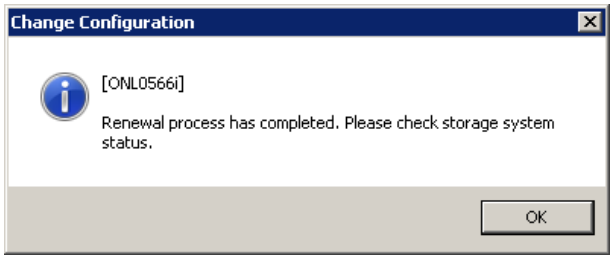
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4.1.4.9 SVP post procedure

(1) <Removing the hardware>
In response to a message, “Please remove the desired hardware such as:
- Hard disk drives
After removal is complete, select [OK].”, select (CL) [OK].

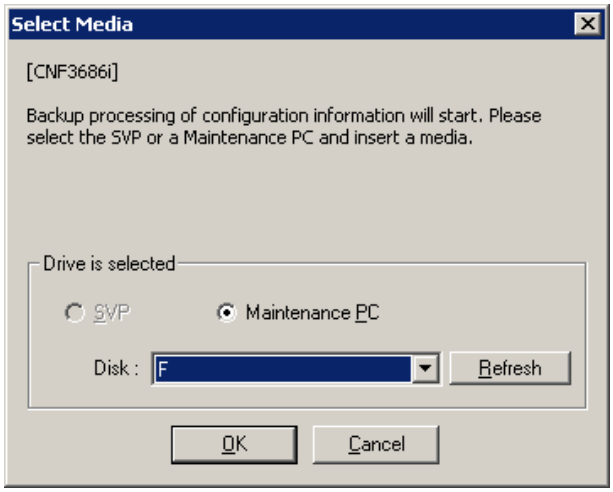


(2) <Making sure of completion of the removal>
A message, “Renewal process has completed. Please check storage system status.” is displayed. In response to the message, select (CL) [OK].

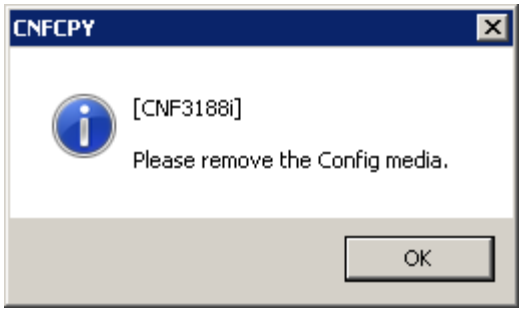


(3)
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



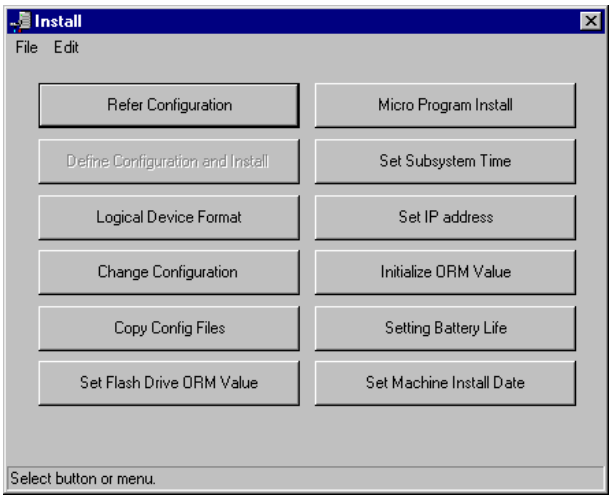
(4)
When this procedure is completed, the message “Please remove the Config media.” is displayed. Remove the configuration information media, and select (CL) [OK].



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(5)

After the procedure is completed, return to 'Install'.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

(7)

Return to the work table (INST02-70) and perform rest of the works.

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4.2 De-Installation of Drive Chassis (DKC-F810I-UBX/SBX/FBX/SBBRAL/BUH/BUP/FMDRAL/BFH/BFP)

Table 4.2-1 Parts List of DKC-F810I-UBX

Item No.	Part Name	Part No.	Quantity	Remarks
1	LFF SBB	5552746-A	8	HDU
2	Loop Cable Tie	5552567-1	16	
3	Label (DKU-BOX)	3287114-1	3	
4	Label (VCCI)	5545024-1	8	For HDS/HP
5	Label (BSMI-D3300)	3265644-4	8	For HDS
6	Label (BSMI)	3269907-1	8	For HP
7	Label-Noise (FCC/CSA)	3283107-1	8	For HDS/HP
8	Label (KOREA-KC)	3287464-1	8	For HDS
9	Label (BSMI NAME)	5552998-1	8	For HDS/HP
10	Label (UL3)	5515795-1	1	For HDS/HP
11	CE Address Label	2854907-1	8	For HDS
		3290520-1		
12	CE Address Label	2854907-2	8	For HP
		3290520-2		
13	Label Location (HDU)	5550568-1	2	Label Location ①
14	Label Location (HDU)	5550568-2	2	Label Location ②
15	Label Location (HDU)	5550568-3	2	Label Location ③
16	Label Location (HDU)	5550568-4	2	Label Location ④
17	Label Location (HDU)	5550568-5	2	Label Location ⑤
18	Label Location (HDU)	5550568-6	2	Label Location ⑥
19	Label Location (HDU)	5550568-7	2	Label Location ⑦
20	Label Location (HDU)	5550568-8	2	Label Location ⑧
21	Side Bezel	2853845-1	8	
		2855177-1		
22	Location Label (HDD)	5557125-1	2	
23	Tag (HDD LABEL)	5557126-1	2	
24	Nameplate (HDS)	2854917-23	8	ITPD
		2855885-23/523		HICAM/HICEF
25	Nameplate (HP)	2854917-26	8	ITPD
		2855885-26/526		HICAM/HICEF

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Table 4.2-2 Parts List of DKC-F810I-SBX

Item No.	Part Name	Part No.	Quantity	Remarks
1	SFF SBB	5552745-A	8	HDU
2	Loop Cable Tie	5552567-1	16	
3	Label (DKU-BOX)	3287114-1	3	
4	Label (VCCI)	5545024-1	8	For HDS/HP
5	Label (BSMI-D3300)	3265644-4	8	For HDS
6	Label (BSMI)	3269907-1	8	For HP
7	Label-Noise (FCC/CSA)	3283107-1	8	For HDS/HP
8	Label (KOREA-KC)	3287464-1	8	For HDS
9	Label (BSMI NAME)	5552998-1	8	For HDS/HP
10	Label (UL3)	5515795-1	1	For HDS/HP
11	CE Address Label	2854907-1	8	For HDS
		3290520-1		
12	CE Address Label	2854907-2	8	For HP
		3290520-2		
13	Label Location (HDU)	5550568-1	2	Label Location ①
14	Label Location (HDU)	5550568-2	2	Label Location ②
15	Label Location (HDU)	5550568-3	2	Label Location ③
16	Label Location (HDU)	5550568-4	2	Label Location ④
17	Label Location (HDU)	5550568-5	2	Label Location ⑤
18	Label Location (HDU)	5550568-6	2	Label Location ⑥
19	Label Location (HDU)	5550568-7	2	Label Location ⑦
20	Label Location (HDU)	5550568-8	2	Label Location ⑧
21	Side Bezel	2853845-1	8	
		2855177-1		
22	—	—	—	
23	—	—	—	
24	Nameplate (HDS)	2854917-24	8	ITPD
		2855885-24/524		HICAM/HICEF
25	Nameplate (HP)	2854917-27	8	ITPD
		2855885-27/527		HICAM/HICEF

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Table 4.2-3 Parts List of DKC-F810I-FBX

Item No.	Part Name	Part No.	Quantity	Remarks
1	FMU Chassis	3286597-A	4	FMU
2	Loop Cable Tie	5552567-1	8	
3	Label Location (HDU)	5550568-1	2	Label Location ①
4	Label Location (HDU)	5550568-2	2	Label Location ②
5	Label Location (HDU)	5550568-3	2	Label Location ③
6	Label Location (HDU)	5550568-4	2	Label Location ④
7	Label Location (HDU)	5550568-5	2	Label Location ⑤
8	Label Location (HDU)	5550568-6	2	Label Location ⑥
9	Label Location (HDU)	5550568-7	2	Label Location ⑦
10	Label Location (HDU)	5550568-8	2	Label Location ⑧
11	Label (DKU-BOX)	3287114-1	3	
12	Label (VCCI)	5545024-1	4	For HDS/HP
13	Label (BSMI-D3300)	3265644-4	4	For HDS
14	Label (BSMI)	3269907-1	4	For HP
15	Label-Noise (FCC/CSA)	3283107-1	4	For HDS/HP
16	Label (KOREA-KC)	3287464-1	4	For HDS
17	Label (BSMI NAME)	5552998-1	4	For HDS/HP
18	CE Address Label	3290520-1	4	For HDS
19	CE Address Label	3290520-2	4	For HP
20	Nameplate (HDS)	2854917-25	4	ITPD
		2855885-36/536		HICAM/HICEF
21	Nameplate (HP)	2854917-28	4	ITPD
		2855885-37/528		HICAM/HICEF

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Table 4.2-4 Parts List of DKC-F810I-BUH

Item No.	Part Name	Part No.	Quantity	Remarks
101	Bezel (8U) ASSY	3287331-A	2	
102	Bezel Bracket R	5555018-A	2	
103	Side Cover L	2854990-101	2	
104	Side Cover R	2854991-1	2	
105	Bezel Bracket L	3287271-1	2	
106	Nut Plate L	5552831-1	4	
107	Nut Plate R	5552831-2	4	
108	Screw	SB305N	16	
109	TAG INST	5557047-A	2	Key

Table 4.2-5 Parts List of DKC-F810I-BUP

Item No.	Part Name	Part No.	Quantity	Remarks
101	HP Bezel (8U) ASSY	3290503-A	2	
102	Bezel Bracket R	5555018-A	2	
103	Side Cover L	2854990-2	2	
104	Side Cover R	2854991-2	2	
105	Bezel Bracket L	3287271-1	2	
106	Nut Plate L	5552831-1	4	
107	Nut Plate R	5552831-2	4	
108	Screw	SB305N	16	
109	TAG INST	5557047-A	2	Key

Table 4.2-6 Parts List of DKC-F810I-SBBRAL

Item No.	Part Name	Part No.	Quantity	Remarks
201	Slide Rail	5552699-3	16	
202	Screw (M5)	—	32	(*1)
203	Screw (M4)	—	32	(*1)
204	Nut (M4)	—	32	(*1)

*1: Appended goods of Item No.2

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Table 4.2-7 Parts List of DKC-F810I-BFH

Item No.	Part Name	Part No.	Quantity	Remarks
301	Bezel (8U) NF ASSY	3287459-A	1	DKU Bezel
302	Bezel Bracket (NF) R	5557048-A	1	Bezel Bracket R
303	Side Cover L	2854990-101	1	
304	Side Cover R	2854991-1	1	
305	Bezel Bracket (NF) L	3287399-1	1	Bezel Bracket L
306	Nut Plate (NF) L	5555348-1	2	Nut Plate L
307	Nut Plate (NF) R	5555348-2	2	Nut Plate R
308	Screw	SB305N	8	
309	TAG INST	5557047-A	1	Key

Table 4.2-8 Parts List of DKC-F810I-BFP

Item No.	Part Name	Part No.	Quantity	Remarks
301	HP Bezel (8U) NF ASSY	3290508-A	1	DKU Bezel
302	Bezel Bracket (NF) R	5557048-A	1	Bezel Bracket R
303	Side Cover L	2854990-2	1	
304	Side Cover R	2854991-2	1	
305	Bezel Bracket (NF) L	3287399-1	1	Bezel Bracket L
306	Nut Plate (NF) L	5555348-1	2	Nut Plate L
307	Nut Plate (NF) R	5555348-2	2	Nut Plate R
308	Screw	SB305N	8	
309	TAG INST	5557047-A	1	Key

Table 4.2-9 Parts List of DKC-F810I-FMDRAL

Item No.	Part Name	Part No.	Quantity	Remarks
401	Rail L	2854516-A	4	
402	Rail R	2854516-B	4	
403	Packing Work ①	3286610-A	4	
404	Screw	3261898-512	16	(*1)
405	Packing Work ②	3286610-B	4	
406	Square Spacer	5550614-1	24	(*2)

*1: Appended goods of Item No.403

*2: Appended goods of Item No.405

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4.2.1 De-Installation Procedure of Drive Chassis (DKC-F810I-UBX/SBX)

> Caution:
> Perform this removal work in the state in which the Drive Chassis and all the parts in the Drive Chassis have been removed from the rack configuration after the work No.3 explained on page INST02-70 has been done. The system goes down if the Drive Chassis that should have been removed is left in the rack configuration.

1. Confirmation of Removal Position
   The following figure shows a configuration example of installing Drive Chassis in 42 units rack frame.
   Since the mounting location of Drive Chassis is different according to the configuration, confirm the location by the location label attached on the front or rear side of DKU.

Standard Configuration

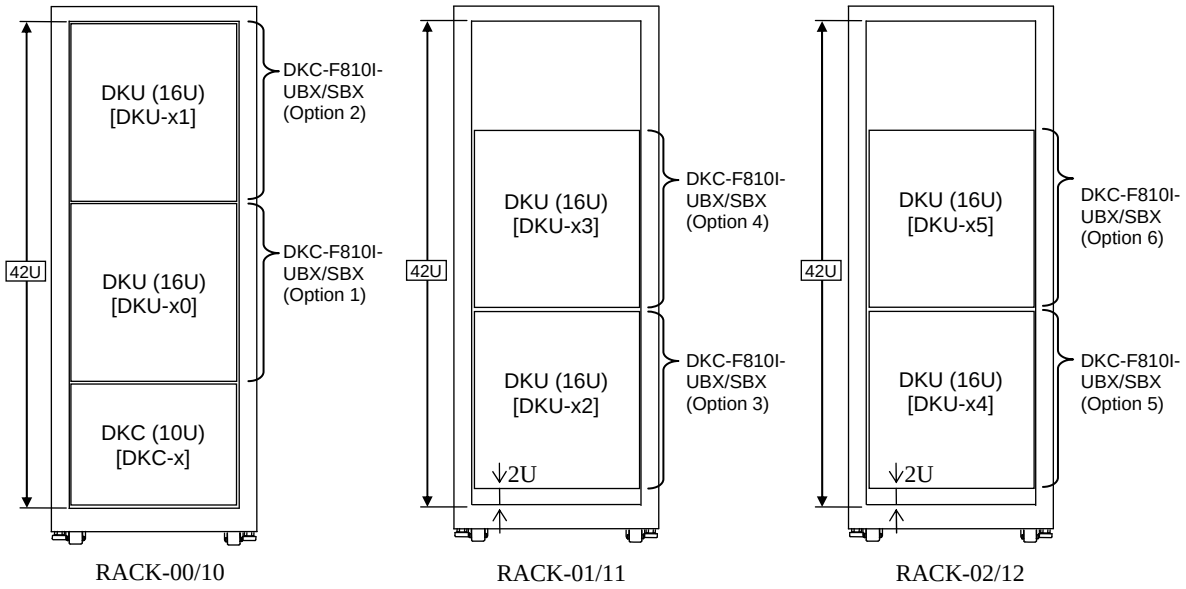


Fig. 4.2.1-1 Mounting Location of Drive Chassis

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2. Removal of Bezel
   a. Insert the key into the keyhole on the DKU bezel and release the lock of the bezel (①).
   b. Pull the key toward you while holding the lower right portion of the DKU bezel, and then disengage the right side of the bezel from the ball catch (②).

      NOTE: When disengaging the bezel, work with the opening angle between the bezel and the chassis of up to 45 degrees.
      Do not force the bezel open too wide. Otherwise, a damage of bezel may be caused.

   c. Disengage the DKU bezel from the left tabs and then remove it (③).
   d. Remove the other bezel in the same manner.

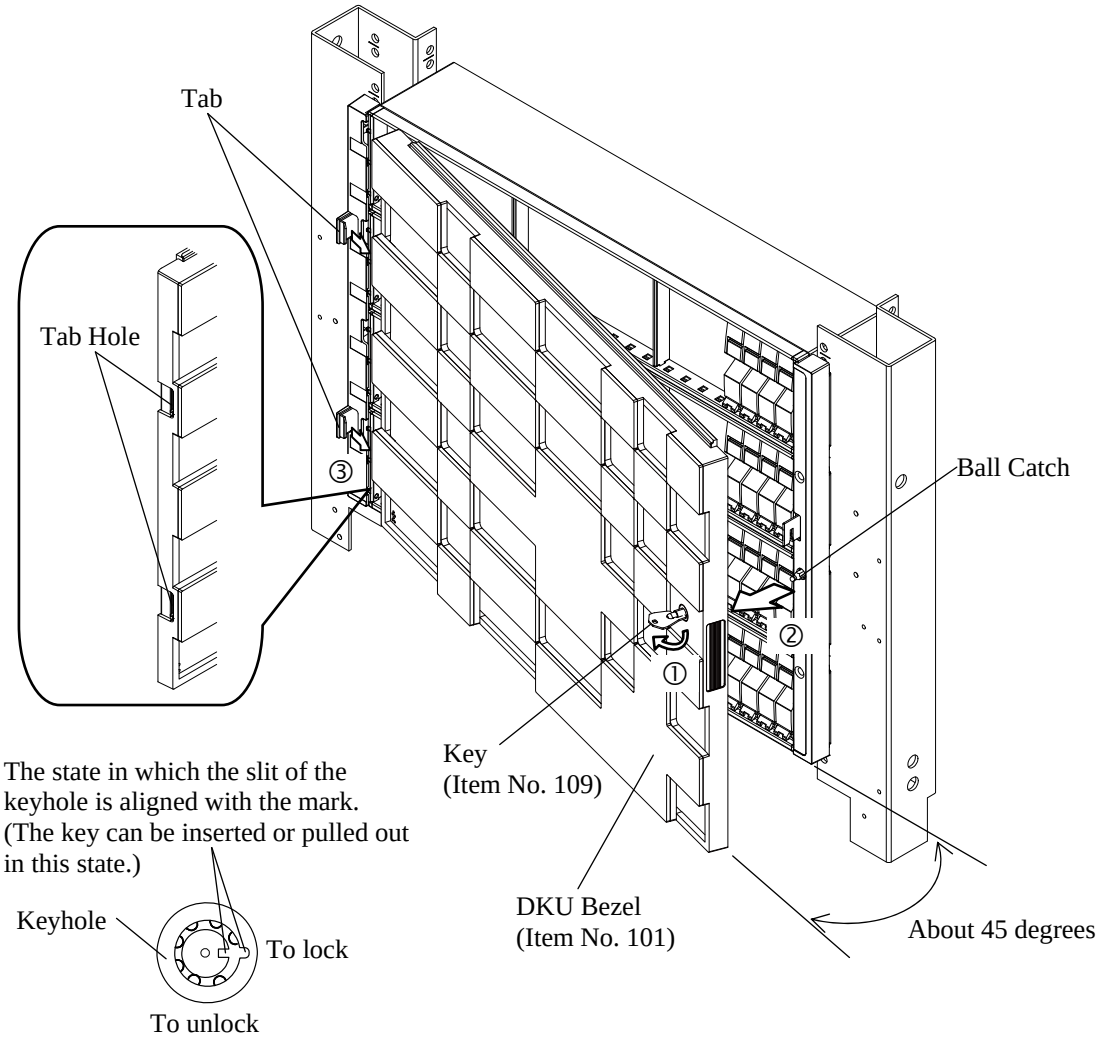


Fig. 4.2.1-2 Removal of DKU Bezel

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e. Remove the eight Label Locations and the two Labels (DKU-BOX) of the corresponding locations from the two side covers on the front side of the rack.
f. If the drive chassis is UBX, remove the two Location Labels (HDD) from the two Side Cover L.
If the drive chassis is SBX, go to Procedure g.

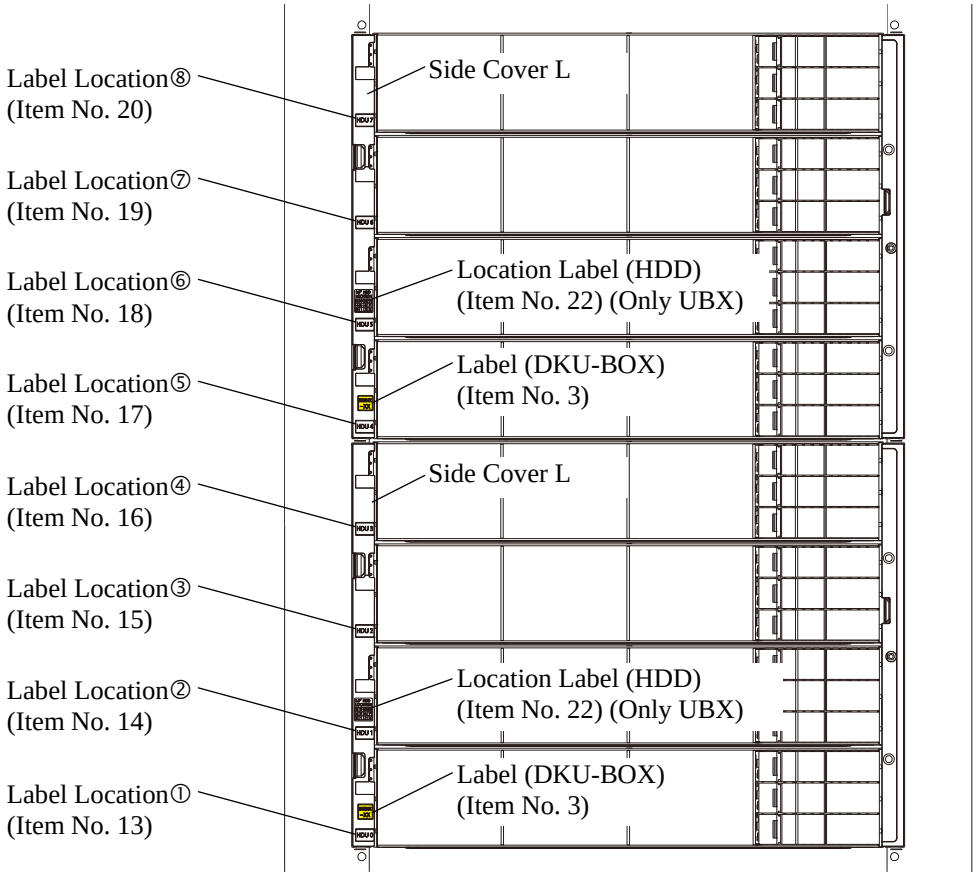


Fig. 4.2.1-3 Removal of Labels (Front)

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g. Remove the Side Cover L from the Bezel Bracket L.
h. Remove the Side Cover R from the Bezel Bracket R.
i. Remove the four screws and remove the Bezel Bracket L from the Nut Plate L (two).
j. Remove the four screws and remove the Bezel Bracket R from the Nut Plate R (two).
k. Remove the four screws and remove the Nut Plate L (two) from the front left side of the DKU.
m. Remove the four screws and remove the Nut Plate R (two) from the front right side of the DKU.
n. Remove the other parts in the same manner.

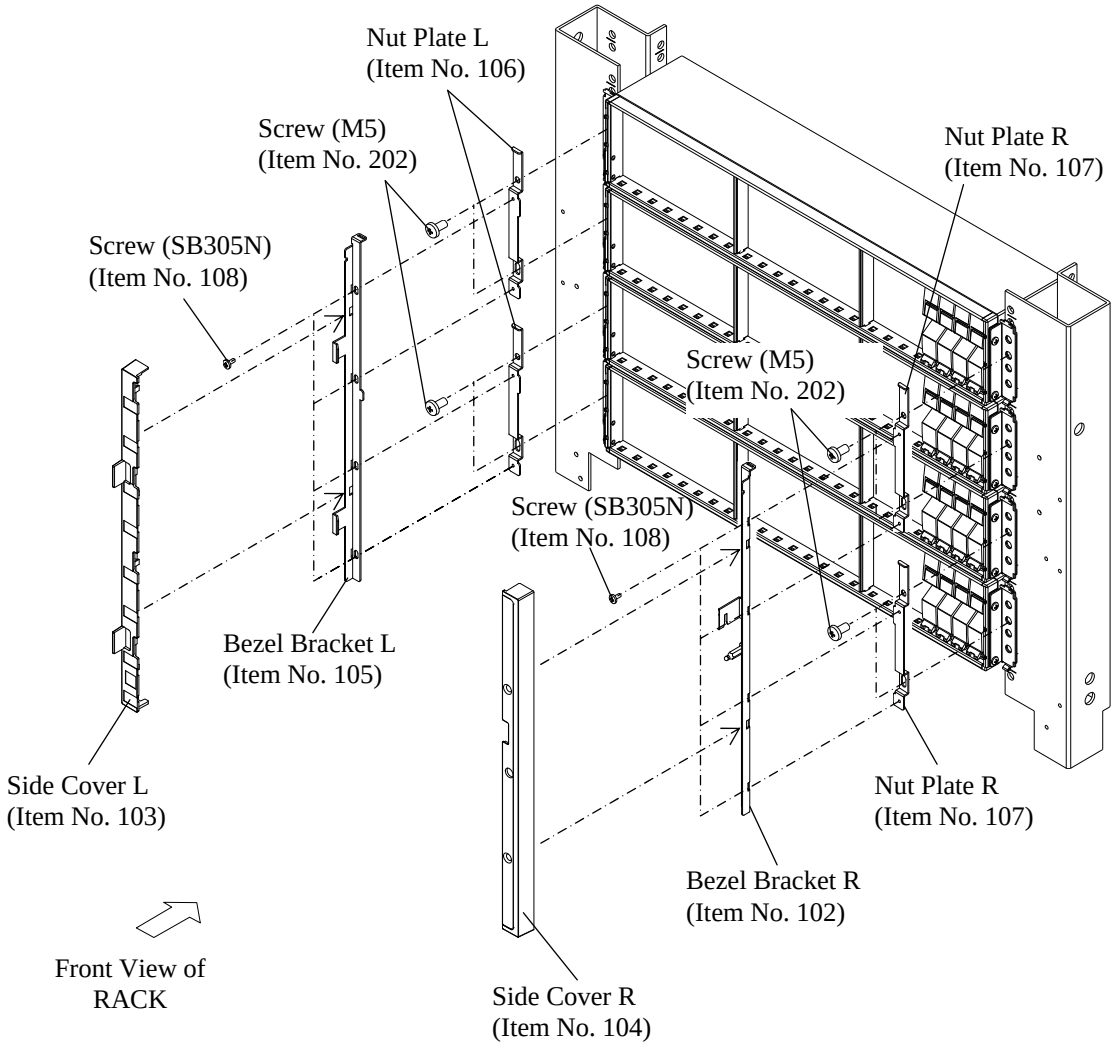
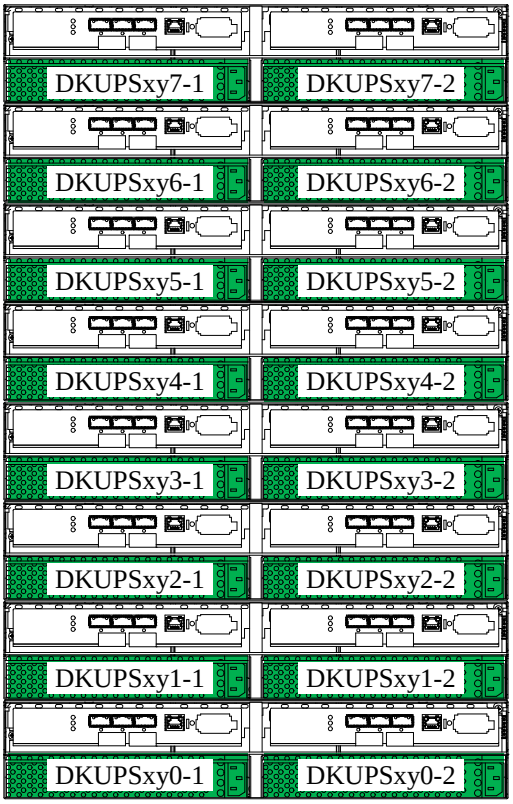


Fig. 4.2.1-4 Removal of Parts

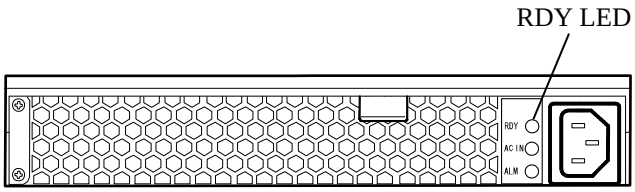
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2. Checking the RDY LEDs
   a. Check that the RDY LEDs of the DKUPS installed in the DKU are all off.



Rear View of SFF/LFF DKU

NOTE: DKUPSxy0-1
- DKU No. (0, 1, 2, ..., 5)
- DKC No. (0, 1)



DKUPS

Fig. 4.2.1-5 RDY LED on DKUPS

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3. Removal of Labels
   a. If the front door is installed in the front side of the rack, remove the eight Label Locations and the two Labels (DKU-BOX) from the Side Bezels.
      If the front door is not installed in the front side of the rack, go to Procedure c.
   b. If the drive chassis is UBX, remove the two Location Labels (HDD) and two Tags (HDD LABEL) from the Side Bezels.
      If the drive chassis is SBX, go to Procedure c.

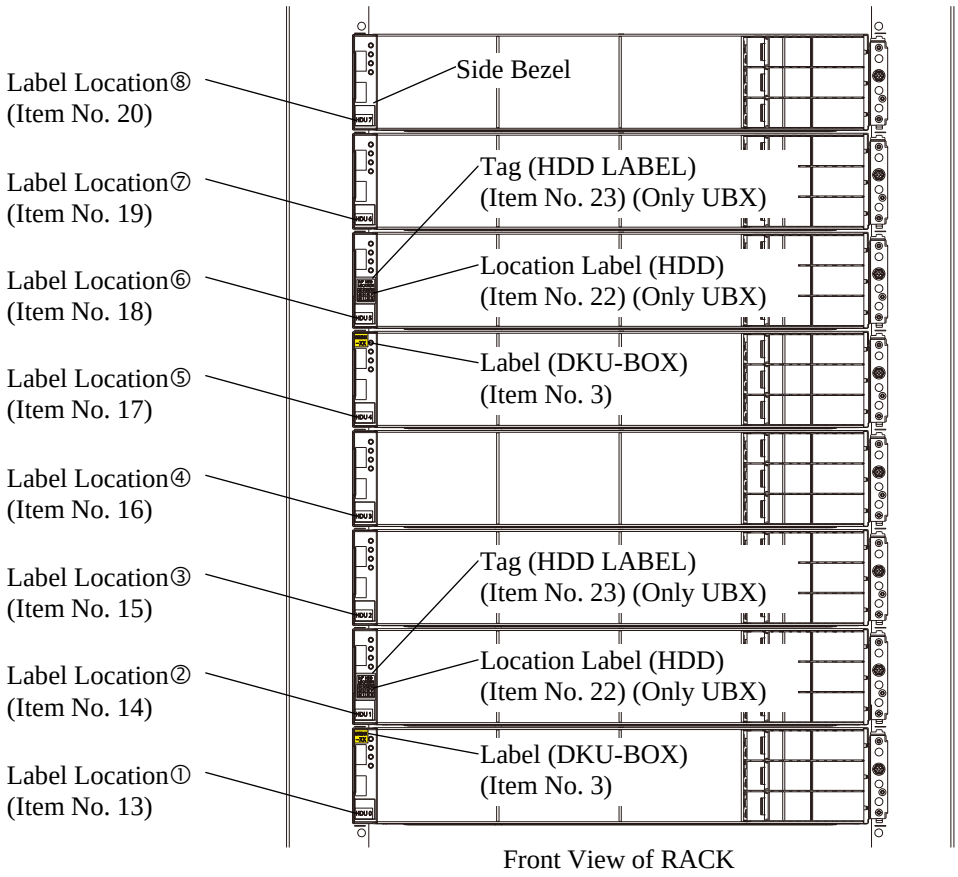


Fig. 4.2.1-6 Removal of Labels (Front)

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c. Remove the ten labels from the rear side of the rail.

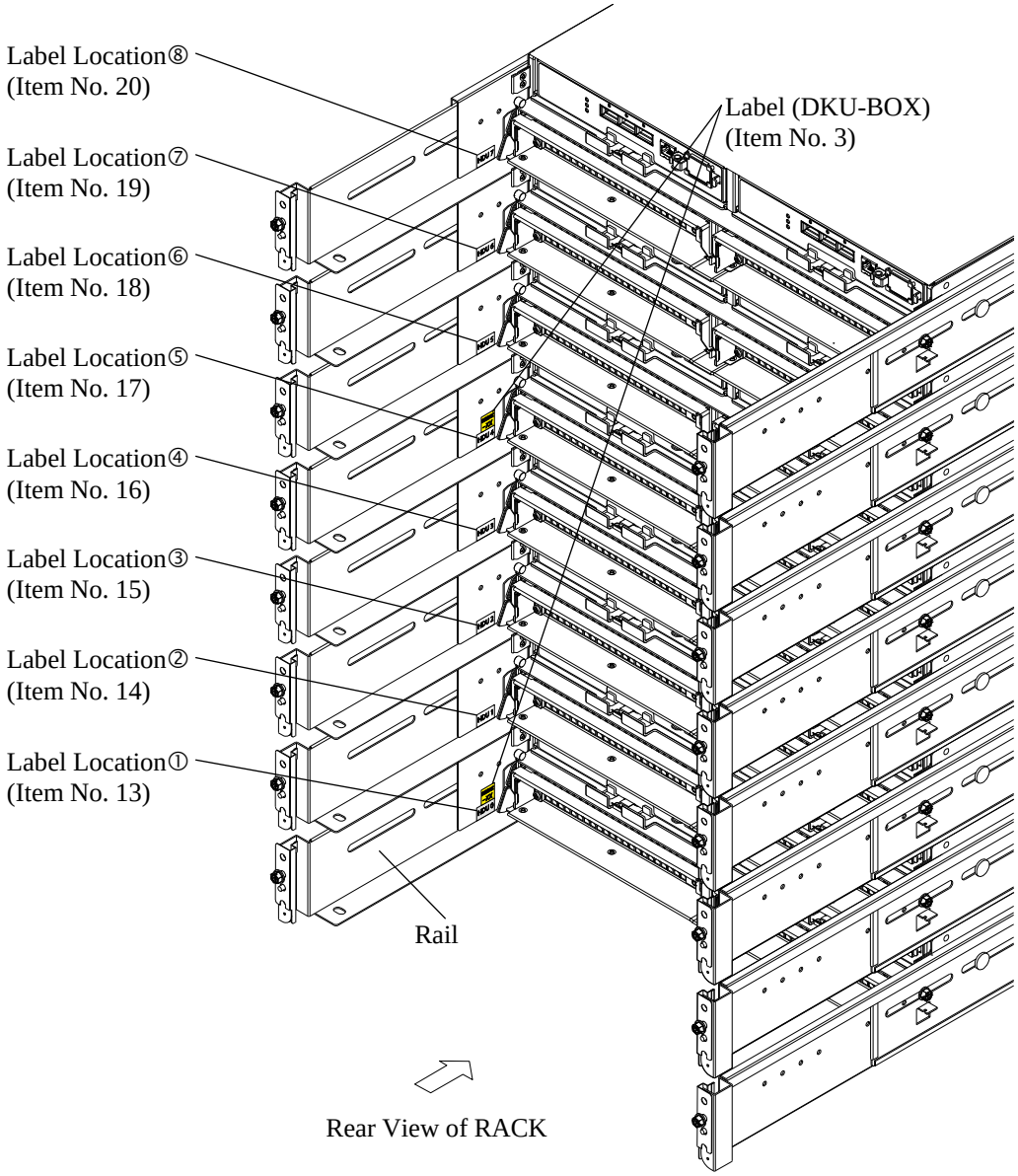


Fig. 4.2.1-7 Removal of Labels (Rear)

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4. Removal of parts
   If the Drive Chassis is removed at height below 1m or removed by using the special lifter, this procedure is not required because the Drive Chassis is removed from the rack frame with its parts mounted. (Go to procedure 5.)
   If other than above, remove the parts first and then remove the Drive Chassis from the rack frame.

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

a. Attach a label or the like for identification of installation location to a removed part so that it can be installed in the same place in the HDU.
b. Pull the right and left levers and remove the SSW.
c. Remove the other SSW in the same manner.

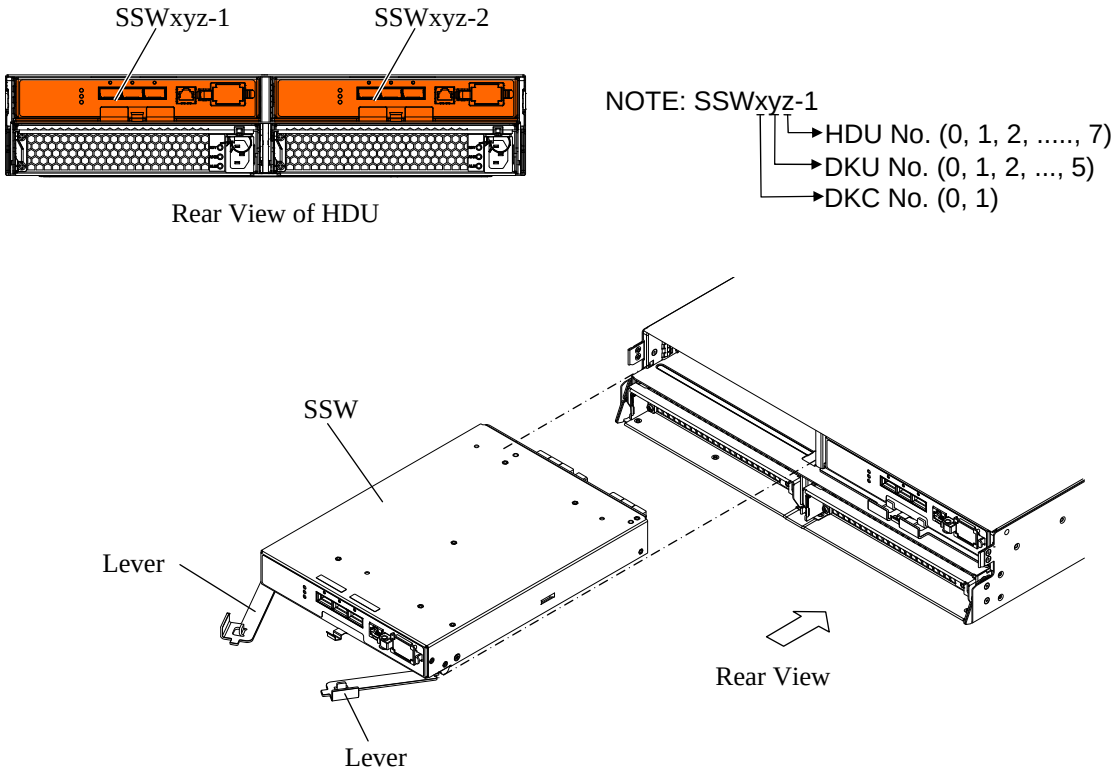


Fig. 4.2.1-8 Removal of SSW

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d. Bring the handle down and forward (②) while pushing the latch of the DKUPS inward (①).
e. Pull the DKUPS and remove it from the HDU.
f. Remove the other DKUPS in the same manner.

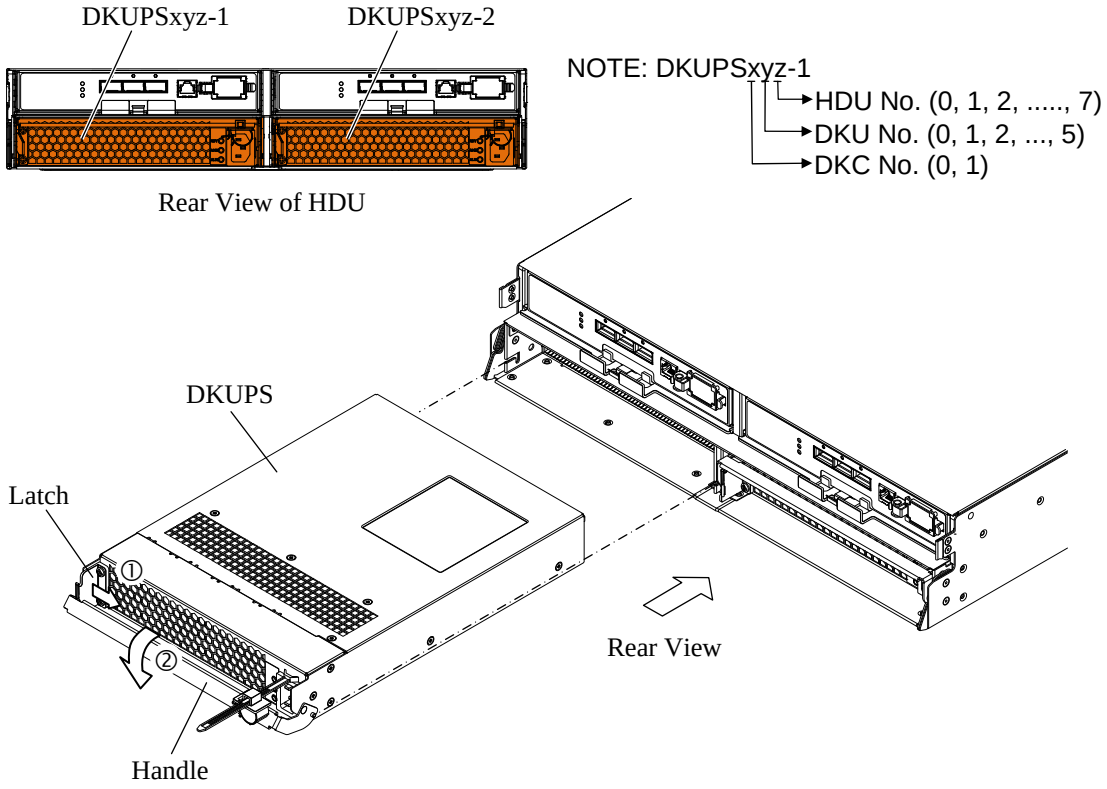


Fig. 4.2.1-9 Removal of DKUPS

5. Removal of Side Bezel

If the front door is installed in the front side of the rack, remove the Side Bezel.
If the front door is not installed in the front side of the rack, go to Procedure 6.

a. Remove the Side Bezel, pulling the bottom side of the Side Bezel toward you and removing the upper side from the hook on the front left of the HDU.
b. Remove the Side Bezel from the other HDUs in the same manner.

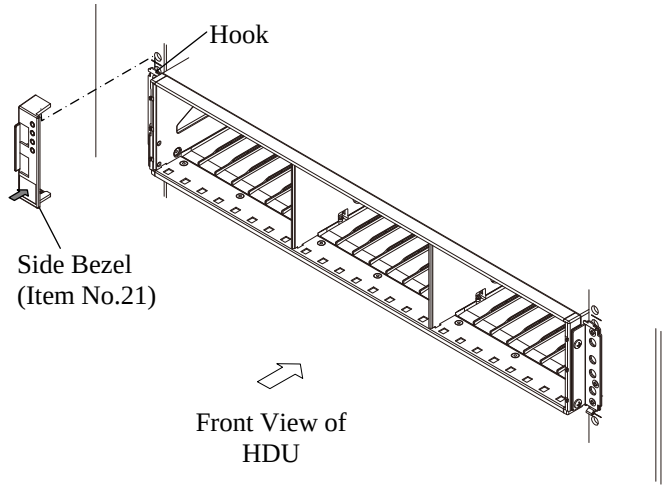


Fig. 4.2.1-10 Removal of Side Bezel

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6. Removing the DKU

⚠ CAUTION

Paying attention to falls:
Work carefully because the mass of the single LFF SBB is about 27 kg and SFF SBB is about 23 kg.

Beware over turning and dropping:
To prevent HDU from over turning and dropping, the installation work must be done by two or more personnel.

a. Remove the two screws from the drive chassis.
b. Remove the HDU from the rack frame referring to mounting procedure using the special lifter. (See INST03-15-10 through 40.)
c. Remove the other HDUs in the same manner.

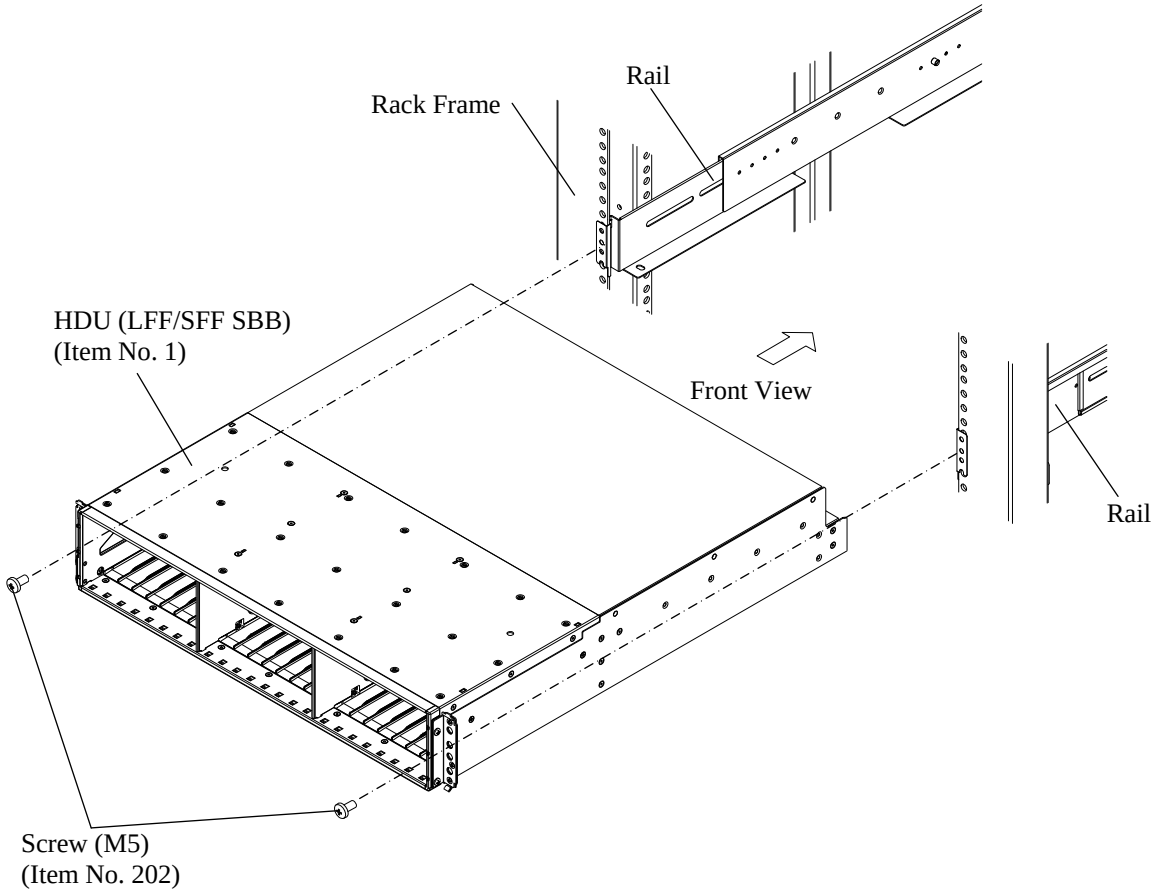


Fig. 4.2.1-11 Removal of HDU

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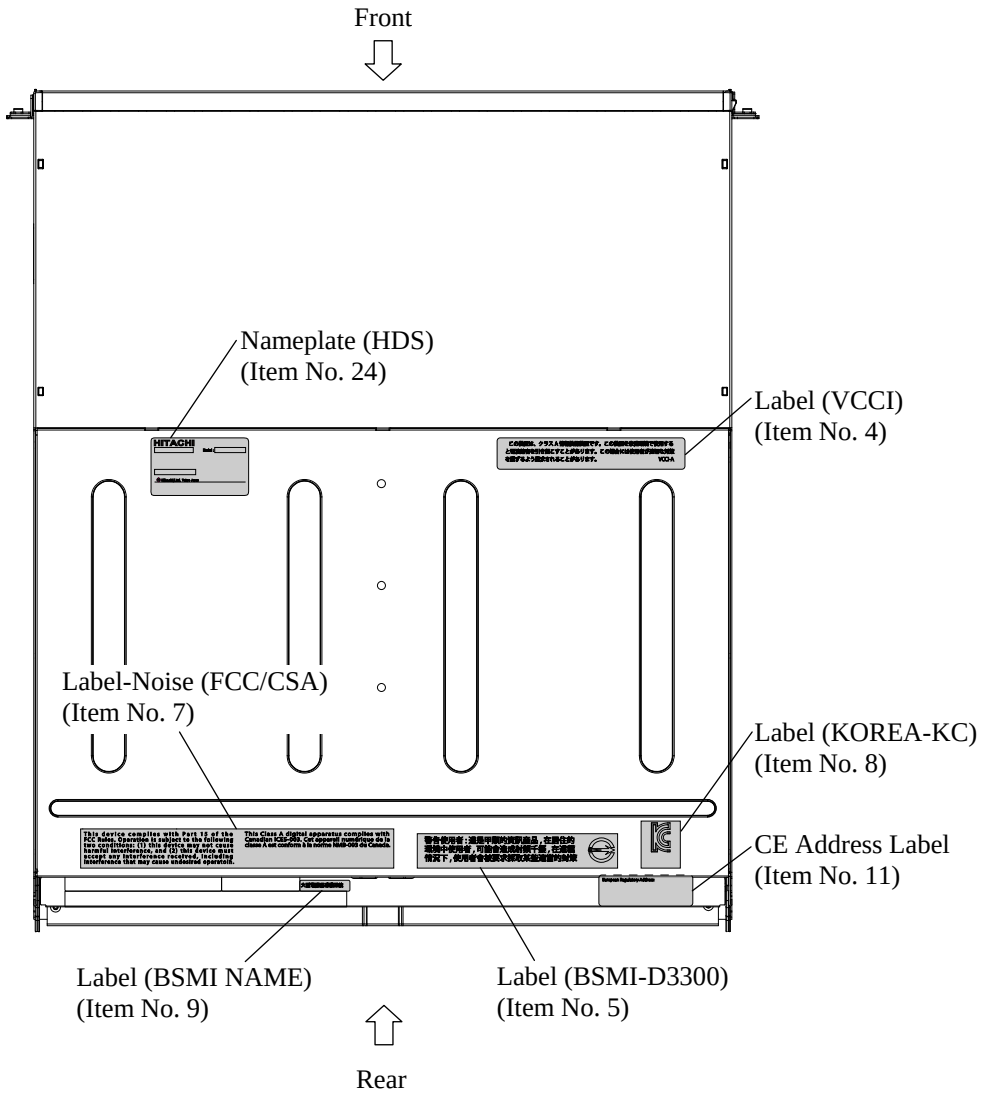
7. Reinstalling removed parts
   If parts were removed in procedure 4, reinstall the parts.
   If parts were not removed, go to procedure 8.

   a. Make the handle of the DKUPS completely fall down and forward. (See Fig. 4.2.1-9.)
   b. Insert the DKUPS into the slot and push it to the full.
   c. Completely raise the handle and fix the DKUPS.
   d. Install the other DKUPS in the same manner.
   e. Make the right and left levers of the SSW open. (See Fig. 4.2.1-8.)
   f. Insert the SSW until the edge of the lever comes in contact with the HDU.
   g. Close the right and left levers to insert the SSW completely.
   h. Install the other SSW in the same manner.

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8. Removal of Labels
   a. Remove the labels from the top side and rear side of HDU. Refer to Fig. 4.2.1-12 or Fig. 4.2.1-13.
   b. Remove the labels from the other HDU in the same manner.

For HDS

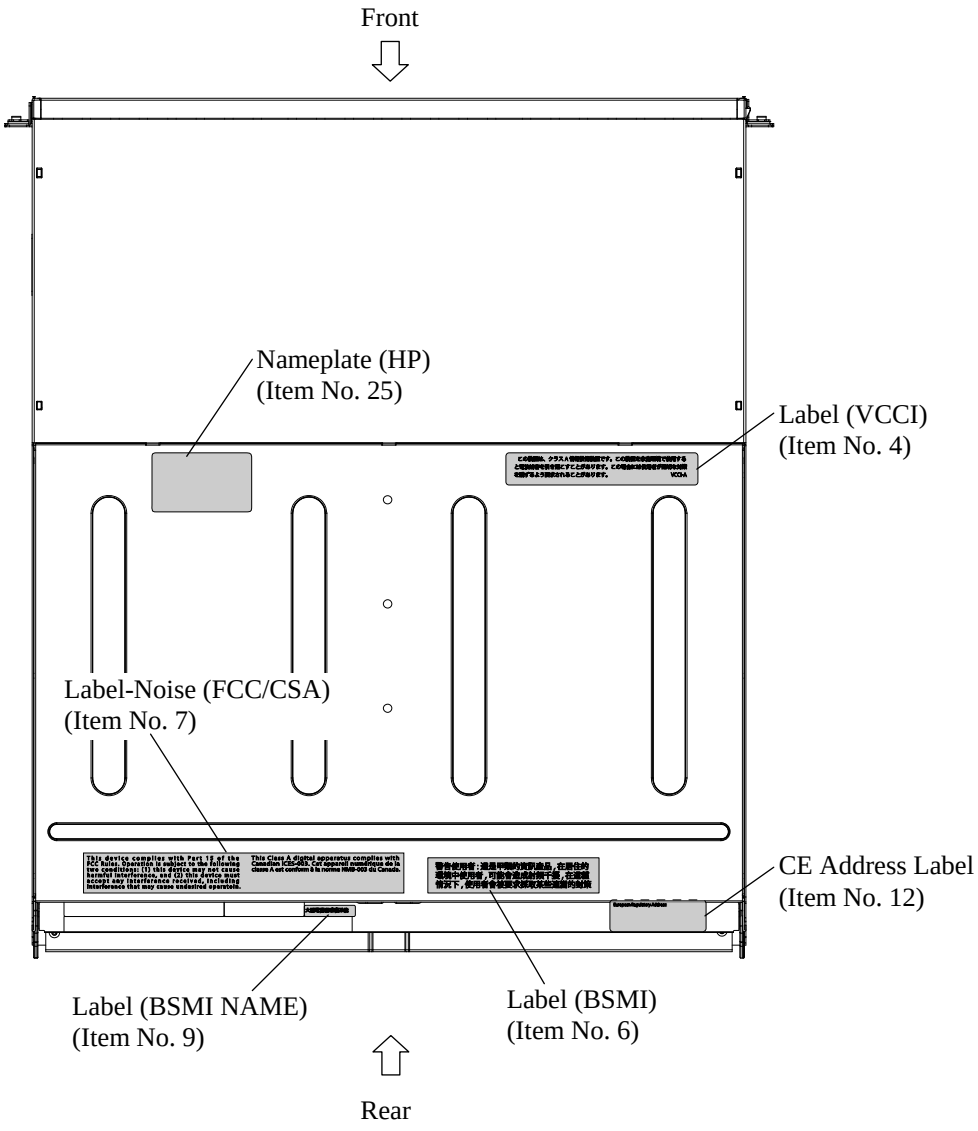


Top View of HDU

Fig. 4.2.1-12 Removal of Labels

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For HP



Top View of HDU

Fig. 4.2.1-13 Removal of Labels

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c. Remove the label from the bottom right of the rear door. If the DKU (DKC-F810I-UBX/SBX/FBX) is installed in the rack, this procedure is not necessary.

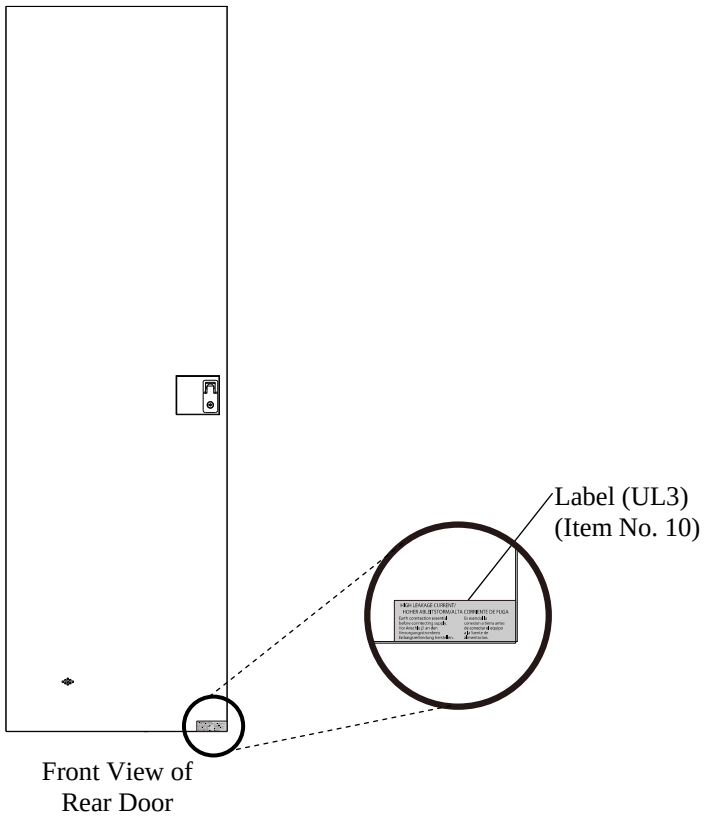


Fig. 4.2.1-14 Removal of Label

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9. Removing the slide rails
   a. Remove the screw and loop cable tie from the rear side of right slide rail.
   b. Remove the screw and loop cable tie from the rear side of left slide rail in the same way.

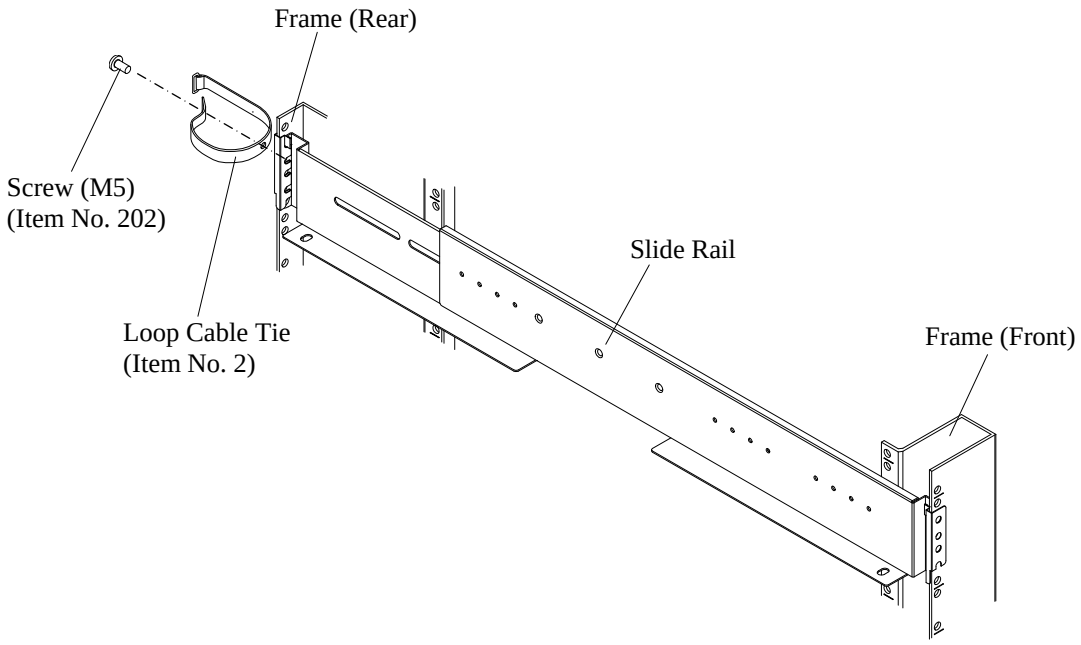


Fig. 4.2.1-15 Removal of Screw and Loop Cable Tie

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c. Open two Clips in the front and rear side of the right slide rail.
d. Push the right slide rail from the front toward the rear of the rack frame and remove the Positioning Pin on the front side of the rail. Then remove the rail from the rack frame.
e. Remove the left slide rail from the rack frame in the same way as the procedures c to d.
f. Remove the other rails in the same manner.

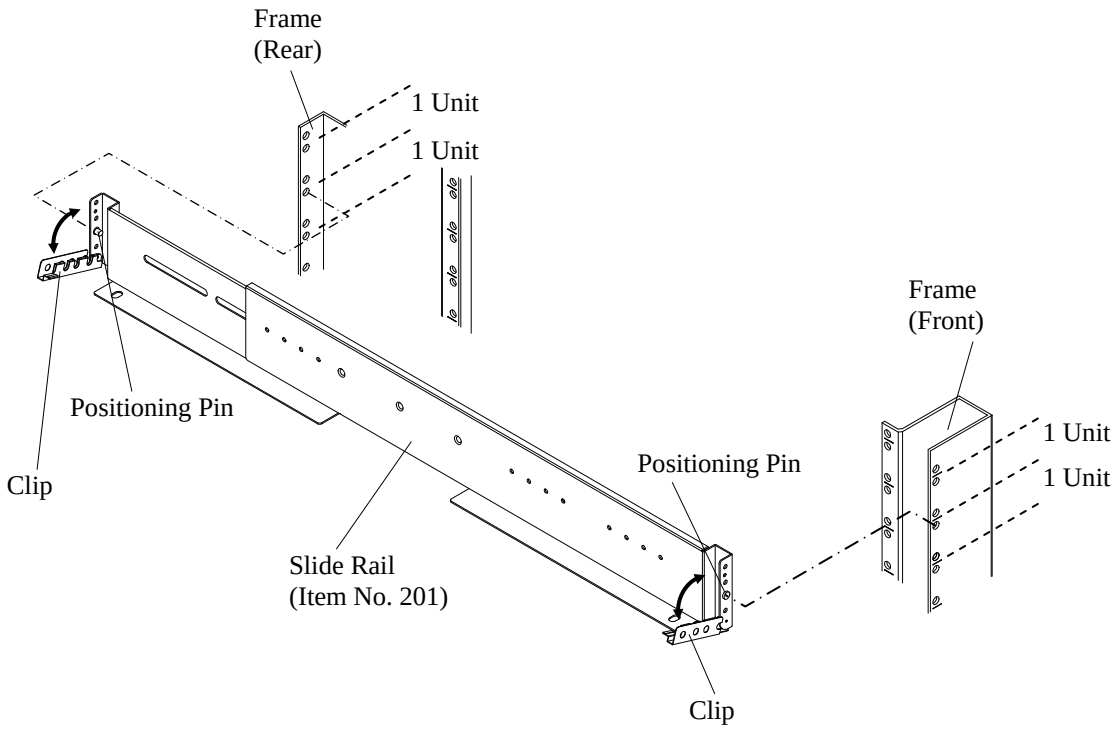


Fig. 4.2.1-16 Removal of Slide Rail

g. Return to the working table and do the rest of the work. (INST02-70)

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4.2.2 De-Installation Procedure of FMD Chassis (DKC-F810I-FBX)

1. Confirmation of Removal Position
   a. The following figure shows a configuration example of installing FMD Chassis in 42 units rack frame.
      Since the mounting location of FMD Chassis is different according to the configuration, confirm the location by the location label attached on the front or rear side of FBX. (Refer to Fig.4.2.2-2.)

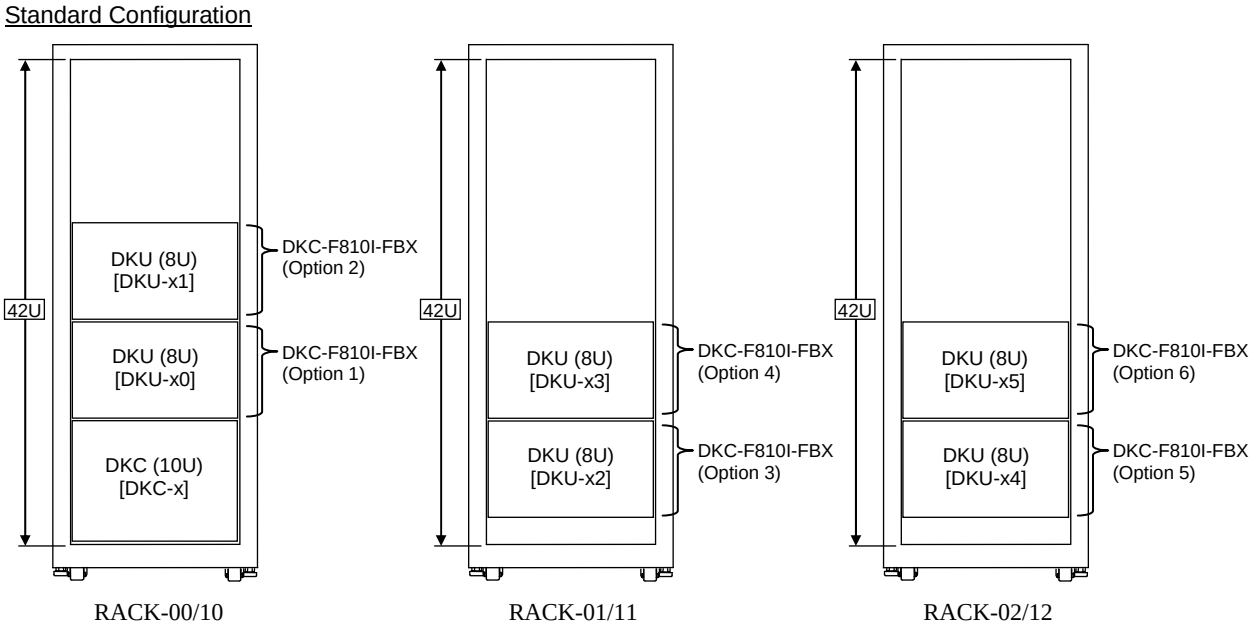
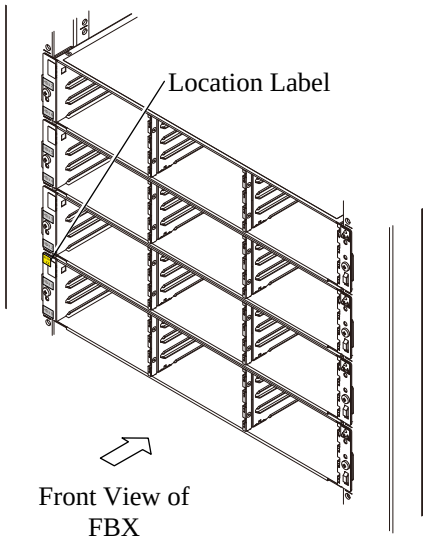


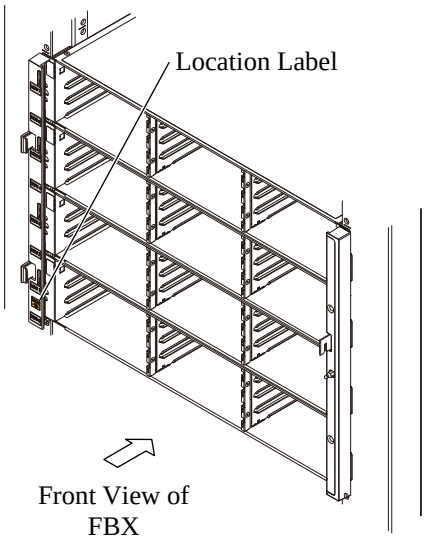
Fig. 4.2.2-1 Installation Position of Drive Chassis

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[In the Case of Front Door]



[In the Case of Bezel]



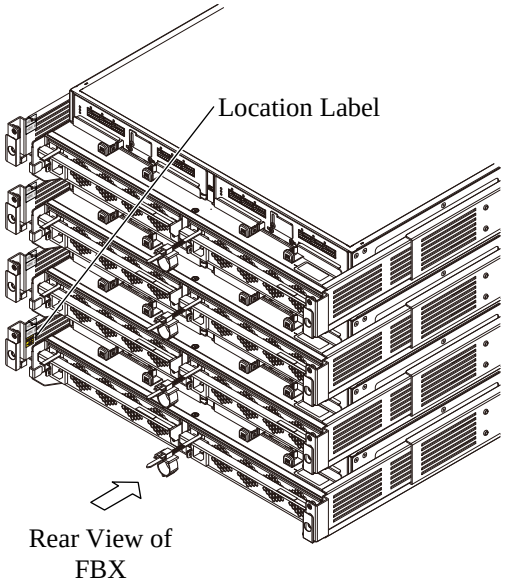


Fig. 4.2.2-2 Attachment Position of Location Labels

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2. When you need to remove FMD Chassis Bezel (DKC-F810I-BFH/BFP), remove the bezel. When you do not need to remove FMD Chassis Bezel (DKC-F810I-BFH/BFP), go to Procedure 3.
   a. Insert the key into the keyhole on the bezel and release the lock of the bezel (①).
   b. Pull the key toward you while holding the lower right portion of the bezel, and then disengage the right side of the bezel from the ball catch (②).

      NOTE: When disengaging the bezel, work with the opening angle between the bezel and the chassis of up to 45 degrees.
      Do not force the bezel open too wide. Otherwise, a damage of bezel may be caused.
   c. Disengage the bezel from the left tabs and then remove it (③).

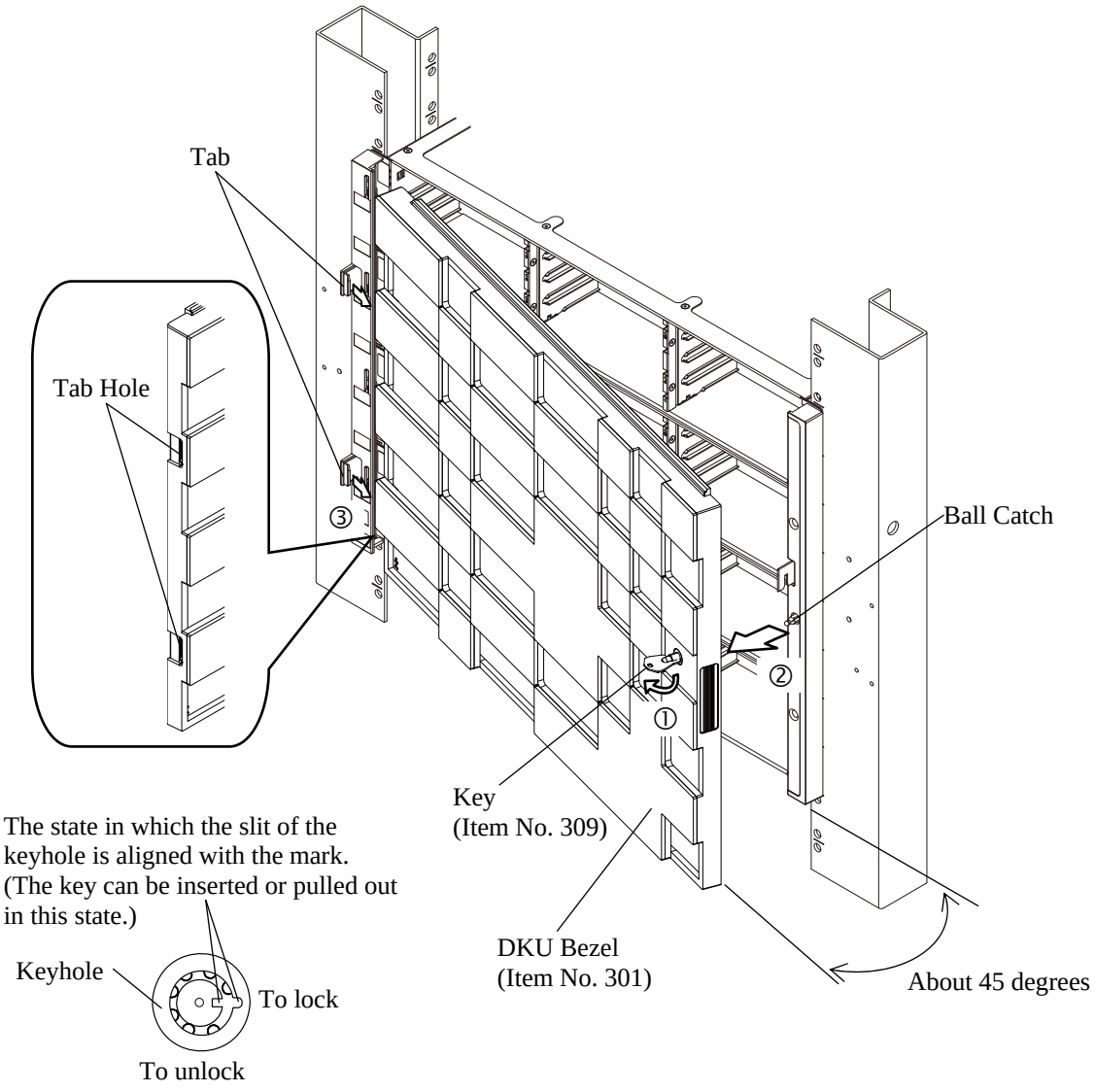


Fig. 4.2.2-3 Removal of Bezel

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d. Remove the eight Label Locations and the Label (DKU-BOX) from the side cover on the front side of the rack.

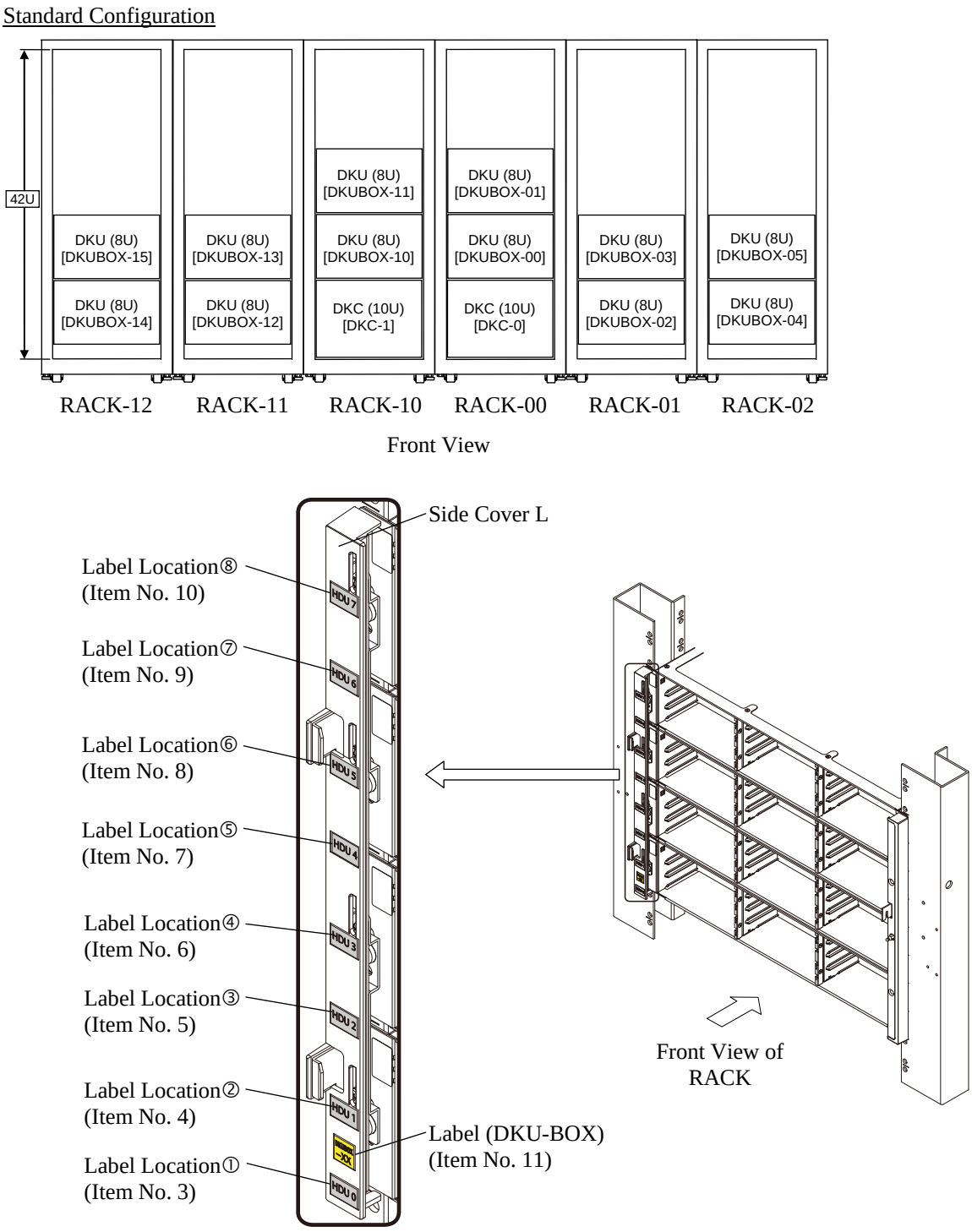


Fig. 4.2.2-4 Removal of Labels

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e. Remove the Side Cover L from the Bezel Bracket L.
f. Remove the Side Cover R from the Bezel Bracket R.
g. Remove the four screws and remove the Bezel Bracket L from the Nut Plate L (two).
h. Remove the four screws and remove the Bezel Bracket R from the Nut Plate R (two).
i. Remove the four screws and remove the Nut Plate L (two) from the front left side of the DKU.
j. Remove the four screws and remove the Nut Plate R (two) from the front right side of the DKU.

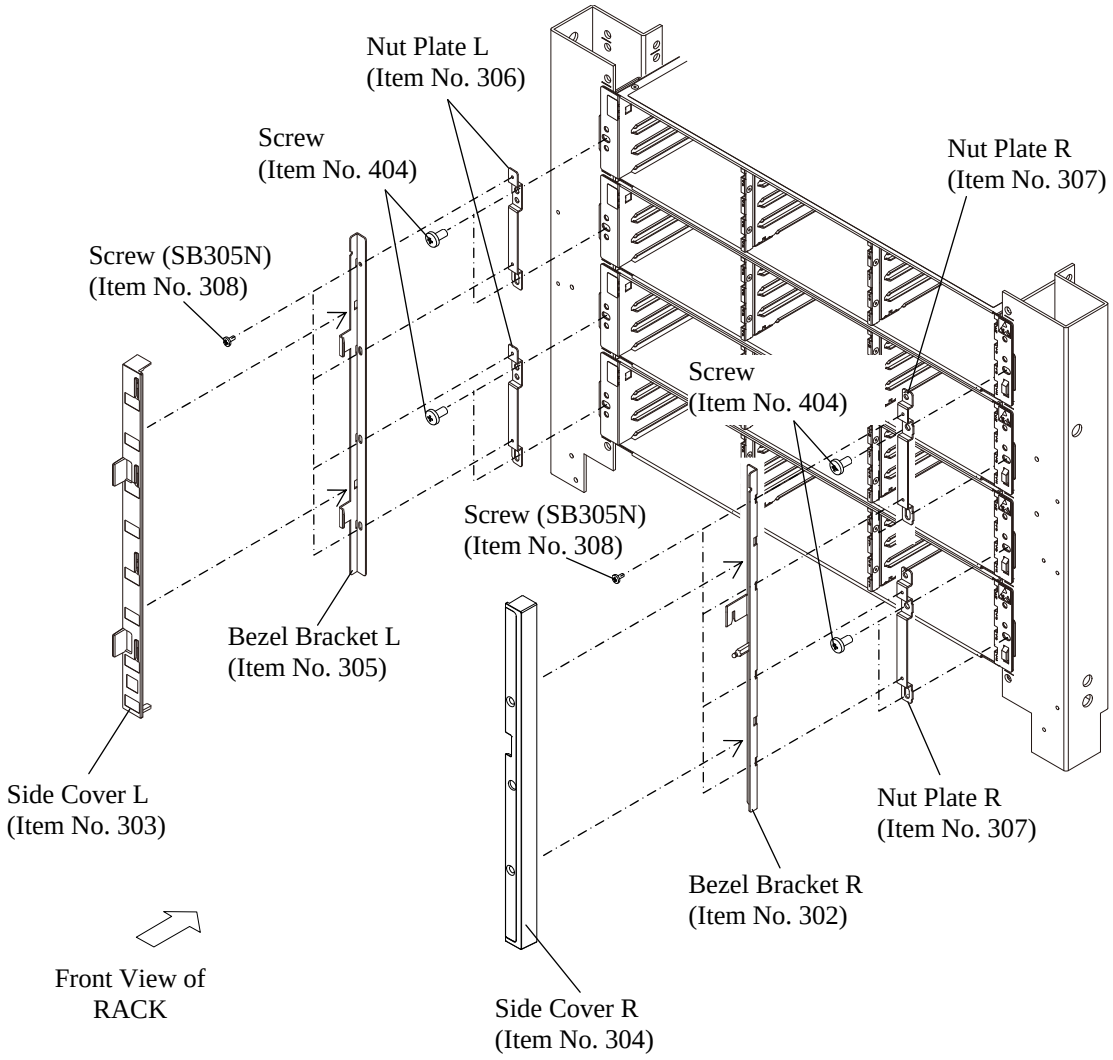


Fig. 4.2.2-5 Removal of Parts

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3. Checking the PS Enable LEDs
   a. Check that the PS Enable LEDs of the DKUPS installed in the DKU are all off.

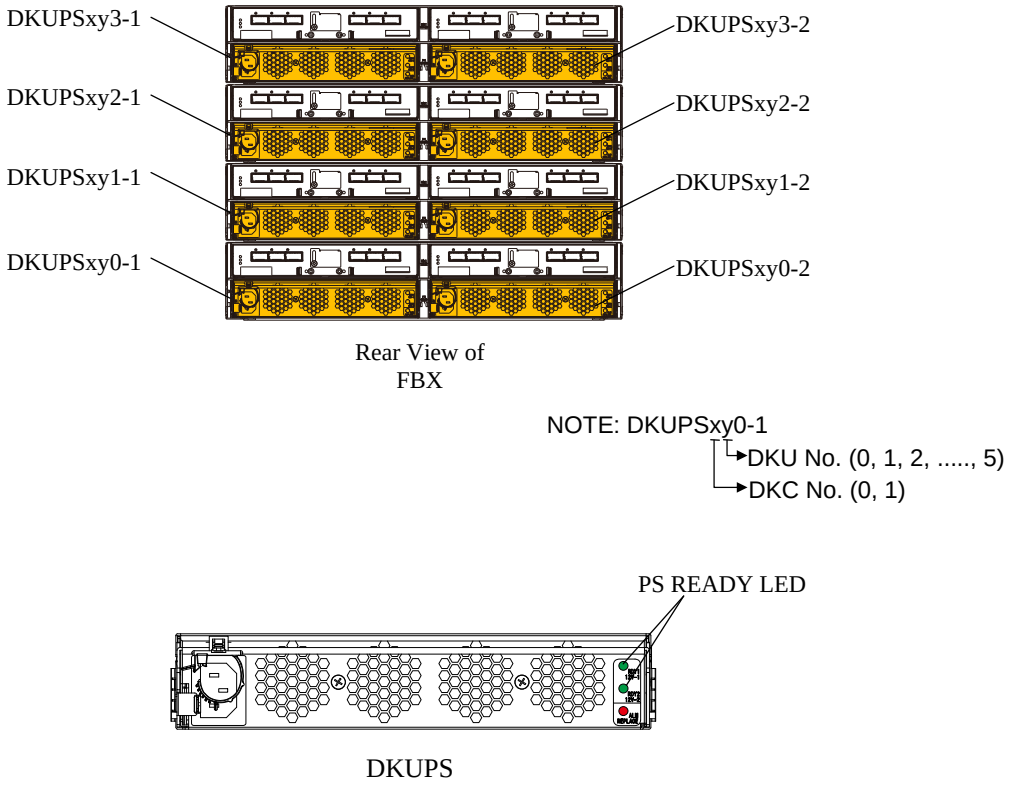


Fig. 4.2.2-6 PS READY LED on DKUPS

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4. Removing labels and parts
   a. If the Front Door is installed in the front side of the FBX, remove the Label Location (eight) and the Label (DKU-BOX).
      It the Bezel is installed in the front side of the FBX, go to Procedure b.

Standard Configuration

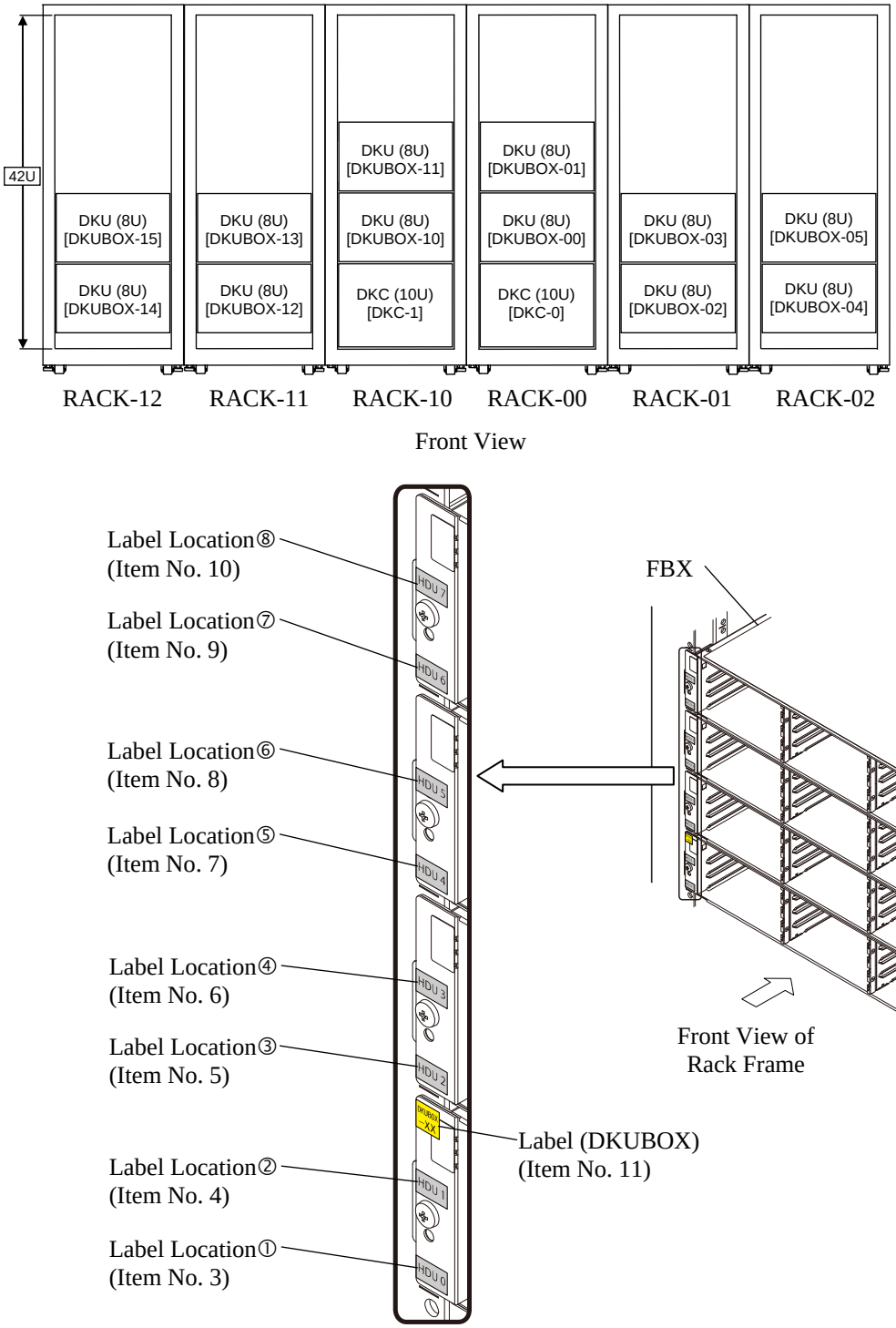


Fig. 4.2.2-7 Removal of Labels

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b. Remove the eight Label Locations and the Label (DKU-BOX) from a rail on the left side of the rear of the FBX.

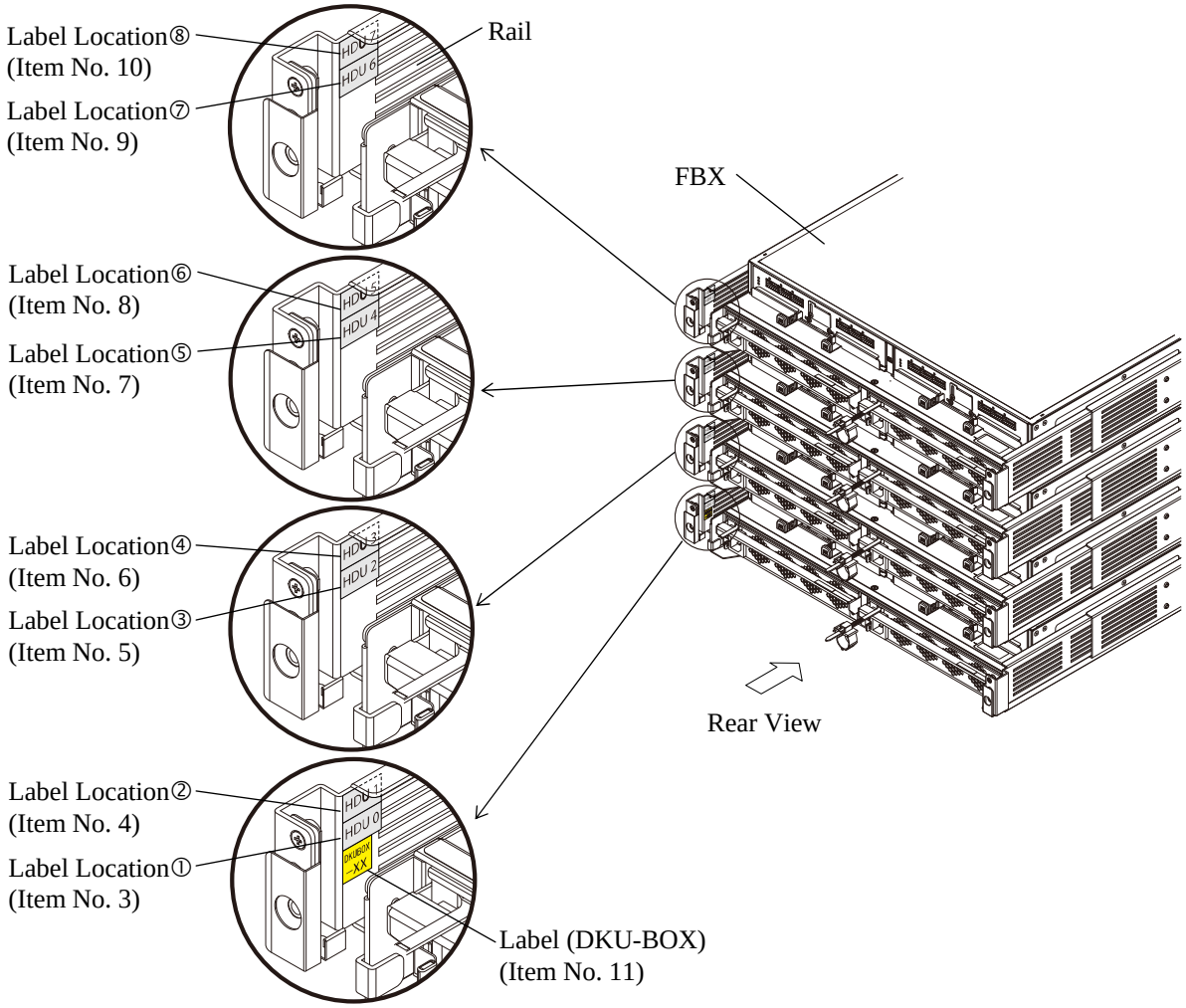


Fig. 4.2.2-8 Removal of Labels

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5. Removing parts
   If the FBX is removed at height below 1m or installed by using the special lifter, this procedure is not required because the FBX is removed into the rack frame with its parts mounted. (Go to procedure 6.)
   If other than above, remove the parts first and then remove the FBX into the rack frame.

NOTICE:	Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

   a. Attach a label or the like for identification of installation location to a removed part so that it can be installed in the same place in the FBX.
   b. Press the latches of the SSW inward to unlock the levers.
   c. Pull the right and left levers and remove the SSW.
   d. Remove the other SSW in the same manner.

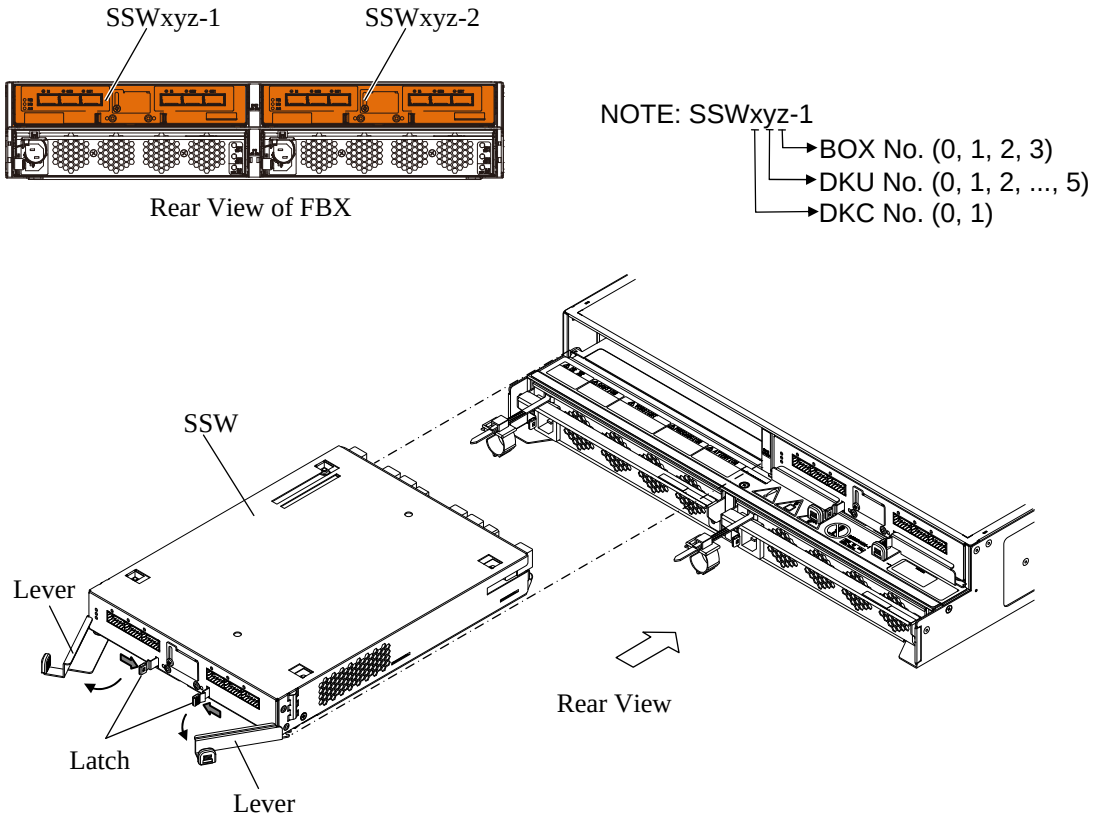


Fig. 4.2.2-9 Removal of SSW

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e. Bring the handle down and forward (②) while pushing the latch of the DKUPS inward (①).
f. Pull the DKUPS and remove it from the chassis.
g. Remove the other DKUPS in the same manner.

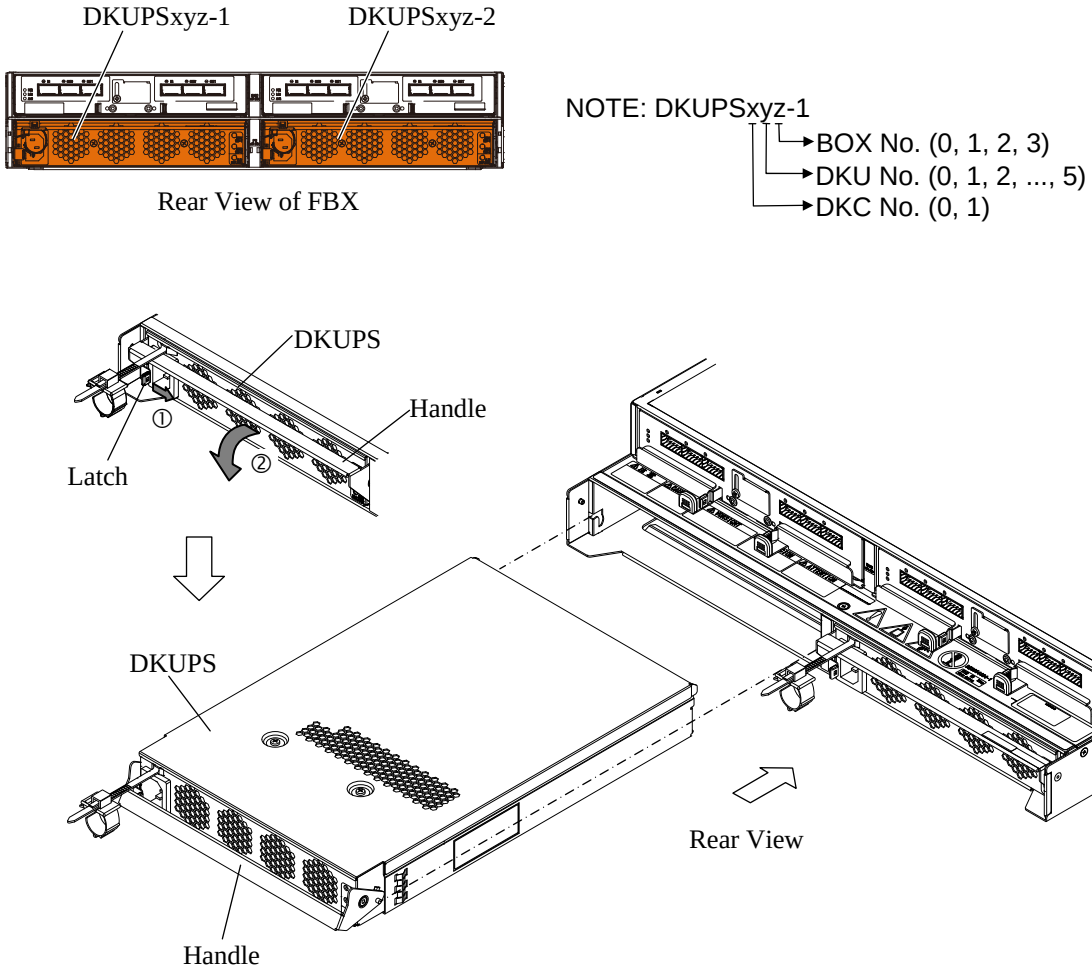


Fig. 4.2.2-10 Removal of DKUPS

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6. Removing FBX

⚠ CAUTION

Paying attention to falls:
Work carefully because the mass of the single FMU is about 20 kg.

Beware over turning and dropping:
To prevent FMU from over turning and dropping, the installation work must be done by two or more personnel.

a. It the Front Door is installed in the front side of the FBX, remove the two screws from the FMU.
   If the Bezel is installed in the front side of the FBX, go to Procedure b.
b. Remove the FMU from the front side of the Rack frame referring to mounting procedure using the special lifter. (See INST03-15-10 through 40.)
c. Remove the other FMUs in a same manner.

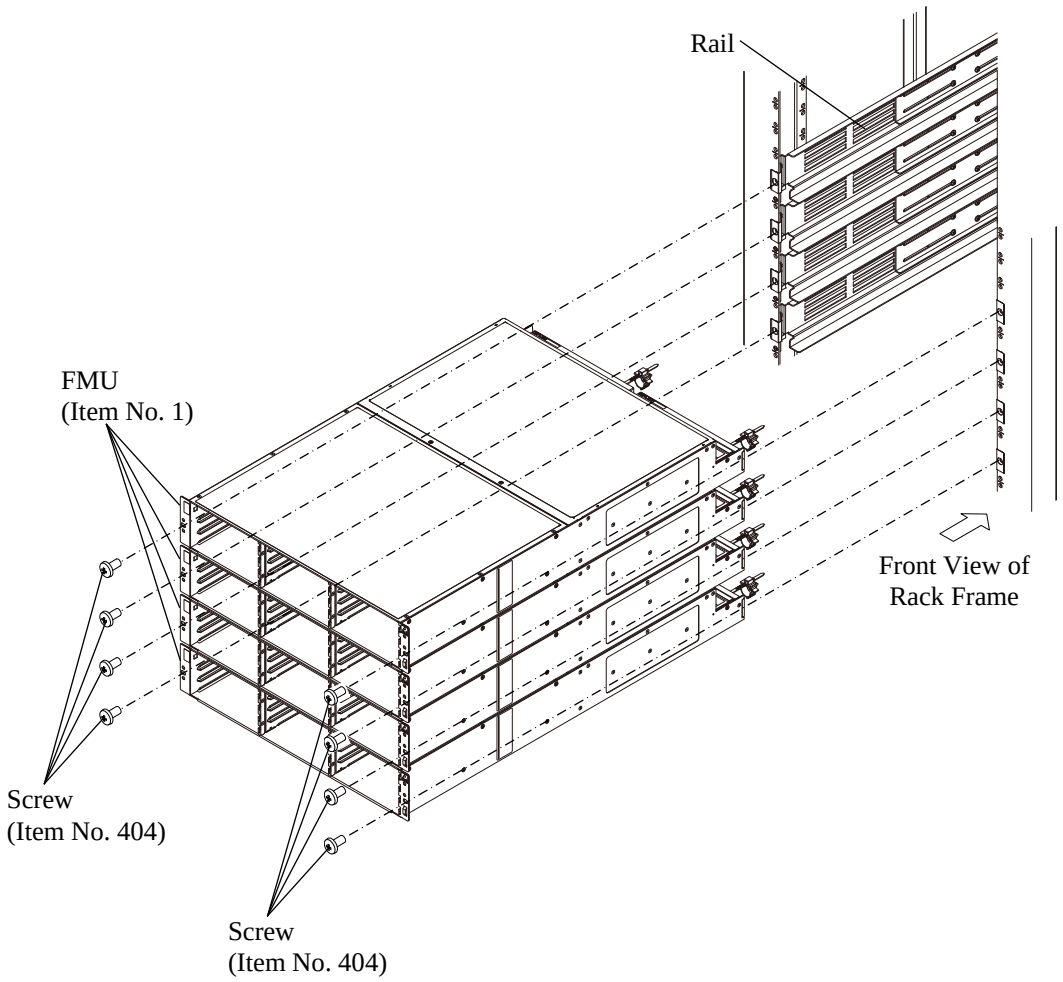


Fig. 4.2.2-11 Removal of FBX

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7. Reinstalling removed parts
   If parts were removed in procedure 5, reinstall the parts.
   If parts were not removed, go to procedure 8.

   a. Make the handle of the DKUPS completely fall down and forward. (See Fig. 4.2.2-10.)
   b. Insert the DKUPS into the slot and push it to the full.
   c. Completely raise the handle and fix the DKUPS.
   d. Install the other DKUPS in the same manner.
   e. Make the right and left levers of the SSW open. (See Fig. 4.2.2-9.)
   f. Insert the SSW until the edge of the lever comes in contact with the chassis.
   g. Close the right and left levers to insert the SSW completely.
   h. Install the other SSW in the same manner.

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8. Removal of Rails
   a. Remove the screws and loop cable ties from the rear edge of the rails.
   b. Remove the other screws and loop cable ties from the rails in a same manner.

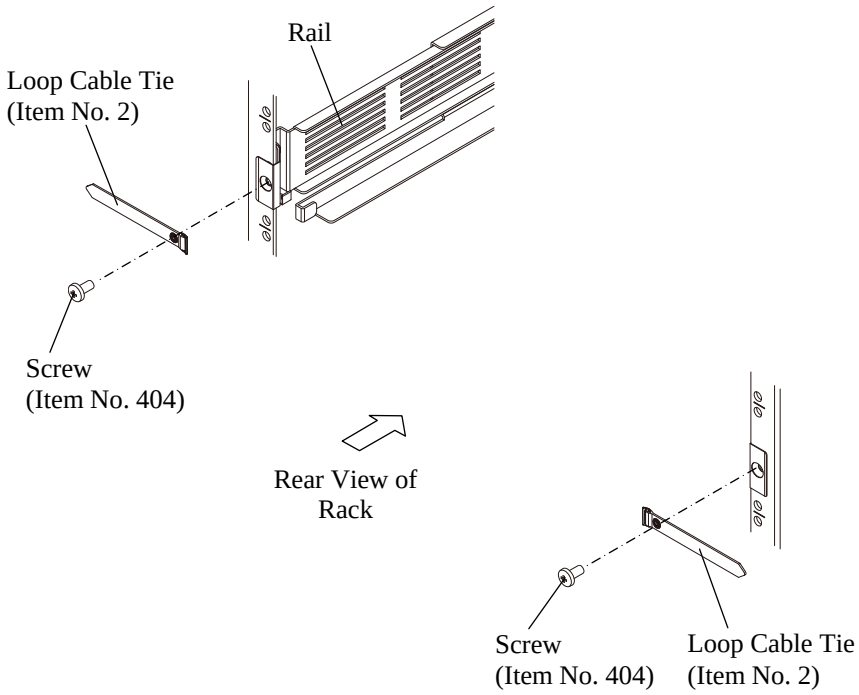


Fig. 4.2.2-12 Removal of Screws and Loop Cable Ties

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c. Loosen the four screws on the side of the rail.
d. Open two clips in the front and rear side of the right rail.
e. Remove the rail from the right side of the rack frame.
f. Remove the other rails from the rack frame in a same manner.

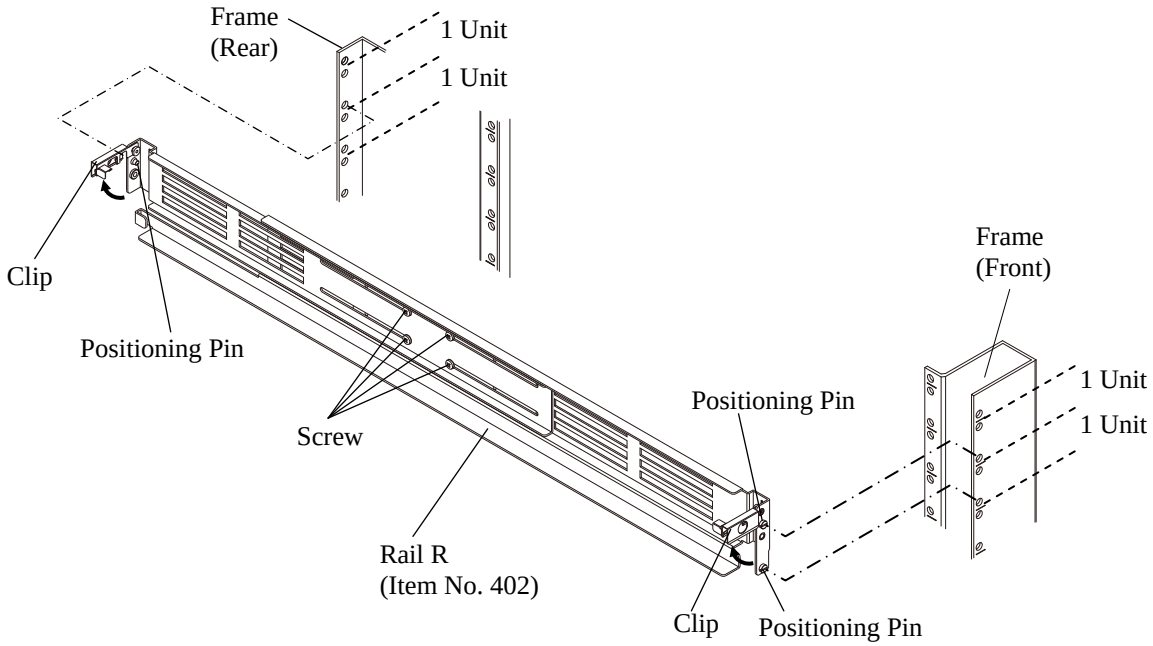


Fig. 4.2.2-13 Removal of Rail

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9. Removal of labels
   a. Remove the labels from the top side and rear side of FMU.
   b. Remove the labels from the other FMU in the same manner.

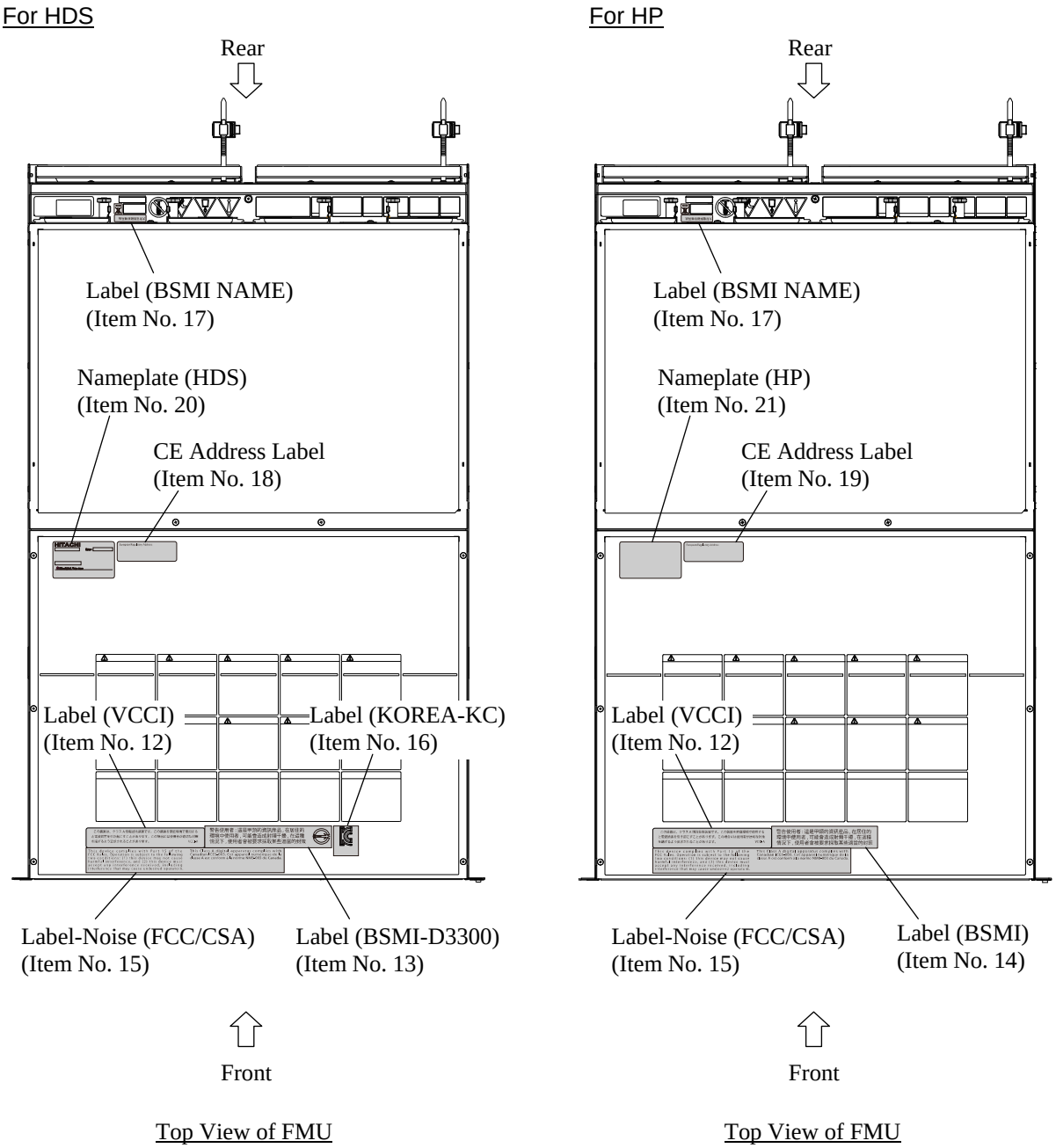


Fig. 4.2.2-14 Removal of Labels

b. Return to the working table and do the rest of the work. (INST02-70)

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4.3 De-Installation of Cache Memory, Cache Backup Module kit, Cache Flash Memory and Inter-Controller Connecting Cable (DKC-F810I-CM16G/CM32G/CPEX/BKMS/BKML/ BMM128/BMM256/MFC5/MFC30/MFC1J)

Table 4.3-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-CM16G	16GB DIMM	5552764-A	1	CM Module
2	DKC-F810I-CM32G	32GB DIMM	5552765-A	1	CM Module
3	DKC-F810I-CPEX	WP840-A	5552763-A	2	CM PCB (*1)
		HU Jumper	5521578-1	2	Maintenance Jumper
4	DKC-F810I-BKMS	BKM	2855832-A	2	
5	DKC-F810I-BKML	BKM	2856455-A	2	
6	DKC-F810I-BMM128	SSD (128GB)	5552768-A	1	CFM
		Screw	SB305N	2	
7	DKC-F810I-BMM256	SSD (256GB)	5552769-A	1	CFM
		Screw	SB305N	2	
8	DKC-F810I-MFC5	MFC Cable	5552752-A	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*2)
		Cleat	5409055-2	1	(*2)
		Clamp Tape	5544251-3	1	(*2)
9	DKC-F810I-MFC30	MFC Cable	5555155-A	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*2)
		Cleat	5409055-2	1	(*2)
		Clamp Tape	5544251-3	1	(*2)

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
10	DKC-F810I-MFC1J	MFC Cable	3287340-B	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*2)
		Cleat	5409055-2	1	(*2)
		Clamp Tape	5544251-3	1	(*2)

*1: CM PCB is a name of the cache board (WP840-A) that is included in the DKC-F810I-CPEX. The name is used in the following procedures.

*2: These parts are included in Packing Work (PARTS).

Rough time of Cache memory and/or cache flash memory de-installation becomes addition of the following A, B, C and D.

Table 4.3-2 Rough time of De-installation

	Process	Time
A	Target CM PCB blocking time	5 ~ 60min × 2 (*1)
B	Cache memory, CFM equipment process	Cache memory module: 6min × target CM PCB num. CFM: 7.5min × target CM PCB num.
C	Target CM PCB diagnosis time	Target CM PCB diagnosis time 10min × target CM PCB num.
D	Target CM PCB recovering time	Target CM PCB recovering time 5 ~ 20min × target CM PCB num. (*1)

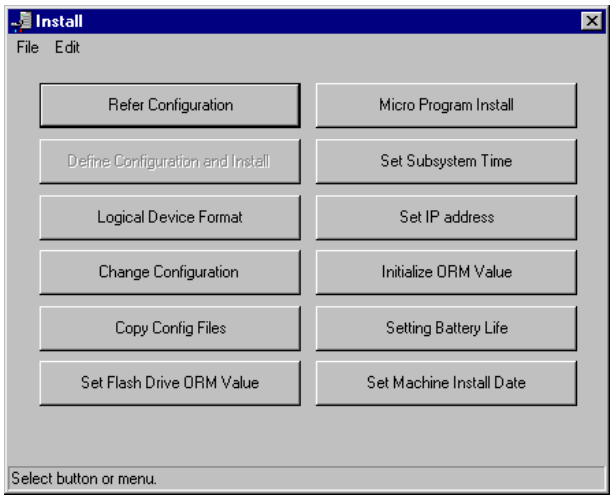
*1: Standard processing time is indicated. The processing time depends on the use situation, especially, the influence of the amount of write pending is received. When the amount of write pending is large, time more than the indication value might be required.

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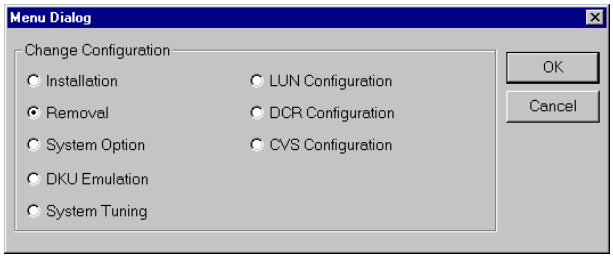
1. Setting up the New Device Structure Information.

(1) <Mode Change>
Change the mode to Modify Mode.
Select (CL) [Install].

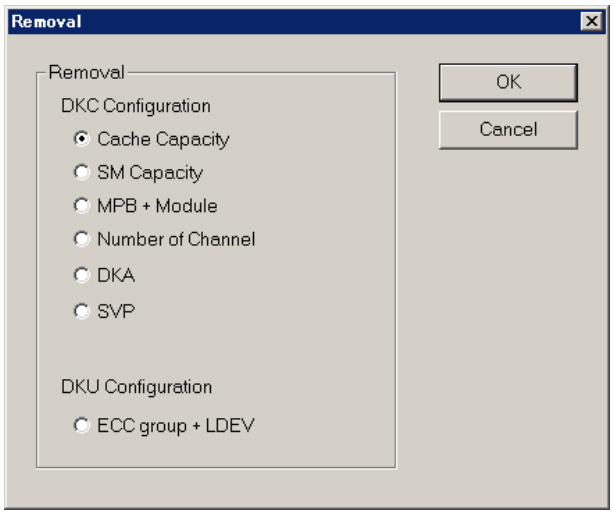
(2) <Start the 'Menu Dialog' screen>
Select (CL) [Change Configuration].



(3) <Start Device Structure Setup screen>
Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].



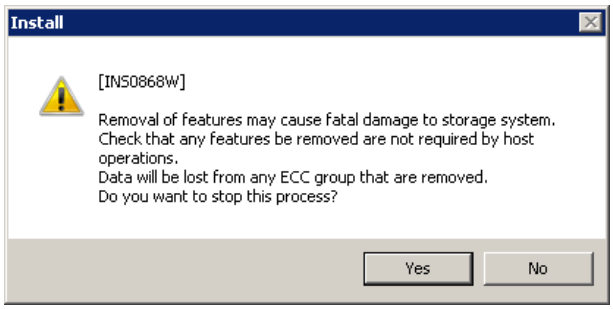
(4) <Select a part to be changed>
Select (CL) [Cache Capacity], and select (CL) [OK].



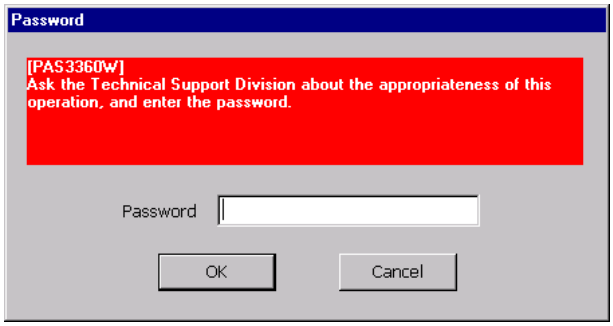
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(5)

Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(6) <Input password>
Enter the password and select (CL) [OK].



⚠ CAUTION

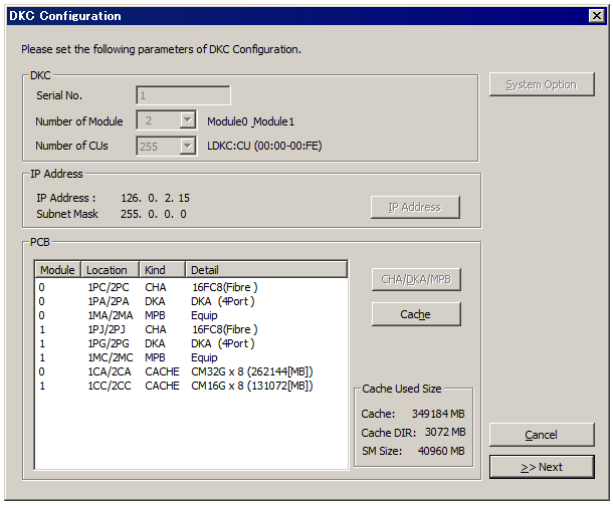
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

(7) <Update Configuration Information>
Select (CL) [Cache] in the ‘DKC Configuration’ window.
Go to Step (7)-1.

NOTE: It is not possible to install or de-install plural parts at the same time.

Make sure that all entered items are correct and select (CL) [>>Next].

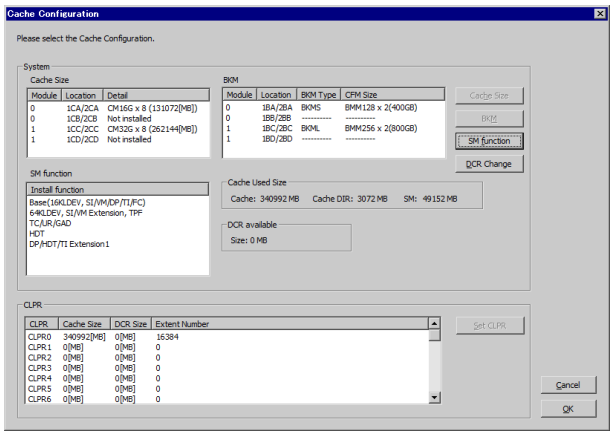
Go to Step (8).



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(7)-1 <Define Cache>

Define each item in the 'Cache Configuration' window.



When the change of Cache setting or removal of the PCB is required, select (CL) the target Cache PCB and then select (CL) [Cache Size].
Go to Step (7)-2.

When the change of BKM setting is required, select (CL) [BKM].
Go to Step (7)-3.

When the change of SM setting is required, select (CL) [SM function].
Go to Step (7)-4.

If you want to change the DCR available size, select (CL) [DCR Change].
Go to Step (7)-5.
(See SSD Optional Function Section)

When a change in the CLPR setting is necessary, select (CL) the CLPR to be changed, and select (CL) the [Set CLPR].
(Go to Step (7)-6.)

After setting up all items, select (CL) [OK]. Return to Step (7).

Refer to INST01-80 for the SVP screen display and the conversion of the option type names.

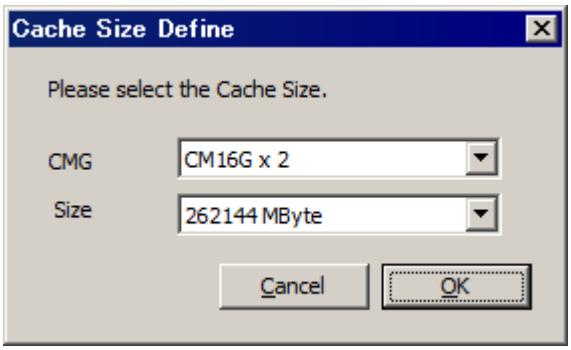
NOTE: The capacity reduced by the [Cache Size] operation is reduced from the Cache capacity of CLPR0.
The setting that Cache capacity of CLPR0 becomes less than 4,096[MB] (minimum Cache capacity) is prevented by a [DEF3124W] message in this case.
Please confirm that the Cache capacity of CLPR0 to be reduced is larger than 4096[MB].
The change of SM and DCR can be changed only within the range of the reduced Cache capacity.

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(7)-2 <Cache Size Define screen>

Set the CMG/Cache Size in the 'Cache Size Define' screen, select (CL) [OK].

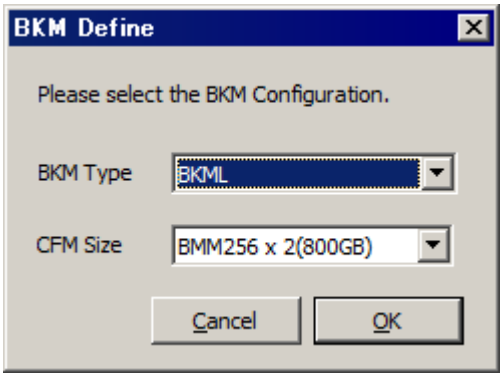
Go back to Step (7)-1.



(7)-3 <BKM Define screen>

Set the BKM type in the 'BKM Define' screen, select (CL) [OK].

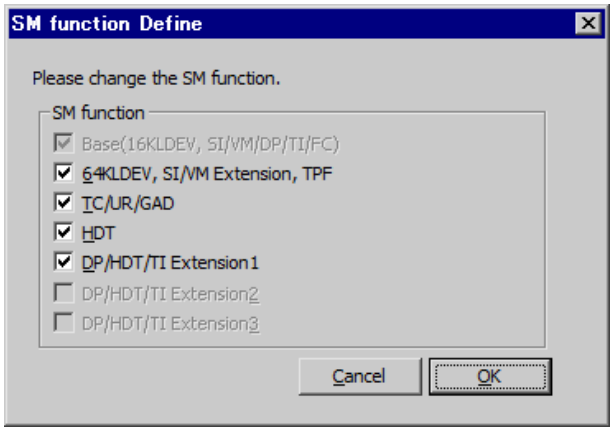
Go back to Step (7)-1.



(7)-4 <SM function Define screen>

Set the SM function in the 'SM function Define' screen, select (CL) [OK].

Go back to Step (7)-1.

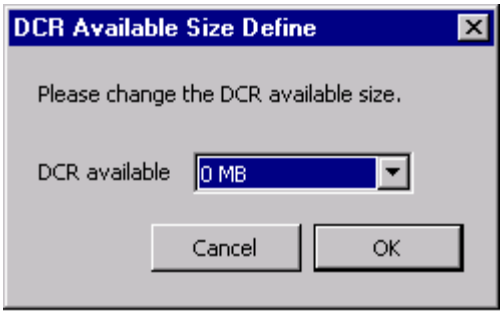


(7)-5 <Define DCR Available Size>

Define the DCR available size in the 'DCR Available Size Define' dialog box.

And select (CL) [OK].

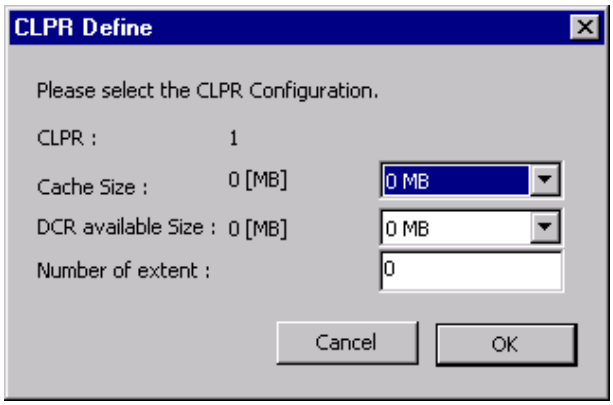
Go back to Step (7)-1.



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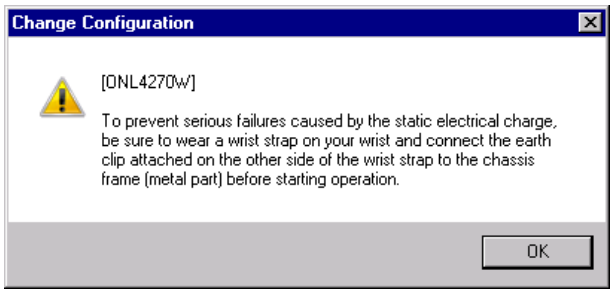
(7)-6 <Setting CLPR>

Set the Cache Size/DCR available Size/ Number of extent in the 'CLPR Define' window and select (CL) the [OK].
Go back to Step (7)-1.



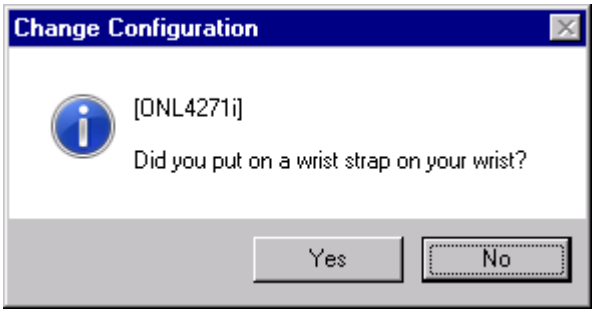
(8) <Wear a wrist strap>

Select (CL) [OK] in response to "To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.".



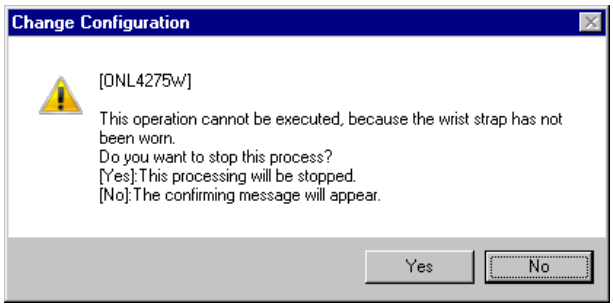
(8)-1 <Confirm wearing wrist strap>

In response to a message, "Did you put on a wrist strap on your wrist?".
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When [No] is selected (CL), go to Step (8)-2.



(8)-2

In response to a message, "This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear."
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-03-30.
When [No] is selected (CL), returned to Step (8).

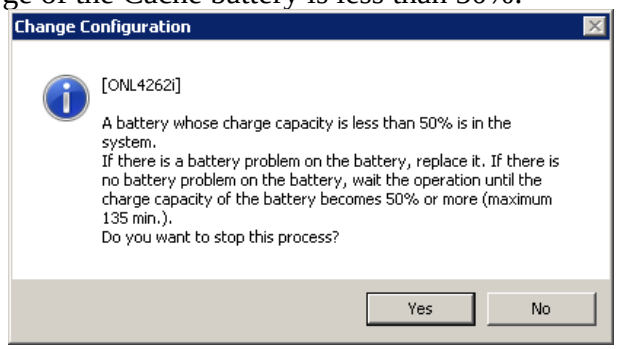


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2. SVP Pre-Procedure (Confirmation of amount of cache battery charge).

(1) < Confirmation of amount of cache battery charge >

- When there is PCB whose amount of charge of the Cache battery is less than 50%:
  "A battery whose charge capacity is less than 50% is in the system. If there is a battery problem on the battery, replace it. If there is no battery problem on the battery, wait the operation until the charge capacity of the battery becomes 50% or more (maximum 135 min.). Do you want to stop this process?"

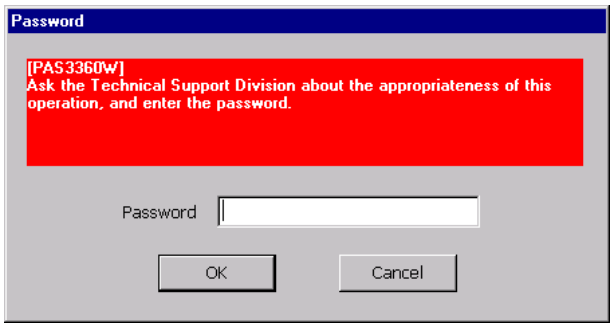


When [Yes] is selected (CL), returned to INST04-03-30 Step (2).
When [No] is selected (CL),go to Step (2)

- When there is no PCB whose amount of charge of the Cache battery is less than 50%: go to Step 3.

---

(2) <Input password>
Enter the password and select (CL) [OK].



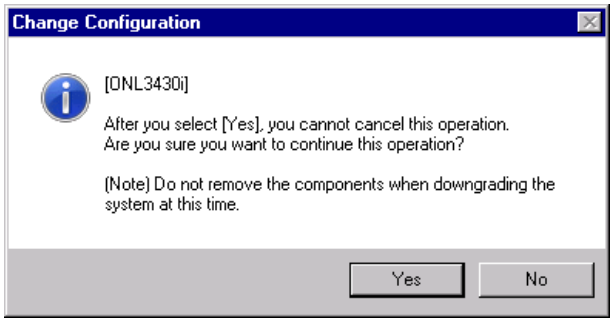
⚠ CAUTION

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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3. SVP pre procedure on the cluster 1.

(1) <Start de-installation>
Select (CL) [Yes] in response to “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components when downgrading the system at this time.”.
When [No] is selected (CL), returns to INST04-03-30 Step (3).

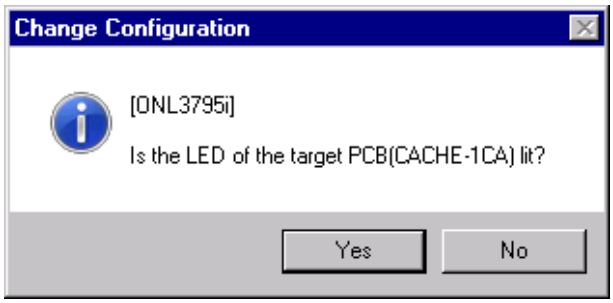


(2) <Memory blocking on cluster 1>
When blocking of cluster 1 of shared memory and Cache memory is completed, “The Cache Memory PCB is being blocked...” and “The Shared Memory PCB is being blocked...” are displayed.

(3)
“Lighting LED of the PCB...” is displayed.

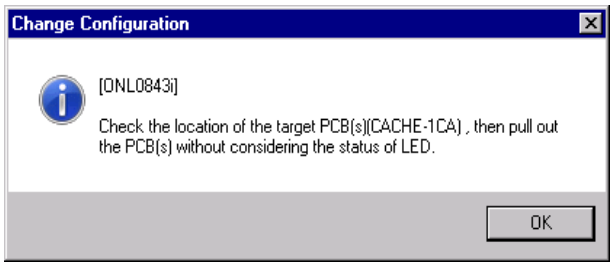
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(4) <Check shut down LED>
Select (CL)
* [Yes] if Shut down LED is on
* [No] if Shut down LED is off
in response to “Is the LED of the target PCB(CACHE-nnn) lit?”.



(Eg. CACHE-1CA)

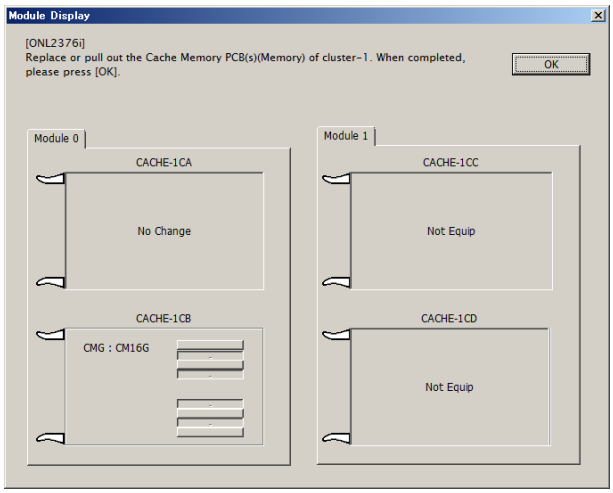
If [No] is selected:
Select (CL) [OK] after response to “Check the location of the target PCB(s)(CACHE-nnn), then pull out the PCB(s) without considering the status of LED.”.
(Refer INST04-03-100)
Go to Step (5).



(Eg. CACHE-1CA)

---

(5) <Perform cache hardware removal>
At this point refrain from pressing the [OK] button.
When “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-1. When completed, please press OK.” is displayed, perform the hardware removal steps according to the cache hardware removal procedure.



Make sure of the installation location of the module to be removed and remove the correct module.
(The Shared Memory capacity may be changed at the same time, depending on the set Cache Memory capacity.)

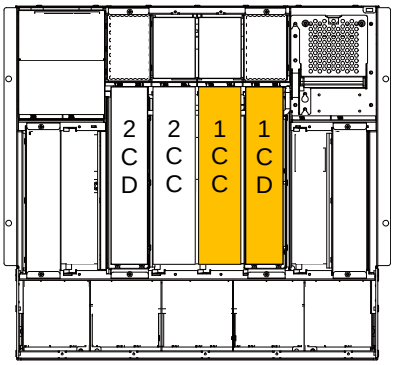
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4. Remove the Cache Memory on the cluster 1.

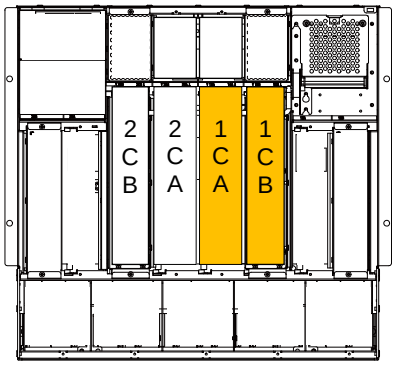
NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

4-1 Remove the PCB.

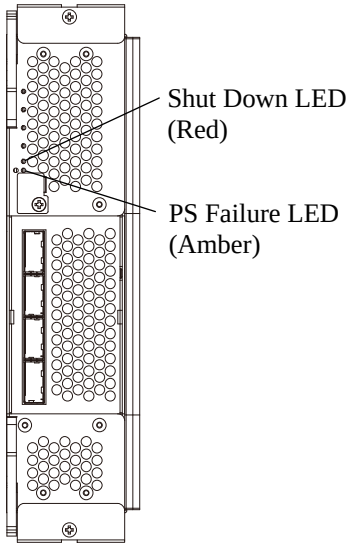
a. Check that the Shut Down LED on the Cache Memory PCB is lit.



Front View DKC-1



Front View of DKC-0



CM PCB

Fig. 4.3-1 Location of Shut Down LED

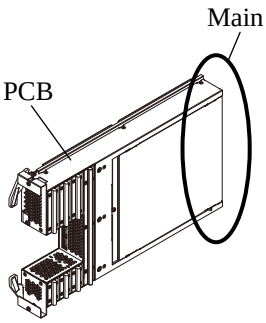
Table 4.3-3 Location of Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
1	DKC-0	1CA	CACHE-1CA	
		1CB	CACHE-1CB	
	DKC-1	1CC	CACHE-1CC	
		1CD	CACHE-1CD	

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b. If the cables are connected to the CM PCB, disconnect the cables after checking "3.1.7 Notes when connecting and disconnecting MFC cable" (INST03-01-190).
If the cables are not connected to the CM PCB, go to Step c.
c. Remove the two screws and remove the CM PCB.

NOTE: When removing the CM PCB, be careful not to pull cables.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.

NOTICE: After removing the CM PCB, de-install the parts of it immediately and install the extracted CM PCB or the dummy plate.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

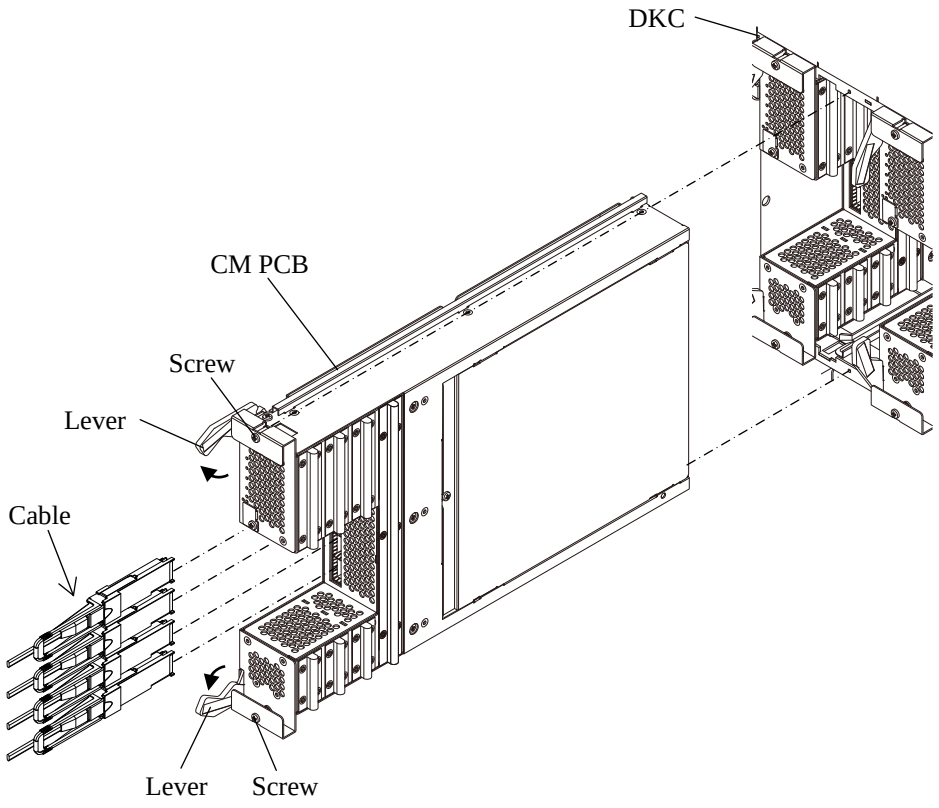


Fig. 4.3-2 Removal of PCB

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4-2. Remove the Cache Memory Modules.

a. Loosen the screw and remove the cover.

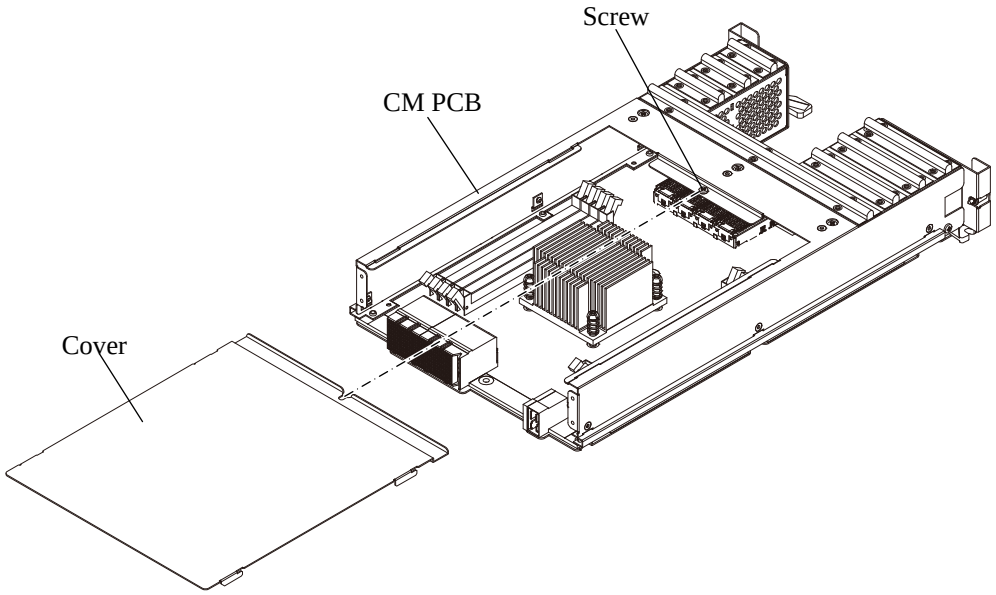
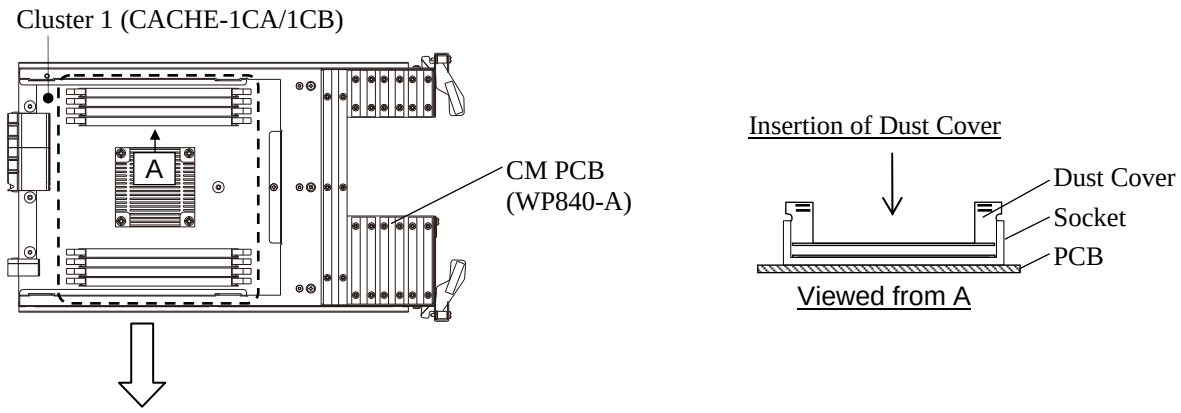


Fig. 4.3-3 Removal of Cover

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b. Remove the extra Cache Memory Modules according to the required Cache Memory capacity referring to Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-6, Table 4.3-4 through Table 4.3-9.
c. Insert the dust covers into the vacant sockets.
d. Attach the cover and fasten the screw. (Refer to Fig. 4.3-3.)

CM Module Location of DKC-0



CACHE-1CA (Basic)

CM1P:	*2
CM5P:	*6
CM3P:	*4
CM7P:	*8

CM6P:	*7
CM2P:	*3
CM4P:	*5
CM0P:	*1

CACHE-1CB (Option 1)

CM1P:	*10
CM5P:	*14
CM3P:	*12
CM7P:	*16

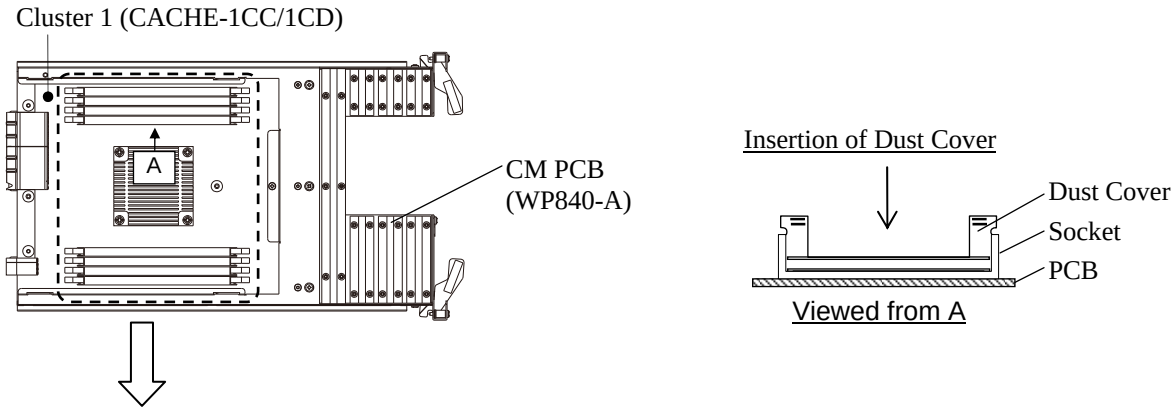
CM6P:	*15
CM2P:	*11
CM4P:	*13
CM0P:	*9

NOTE1: The cache memory module location *1 through *16 correspond to the CM Location listed in Table 4.3-4 through Table 4.3-9.

Fig. 4.3-4 Inserting Location of the Cache Memory Module

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CM Module Location of DKC-1



CACHE-1CC (Option 2)

CM1P:	*18
CM5P:	*22
CM3P:	*20
CM7P:	*24

CM6P:	*23
CM2P:	*19
CM4P:	*21
CM0P:	*17

CACHE-1CD (Option 3)

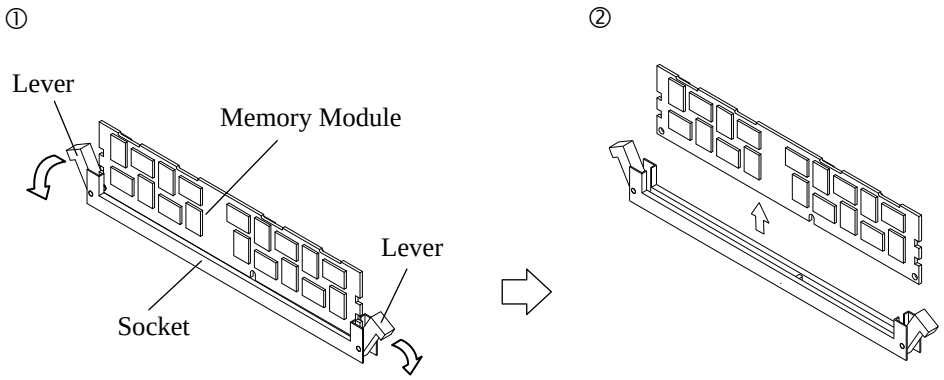
CM1P:	*26
CM5P:	*30
CM3P:	*28
CM7P:	*32

CM6P:	*31
CM2P:	*27
CM4P:	*29
CM0P:	*25

NOTE1: The cache memory module location *17 through *32 correspond to the CM Location listed in Table 4.3-4 through Table 4.3-9.

Fig. 4.3-5 Inserting Location of the Cache Memory Module

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Removal

① Pull the lever outward.
② Hold both ends of the memory module by the fingers, and pull out the memory module from the socket.

Fig. 4.3-6 Removal of Memory Module

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Table 4.3-4 Cache memory capacity and number of necessary options ①

No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options			
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-			
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM16G	CPEX	BKMS/ BKML	BMM128/ BMM256
1	32GB	*1	—	—	—	2	0	1	2
2	64GB	*1,*2	—	—	—	4	0	1	2
3	96GB	*1-*3	—	—	—	6	0	1	2
4	128GB	*1-*4	—	—	—	8	0	1	2
5	160GB	*1-*5	—	—	—	10	0	1	2
6	192GB	*1-*7	—	—	—	12	0	1	2
7	224GB	*1-*8	—	—	—	14	0	1	2
8	256GB	*1-*8	—	—	—	16	0	1	2
9	288GB	*1-*8	*9	—	—	18	1	2	4
10	320GB	*1-*8	*9,*10	—	—	20	1	2	4
11	356GB	*1-*8	*9-*11	—	—	22	1	2	4
12	384GB	*1-*8	*9-*12	—	—	24	1	2	4
13	416GB	*1-*8	*9-*13	—	—	26	1	2	4
14	448GB	*1-*8	*9-*14	—	—	28	1	2	4
15	480GB	*1-*8	*9-*15	—	—	30	1	2	4
16	512GB	*1-*8	*9-*16	—	—	32	1	2	4
17	576GB	*1-*8	*9-*16	*17	*25	36	2	4	8
18	608GB	*1-*8	*9-*16	*17,*18	*25	38	2	4	8
19	640GB	*1-*8	*9-*16	*17,*18	*25,*26	40	2	4	8
20	672GB	*1-*8	*9-*16	*17-*19	*25,*26	42	2	4	8
21	704GB	*1-*8	*9-*16	*17-*19	*25-*27	44	2	4	8
22	736GB	*1-*8	*9-*16	*17-*20	*25-*27	46	2	4	8
23	768GB	*1-*8	*9-*16	*17-*20	*25-*28	48	2	4	8
24	800GB	*1-*8	*9-*16	*17-*21	*25-*28	50	2	4	8
25	832GB	*1-*8	*9-*16	*17-*21	*25-*29	52	2	4	8
26	864GB	*1-*8	*9-*16	*17-*22	*25-*29	54	2	4	8
27	896GB	*1-*8	*9-*16	*17-*22	*25-*30	56	2	4	8
28	928GB	*1-*8	*9-*16	*17-*23	*25-*30	58	2	4	8
29	960GB	*1-*8	*9-*16	*17-*23	*25-*31	60	2	4	8
30	992GB	*1-*8	*9-*16	*17-*24	*25-*31	62	2	4	8
31	1024GB	*1-*8	*9-*16	*17-*24	*25-*32	64	2	4	8

NOTE 1: The above numbers (*1 through *32) represent the CM Module locations shown in Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-27 or Fig. 4.3-28.

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Table 4.3-5 Cache memory capacity and number of necessary options ②

No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options					
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-					
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM32G	CPEX	BKMS	BKML	BMM 128	BMM 256
1	64GB	*1	—	—	—	2	0	1	0	2	0
2	128GB	*1,*2	—	—	—	4	0	1	0	2	0
3	192GB	*1-*3	—	—	—	6	0	1	0	2	0
4	256GB	*1-*4	—	—	—	8	0	1	0	2	0
5	320GB	*1-*5	—	—	—	10	0	0	1	0	2
6	384GB	*1-*7	—	—	—	12	0	0	1	0	2
7	448GB	*1-*8	—	—	—	14	0	0	1	0	2
8	512GB	*1-*8	—	—	—	16	0	0	1	0	2
9	576GB	*1-*8	*9	—	—	18	1	1	1	2	2
10	640GB	*1-*8	*9,*10	—	—	20	1	1	1	2	2
11	704GB	*1-*8	*9-*11	—	—	22	1	1	1	2	2
12	768GB	*1-*8	*9-*12	—	—	24	1	1	1	2	2
13	832GB	*1-*8	*9-*13	—	—	26	1	0	2	0	4
14	896GB	*1-*8	*9-*14	—	—	28	1	0	2	0	4
15	960GB	*1-*8	*9-*15	—	—	30	1	0	2	0	4
16	1024GB	*1-*8	*9-*16	—	—	32	1	0	2	0	4
17	1152GB	*1-*8	*9-*16	*17	*25	36	2	2	2	4	4
18	1216GB	*1-*8	*9-*16	*17,*18	*25	38	2	2	2	4	4
19	1280GB	*1-*8	*9-*16	*17,*18	*25,*26	40	2	2	2	4	4
20	1344GB	*1-*8	*9-*16	*17-*19	*25,*26	42	2	2	2	4	4
21	1408GB	*1-*8	*9-*16	*17-*19	*25-*27	44	2	2	2	4	4
22	1472GB	*1-*8	*9-*16	*17-*20	*25-*27	46	2	2	2	4	4
23	1536GB	*1-*8	*9-*16	*17-*20	*25-*28	48	2	2	2	4	4
24	1600GB	*1-*8	*9-*16	*17-*21	*25-*28	50	2	1	3	2	6
25	1664GB	*1-*8	*9-*16	*17-*21	*25-*29	52	2	0	4	0	8
26	1728GB	*1-*8	*9-*16	*17-*22	*25-*29	54	2	0	4	0	8
27	1792GB	*1-*8	*9-*16	*17-*22	*25-*30	56	2	0	4	0	8
28	1856GB	*1-*8	*9-*16	*17-*23	*25-*30	58	2	0	4	0	8
29	1920GB	*1-*8	*9-*16	*17-*23	*25-*31	60	2	0	4	0	8
30	1984GB	*1-*8	*9-*16	*17-*24	*25-*31	62	2	0	4	0	8
31	2048GB	*1-*8	*9-*16	*17-*24	*25-*32	64	2	0	4	0	8

NOTE 1: The above numbers (*1 through *32) represent the CM Module locations shown in Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-27 or Fig. 4.3-28.

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Table 4.3-6 Cache memory capacity and number of necessary options ③

No.	Cache Memory Capacity	CM Location (NOTE 1)		Number of options					
		DKC810I-CBXA		DKC-F810I-					
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CM16G	CPEX	BKMS	BKML	BMM 128	BMM 256
1	64GB	*1	*9	4	1	2	0	4	0
2	96GB	*1,*2	*9	6	1	2	0	4	0
3	128GB	*1,*2	*9,*10	8	1	2	0	4	0
4	128GB	*1-*3	*9	8	1	2	0	4	0
5	160GB	*1-*3	*9,*10	10	1	2	0	4	0
6	160GB	*1-*4	*9	10	1	2	0	4	0
7	192GB	*1-*3	*9-*11	12	1	2	0	4	0
8	192GB	*1-*4	*9,*10	12	1	2	0	4	0
9	192GB	*1-*5	*9	12	1	2	0	4	0
10	224GB	*1-*4	*9-*11	14	1	2	0	4	0
11	224GB	*1-*5	*9,*10	14	1	2	0	4	0
12	224GB	*1-*6	*9	14	1	2	0	4	0
13	256GB	*1-*4	*9-*12	16	1	2	0	4	0
14	256GB	*1-*5	*9-*11	16	1	2	0	4	0
15	256GB	*1-*6	*9,*10	16	1	2	0	4	0
16	256GB	*1-*7	*9	16	1	2	0	4	0
17	288GB	*1-*5	*9-*12	18	1	2	0	4	0
18	288GB	*1-*6	*9-*11	18	1	2	0	4	0
19	288GB	*1-*7	*9,*10	18	1	2	0	4	0
20	288GB	*1-*8	*9	18	1	2	0	4	0
21	320GB	*1-*5	*9-*13	20	1	2	0	4	0
22	320GB	*1-*6	*9-*12	20	1	2	0	4	0
23	320GB	*1-*7	*9-*11	20	1	2	0	4	0
24	320GB	*1-*8	*9,*10	20	1	2	0	4	0
25	352GB	*1-*6	*9-*13	22	1	2	0	4	0
26	352GB	*1-*7	*9-*12	22	1	2	0	4	0
27	352GB	*1-*8	*9-*11	22	1	2	0	4	0
28	384GB	*1-*6	*9-*14	24	1	2	0	4	0
29	384GB	*1-*7	*9-*13	24	1	2	0	4	0
30	384GB	*1-*8	*9-*12	24	1	2	0	4	0
31	416GB	*1-*7	*9-*14	26	1	2	0	4	0
32	416GB	*1-*8	*9-*13	26	1	2	0	4	0
33	448GB	*1-*7	*9-*15	28	1	2	0	4	0
34	448GB	*1-*8	*9-*14	28	1	2	0	4	0
35	480GB	*1-*8	*9-*15	30	1	2	0	4	0
36	512GB	*1-*8	*9-*16	32	1	2	0	4	0

NOTE 1: The above numbers (*1 through *16) represent the CM Module locations shown in Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-27 or Fig. 4.3-28.

NOTE 2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

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Table 4.3-7 Cache memory capacity and number of necessary options ④

No.	Cache Memory Capacity	CM Location (NOTE 1)		Number of options					
		DKC810I-CBXA		DKC-F810I-					
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CM32G	CPEX	BKMS	BKML	BMM 128	BMM 256
1	128GB	*1	*9	4	1	2	0	4	0
2	192GB	*1,*2	*9	6	1	2	0	4	0
3	256GB	*1,*2	*9,*10	8	1	2	0	4	0
4	256GB	*1-*3	*9	8	1	2	0	4	0
5	320GB	*1-*3	*9,*10	10	1	2	0	4	0
6	320GB	*1-*4	*9	10	1	2	0	4	0
7	384GB	*1-*3	*9-*11	12	1	2	0	4	0
8	384GB	*1-*4	*9,*10	12	1	2	0	4	0
9	384GB	*1-*5	*9	12	1	1	1	2	2
10	448GB	*1-*4	*9-*11	14	1	2	0	4	0
11	448GB	*1-*5	*9,*10	14	1	1	1	2	2
12	448GB	*1-*6	*9	14	1	1	1	2	2
13	512GB	*1-*4	*9-*12	16	1	2	0	4	0
14	512GB	*1-*5	*9-*11	16	1	1	1	2	2
15	512GB	*1-*6	*9,*10	16	1	1	1	2	2
16	512GB	*1-*7	*9	16	1	1	1	2	2
17	576GB	*1-*5	*9-*12	18	1	1	1	2	2
18	576GB	*1-*6	*9-*11	18	1	1	1	2	2
19	576GB	*1-*7	*9,*10	18	1	1	1	2	2
20	576GB	*1-*8	*9	18	1	1	1	2	2
21	640GB	*1-*5	*9-*13	20	1	0	2	0	4
22	640GB	*1-*6	*9-*12	20	1	1	1	2	2
23	640GB	*1-*7	*9-*11	20	1	1	1	2	2
24	640GB	*1-*8	*9,*10	20	1	1	1	2	2
25	704GB	*1-*6	*9-*13	22	1	0	2	0	4
26	704GB	*1-*7	*9-*12	22	1	1	1	2	2
27	704GB	*1-*8	*9-*11	22	1	1	1	2	2
28	768GB	*1-*6	*9-*14	24	1	0	2	0	4
29	768GB	*1-*7	*9-*13	24	1	0	2	0	4
30	768GB	*1-*8	*9-*12	24	1	1	1	2	2
31	832GB	*1-*7	*9-*14	26	1	0	2	0	4
32	832GB	*1-*8	*9-*13	26	1	0	2	0	4
33	896GB	*1-*7	*9-*15	28	1	0	2	0	4
34	896GB	*1-*8	*9-*14	28	1	0	2	0	4
35	960GB	*1-*8	*9-*15	30	1	0	2	0	4
36	1024GB	*1-*8	*9-*16	32	1	0	2	0	4

NOTE 1: The above numbers (*1 through *16) represent the CM Module locations shown in Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-27 or Fig. 4.3-28.

NOTE 2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

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Table 4.3-8 Cache memory capacity and number of necessary options ⑤

No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
1	64	*1	—	*17	—	4	0	1	0	2	—	4	—
2	96	*1,*2	—	*17	—	6	0	1	0	2	—	4	—
3	128	*1	*9	*17	*25	8	2	1	1	4	—	8	—
4	128	*1,*2	—	*17,*18	—	8	0	1	0	2	—	4	—
5	128	*1-*3	—	*17	—	8	0	1	0	2	—	4	—
6	160	*1,*2	*9	*17	*25	10	2	1	1	4	—	8	—
7	160	*1-*3	—	*17,*18	—	10	0	1	0	2	—	4	—
8	160	*1-*4	—	*17	—	10	0	1	0	2	—	4	—
9	192	*1,*2	*9	*17,*18	*25	12	2	1	1	4	—	8	—
10	192	*1,*2	*9,*10	*17	*25	12	2	1	1	4	—	8	—
11	192	*1-*3	—	*17-*19	—	12	0	1	0	2	—	4	—
12	192	*1-*3	*9	*17	*25	12	2	1	1	4	—	8	—
13	192	*1-*4	—	*17,*18	—	12	0	1	0	2	—	4	—
14	192	*1-*5	—	*17	—	12	0	1	0	2	—	4	—
15	224	*1,*2	*9,*10	*17,*18	*25	14	2	1	1	4	—	8	—
16	224	*1-*3	*9,*10	*17	*25	14	2	1	1	4	—	8	—
17	224	*1-*4	*9	*17	*25	14	2	1	1	4	—	8	—
18	224	*1-*5	—	*17,*18	—	14	0	1	0	2	—	4	—
19	224	*1-*6	—	*17	—	14	0	1	0	2	—	4	—
20	256	*1,*2	*9,*10	*17,*18	*25,*26	16	2	1	1	4	—	8	—
21	256	*1-*3	*9	*17-*19	*25	16	2	1	1	4	—	8	—
22	256	*1-*3	*9,*10	*17,*18	*25	16	2	1	1	4	—	8	—
23	256	*1-*3	*9-*11	*17	*25	16	2	1	1	4	—	8	—
24	256	*1-*4	—	*17-*20	—	16	0	1	0	2	—	4	—
25	256	*1-*4	*9,*10	*17	*25	16	2	1	1	4	—	8	—
26	256	*1-*5	—	*17-*19	—	16	0	1	0	2	—	4	—
27	256	*1-*5	*9	*17	*25	16	2	1	1	4	—	8	—
28	256	*1-*6	—	*17,*18	—	16	0	1	0	2	—	4	—
29	256	*1-*7	—	*17	—	16	0	1	0	2	—	4	—
30	288	*1-*3	*9,*10	*17,*18	*25,*26	18	2	1	1	4	—	8	—
31	288	*1-*3	*9,*10	*17-*19	*25	18	2	1	1	4	—	8	—
32	288	*1-*3	*9-*11	*17,*18	*25	18	2	1	1	4	—	8	—
33	288	*1-*4	*9,*10	*17,*18	*25	18	2	1	1	4	—	8	—
34	288	*1-*4	*9-*11	*17	*25	18	2	1	1	4	—	8	—
35	288	*1-*5	—	*17-*20	—	18	0	1	0	2	—	4	—

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
36	288	*1-*5	*9,*10	*17	*25	18	2	1	1	4	—	8	—
37	288	*1-*6	—	*17-*19	—	18	0	1	0	2	—	4	—
38	288	*1-*6	*9	*17	*25	18	2	1	1	4	—	8	—
39	288	*1-*7	—	*17,*18	—	18	0	1	0	2	—	4	—
40	288	*1-*8	—	*17	—	18	0	1	0	2	—	4	—
41	320	*1-*3	*9,*10	*17-*19	*25,*26	20	2	1	1	4	—	8	—
42	320	*1-*3	*9-*11	*17,*18	*25,*26	20	2	1	1	4	—	8	—
43	320	*1-*3	*9-*11	*17-*19	*25	20	2	1	1	4	—	8	—
44	320	*1-*4	*9	*17-*20	*25	20	2	1	1	4	—	8	—
45	320	*1-*4	*9,*10	*17,*18	*25,*26	20	2	1	1	4	—	8	—
46	320	*1-*4	*9-*11	*17,*18	*25	20	2	1	1	4	—	8	—
47	320	*1-*4	*9-*12	*17	*25	20	2	1	1	4	—	8	—
48	320	*1-*5	—	*17-*21	—	20	0	1	0	2	—	4	—
49	320	*1-*5	*9,*10	*17,*18	*25	20	2	1	1	4	—	8	—
50	320	*1-*5	*9-*11	*17	*25	20	2	1	1	4	—	8	—
51	320	*1-*6	—	*17-*20	—	20	0	1	0	2	—	4	—
52	320	*1-*6	*9,*10	*17	*25	20	2	1	1	4	—	8	—
53	320	*1-*7	—	*17-*19	—	20	0	1	0	2	—	4	—
54	320	*1-*7	*9	*17	*25	20	2	1	1	4	—	8	—
55	320	*1-*8	—	*17,*18	—	20	0	1	0	2	—	4	—
56	352	*1-*3	*9-*11	*17-*19	*25,*26	22	2	1	1	4	—	8	—
57	352	*1-*4	*9,*10	*17-*20	*25	22	2	1	1	4	—	8	—
58	352	*1-*4	*9-*11	*17,*18	*25,*26	22	2	1	1	4	—	8	—
59	352	*1-*4	*9-*11	*17-*19	*25	22	2	1	1	4	—	8	—
60	352	*1-*4	*9-*12	*17,*18	*25	22	2	1	1	4	—	8	—
61	352	*1-*5	*9,*10	*17,*18	*25,*26	22	2	1	1	4	—	8	—
62	352	*1-*5	*9-*11	*17,*18	*25	22	2	1	1	4	—	8	—
63	352	*1-*5	*9-*12	*17	*25	22	2	1	1	4	—	8	—
64	352	*1-*6	—	*17-*21	—	22	0	1	0	2	—	4	—
65	352	*1-*6	*9,*10	*17,*18	*25	22	2	1	1	4	—	8	—
66	352	*1-*6	*9-*11	*17	*25	22	2	1	1	4	—	8	—
67	352	*1-*7	—	*17-*20	—	22	0	1	0	2	—	4	—
68	352	*1-*7	*9,*10	*17	*25	22	2	1	1	4	—	8	—
69	352	*1-*8	—	*17-*19	—	22	0	1	0	2	—	4	—
70	352	*1-*8	*9	*17	*25	22	2	1	1	4	—	8	—

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
71	384	*1-*3	*9-*11	*17-*19	*25-*27	24	2	1	1	4	—	8	—
72	384	*1-*4	*9,*10	*17-*20	*25,*26	24	2	1	1	4	—	8	—
73	384	*1-*4	*9-*11	*17-*19	*25,*26	24	2	1	1	4	—	8	—
74	384	*1-*4	*9-*11	*17-*20	*25	24	2	1	1	4	—	8	—
75	384	*1-*4	*9-*12	*17,*18	*25,*26	24	2	1	1	4	—	8	—
76	384	*1-*4	*9-*12	*17-*19	*25	24	2	1	1	4	—	8	—
77	384	*1-*5	32	*17-*21	*25	24	2	1	1	4	—	8	—
78	384	*1-*5	*9-*11	*17,*18	*25,*26	24	2	1	1	4	—	8	—
79	384	*1-*5	*9-*11	*17-*19	*25	24	2	1	1	4	—	8	—
80	384	*1-*5	*9-*12	*17,*18	*25	24	2	1	1	4	—	8	—
81	384	*1-*5	*9-*13	*17	*25	24	2	1	1	4	—	8	—
82	384	*1-*6	—	*17-*22	—	24	0	1	0	2	—	4	—
83	384	*1-*6	*9,*10	*17,*18	*25,*26	24	2	1	1	4	—	8	—
84	384	*1-*6	*9-*11	*17,*18	*25	24	2	1	1	4	—	8	—
85	384	*1-*6	*9-*12	*17	*25	24	2	1	1	4	—	8	—
86	384	*1-*7	—	*17-*21	—	24	0	1	0	2	—	4	—
87	384	*1-*7	*9,*10	*17,*18	*25	24	2	1	1	4	—	8	—
88	384	*1-*7	*9-*11	*17	*25	24	2	1	1	4	—	8	—
89	384	*1-*8	—	*17-*20	—	24	0	1	0	2	—	4	—
90	384	*1-*8	*9,*10	*17	*25	24	2	1	1	4	—	8	—
91	416	*1-*4	*9-*11	*17-*19	*25-*27	26	2	1	1	4	—	8	—
92	416	*1-*4	*9-*11	*17-*20	*25,*26	26	2	1	1	4	—	8	—
93	416	*1-*4	*9-*12	*17-*19	*25,*26	26	2	1	1	4	—	8	—
94	416	*1-*4	*9-*12	*17-*20	*25	26	2	1	1	4	—	8	—
95	416	*1-*5	*9,*10	*17-*21	*25	26	2	1	1	4	—	8	—
96	416	*1-*5	*9-*11	*17-*19	*25,*26	26	2	1	1	4	—	8	—
97	416	*1-*5	*9-*12	*17,*18	*25,*26	26	2	1	1	4	—	8	—
98	416	*1-*5	*9-*12	*17-*19	*25	26	2	1	1	4	—	8	—
99	416	*1-*5	*9-*13	*17,*18	*25	26	2	1	1	4	—	8	—
100	416	*1-*6	*9-*11	*17,*18	*25,*26	26	2	1	1	4	—	8	—
101	416	*1-*6	*9-*11	*17-*19	*25	26	2	1	1	4	—	8	—
102	416	*1-*6	*9-*12	*17,*18	*25	26	2	1	1	4	—	8	—
103	416	*1-*6	*9-*13	*17	*25	26	2	1	1	4	—	8	—
104	416	*1-*7	—	*17-*22	—	26	0	1	0	2	—	4	—
105	416	*1-*7	*9,*10	*17,*18	*25,*26	26	2	1	1	4	—	8	—

(To be continued)

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
106	416	*1-*7	*9-*11	*17,*18	*25	26	2	1	1	4	—	8	—
107	416	*1-*7	*9-*12	*17	*25	26	2	1	1	4	—	8	—
108	416	*1-*8	—	*17-*21	—	26	0	1	0	2	—	4	—
109	416	*1-*8	*9-*11	*17	*25	26	2	1	1	4	—	8	—
110	448	*1-*4	*9-*11	*17-*20	*25-*27	28	2	1	1	4	—	8	—
111	448	*1-*4	*9-*12	*17-*19	*25-*27	28	2	1	1	4	—	8	—
112	448	*1-*4	*9-*12	*17-*20	*25,*26	28	2	1	1	4	—	8	—
113	448	*1-*5	*9,*10	*17-*21	*25,*26	28	2	1	1	4	—	8	—
114	448	*1-*5	*9-*11	*17-*19	*25-*27	28	2	1	1	4	—	8	—
115	448	*1-*5	*9-*11	*17-*21	*25	28	2	1	1	4	—	8	—
116	448	*1-*5	*9-*12	*17-*19	*25,*26	28	2	1	1	4	—	8	—
117	448	*1-*5	*9-*12	*17-*20	*25	28	2	1	1	4	—	8	—
118	448	*1-*5	*9-*13	*17,*18	*25,*26	28	2	1	1	4	—	8	—
119	448	*1-*5	*9-*13	*17-*19	*25	28	2	1	1	4	—	8	—
120	448	*1-*6	*9	*17-*22	*25	28	2	1	1	4	—	8	—
121	448	*1-*6	*9-*11	*17-*19	*25,*26	28	2	1	1	4	—	8	—
122	448	*1-*6	*9-*12	*17,*18	*25,*26	28	2	1	1	4	—	8	—
123	448	*1-*6	*9-*12	*17-*19	*25	28	2	1	1	4	—	8	—
124	448	*1-*6	*9-*13	*17,*18	*25	28	2	1	1	4	—	8	—
125	448	*1-*6	*9-*14	*17	*25	28	2	1	1	4	—	8	—
126	448	*1-*7	—	224	—	28	0	1	0	2	—	4	—
127	448	*1-*7	*9-*11	*17,*18	*25,*26	28	2	1	1	4	—	8	—
128	448	*1-*7	*9-*11	*17-*19	*25	28	2	1	1	4	—	8	—
129	448	*1-*7	*9-*12	*17,*18	*25	28	2	1	1	4	—	8	—
130	448	*1-*7	*9-*13	*17	*25	28	2	1	1	4	—	8	—
131	448	*1-*8	—	*17-*22	—	28	0	1	0	2	—	4	—
132	448	*1-*8	*9-*12	*17	*25	28	2	1	1	4	—	8	—
133	480	*1-*4	*9-*12	*17-*20	*25-*27	30	2	1	1	4	—	8	—
134	480	*1-*5	*9-*11	*17-*21	*25,*26	30	2	1	1	4	—	8	—
135	480	*1-*5	*9-*12	*17-*19	*25-*27	30	2	1	1	4	—	8	—
136	480	*1-*5	*9-*12	*17-*20	*25,*26	30	2	1	1	4	—	8	—
137	480	*1-*5	*9-*12	*17-*21	*25	30	2	1	1	4	—	8	—
138	480	*1-*5	*9-*13	*17-*19	*25,*26	30	2	1	1	4	—	8	—
139	480	*1-*5	*9-*13	*17-*20	*25	30	2	1	1	4	—	8	—
140	480	*1-*6	*9,*10	*17-*22	*25	30	2	1	1	4	—	8	—

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
141	480	*1-*6	*9-*11	*17-*19	*25-*27	30	2	1	1	4	—	8	—
142	480	*1-*6	*9-*12	*17-*19	*25,*26	30	2	1	1	4	—	8	—
143	480	*1-*6	*9-*12	*17-*20	*25	30	2	1	1	4	—	8	—
144	480	*1-*6	*9-*13	*17,*18	*25,*26	30	2	1	1	4	—	8	—
145	480	*1-*6	*9-*13	*17-*19	*25	30	2	1	1	4	—	8	—
146	480	*1-*6	*9-*14	*17,*18	*25	30	2	1	1	4	—	8	—
147	480	*1-*7	*9-*11	*17-*19	*25,*26	30	2	1	1	4	—	8	—
148	480	*1-*7	*9-*12	*17,*18	*25,*26	30	2	1	1	4	—	8	—
149	480	*1-*7	*9-*12	*17-*19	*25	30	2	1	1	4	—	8	—
150	480	*1-*7	*9-*13	*17,*18	*25	30	2	1	1	4	—	8	—
151	480	*1-*8	—	*17-*23	—	30	0	1	0	2	—	4	—
152	480	*1-*8	*9-*13	*17	*25	30	2	1	1	4	—	8	—
153	512	*1-*4	*9-*12	*17-*20	128	32	2	1	1	4	—	8	—
154	512	*1-*5	*9-*11	*17-*21	*25-*27	32	2	1	1	4	—	8	—
155	512	*1-*5	*9-*12	*17-*20	*25-*27	32	2	1	1	4	—	8	—
156	512	*1-*5	*9-*12	*17-*21	*25,*26	32	2	1	1	4	—	8	—
157	512	*1-*5	*9-*13	*17-*19	*25-*27	32	2	1	1	4	—	8	—
158	512	*1-*5	*9-*13	*17-*20	*25,*26	32	2	1	1	4	—	8	—
159	512	*1-*5	*9-*13	*17-*21	*25	32	2	1	1	4	—	8	—
160	512	*1-*6	*9,*10	*17-*22	*25,*26	32	2	1	1	4	—	8	—
161	512	*1-*6	*9-*11	*17-*22	*25	32	2	1	1	4	—	8	—
162	512	*1-*6	*9-*12	*17-*19	*25-*27	32	2	1	1	4	—	8	—
163	512	*1-*6	*9-*12	*17-*20	*25,*26	32	2	1	1	4	—	8	—
164	512	*1-*6	*9-*13	*17-*19	*25,*26	32	2	1	1	4	—	8	—
165	512	*1-*6	*9-*13	*17-*20	*25	32	2	1	1	4	—	8	—
166	512	*1-*6	*9-*14	*17,*18	*25,*26	32	2	1	1	4	—	8	—
167	512	*1-*6	*9-*14	*17-*19	*25	32	2	1	1	4	—	8	—
168	512	*1-*7	*9	*17-*23	*25	32	2	1	1	4	—	8	—
169	512	*1-*7	*9-*11	*17-*19	*25-*27	32	2	1	1	4	—	8	—
170	512	*1-*7	*9-*12	*17-*19	*25,*26	32	2	1	1	4	—	8	—
171	512	*1-*7	*9-*12	*17-*20	*25	32	2	1	1	4	—	8	—
172	512	*1-*7	*9-*13	*17,*18	*25,*26	32	2	1	1	4	—	8	—
173	512	*1-*7	*9-*13	*17-*19	*25	32	2	1	1	4	—	8	—
174	512	*1-*7	*9-*15	*17	*25	32	2	1	1	4	—	8	—
175	512	*1-*8	—	*17-*24	—	32	0	1	0	2	—	4	—

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
176	512	*1-*8	*9-*14	*17	*25	32	2	1	1	4	—	8	—
177	544	*1-*5	*9-*12	*17-*20	*25-*28	34	2	1	1	4	—	8	—
178	544	*1-*5	*9-*12	*17-*21	*25-*27	34	2	1	1	4	—	8	—
179	544	*1-*5	*9-*13	*17-*20	*25-*27	34	2	1	1	4	—	8	—
180	544	*1-*5	*9-*13	*17-*21	*25,*26	34	2	1	1	4	—	8	—
181	544	*1-*6	*9-*11	*17-*22	*25,*26	34	2	1	1	4	—	8	—
182	544	*1-*6	*9-*12	*17-*20	*25-*27	34	2	1	1	4	—	8	—
183	544	*1-*6	*9-*12	*17-*22	*25	34	2	1	1	4	—	8	—
184	544	*1-*6	*9-*13	*17-*19	*25-*27	34	2	1	1	4	—	8	—
185	544	*1-*6	*9-*13	*17-*20	*25,*26	34	2	1	1	4	—	8	—
186	544	*1-*6	*9-*13	*17-*21	*25	34	2	1	1	4	—	8	—
187	544	*1-*6	*9-*14	*17-*19	*25,*26	34	2	1	1	4	—	8	—
188	544	*1-*6	*9-*14	*17-*20	*25	34	2	1	1	4	—	8	—
189	544	*1-*7	*9,*10	*17-*23	*25	34	2	1	1	4	—	8	—
190	544	*1-*7	*9-*12	*17-*19	*25-*27	34	2	1	1	4	—	8	—
191	544	*1-*7	*9-*12	*17-*20	*25,*26	34	2	1	1	4	—	8	—
192	544	*1-*7	*9-*13	*17-*19	*25,*26	34	2	1	1	4	—	8	—
193	544	*1-*7	*9-*13	*17-*20	*25	34	2	1	1	4	—	8	—
194	544	*1-*7	*9-*15	*17,*18	*25	34	2	1	1	4	—	8	—
195	544	*1-*8	*9-*15	*17	*25	34	2	1	1	4	—	8	—
196	576	*1-*5	*9-*12	*17-*21	*25-*28	36	2	1	1	4	—	8	—
197	576	*1-*5	*9-*13	*17-*20	*25-*28	36	2	1	1	4	—	8	—
198	576	*1-*5	*9-*13	*17-*21	*25-*27	36	2	1	1	4	—	8	—
199	576	*1-*6	*9-*11	*17-*22	*25-*27	36	2	1	1	4	—	8	—
200	576	*1-*6	*9-*12	*17-*20	*25-*28	36	2	1	1	4	—	8	—
201	576	*1-*6	*9-*12	*17-*22	*25,*26	36	2	1	1	4	—	8	—
202	576	*1-*6	*9-*13	*17-*20	*25-*27	36	2	1	1	4	—	8	—
203	576	*1-*6	*9-*13	*17-*21	*25,*26	36	2	1	1	4	—	8	—
204	576	*1-*6	*9-*13	*17-*22	*25	36	2	1	1	4	—	8	—
205	576	*1-*6	*9-*13	*17-*22	*25	36	2	1	1	4	—	8	—
206	576	*1-*6	*9-*14	*17-*19	*25-*27	36	2	1	1	4	—	8	—
207	576	*1-*6	*9-*14	*17-*20	*25,*26	36	2	1	1	4	—	8	—
208	576	*1-*6	*9-*14	*17-*21	*25	36	2	1	1	4	—	8	—
209	576	*1-*7	*9,*10	*17-*23	*25,*26	36	2	1	1	4	—	8	—
210	576	*1-*7	*9-*11	*17-*23	*25	36	2	1	1	4	—	8	—

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
211	576	*1-*7	*9-*12	*17-*20	*25-*27	36	2	1	1	4	—	8	—
212	576	*1-*7	*9-*13	*17-*19	*25-*27	36	2	1	1	4	—	8	—
213	576	*1-*7	*9-*13	*17-*20	*25,*26	36	2	1	1	4	—	8	—
214	576	*1-*7	*9-*13	*17-*21	*25	36	2	1	1	4	—	8	—
215	576	*1-*7	*9-*15	*17-*19	*25	36	2	1	1	4	—	8	—
216	576	*1-*8	*9	*17-*24	*25	36	2	1	1	4	—	8	—
217	576	*1-*8	*9-*16	*17	*25	36	2	1	1	4	—	8	—
218	608	*1-*5	*9-*13	*17-*21	*25-*28	38	2	1	1	4	—	8	—
219	608	*1-*6	*9-*12	*17-*22	*25-*27	38	2	1	1	4	—	8	—
220	608	*1-*6	*9-*13	*17-*20	*25-*28	38	2	1	1	4	—	8	—
221	608	*1-*6	*9-*13	*17-*21	*25-*27	38	2	1	1	4	—	8	—
222	608	*1-*6	*9-*13	*17-*22	*25,*26	38	2	1	1	4	—	8	—
223	608	*1-*6	*9-*14	*17-*20	*25-*27	38	2	1	1	4	—	8	—
224	608	*1-*6	*9-*14	*17-*21	*25,*26	38	2	1	1	4	—	8	—
225	608	*1-*6	*9-*14	*17-*22	*25	38	2	1	1	4	—	8	—
226	608	*1-*7	*9-*11	*17-*23	*25,*26	38	2	1	1	4	—	8	—
227	608	*1-*7	*9-*12	*17-*20	*25-*28	38	2	1	1	4	—	8	—
228	608	*1-*7	*9-*12	*17-*23	*25	38	2	1	1	4	—	8	—
229	608	*1-*7	*9-*13	*17-*20	*25-*27	38	2	1	1	4	—	8	—
230	608	*1-*7	*9-*13	*17-*21	*25,*26	38	2	1	1	4	—	8	—
231	608	*1-*7	*9-*15	*17-*19	*25,*26	38	2	1	1	4	—	8	—
232	608	*1-*7	*9-*15	*17-*20	*25	38	2	1	1	4	—	8	—
233	608	*1-*8	*9,*10	*17-*24	*25	38	2	1	1	4	—	8	—
234	608	*1-*8	*9-*16	*17,*18	*25	38	2	1	1	4	—	8	—
235	640	*1-*5	*9-*13	*17-*21	*25-*29	40	2	1	1	4	—	8	—
236	640	*1-*6	*9-*12	*17-*22	*25-*28	40	2	1	1	4	—	8	—
237	640	*1-*6	*9-*13	*17-*21	*25-*28	40	2	1	1	4	—	8	—
238	640	*1-*6	*9-*13	*17-*22	*25-*27	40	2	1	1	4	—	8	—
239	640	*1-*6	*9-*14	*17-*20	*25-*28	40	2	1	1	4	—	8	—
240	640	*1-*6	*9-*14	*17-*21	*25-*27	40	2	1	1	4	—	8	—
241	640	*1-*6	*9-*14	*17-*22	*25,*26	40	2	1	1	4	—	8	—
242	640	*1-*7	*9-*11	*17-*23	*25-*27	40	2	1	1	4	—	8	—
243	640	*1-*7	*9-*12	*17-*23	*25,*26	40	2	1	1	4	—	8	—
244	640	*1-*7	*9-*13	*17-*20	*25-*28	40	2	1	1	4	—	8	—
245	640	*1-*7	*9-*13	*17-*21	*25-*27	40	2	1	1	4	—	8	—

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
246	640	*1-*7	*9-*13	*17-*23	*25	40	2	1	1	4	—	8	—
247	640	*1-*7	*9-*14	*17-*22	*25	40	2	1	1	4	—	8	—
248	640	*1-*7	*9-*15	*17-*19	*25-*27	40	2	1	1	4	—	8	—
249	640	*1-*7	*9-*15	*17-*20	*25,*26	40	2	1	1	4	—	8	—
250	640	*1-*7	*9-*15	*17-*21	*25	40	2	1	1	4	—	8	—
251	640	*1-*8	*9,*10	*17-*24	*25,*26	40	2	1	1	4	—	8	—
252	640	*1-*8	*9-*11	*17-*24	*25	40	2	1	1	4	—	8	—
253	640	*1-*8	*9-*16	*17-*19	*25	40	2	1	1	4	—	8	—
254	672	*1-*6	*9-*13	*17-*21	*25-*29	42	2	1	1	4	—	8	—
255	672	*1-*6	*9-*13	*17-*22	*25-*28	42	2	1	1	4	—	8	—
256	672	*1-*6	*9-*14	*17-*21	*25-*28	42	2	1	1	4	—	8	—
257	672	*1-*6	*9-*14	*17-*22	*25-*27	42	2	1	1	4	—	8	—
258	672	*1-*7	*9-*12	*17-*23	*25-*27	42	2	1	1	4	—	8	—
259	672	*1-*7	*9-*13	*17-*21	*25-*28	42	2	1	1	4	—	8	—
260	672	*1-*7	*9-*13	*17-*23	*25,*26	42	2	1	1	4	—	8	—
261	672	*1-*7	*9-*14	*17-*22	*25,*26	42	2	1	1	4	—	8	—
262	672	*1-*7	*9-*14	*17-*23	*25	42	2	1	1	4	—	8	—
263	672	*1-*7	*9-*15	*17-*20	*25-*27	42	2	1	1	4	—	8	—
264	672	*1-*7	*9-*15	*17-*21	*25,*26	42	2	1	1	4	—	8	—
265	672	*1-*7	*9-*15	*17-*22	*25	42	2	1	1	4	—	8	—
266	672	*1-*8	*9-*11	*17-*24	*25,*26	42	2	1	1	4	—	8	—
267	672	*1-*8	*9-*12	*17-*24	*25	42	2	1	1	4	—	8	—
268	672	*1-*8	*9-*16	*17-*20	*25	42	2	1	1	4	—	8	—
269	704	*1-*6	*9-*13	*17-*22	*25-*29	44	2	1	1	4	—	8	—
270	704	*1-*6	*9-*14	*17-*21	*25-*29	44	2	1	1	4	—	8	—
271	704	*1-*6	*9-*14	*17-*22	*25-*28	44	2	1	1	4	—	8	—
272	704	*1-*7	*9-*12	*17-*23	*25-*28	44	2	1	1	4	—	8	—
273	704	*1-*7	*9-*13	*17-*21	*25-*29	44	2	1	1	4	—	8	—
274	704	*1-*7	*9-*13	*17-*23	*25-*27	44	2	1	1	4	—	8	—
275	704	*1-*7	*9-*14	*17-*22	*25-*27	44	2	1	1	4	—	8	—
276	704	*1-*7	*9-*14	*17-*23	*25,*26	44	2	1	1	4	—	8	—
277	704	*1-*7	*9-*15	*17-*20	*25-*28	44	2	1	1	4	—	8	—
278	704	*1-*7	*9-*15	*17-*21	*25-*27	44	2	1	1	4	—	8	—
279	704	*1-*7	*9-*15	*17-*22	*25,*26	44	2	1	1	4	—	8	—
280	704	*1-*7	*9-*15	*17-*23	*25	44	2	1	1	4	—	8	—

(To be continued)

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
281	704	*1-*8	*9-*11	*17-*24	*25-*27	44	2	1	1	4	—	8	—
282	704	*1-*8	*9-*12	*17-*24	*25,*26	44	2	1	1	4	—	8	—
283	704	*1-*8	*9-*13	*17-*24	*25	44	2	1	1	4	—	8	—
284	704	*1-*8	*9-*16	*17-*21	*25	44	2	1	1	4	—	8	—
285	736	*1-*6	*9-*14	*17-*22	*25-*29	46	2	1	1	4	—	8	—
286	736	*1-*7	*9-*13	*17-*23	*25-*28	46	2	1	1	4	—	8	—
287	736	*1-*7	*9-*14	*17-*22	*25-*28	46	2	1	1	4	—	8	—
288	736	*1-*7	*9-*14	*17-*23	*25-*27	46	2	1	1	4	—	8	—
289	736	*1-*7	*9-*15	*17-*21	*25-*28	46	2	1	1	4	—	8	—
290	736	*1-*7	*9-*15	*17-*22	*25-*27	46	2	1	1	4	—	8	—
291	736	*1-*7	*9-*15	*17-*23	*25,*26	46	2	1	1	4	—	8	—
292	736	*1-*8	*9-*12	*17-*24	*25-*27	46	2	1	1	4	—	8	—
293	736	*1-*8	*9-*13	*17-*24	*25,*26	46	2	1	1	4	—	8	—
294	736	*1-*8	*9-*14	*17-*24	*25	46	2	1	1	4	—	8	—
295	736	*1-*8	*9-*16	*17-*22	*25	46	2	1	1	4	—	8	—
296	768	*1-*6	*9-*14	*17-*22	*25-*30	48	2	1	1	4	—	8	—
297	768	*1-*7	*9-*13	*17-*23	*25-*29	48	2	1	1	4	—	8	—
298	768	*1-*7	*9-*14	*17-*22	*25-*29	48	2	1	1	4	—	8	—
299	768	*1-*7	*9-*14	*17-*23	*25-*28	48	2	1	1	4	—	8	—
300	768	*1-*7	*9-*15	*17-*21	*25-*29	48	2	1	1	4	—	8	—
301	768	*1-*7	*9-*15	*17-*22	*25-*28	48	2	1	1	4	—	8	—
302	768	*1-*7	*9-*15	*17-*23	*25-*27	48	2	1	1	4	—	8	—
303	768	*1-*8	*9-*12	*17-*24	*25-*28	48	2	1	1	4	—	8	—
304	768	*1-*8	*9-*13	*17-*24	*25-*27	48	2	1	1	4	—	8	—
305	768	*1-*8	*9-*14	*17-*24	*25,*26	48	2	1	1	4	—	8	—
306	768	*1-*8	*9-*15	*17-*24	*25	48	2	1	1	4	—	8	—
307	768	*1-*8	*9-*16	*17-*23	*25	48	2	1	1	4	—	8	—
308	800	*1-*7	*9-*14	*17-*22	*25-*30	50	2	1	1	4	—	8	—
309	800	*1-*7	*9-*14	*17-*23	*25-*29	50	2	1	1	4	—	8	—
310	800	*1-*7	*9-*15	*17-*22	*25-*29	50	2	1	1	4	—	8	—
311	800	*1-*7	*9-*15	*17-*23	*25-*28	50	2	1	1	4	—	8	—
312	800	*1-*8	*9-*13	*17-*24	*25-*28	50	2	1	1	4	—	8	—
313	800	*1-*8	*9-*14	*17-*24	*25-*27	50	2	1	1	4	—	8	—
314	800	*1-*8	*9-*15	*17-*24	*25,*26	50	2	1	1	4	—	8	—
315	800	*1-*8	*9-*16	*17-*24	*25	50	2	1	1	4	—	8	—

(To be continued)

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
316	832	*1-*7	*9-*14	*17-*23	*25-*30	52	2	1	1	4	—	8	—
317	832	*1-*7	*9-*15	*17-*22	*25-*30	52	2	1	1	4	—	8	—
318	832	*1-*7	*9-*15	*17-*23	*25-*29	52	2	1	1	4	—	8	—
319	832	*1-*8	*9-*13	*17-*24	*25-*29	52	2	1	1	4	—	8	—
320	832	*1-*8	*9-*14	*17-*24	*25-*28	52	2	1	1	4	—	8	—
321	832	*1-*8	*9-*15	*17-*24	*25-*27	52	2	1	1	4	—	8	—
322	832	*1-*8	*9-*16	*17-*24	*25,*26	52	2	1	1	4	—	8	—
323	864	*1-*7	*9-*15	*17-*23	*25-*30	54	2	1	1	4	—	8	—
324	864	*1-*8	*9-*14	*17-*24	*25-*29	54	2	1	1	4	—	8	—
325	864	*1-*8	*9-*15	*17-*24	*25-*28	54	2	1	1	4	—	8	—
326	864	*1-*8	*9-*16	*17-*24	*25-*27	54	2	1	1	4	—	8	—
327	896	*1-*7	*9-*15	*17-*23	*25-*31	56	2	1	1	4	—	8	—
328	896	*1-*8	*9-*14	*17-*24	*25-*30	56	2	1	1	4	—	8	—
329	896	*1-*8	*9-*15	*17-*24	*25-*29	56	2	1	1	4	—	8	—
330	896	*1-*8	*9-*16	*17-*24	*25-*28	56	2	1	1	4	—	8	—
331	928	*1-*8	*9-*15	*17-*24	*25-*30	58	2	1	1	4	—	8	—
332	928	*1-*8	*9-*16	*17-*24	*25-*29	58	2	1	1	4	—	8	—
333	960	*1-*8	*9-*15	*17-*24	*25-*31	60	2	1	1	4	—	8	—
334	960	*1-*8	*9-*16	*17-*24	*25-*30	60	2	1	1	4	—	8	—
335	992	*1-*8	*9-*16	*17-*24	*25-*31	62	2	1	1	4	—	8	—
336	1024	*1-*8	*9-*16	*17-*24	*25-*32	64	2	1	1	4	—	8	—

NOTE 1: The above numbers (*1 through *32) represent the CM Module locations shown in Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-27 or Fig. 4.3-28.

NOTE 2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

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Table 4.3-9 Cache memory capacity and number of necessary options ⑥

No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
1	128	*1	—	*17	—	4	0	1	0	2	0	4	0
2	192	*1,*2	—	*17	—	6	0	1	0	2	0	4	0
3	256	*1	*9	*17	*25	8	2	1	1	4	0	8	0
4	256	*1,*2	—	*17,*18	—	8	0	1	0	2	0	4	0
5	256	*1-*3	—	*17	—	8	0	1	0	2	0	4	0
6	320	*1,*2	*9	*17	*25	10	2	1	1	4	0	8	0
7	320	*1-*3	—	*17,*18	—	10	0	1	0	2	0	4	0
8	320	*1-*4	—	*17	—	10	0	1	0	2	0	4	0
9	384	*1,*2	*9	*17,*18	*25	12	2	1	1	4	0	8	0
10	384	*1,*2	*9,*10	*17	*25	12	2	1	1	4	0	8	0
11	384	*1-*3	—	*17-*19	—	12	0	1	0	2	0	4	0
12	384	*1-*3	*9	*17	*25	12	2	1	1	4	0	8	0
13	384	*1-*4	—	*17,*18	—	12	0	1	0	2	0	4	0
14	384	*1-*5	—	*17	—	12	0	1	0	1	1	2	2
15	448	*1,*2	*9,*10	*17,*18	*25	14	2	1	1	4	0	8	0
16	448	*1-*3	*9,*10	*17	*25	14	2	1	1	4	0	8	0
17	448	*1-*4	*9	*17	*25	14	2	1	1	4	0	8	0
18	448	*1-*5	—	*17,*18	—	14	0	1	0	1	1	2	2
19	448	*1-*6	—	*17	—	14	0	1	0	1	1	2	2
20	512	*1,*2	*9,*10	*17,*18	*25,*26	16	2	1	1	4	0	8	0
21	512	*1-*3	*9	*17-*19	*25	16	2	1	1	4	0	8	0
22	512	*1-*3	*9,*10	*17,*18	*25	16	2	1	1	4	0	8	0
23	512	*1-*3	*9-*11	*17	*25	16	2	1	1	4	0	8	0
24	512	*1-*4	—	*17-*20	—	16	0	1	0	2	0	4	0
25	512	*1-*4	*9,*10	*17	*25	16	2	1	1	4	0	8	0
26	512	*1-*5	—	*17-*19	—	16	0	1	0	1	1	2	2
27	512	*1-*5	*9	*17	*25	16	2	1	1	3	1	6	2
28	512	*1-*6	—	*17,*18	—	16	0	1	0	1	1	2	2
29	512	*1-*7	—	*17	—	16	0	1	0	1	1	2	2
30	576	*1-*3	*9,*10	*17,*18	*25,*26	18	2	1	1	4	0	8	0
31	576	*1-*3	*9,*10	*17-*19	*25	18	2	1	1	4	0	8	0
32	576	*1-*3	*9-*11	*17,*18	*25	18	2	1	1	4	0	8	0
33	576	*1-*4	*9,*10	*17,*18	*25	18	2	1	1	4	0	8	0
34	576	*1-*4	*9-*11	*17	*25	18	2	1	1	4	0	8	0
35	576	*1-*5	—	*17-*20	—	18	0	1	0	1	1	2	2

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
36	576	*1-*5	*9,*10	*17	*25	18	2	1	1	3	1	6	2
37	576	*1-*6	—	*17-*19	—	18	0	1	0	1	1	2	2
38	576	*1-*6	*9	*17	*25	18	2	1	1	3	1	6	2
39	576	*1-*7	—	*17,*18	—	18	0	1	0	1	1	2	2
40	576	*1-*8	—	*17	—	18	0	1	0	1	1	2	2
41	640	*1-*3	*9,*10	*17-*19	*25,*26	20	2	1	1	4	0	8	0
42	640	*1-*3	*9-*11	*17,*18	*25,*26	20	2	1	1	4	0	8	0
43	640	*1-*3	*9-*11	*17-*19	*25	20	2	1	1	4	0	8	0
44	640	*1-*4	*9	*17-*20	*25	20	2	1	1	4	0	8	0
45	640	*1-*4	*9,*10	*17,*18	*25,*26	20	2	1	1	4	0	8	0
46	640	*1-*4	*9-*11	*17,*18	*25	20	2	1	1	4	0	8	0
47	640	*1-*4	*9-*12	*17	*25	20	2	1	1	4	0	8	0
48	640	*1-*5	—	*17-*21	—	20	0	1	0	0	2	0	4
49	640	*1-*5	*9,*10	*17,*18	*25	20	2	1	1	3	1	6	2
50	640	*1-*5	*9-*11	*17	*25	20	2	1	1	3	1	6	2
51	640	*1-*6	—	*17-*20	—	20	0	1	0	1	1	2	2
52	640	*1-*6	*9,*10	*17	*25	20	2	1	1	3	1	6	2
53	640	*1-*7	—	*17-*19	—	20	0	1	0	1	1	2	2
54	640	*1-*7	*9	*17	*25	20	2	1	1	3	1	6	2
55	640	*1-*8	—	*17,*18	—	20	0	1	0	1	1	2	2
56	704	*1-*3	*9-*11	*17-*19	*25,*26	22	2	1	1	4	0	8	0
57	704	*1-*4	*9,*10	*17-*20	*25	22	2	1	1	4	0	8	0
58	704	*1-*4	*9-*11	*17,*18	*25,*26	22	2	1	1	4	0	8	0
59	704	*1-*4	*9-*11	*17-*19	*25	22	2	1	1	4	0	8	0
60	704	*1-*4	*9-*12	*17,*18	*25	22	2	1	1	4	0	8	0
61	704	*1-*5	*9,*10	*17,*18	*25,*26	22	2	1	1	3	1	6	2
62	704	*1-*5	*9-*11	*17,*18	*25	22	2	1	1	3	1	6	2
63	704	*1-*5	*9-*12	*17	*25	22	2	1	1	3	1	6	2
64	704	*1-*6	—	*17-*21	—	22	0	1	0	0	2	0	4
65	704	*1-*6	*9,*10	*17,*18	*25	22	2	1	1	3	1	6	2
66	704	*1-*6	*9-*11	*17	*25	22	2	1	1	3	1	6	2
67	704	*1-*7	—	*17-*20	—	22	0	1	0	1	1	2	2
68	704	*1-*7	*9,*10	*17	*25	22	2	1	1	3	1	6	2
69	704	*1-*8	—	*17-*19	—	22	0	1	0	1	1	2	2
70	704	*1-*8	*9	*17	*25	22	2	1	1	3	1	6	2

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
71	768	*1-*3	*9-*11	*17-*19	*25-*27	24	2	1	1	4	0	8	0
72	768	*1-*4	*9,*10	*17-*20	*25,*26	24	2	1	1	4	0	8	0
73	768	*1-*4	*9-*11	*17-*19	*25,*26	24	2	1	1	4	0	8	0
74	768	*1-*4	*9-*11	*17-*20	*25	24	2	1	1	4	0	8	0
75	768	*1-*4	*9-*12	*17,*18	*25,*26	24	2	1	1	4	0	8	0
76	768	*1-*4	*9-*12	*17-*19	*25	24	2	1	1	4	0	8	0
77	768	*1-*5	*9	*17-*21	*25	24	2	1	1	2	2	4	4
78	768	*1-*5	*9-*11	*17,*18	*25,*26	24	2	1	1	3	1	6	2
79	768	*1-*5	*9-*11	*17-*19	*25	24	2	1	1	3	1	6	2
80	768	*1-*5	*9-*12	*17,*18	*25	24	2	1	1	3	1	6	2
81	768	*1-*5	*9-*13	*17	*25	24	2	1	1	2	2	4	4
82	768	*1-*6	—	*17-*22	—	24	0	1	0	0	2	0	4
83	768	*1-*6	*9,*10	*17,*18	*25,*26	24	2	1	1	3	1	6	2
84	768	*1-*6	*9-*11	*17,*18	*25	24	2	1	1	3	1	6	2
85	768	*1-*6	*9-*12	*17	*25	24	2	1	1	3	1	6	2
86	768	*1-*7	—	*17-*21	—	24	0	1	0	0	2	0	4
87	768	*1-*7	*9,*10	*17,*18	*25	24	2	1	1	3	1	6	2
88	768	*1-*7	*9-*11	*17	*25	24	2	1	1	3	1	6	2
89	768	*1-*8	—	*17-*20	—	24	0	1	0	1	1	2	2
90	768	*1-*8	*9,*10	*17	*25	24	2	1	1	3	1	6	2
91	832	*1-*4	*9-*11	*17-*19	*25-*27	26	2	1	1	4	0	8	0
92	832	*1-*4	*9-*11	*17-*20	*25,*26	26	2	1	1	4	0	8	0
93	832	*1-*4	*9-*12	*17-*19	*25,*26	26	2	1	1	4	0	8	0
94	832	*1-*4	*9-*12	*17-*20	*25	26	2	1	1	4	0	8	0
95	832	*1-*5	*9,*10	*17-*21	*25	26	2	1	1	2	2	4	4
96	832	*1-*5	*9-*11	*17-*19	*25,*26	26	2	1	1	3	1	6	2
97	832	*1-*5	*9-*12	*17,*18	*25,*26	26	2	1	1	3	1	6	2
98	832	*1-*5	*9-*12	*17-*19	*25	26	2	1	1	3	1	6	2
99	832	*1-*5	*9-*13	*17,*18	*25	26	2	1	1	2	2	4	4
100	832	*1-*6	*9-*11	*17,*18	*25,*26	26	2	1	1	3	1	6	2
101	832	*1-*6	*9-*11	*17-*19	*25	26	2	1	1	3	1	6	2
102	832	*1-*6	*9-*12	*17,*18	*25	26	2	1	1	3	1	6	2
103	832	*1-*6	*9-*13	*17	*25	26	2	1	1	2	2	4	4
104	832	*1-*7	—	*17-*22	—	26	0	1	0	0	2	0	4
105	832	*1-*7	*9,*10	*17,*18	*25,*26	26	2	1	1	3	1	6	2

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
106	832	*1-*7	*9-*11	*17,*18	*25	26	2	1	1	3	1	6	2
107	832	*1-*7	*9-*12	*17	*25	26	2	1	1	3	1	6	2
108	832	*1-*8	—	*17-*21	—	26	0	1	0	0	2	0	4
109	832	*1-*8	*9-*11	*17	*25	26	2	1	1	3	1	6	2
110	896	*1-*4	*9-*11	*17-*20	*25-*27	28	2	1	1	4	0	8	0
111	896	*1-*4	*9-*12	*17-*19	*25-*27	28	2	1	1	4	0	8	0
112	896	*1-*4	*9-*12	*17-*20	*25,*26	28	2	1	1	4	0	8	0
113	896	*1-*5	*9,*10	*17-*21	*25,*26	28	2	1	1	2	2	4	4
114	896	*1-*5	*9-*11	*17-*19	*25-*27	28	2	1	1	3	1	6	2
115	896	*1-*5	*9-*11	*17-*21	*25	28	2	1	1	2	2	4	4
116	896	*1-*5	*9-*12	*17-*19	*25,*26	28	2	1	1	3	1	6	2
117	896	*1-*5	*9-*12	*17-*20	*25	28	2	1	1	3	1	6	2
118	896	*1-*5	*9-*13	*17,*18	*25,*26	28	2	1	1	2	2	4	4
119	896	*1-*5	*9-*13	*17-*19	*25	28	2	1	1	2	2	4	4
120	896	*1-*6	*9	*17-*22	*25	28	2	1	1	2	2	4	4
121	896	*1-*6	*9-*11	*17-*19	*25,*26	28	2	1	1	3	1	6	2
122	896	*1-*6	*9-*12	*17,*18	*25,*26	28	2	1	1	3	1	6	2
123	896	*1-*6	*9-*12	*17-*19	*25	28	2	1	1	3	1	6	2
124	896	*1-*6	*9-*13	*17,*18	*25	28	2	1	1	2	2	4	4
125	896	*1-*6	*9-*14	*17	*25	28	2	1	1	2	2	4	4
126	896	*1-*7	—	*17-*23	—	28	0	1	0	0	2	0	4
127	896	*1-*7	*9-*11	*17,*18	*25,*26	28	2	1	1	3	1	6	2
128	896	*1-*7	*9-*11	*17-*19	*25	28	2	1	1	3	1	6	2
129	896	*1-*7	*9-*12	*17,*18	*25	28	2	1	1	3	1	6	2
130	896	*1-*7	*9-*13	*17	*25	28	2	1	1	2	2	4	4
131	896	*1-*8	—	*17-*22	—	28	0	1	0	0	2	0	4
132	896	*1-*8	*9-*12	*17	*25	28	2	1	1	3	1	6	2
133	960	*1-*4	*9-*12	*17-*20	*25-*27	30	2	1	1	4	0	8	0
134	960	*1-*5	*9-*11	*17-*21	*25,*26	30	2	1	1	2	2	4	4
135	960	*1-*5	*9-*12	*17-*19	*25-*27	30	2	1	1	3	1	6	2
136	960	*1-*5	*9-*12	*17-*20	*25,*26	30	2	1	1	3	1	6	2
137	960	*1-*5	*9-*12	*17-*21	*25	30	2	1	1	2	2	4	4
138	960	*1-*5	*9-*13	*17-*19	*25,*26	30	2	1	1	2	2	4	4
139	960	*1-*5	*9-*13	*17-*20	*25	30	2	1	1	2	2	4	4
140	960	*1-*6	*9,*10	*17-*22	*25	30	2	1	1	2	2	4	4

(To be continued)

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
141	960	*1-*6	*9-*11	*17-*19	*25-*27	30	2	1	1	3	1	6	2
142	960	*1-*6	*9-*12	*17-*19	*25,*26	30	2	1	1	3	1	6	2
143	960	*1-*6	*9-*12	*17-*20	*25	30	2	1	1	3	1	6	2
144	960	*1-*6	*9-*13	*17,*18	*25,*26	30	2	1	1	2	2	4	4
145	960	*1-*6	*9-*13	*17-*19	*25	30	2	1	1	2	2	4	4
146	960	*1-*6	*9-*14	*17,*18	*25	30	2	1	1	2	2	4	4
147	960	*1-*7	*9-*11	*17-*19	*25,*26	30	2	1	1	3	1	6	2
148	960	*1-*7	*9-*12	*17,*18	*25,*26	30	2	1	1	3	1	6	2
149	960	*1-*7	*9-*12	*17-*19	*25	30	2	1	1	3	1	6	2
150	960	*1-*7	*9-*13	*17,*18	*25	30	2	1	1	2	2	4	4
151	960	*1-*8	—	*17-*23	—	30	0	1	0	0	2	0	4
152	960	*1-*8	*9-*13	*17	*25	30	2	1	1	2	2	4	4
153	1024	*1-*4	*9-*12	*17-*20	*25-*28	32	2	1	1	4	0	8	0
154	1024	*1-*5	*9-*11	*17-*21	*25-*27	32	2	1	1	2	2	4	4
155	1024	*1-*5	*9-*12	*17-*20	*25-*27	32	2	1	1	3	1	6	2
156	1024	*1-*5	*9-*12	*17-*21	*25,*26	32	2	1	1	2	2	4	4
157	1024	*1-*5	*9-*13	*17-*19	*25-*27	32	2	1	1	2	2	4	4
158	1024	*1-*5	*9-*13	*17-*20	*25,*26	32	2	1	1	2	2	4	4
159	1024	*1-*5	*9-*13	*17-*21	*25	32	2	1	1	1	3	2	6
160	1024	*1-*6	*9,*10	*17-*22	*25,*26	32	2	1	1	2	2	4	4
161	1024	*1-*6	*9-*11	*17-*22	*25	32	2	1	1	2	2	4	4
162	1024	*1-*6	*9-*12	*17-*19	*25-*27	32	2	1	1	3	1	6	2
163	1024	*1-*6	*9-*12	*17-*20	*25,*26	32	2	1	1	3	1	6	2
164	1024	*1-*6	*9-*13	*17-*19	*25,*26	32	2	1	1	2	2	4	4
165	1024	*1-*6	*9-*13	*17-*20	*25	32	2	1	1	2	2	4	4
166	1024	*1-*6	*9-*14	*17,*18	*25,*26	32	2	1	1	2	2	4	4
167	1024	*1-*6	*9-*14	*17-*19	*25	32	2	1	1	2	2	4	4
168	1024	*1-*7	*9	*17-*23	*25	32	2	1	1	2	2	4	4
169	1024	*1-*7	*9-*11	*17-*19	*25-*27	32	2	1	1	3	1	6	2
170	1024	*1-*7	*9-*12	*17-*19	*25,*26	32	2	1	1	3	1	6	2
171	1024	*1-*7	*9-*12	*17-*20	*25	32	2	1	1	3	1	6	2
172	1024	*1-*7	*9-*13	*17,*18	*25,*26	32	2	1	1	2	2	4	4
173	1024	*1-*7	*9-*13	*17-*19	*25	32	2	1	1	2	2	4	4
174	1024	*1-*7	*9-*15	*17	*25	32	2	1	1	2	2	4	4
175	1024	*1-*8	—	*17-*24	—	32	0	1	0	0	2	0	4

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
176	1024	*1-*8	*9-*14	*17	*25	32	2	1	1	2	2	4	4
177	1088	*1-*5	*9-*12	*17-*20	*25-*28	34	2	1	1	3	1	6	2
178	1088	*1-*5	*9-*12	*17-*21	*25-*27	34	2	1	1	2	2	4	4
179	1088	*1-*5	*9-*13	*17-*20	*25-*27	34	2	1	1	2	2	4	4
180	1088	*1-*5	*9-*13	*17-*21	*25,*26	34	2	1	1	1	3	2	6
181	1088	*1-*6	*9-*11	*17-*22	*25,*26	34	2	1	1	2	2	4	4
182	1088	*1-*6	*9-*12	*17-*20	*25-*27	34	2	1	1	3	1	6	2
183	1088	*1-*6	*9-*12	*17-*22	*25	34	2	1	1	2	2	4	4
184	1088	*1-*6	*9-*13	*17-*19	*25-*27	34	2	1	1	2	2	4	4
185	1088	*1-*6	*9-*13	*17-*20	*25,*26	34	2	1	1	2	2	4	4
186	1088	*1-*6	*9-*13	*17-*21	*25	34	2	1	1	1	3	2	6
187	1088	*1-*6	*9-*14	*17-*19	*25,*26	34	2	1	1	2	2	4	4
188	1088	*1-*6	*9-*14	*17-*20	*25	34	2	1	1	2	2	4	4
189	1088	*1-*7	*9,*10	*17-*23	*25	34	2	1	1	2	2	4	4
190	1088	*1-*7	*9-*12	*17-*19	*25-*27	34	2	1	1	3	1	6	2
191	1088	*1-*7	*9-*12	*17-*20	*25,*26	34	2	1	1	3	1	6	2
192	1088	*1-*7	*9-*13	*17-*19	*25,*26	34	2	1	1	2	2	4	4
193	1088	*1-*7	*9-*13	*17-*20	*25	34	2	1	1	2	2	4	4
194	1088	*1-*7	*9-*15	*17,*18	*25	34	2	1	1	2	2	4	4
195	1088	*1-*8	*9-*15	*17	*25	34	2	1	1	2	2	4	4
196	1152	*1-*5	*9-*12	*17-*21	*25-*28	36	2	1	1	2	2	4	4
197	1152	*1-*5	*9-*13	*17-*20	*25-*28	36	2	1	1	2	2	4	4
198	1152	*1-*5	*9-*13	*17-*21	*25-*27	36	2	1	1	1	3	2	6
199	1152	*1-*6	*9-*11	*17-*22	*25-*27	36	2	1	1	2	2	4	4
200	1152	*1-*6	*9-*12	*17-*20	*25-*28	36	2	1	1	3	1	6	2
201	1152	*1-*6	*9-*12	*17-*22	*25,*26	36	2	1	1	2	2	4	4
202	1152	*1-*6	*9-*13	*17-*20	*25-*27	36	2	1	1	2	2	4	4
203	1152	*1-*6	*9-*13	*17-*21	*25,*26	36	2	1	1	1	3	2	6
204	1152	*1-*6	*9-*13	*17-*22	*25	36	2	1	1	1	3	2	6
205	1152	*1-*6	*9-*13	*17-*22	*25	36	2	1	1	1	3	2	6
206	1152	*1-*6	*9-*14	*17-*19	*25-*27	36	2	1	1	2	2	4	4
207	1152	*1-*6	*9-*14	*17-*20	*25,*26	36	2	1	1	2	2	4	4
208	1152	*1-*6	*9-*14	*17-*21	*25	36	2	1	1	1	3	2	6
209	1152	*1-*7	*9,*10	*17-*23	*25,*26	36	2	1	1	2	2	4	4
210	1152	*1-*7	*9-*11	*17-*23	*25	36	2	1	1	2	2	4	4

(To be continued)

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
211	1152	*1-*7	*9-*12	*17-*20	*25-*27	36	2	1	1	3	1	6	2
212	1152	*1-*7	*9-*13	*17-*19	*25-*27	36	2	1	1	2	2	4	4
213	1152	*1-*7	*9-*13	*17-*20	*25,*26	36	2	1	1	2	2	4	4
214	1152	*1-*7	*9-*13	*17-*21	*25	36	2	1	1	1	3	2	6
215	1152	*1-*7	*9-*15	*17-*19	*25	36	2	1	1	2	2	4	4
216	1152	*1-*8	*9	*17-*24	*25	36	2	1	1	2	2	4	4
217	1152	*1-*8	*9-*16	*17	*25	36	2	1	1	2	2	4	4
218	1216	*1-*5	*9-*13	*17-*21	*25-*28	38	2	1	1	1	3	2	6
219	1216	*1-*6	*9-*12	*17-*22	*25-*27	38	2	1	1	2	2	4	4
220	1216	*1-*6	*9-*13	*17-*20	*25-*28	38	2	1	1	2	2	4	4
221	1216	*1-*6	*9-*13	*17-*21	*25-*27	38	2	1	1	1	3	2	6
222	1216	*1-*6	*9-*13	*17-*22	*25,*26	38	2	1	1	1	3	2	6
223	1216	*1-*6	*9-*14	*17-*20	*25-*27	38	2	1	1	2	2	4	4
224	1216	*1-*6	*9-*14	*17-*21	*25,*26	38	2	1	1	1	3	2	6
225	1216	*1-*6	*9-*14	*17-*22	*25	38	2	1	1	1	3	2	6
226	1216	*1-*7	*9-*11	*17-*23	*25,*26	38	2	1	1	2	2	4	4
227	1216	*1-*7	*9-*12	*17-*20	*25-*28	38	2	1	1	3	1	6	2
228	1216	*1-*7	*9-*12	*17-*23	*25	38	2	1	1	2	2	4	4
229	1216	*1-*7	*9-*13	*17-*20	*25-*27	38	2	1	1	2	2	4	4
230	1216	*1-*7	*9-*13	*17-*21	*25,*26	38	2	1	1	1	3	2	6
231	1216	*1-*7	*9-*15	*17-*19	*25,*26	38	2	1	1	2	2	4	4
232	1216	*1-*7	*9-*15	*17-*20	*25	38	2	1	1	2	2	4	4
233	1216	*1-*8	*9,*10	*17-*24	*25	38	2	1	1	2	2	4	4
234	1216	*1-*8	*9-*16	*17,*18	*25	38	2	1	1	2	2	4	4
235	1280	*1-*5	*9-*13	*17-*21	*25-*29	40	2	1	1	0	4	0	8
236	1280	*1-*6	*9-*12	*17-*22	*25-*28	40	2	1	1	2	2	4	4
237	1280	*1-*6	*9-*13	*17-*21	*25-*28	40	2	1	1	1	3	2	6
238	1280	*1-*6	*9-*13	*17-*22	*25-*27	40	2	1	1	1	3	2	6
239	1280	*1-*6	*9-*14	*17-*20	*25-*28	40	2	1	1	2	2	4	4
240	1280	*1-*6	*9-*14	*17-*21	*25-*27	40	2	1	1	1	3	2	6
241	1280	*1-*6	*9-*14	*17-*22	*25,*26	40	2	1	1	1	3	2	6
242	1280	*1-*7	*9-*11	*17-*23	*25-*27	40	2	1	1	2	2	4	4
243	1280	*1-*7	*9-*12	*17-*23	*25,*26	40	2	1	1	2	2	4	4
244	1280	*1-*7	*9-*13	*17-*20	*25-*28	40	2	1	1	2	2	4	4
245	1280	*1-*7	*9-*13	*17-*21	*25-*27	40	2	1	1	1	3	2	6

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
246	1280	*1-*7	*9-*13	*17-*23	*25	40	2	1	1	1	3	2	6
247	1280	*1-*7	*9-*14	*17-*22	*25	40	2	1	1	1	3	2	6
248	1280	*1-*7	*9-*15	*17-*19	*25-*27	40	2	1	1	2	2	4	4
249	1280	*1-*7	*9-*15	*17-*20	*25,*26	40	2	1	1	2	2	4	4
250	1280	*1-*7	*9-*15	*17-*21	*25	40	2	1	1	1	3	2	6
251	1280	*1-*8	*9,*10	*17-*24	*25,*26	40	2	1	1	2	2	4	4
252	1280	*1-*8	*9-*11	*17-*24	*25	40	2	1	1	2	2	4	4
253	1280	*1-*8	*9-*16	*17-*19	*25	40	2	1	1	2	2	4	4
254	1344	*1-*6	*9-*13	*17-*21	*25-*29	42	2	1	1	0	4	0	8
255	1344	*1-*6	*9-*13	*17-*22	*25-*28	42	2	1	1	1	3	2	6
256	1344	*1-*6	*9-*14	*17-*21	*25-*28	42	2	1	1	1	3	2	6
257	1344	*1-*6	*9-*14	*17-*22	*25-*27	42	2	1	1	1	3	2	6
258	1344	*1-*7	*9-*12	*17-*23	*25-*27	42	2	1	1	2	2	4	4
259	1344	*1-*7	*9-*13	*17-*21	*25-*28	42	2	1	1	1	3	2	6
260	1344	*1-*7	*9-*13	*17-*23	*25,*26	42	2	1	1	1	3	2	6
261	1344	*1-*7	*9-*14	*17-*22	*25,*26	42	2	1	1	1	3	2	6
262	1344	*1-*7	*9-*14	*17-*23	*25	42	2	1	1	1	3	2	6
263	1344	*1-*7	*9-*15	*17-*20	*25-*27	42	2	1	1	2	2	4	4
264	1344	*1-*7	*9-*15	*17-*21	*25,*26	42	2	1	1	1	3	2	6
265	1344	*1-*7	*9-*15	*17-*22	*25	42	2	1	1	1	3	2	6
266	1344	*1-*8	*9-*11	*17-*24	*25,*26	42	2	1	1	2	2	4	4
267	1344	*1-*8	*9-*12	*17-*24	*25	42	2	1	1	2	2	4	4
268	1344	*1-*8	*9-*16	*17-*20	*25	42	2	1	1	2	2	4	4
269	1408	*1-*6	*9-*13	*17-*22	*25-*29	44	2	1	1	0	4	0	8
270	1408	*1-*6	*9-*14	*17-*21	*25-*29	44	2	1	1	0	4	0	8
271	1408	*1-*6	*9-*14	*17-*22	*25-*28	44	2	1	1	1	3	2	6
272	1408	*1-*7	*9-*12	*17-*23	*25-*28	44	2	1	1	2	2	4	4
273	1408	*1-*7	*9-*13	*17-*21	*25-*29	44	2	1	1	0	4	0	8
274	1408	*1-*7	*9-*13	*17-*23	*25-*27	44	2	1	1	1	3	2	6
275	1408	*1-*7	*9-*14	*17-*22	*25-*27	44	2	1	1	1	3	2	6
276	1408	*1-*7	*9-*14	*17-*23	*25,*26	44	2	1	1	1	3	2	6
277	1408	*1-*7	*9-*15	*17-*20	*25-*28	44	2	1	1	2	2	4	4
278	1408	*1-*7	*9-*15	*17-*21	*25-*27	44	2	1	1	1	3	2	6
279	1408	*1-*7	*9-*15	*17-*22	*25,*26	44	2	1	1	1	3	2	6
280	1408	*1-*7	*9-*15	*17-*23	*25	44	2	1	1	1	3	2	6

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No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
281	1408	*1-*8	*9-*11	*17-*24	*25-*27	44	2	1	1	2	2	4	4
282	1408	*1-*8	*9-*12	*17-*24	*25,*26	44	2	1	1	2	2	4	4
283	1408	*1-*8	*9-*13	*17-*24	*25	44	2	1	1	1	3	2	6
284	1408	*1-*8	*9-*16	*17-*21	*25	44	2	1	1	1	3	2	6
285	1472	*1-*6	*9-*14	*17-*22	*25-*29	46	2	1	1	0	4	0	8
286	1472	*1-*7	*9-*13	*17-*23	*25-*28	46	2	1	1	1	3	2	6
287	1472	*1-*7	*9-*14	*17-*22	*25-*28	46	2	1	1	1	3	2	6
288	1472	*1-*7	*9-*14	*17-*23	*25-*27	46	2	1	1	1	3	2	6
289	1472	*1-*7	*9-*15	*17-*21	*25-*28	46	2	1	1	1	3	2	6
290	1472	*1-*7	*9-*15	*17-*22	*25-*27	46	2	1	1	1	3	2	6
291	1472	*1-*7	*9-*15	*17-*23	*25,*26	46	2	1	1	1	3	2	6
292	1472	*1-*8	*9-*12	*17-*24	*25-*27	46	2	1	1	2	2	4	4
293	1472	*1-*8	*9-*13	*17-*24	*25,*26	46	2	1	1	1	3	2	6
294	1472	*1-*8	*9-*14	*17-*24	*25	46	2	1	1	1	3	2	6
295	1472	*1-*8	*9-*16	*17-*22	*25	46	2	1	1	1	3	2	6
296	1536	*1-*6	*9-*14	*17-*22	*25-*30	48	2	1	1	0	4	0	8
297	1536	*1-*7	*9-*13	*17-*23	*25-*29	48	2	1	1	0	4	0	8
298	1536	*1-*7	*9-*14	*17-*22	*25-*29	48	2	1	1	0	4	0	8
299	1536	*1-*7	*9-*14	*17-*23	*25-*28	48	2	1	1	1	3	2	6
300	1536	*1-*7	*9-*15	*17-*21	*25-*29	48	2	1	1	0	4	0	8
301	1536	*1-*7	*9-*15	*17-*22	*25-*28	48	2	1	1	1	3	2	6
302	1536	*1-*7	*9-*15	*17-*23	*25-*27	48	2	1	1	1	3	2	6
303	1536	*1-*8	*9-*12	*17-*24	*25-*28	48	2	1	1	2	2	4	4
304	1536	*1-*8	*9-*13	*17-*24	*25-*27	48	2	1	1	1	3	2	6
305	1536	*1-*8	*9-*14	*17-*24	*25,*26	48	2	1	1	1	3	2	6
306	1536	*1-*8	*9-*15	*17-*24	*25	48	2	1	1	1	3	2	6
307	1536	*1-*8	*9-*16	*17-*23	*25	48	2	1	1	1	3	2	6
308	1600	*1-*7	*9-*14	*17-*22	*25-*30	50	2	1	1	0	4	0	8
309	1600	*1-*7	*9-*14	*17-*23	*25-*29	50	2	1	1	0	4	0	8
310	1600	*1-*7	*9-*15	*17-*22	*25-*29	50	2	1	1	0	4	0	8
311	1600	*1-*7	*9-*15	*17-*23	*25-*28	50	2	1	1	1	3	2	6
312	1600	*1-*8	*9-*13	*17-*24	*25-*28	50	2	1	1	1	3	2	6
313	1600	*1-*8	*9-*14	*17-*24	*25-*27	50	2	1	1	1	3	2	6
314	1600	*1-*8	*9-*15	*17-*24	*25,*26	50	2	1	1	1	3	2	6
315	1600	*1-*8	*9-*16	*17-*24	*25	50	2	1	1	1	3	2	6

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	CM Location (NOTE 1)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-							
		CPEX-0 1CA/2CA	CPEX-1 1CB/2CB	CPEX-2 1CC/2CC	CPEX-3 1CD/2CD	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
316	1664	*1-*7	*9-*14	*17-*23	*25-*30	52	2	1	1	0	4	0	8
317	1664	*1-*7	*9-*15	*17-*22	*25-*30	52	2	1	1	0	4	0	8
318	1664	*1-*7	*9-*15	*17-*23	*25-*29	52	2	1	1	0	4	0	8
319	1664	*1-*8	*9-*13	*17-*24	*25-*29	52	2	1	1	0	4	0	8
320	1664	*1-*8	*9-*14	*17-*24	*25-*28	52	2	1	1	1	3	2	6
321	1664	*1-*8	*9-*15	*17-*24	*25-*27	52	2	1	1	1	3	2	6
322	1664	*1-*8	*9-*16	*17-*24	*25,*26	52	2	1	1	1	3	2	6
323	1728	*1-*7	*9-*15	*17-*23	*25-*30	54	2	1	1	0	4	0	8
324	1728	*1-*8	*9-*14	*17-*24	*25-*29	54	2	1	1	0	4	0	8
325	1728	*1-*8	*9-*15	*17-*24	*25-*28	54	2	1	1	1	3	2	6
326	1728	*1-*8	*9-*16	*17-*24	*25-*27	54	2	1	1	1	3	2	6
327	1792	*1-*7	*9-*15	*17-*23	*25-*31	56	2	1	1	0	4	0	8
328	1792	*1-*8	*9-*14	*17-*24	*25-*30	56	2	1	1	0	4	0	8
329	1792	*1-*8	*9-*15	*17-*24	*25-*29	56	2	1	1	0	4	0	8
330	1792	*1-*8	*9-*16	*17-*24	*25-*28	56	2	1	1	1	3	2	6
331	1856	*1-*8	*9-*15	*17-*24	*25-*30	58	2	1	1	0	4	0	8
332	1856	*1-*8	*9-*16	*17-*24	*25-*29	58	2	1	1	0	4	0	8
333	1920	*1-*8	*9-*15	*17-*24	*25-*31	60	2	1	1	0	4	0	8
334	1920	*1-*8	*9-*16	*17-*24	*25-*30	60	2	1	1	0	4	0	8
335	1984	*1-*8	*9-*16	*17-*24	*25-*31	62	2	1	1	0	4	0	8
336	2048	*1-*8	*9-*16	*17-*24	*25-*32	64	2	1	1	0	4	0	8

NOTE 1: The above numbers (*1 through *32) represent the CM Module locations shown in Fig. 4.3-4, Fig. 4.3-5, Fig. 4.3-27 or Fig. 4.3-28.

NOTE 2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

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4-3 Insert the PCB.

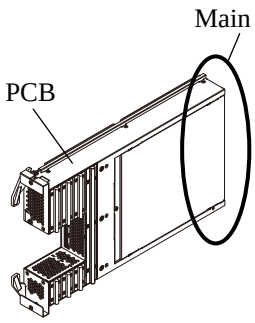
a. When you need to remove Additional Cache Path Control Adapter (DKC-F810I-CPEX), attach the dummy plate and fasten the screws.
When you do not need to remove Additional Cache Path Control Adapter (DKC-F810I-CPEX), go to Step b.

NOTICE: Remove the dummy plate just before installing the PCB.
If the dummy plate is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

b. Install the CM PCB and tighten the two screws.

NOTE: When inserting the CM PCB, be careful not to get cables caught on anything.

c. If the cables were disconnected in Step 4-1 b, connect the cables to the CM PCB after checking "3.1.7 Notes when connecting and disconnecting MFC cable" (INST03-01-190).



NOTICE:
- Check that the main edge connector of the PCB has no deformation, damage or sticking of dust before installing the PCB. (See INST03-01-80)
- When installing the PCB, hold the top and bottom of the PCB with both hands, and insert it straight not to contact the neighboring PCB.

Table 4.3-10 Location of the Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
1	DKC-0	1CA	CACHE-1CA	
		1CB	CACHE-1CB	
	DKC-1	1CC	CACHE-1CC	
		1CDP	CACHE-1CD	

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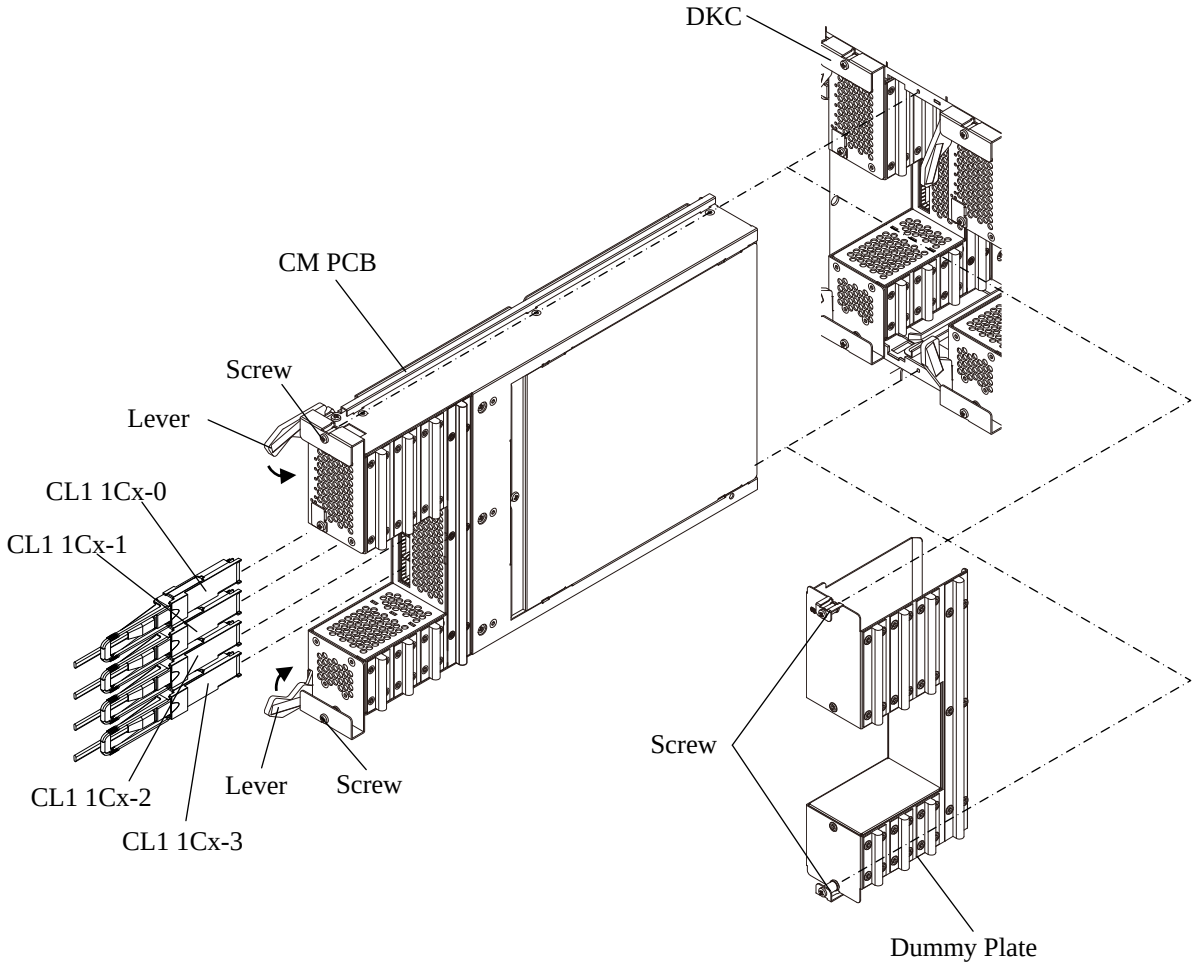


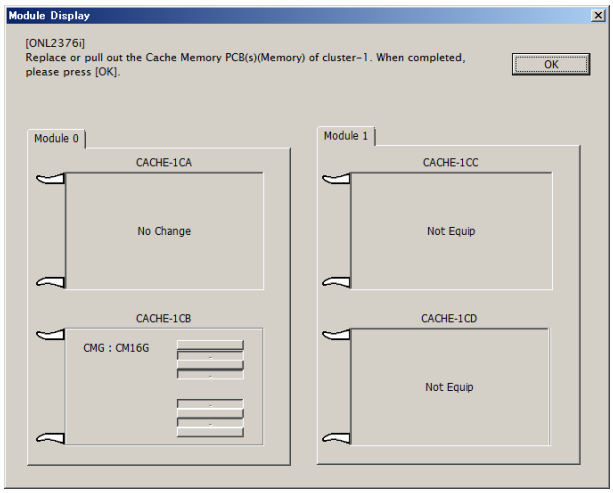
Fig. 4.3-7 Attachment of the Dummy Plate

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5. SVP Post-Procedure on the cluster 1.

5-1

After completing the hardware removal procedure of the cache memory on the cluster 1, select (CL) [OK] in response to “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-1. When completed, please press OK.”.



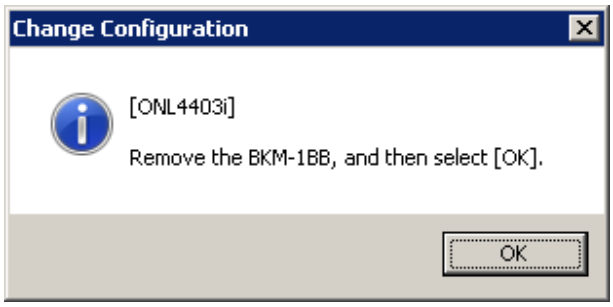
5-2 Backup Module procedure

Perform an appropriate Backup Module process depending on cache capacity.
When removal is required, go to Step 5-3.
When replacement is required, go to Step 5-4.
When removal/replacement are required, go to Step 6.

5-3 Remove Backup Module (Cluster 1)

(1) <Confirmation of Backup Module removal>

A message, “Remove the BKM-nnn, and then select [OK].” is displayed.



(Eg. BKM-1BB)

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(2) Remove the BKM on the cluster 1.
(2)-1 Loosen the three screws ① on the front side of the DKC and remove the cable cover.
(2)-2 Loosen the screw ② and remove the accessory box.
(2)-3 Remove the two dummy plates from the accessory box.
(2)-4 Put the accessory box in place and fix it with the screw ②.
(2)-5 Put the cable cover in place and fix it with the three screws ①.

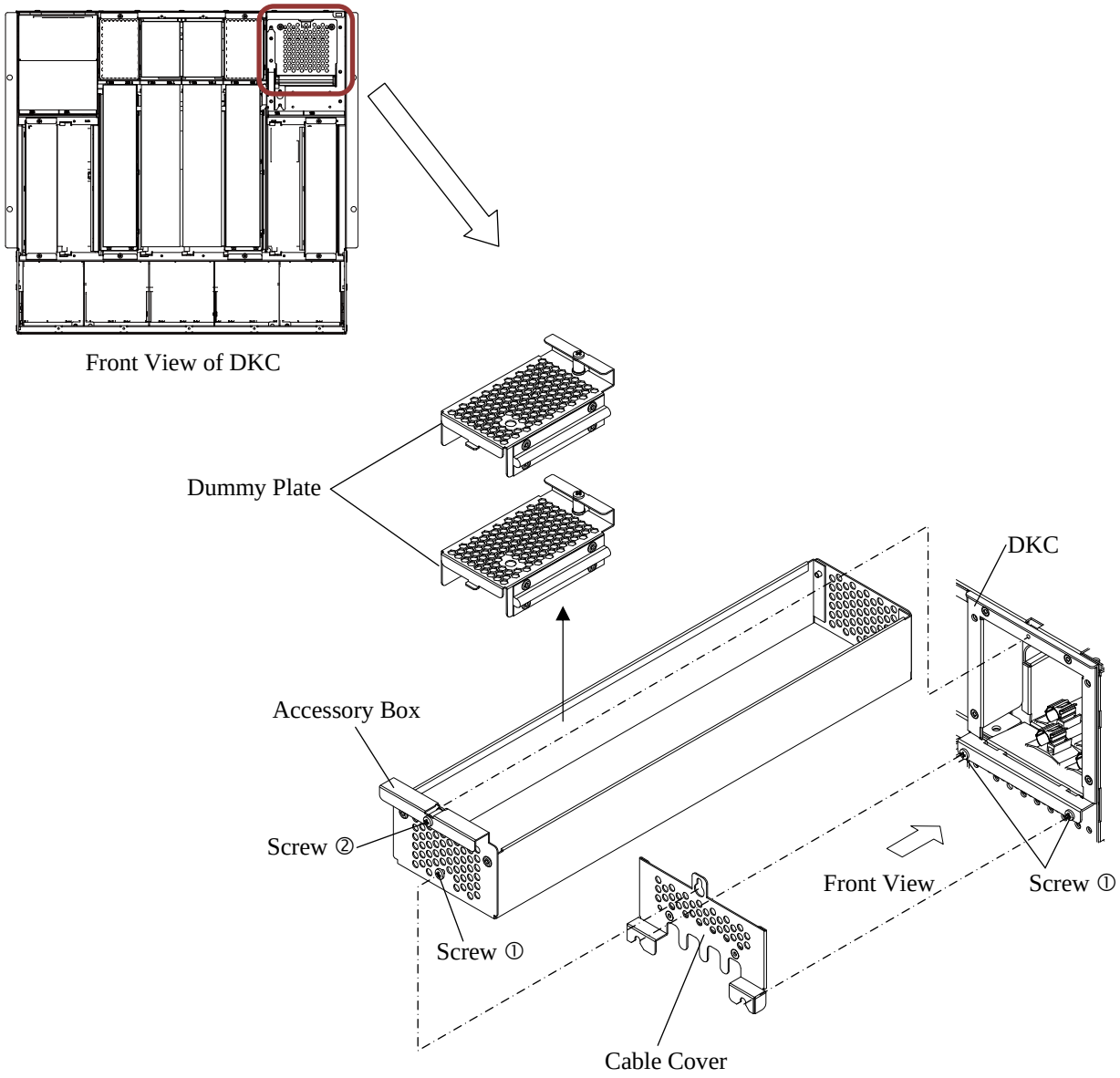
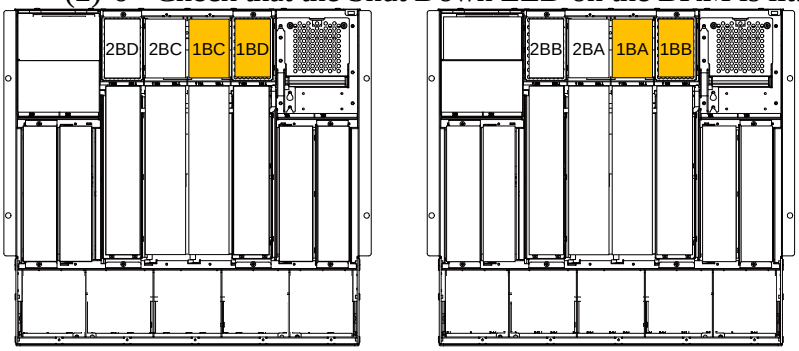


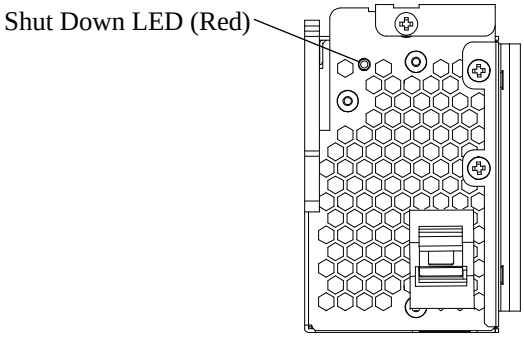
Fig. 4.3-8 Removal of Dummy Plates

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(2)-6 Check that the Shut Down LED on the BKM is lit.



Front View of DKC-1 Front View of DKC-0



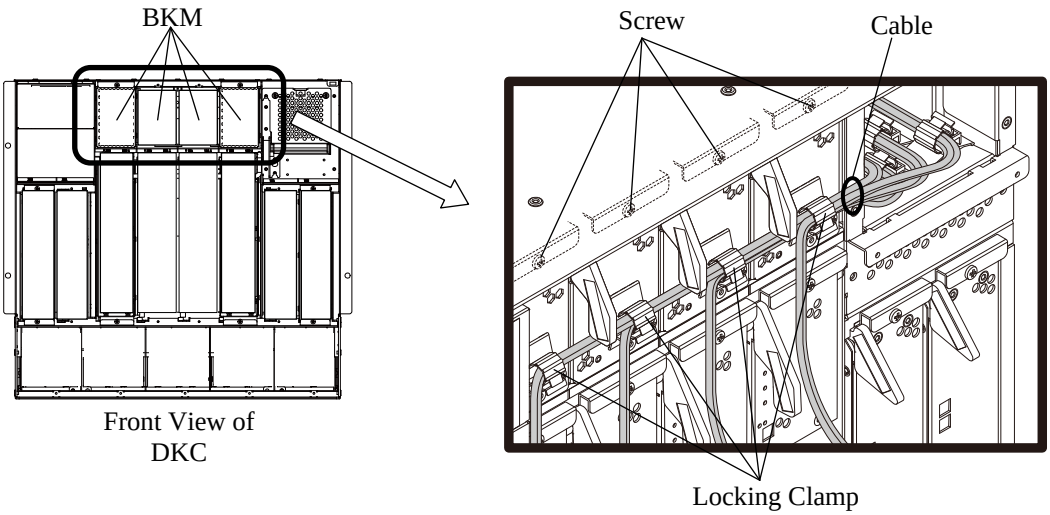
Front View of BKM

Fig. 4.3-9 Location of Shut Down LED

(2)-7 If the cables are attached to the BKMs, check that the screws to secure the BKMs are tightened.
If the cables are not attached to the BKMs, go to Step (2)-9.

NOTE: If the screw is loose, the BKM may be extracted when the cables or the locking clamp is moved.

(2)-8 Open the four locking clamps and move all the cables to where they cannot obstruct removal of the BKM.

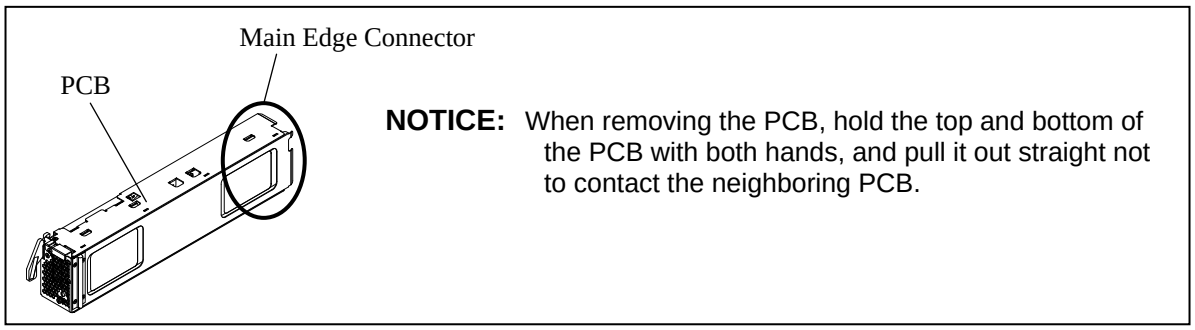


Front View of DKC

Fig. 4.3-10 Moving Cables

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(2)-9 Loosen the screw and remove the BKM from the DKC.
(2)-10 Attach the dummy plate to the DKC and tighten the screw.
(2)-11 If the cables were moved aside in Step (2)-8, put them back in place.



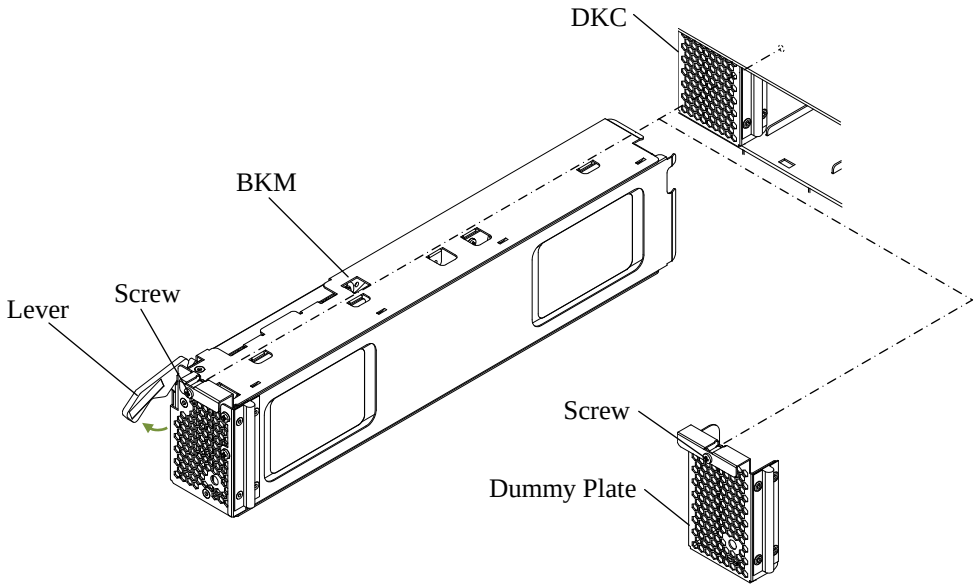


Fig. 4.3-11 Removal of BKM

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(2)-12 Remove the screw of the BKM and remove the cover.

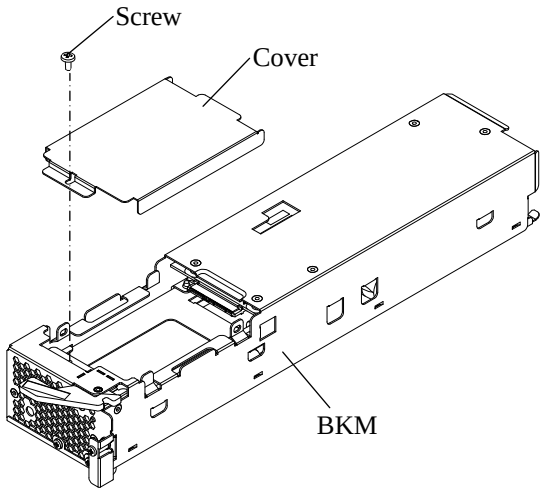


Fig. 4.3-12 Removal of Cover

(2)-13 Remove the two screws and remove the CFM from the BKM.
(2)-14 Attach the cover to the BKM and tighten it with the screw.

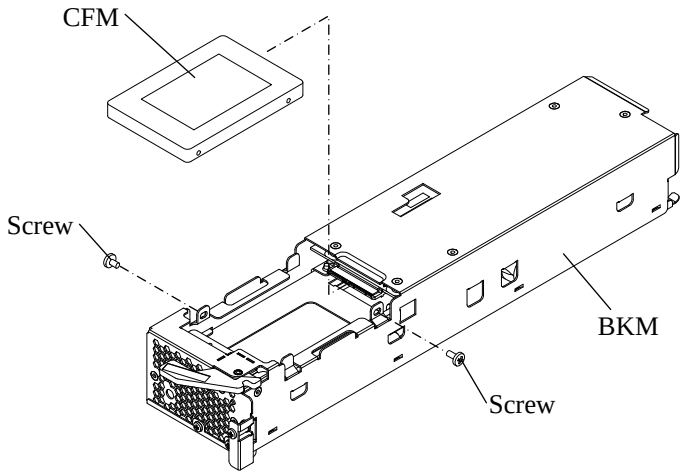
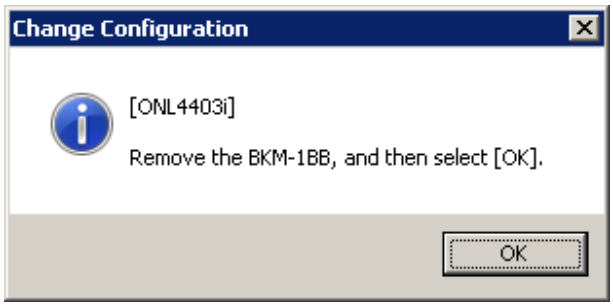


Fig. 4.3-13 Removal of CFM

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(3)

When a message, “Remove the BKM-nnn, and then select [OK].” is displayed, select (CL) the [OK] button.

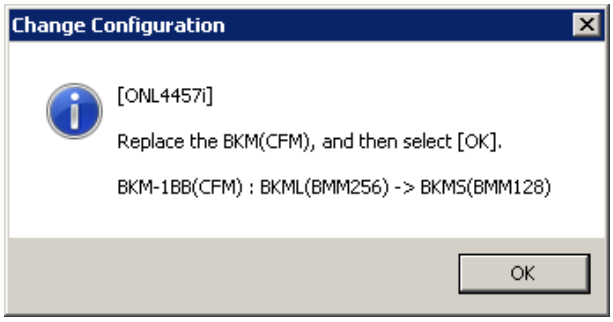


(Eg. BKM-1BB)

5-4 Replace Backup Module (Cluster 2)

(1) <Confirmation of Backup Module replacement>

A message, “Replace the BKM(CFM), and then select [OK]. BKM-nnn(CFM) : BKML(BMM256) -> BKMS(BMM128)” is displayed.



(Eg. BKM-1BB)

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(2) Replace the BKM on the cluster 1.

(2)-1 Check that the Shut Down LED on the BKM is lit.

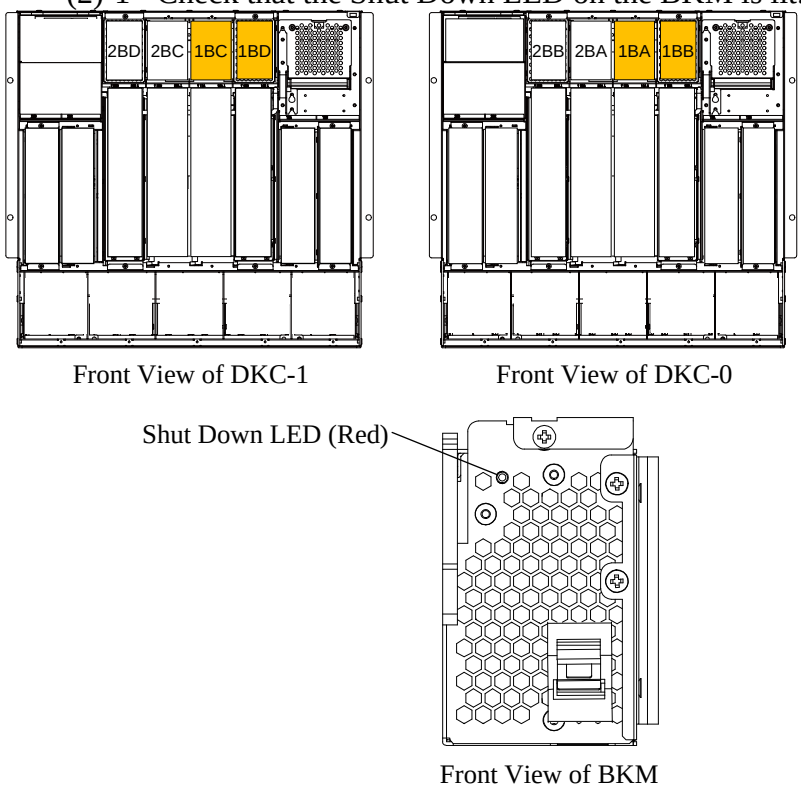


Fig. 4.3-14 Location of Shut Down LED

(2)-2 If the cables are attached to the BKMs, check that the screws to secure the BKMs are tightened.
If the cables are not attached to the BKMs, go to Step (2)-4.

NOTE: If the screw is loose, the BKM may be extracted when the cables or the locking clamp is moved.

(2)-3 Open the four locking clamps and move all the cables to where they cannot obstruct removal of the BKM.

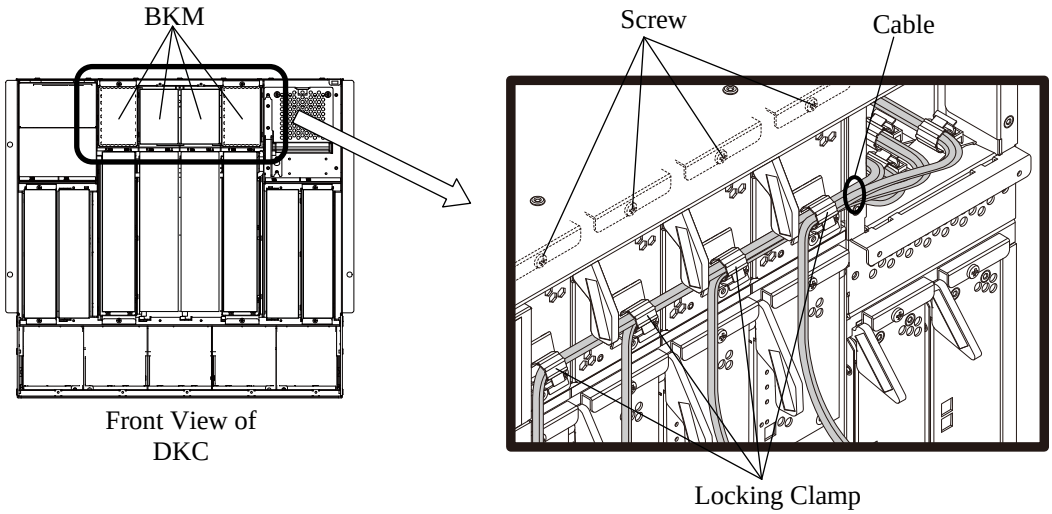
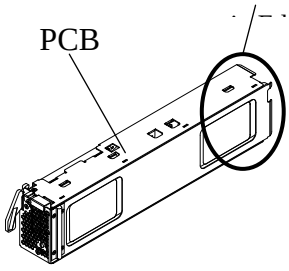


Fig. 4.3-15 Moving Cables

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(2)-4 Loosen the screw and remove the BKM from the DKC.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.

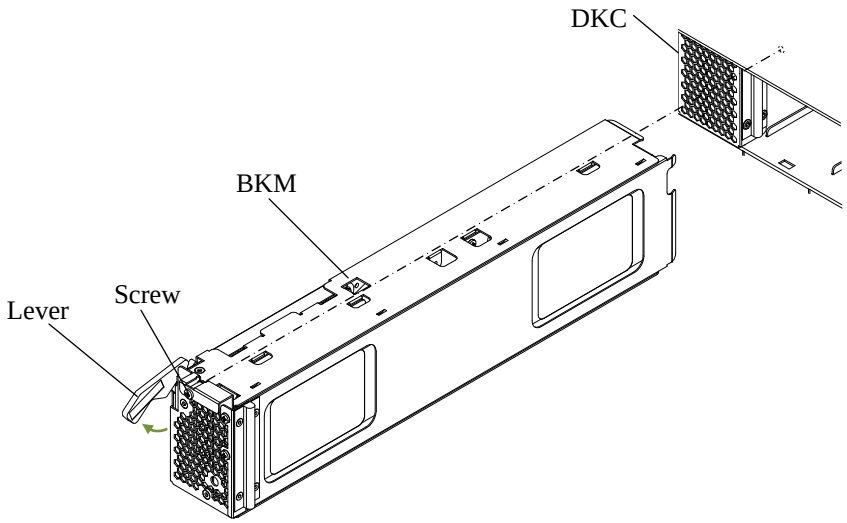


Fig. 4.3-16 Removal of BKM

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(2)-5 Replace the parts.

(2)-5-1 When you need to remove Cache Backup Module Kit (DKC-F810I-BKML) and Cache Flash Memory (DKC-F810I-BMM256) at the same time, replace the BKM and CFM. When you do not need to remove DKC-F810I-BKML and DKC-F810I-BMM256 at the same time, go to the Step (2)-5-2.

a. Remove the screw of the replacement BKM and remove the cover.

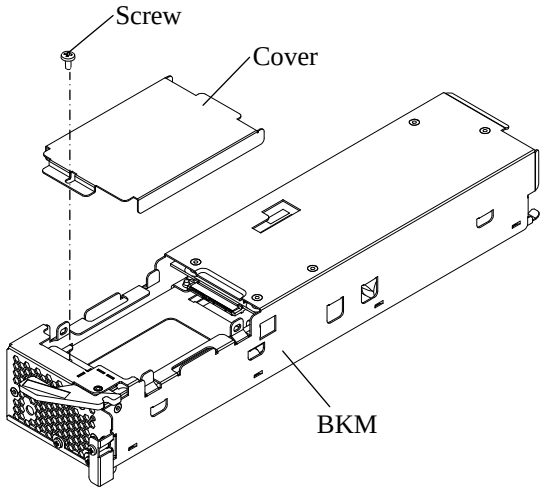


Fig. 4.3-17 Removal of Cover

b. Install the replacement CFM to the BKM and tighten it with the two screws.
c. Attach the cover to the BKM and tighten it with the screw.

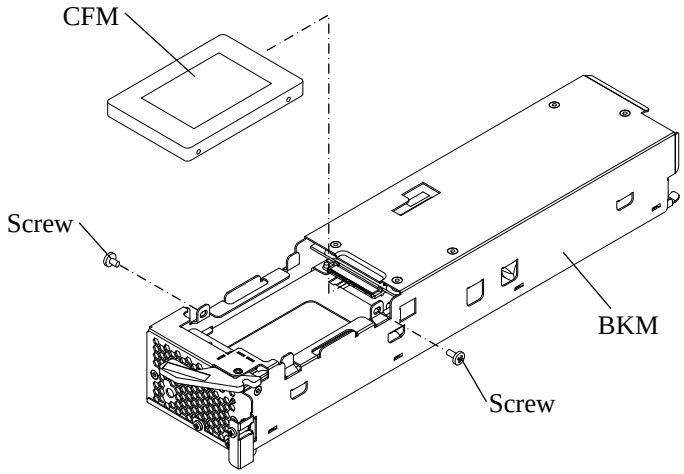


Fig. 4.3-18 Attachment of CFM

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(2)-5-2 When you need to remove only Cache Backup Module Kit (DKC-F810I-BKML), replace the BKM.
When you do not need to remove only DKC-F810I-BKML, go to the Step (2)-5-3.

a. Remove the screw of the replacement BKM and remove the cover.

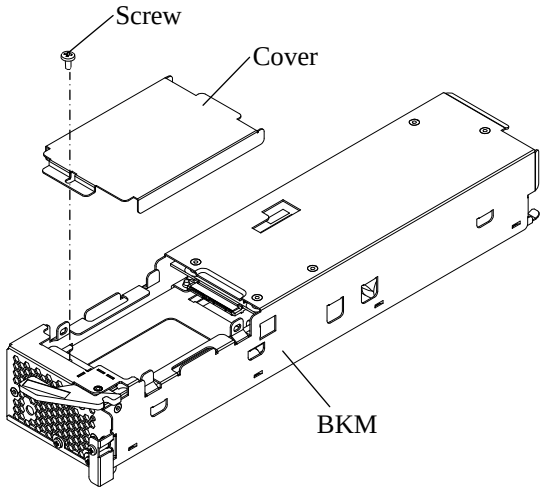


Fig. 4.3-19 Removal of Cover

b. Remove the two screws and detach the CFM.
c. Remove the screw of the replacement BKM and remove the cover.
d. Install the CFM to the replacement BKM and tighten it with the two screws.
e. Attach the cover to the BKM and tighten it with the screw.

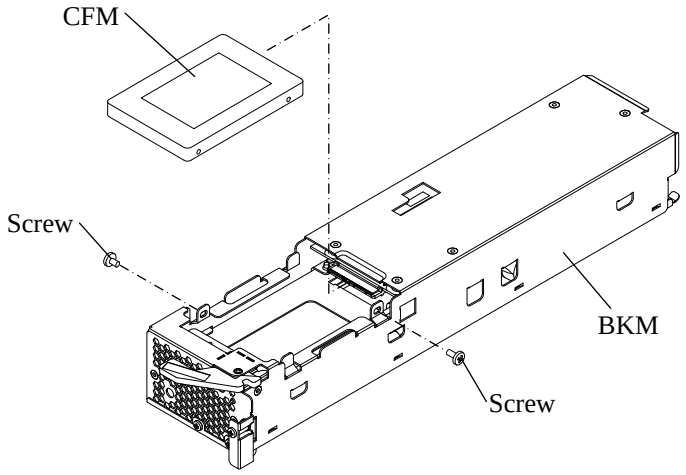


Fig. 4.3-20 Movement of CFM

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(2)-5-3 When you need to remove only Cache Flash Memory (DKC-F810I-BMM256), replace the CFM.
When you do not need to remove only DKC-F810I-BMM256, go to the Step (2)-6.

a. Remove the screw of the replacement BKM and remove the cover.

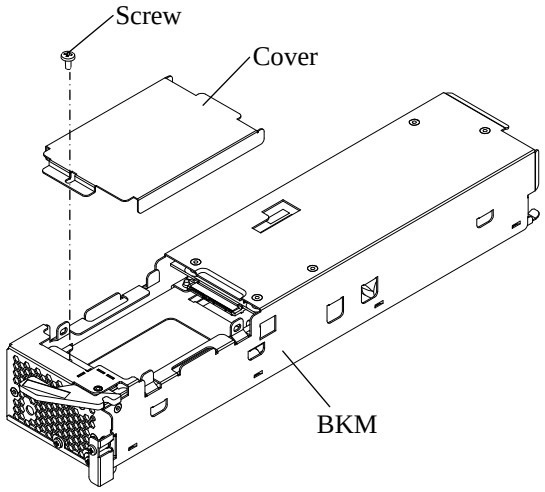


Fig. 4.3-21 Removal of Cover

b. Remove the two screws and detach the CFM.
c. Install the replacement CFM to the BKM and tighten it with the two screws.
d. Attach the cover to the BKM and tighten it with the screw.

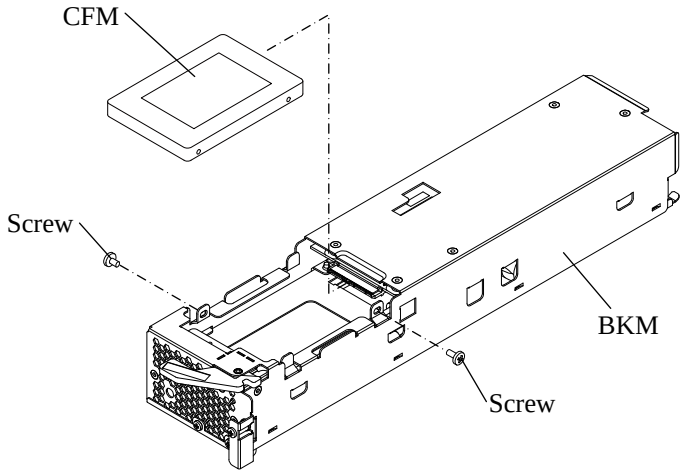
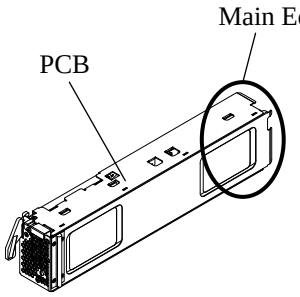


Fig. 4.3-22 Replacement of CFM

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(2)-6 Install the BKM to the DKC and tighten it with the screw.
(2)-7 If the cables were moved aside in Step (2)-3, put them back in place.



NOTICE:
- Check that the main edge connector of the PCB has no deformation, damage or sticking of dust before installing the PCB. (See INST03-01-80)
- When installing the PCB, hold the top and bottom of the PCB with both hands, and insert it straight not to contact the neighboring PCB.

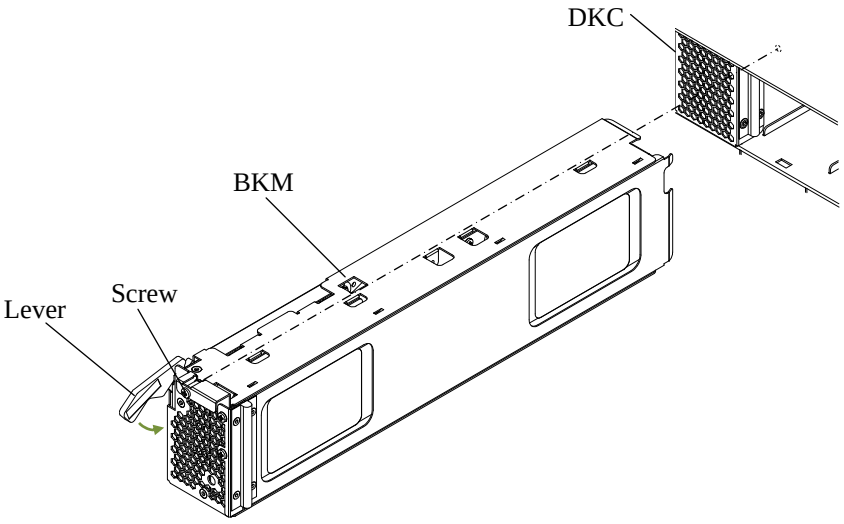
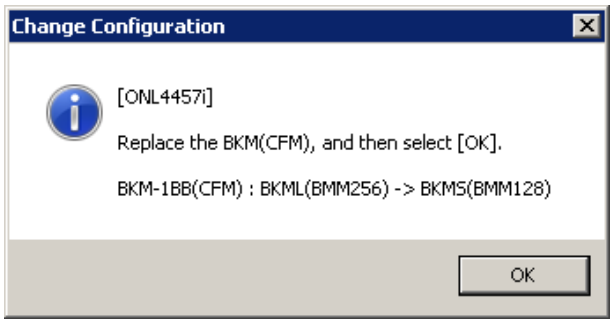


Fig. 4.3-23 Installation of BKM

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(3)

When a message, “Replace the BKM(CFM), and then select [OK]. BKM-nnn(CFM) : BKML(BMM256) -> BKMS(BMM128)” is displayed, select (CL) the [OK] button.



(Eg. BKM-1BB)

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6. SVP post procedure on the cluster 2.

(1) <Cache CUDG executes>
“INLINE CUDG is running...” is displayed.

---

(2)
When CUDG is completed, the recovery processing is automatically started with the messages.

“Restoring the Cache Memory PCB...”

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7. SVP pre procedure on the cluster 2.

(1)

When the recovery processing is complete, processing proceeds to blocking of cluster 2 of shared memory.

---

(2) <Memory blocking on cluster 2>
When blocking of cluster 2 of shared memory and Cache memory is completed, “The Cache Memory PCB is being blocked...” is displayed.

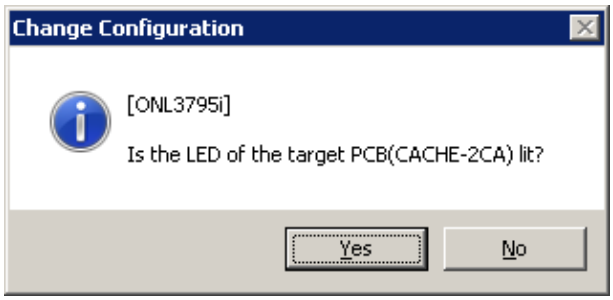
---

(3)

“Lighting LED of the PCB...” is displayed.

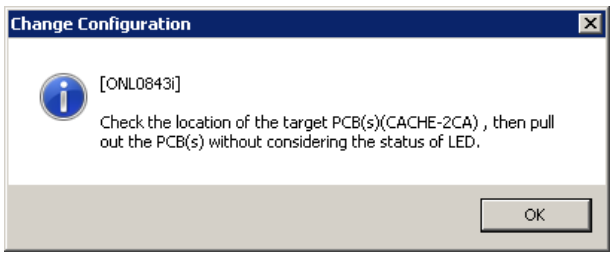
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(4) <Check shut down LED>
Select (CL)
* [Yes] if LED is on
* [No] if LED is off
in response to “Is the LED of the target PCB(CACHE-nnn) lit?”.



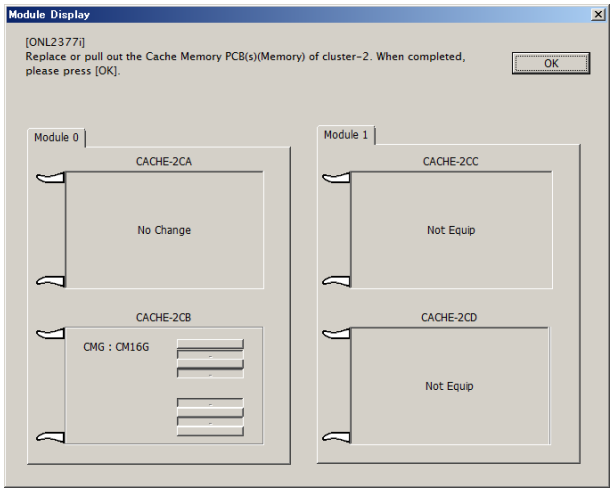
(Eg. CACHE-2CA)

If [No] is selected:
Select (CL) [OK] after response to “Check the location of the target PCB(s)(CACHE-nnn), then pull out the PCB(s) without considering the status of LED.”.
Go to Step (5).



(Eg. CACHE-2CA)

(5) <Perform cache hardware removal>
At this point refrain from pressing the [OK] button.
When “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-2. When completed, please press [OK].” is displayed, perform the hardware removal steps according to the cache hardware removal procedure.



Make sure of the installation location of the module to be removed and remove the correct module.
(The Shared Memory capacity may be changed at the same time, depending on the set Cache Memory capacity.)

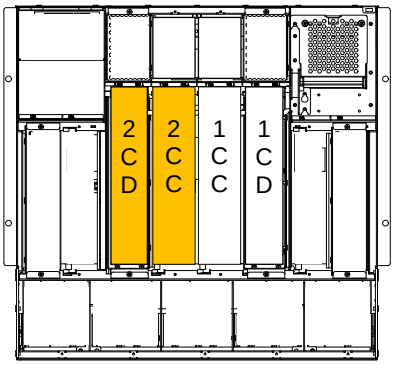
Copyright © 2014, Hitachi, Ltd.

8. Remove the Cache Memory on the cluster 2.

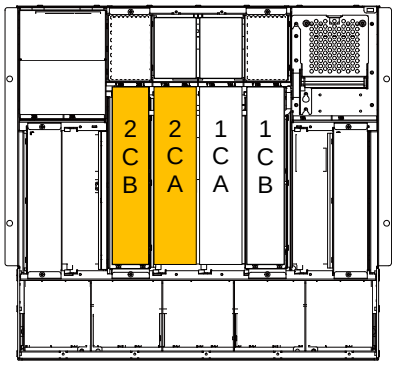
NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

8-1. Remove the PCB.

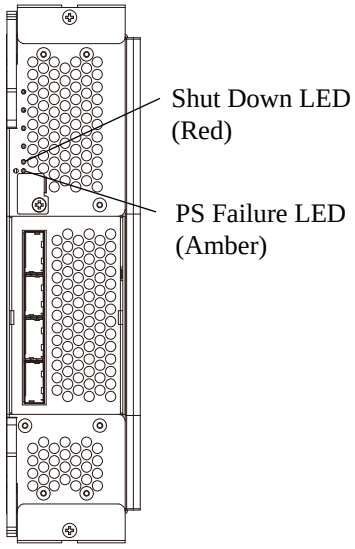
a. Check that the Shut Down LED on the Cache Memory PCB is lit.



Front View of DKC-1



Front View of DKC-0



CM PCB

Fig. 4.3-24 Location of Shut Down LED

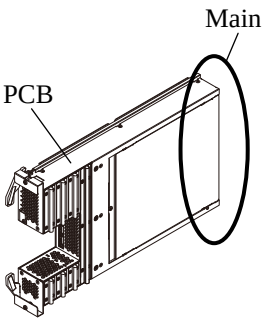
Table 4.3-11 Location of Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
2	DKC-0	2CA	CACHE-2CA	
		2CB	CACHE-2CB	
	DKC-1	2CC	CACHE-2CC	
		2CD	CACHE-2CD	

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b. If the cables are connected to the CM PCB, disconnect the cables after checking "3.1.7 Notes when connecting and disconnecting MFC cable" (INST03-01-190).
If the cables are not connected to the CM PCB, go to Step c.
c. Remove the two screws and remove the CM PCB.

NOTE: When removing the CM PCB, be careful not to pull cables.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.

NOTICE: After removing the CM PCB, de-install the parts of it immediately and install the extracted CM PCB or the dummy plate.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

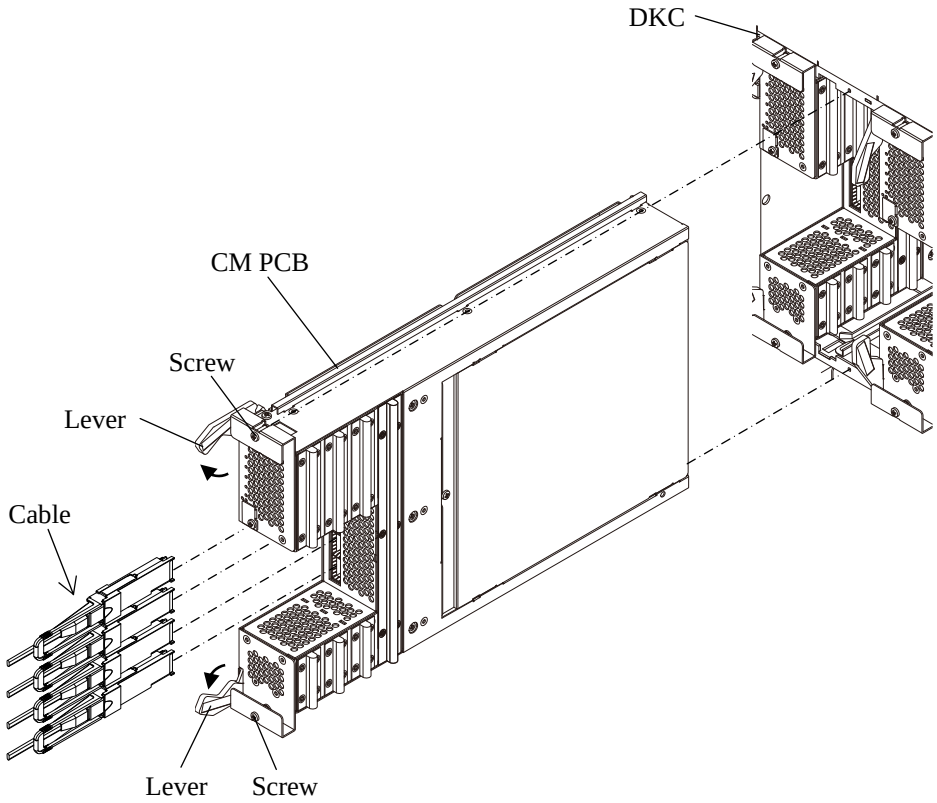


Fig. 4.3-25 Removal of PCB

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8-2. Remove the Cache Memory Modules.

a. Loosen the screw and remove the cover.

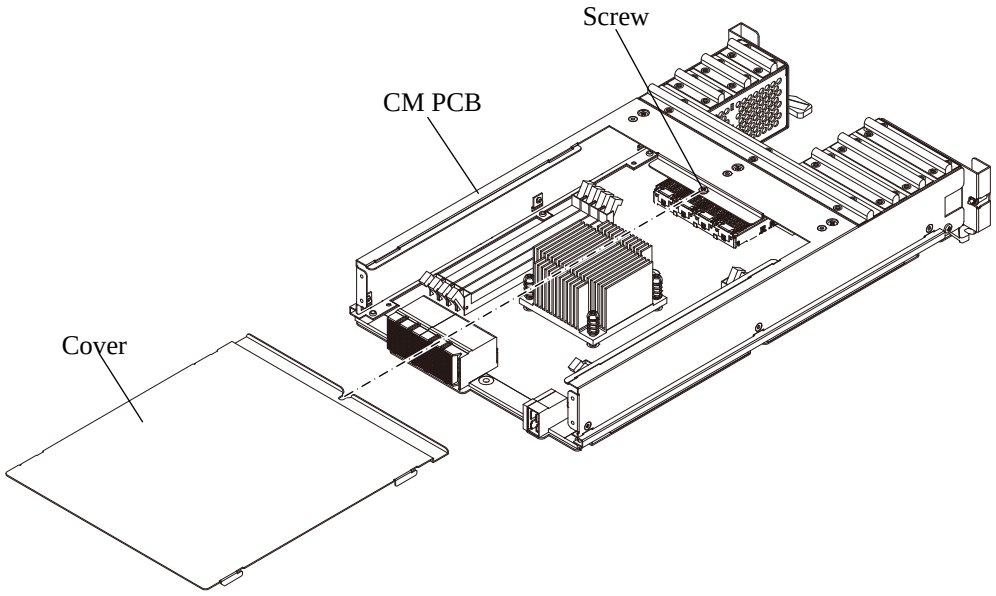
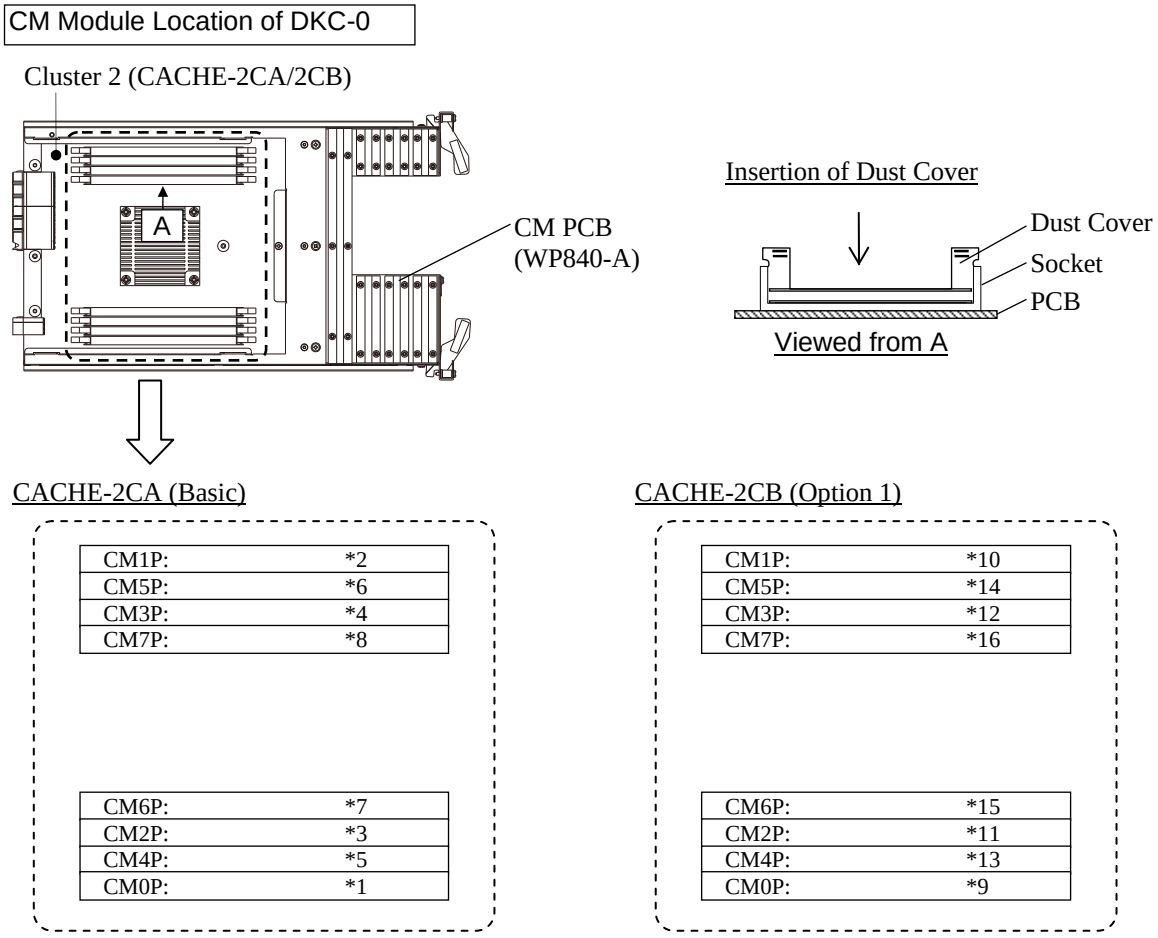


Fig. 4.3-26 Removal of Cover

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b. Remove the extra Cache Memory Modules according to the required Cache Memory capacity referring to Fig. 4.3-27, Fig. 4.3-28, Fig. 4.3-29, Table 4.3-4 through Table 4.3-9.
c. Insert the dust covers into the vacant sockets.
d. Attach the cover and fasten the screw. (Refer to Fig. 4.3-26.)



CM1P:	*2
CM5P:	*6
CM3P:	*4
CM7P:	*8

CM6P:	*7
CM2P:	*3
CM4P:	*5
CM0P:	*1

CM1P:	*10
CM5P:	*14
CM3P:	*12
CM7P:	*16

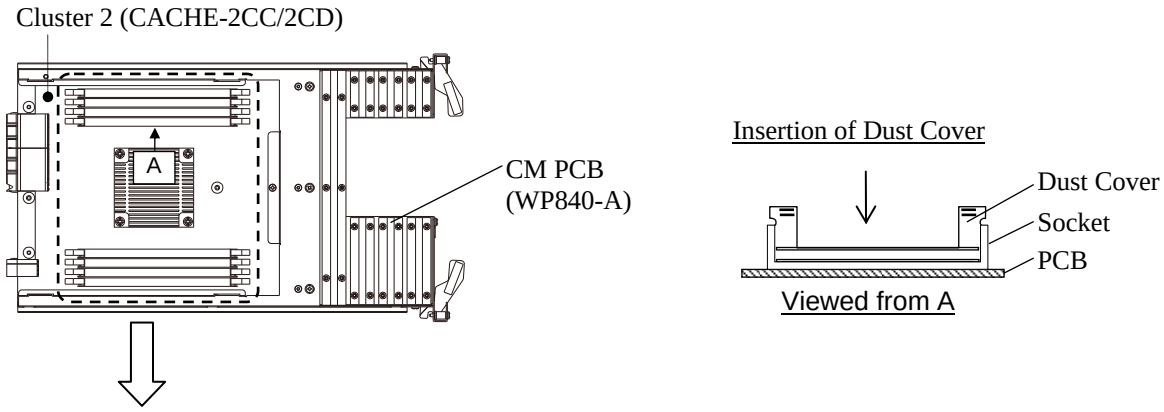
CM6P:	*15
CM2P:	*11
CM4P:	*13
CM0P:	*9

NOTE1: The cache memory module location *1 through *16 correspond to the CM Location listed in Table 4.3-4 through Table 4.3-9.

Fig. 4.3-27 Inserting Location of the Cache Memory Module

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CM Module Location of DKC-1



CACHE-2CC (Option 2)

CM1P:	*18
CM5P:	*22
CM3P:	*20
CM7P:	*24

CM6P:	*23
CM2P:	*19
CM4P:	*21
CM0P:	*17

CACHE-2CD (Option 3)

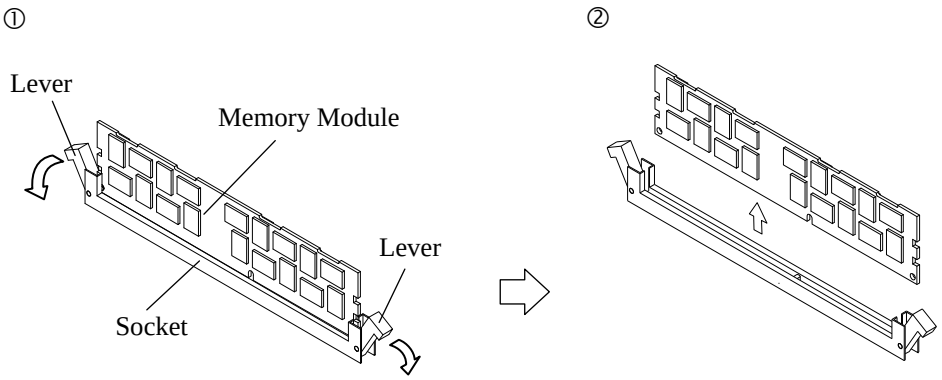
CM1P:	*26
CM5P:	*30
CM3P:	*28
CM7P:	*32

CM6P:	*31
CM2P:	*27
CM4P:	*29
CM0P:	*25

NOTE1: The cache memory module location *17 through *32 correspond to the CM Location listed in Table 4.3-4 through Table 4.3-9.

Fig. 4.3-28 Inserting Location of the Cache Memory Module

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Removal

① Pull the lever outward.
② Hold both ends of the memory module by the fingers, and pull out the memory module from the socket.

Fig. 4.3-29 Removal of Memory Module

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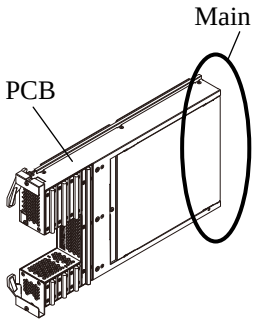
8-3 Insert the PCB.

a. When you need to remove Additional Cache Path Control Adapter (DKC-F810I-CPEX), attach the dummy plate and fasten the screws.
When you do not need to remove Additional Cache Path Control Adapter (DKC-F810I-CPEX), go to Step b.

b. Install the Cache Memory PCB and tighten the screws.

NOTE: When inserting the CM PCB, be careful not to get cables caught on anything.

c. If the cables were disconnected in Step 8-1 b, connect the cables to the CM PCB after checking "3.1.7 Notes when connecting and disconnecting MFC cable" (INST03-01-190).



NOTICE:
- Check that the main edge connector of the PCB has no deformation, damage or sticking of dust before installing the PCB. (See INST03-01-80)
- When installing the PCB, hold the top and bottom of the PCB with both hands, and insert it straight not to contact the neighboring PCB.

Table 4.3-12 Location of the Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
2	DKC-0	2CA	CACHE-2CA	
		2CB	CACHE-2CB	
	DKC-1	2CC	CACHE-2CC	
		2CD	CACHE-2CD	

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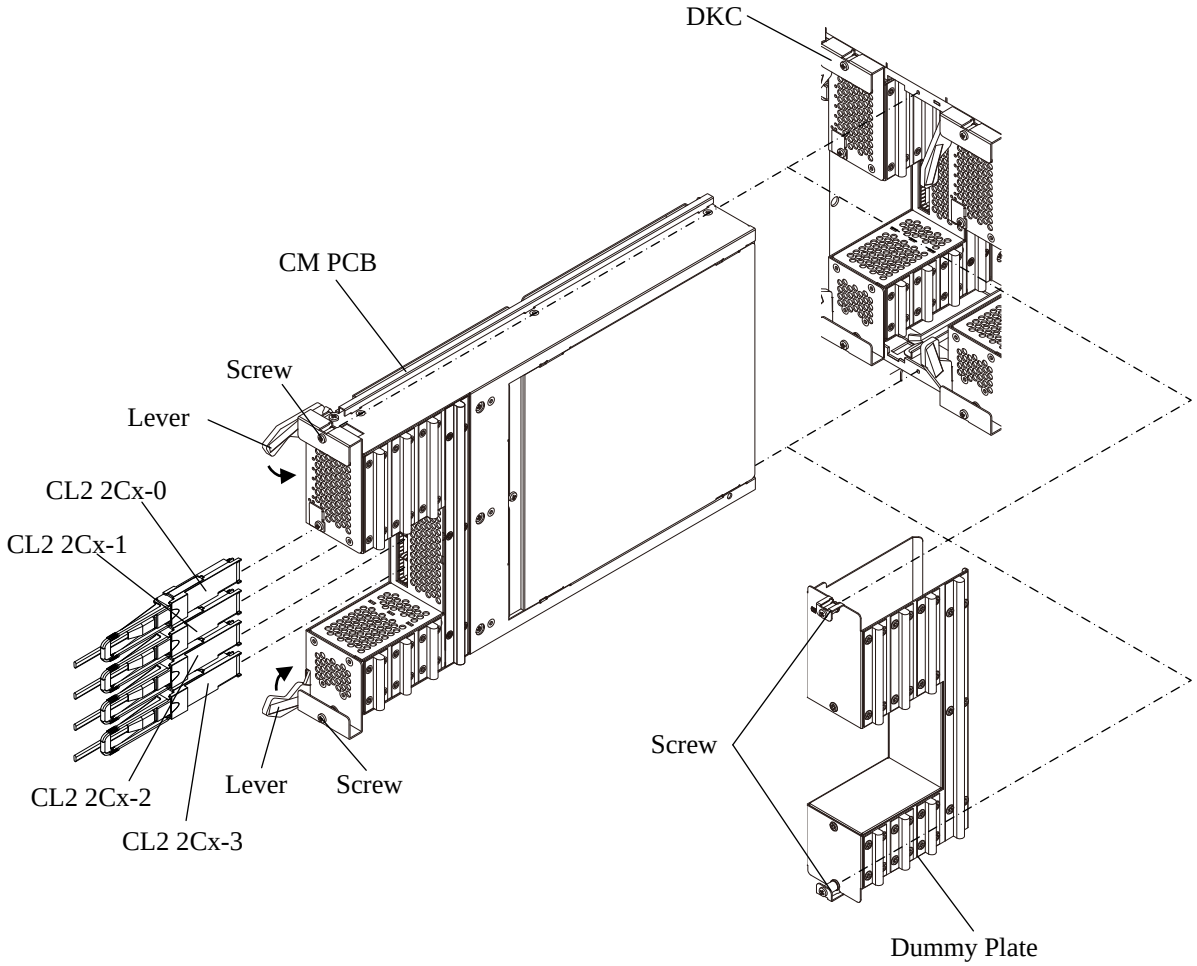


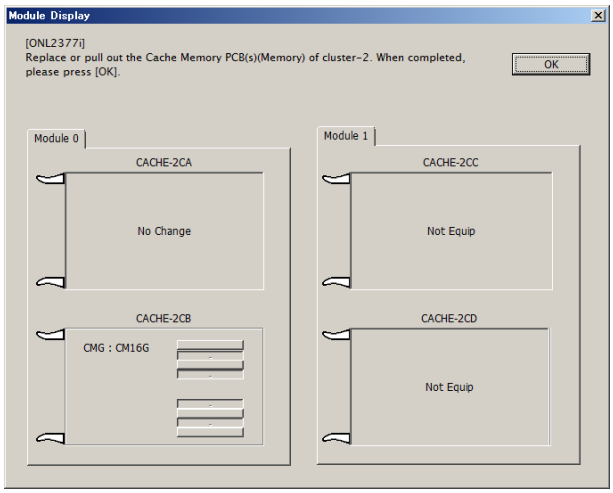
Fig. 4.3-30 Attachment of the Dummy Plate

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9. SVP Post-Procedure on the Cluster2.

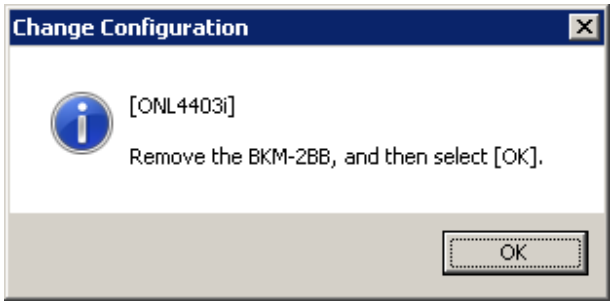
9-1 (A PCB to be added)
After completing the hardware removal procedure of the cache memory on the cluster 2, select (CL) [OK] in response to “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-2. When completed, please press [OK].”.

“INLINE CUDG is running...” is displayed.



9-2 Backup Module procedure
Perform an appropriate Backup Module process depending on cache capacity.
When removal is required, go to Step 9-3.
When replacement is required, go to Step 9-4.
When removal/replacement are required, go to Step 10.

9-3 Remove Backup Module (Cluster 2)
(1) <Confirmation of Backup Module removal>
A message, “Remove the BKM-nnn, and then select [OK].” is displayed.



(Eg. BKM-2BB)

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(2) Remove the BKM on the cluster 2.

(2)-1 Check that the Shut Down LED on the BKM is lit.

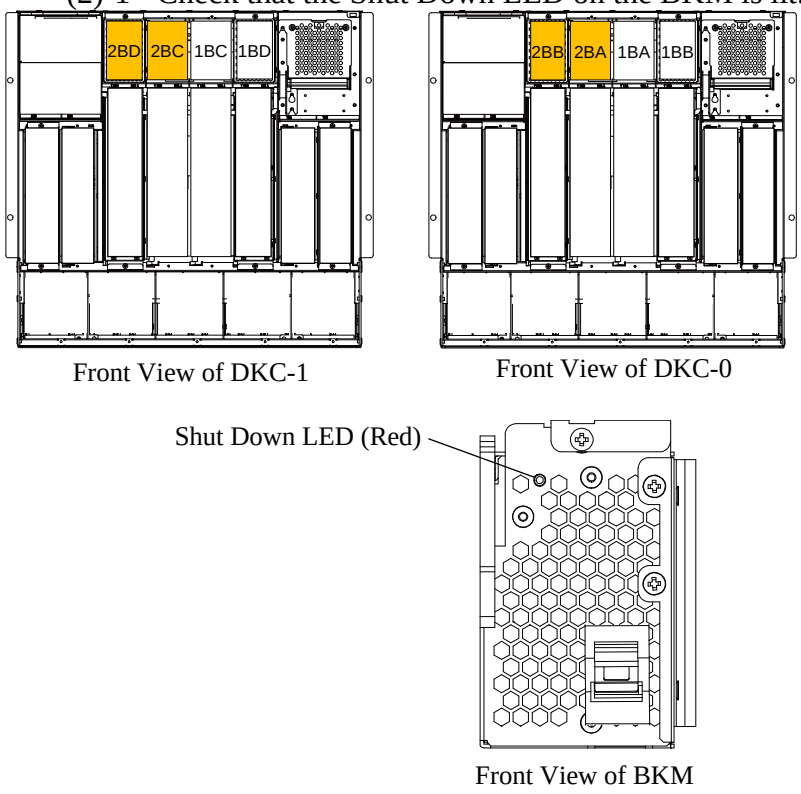


Fig. 4.3-31 Location of Shut Down LED

(2)-2 If the cables are attached to the BKMs, check that the screws to secure the BKMs are tightened.
If the cables are not attached to the BKMs, go to Step (2)-4.

NOTE: If the screw is loose, the BKM may be extracted when the cables or the locking clamp is moved.

(2)-3 Open the four locking clamps and move all the cables to where they cannot obstruct removal of the BKM.

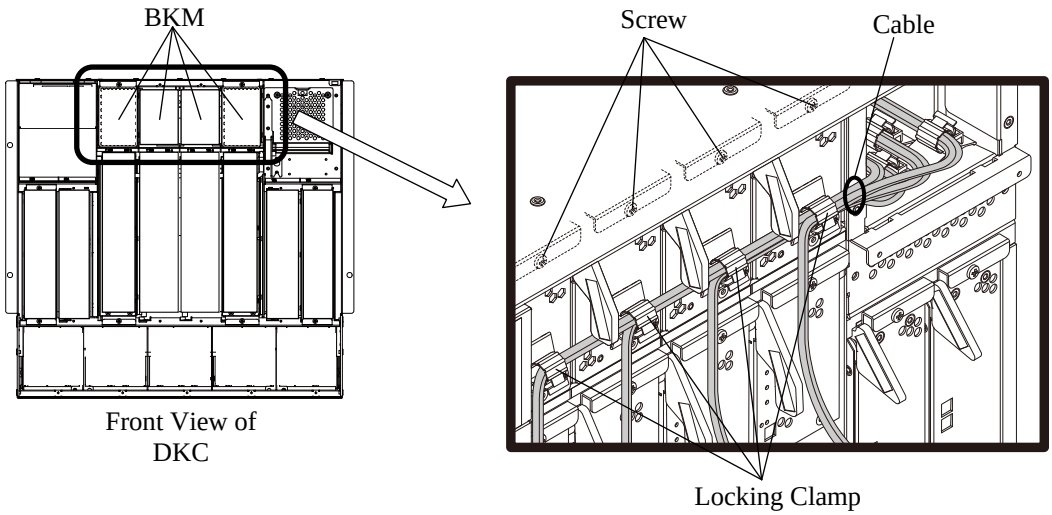
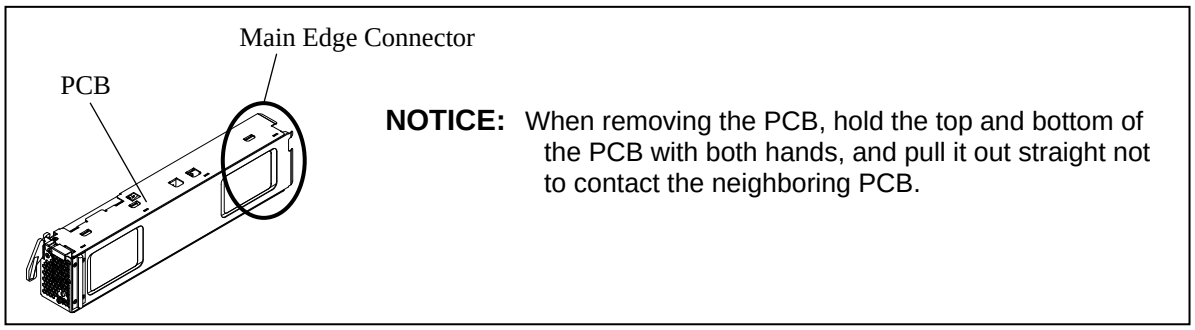


Fig. 4.3-32 Moving Cables

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(2)-4 Loosen the screw and remove the BKM from the DKC.
(2)-5 Attach the dummy plate to the DKC and tighten the screw.
(2)-6 If the cables were moved aside in Step (2)-3, put them back in place.



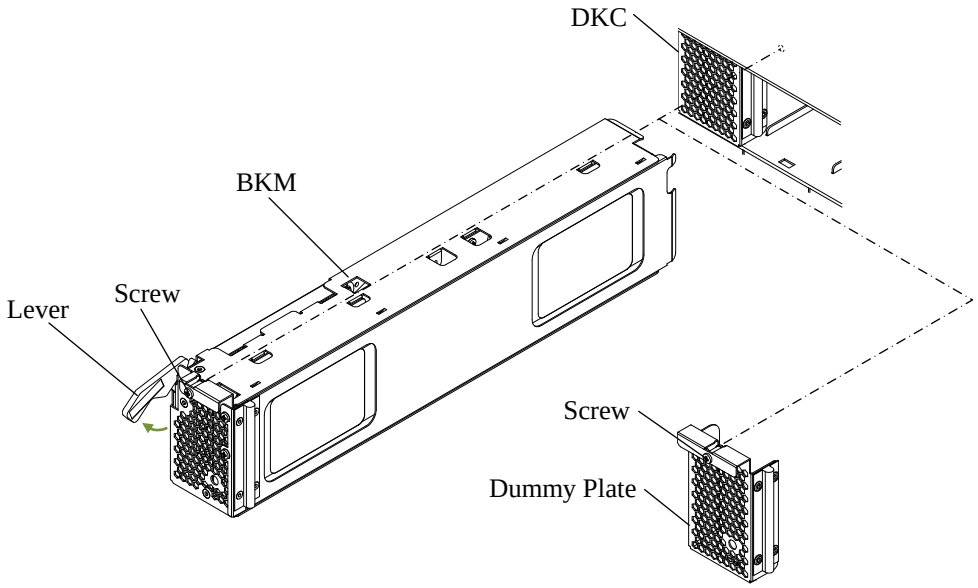


Fig. 4.3-33 Removal of BKM

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(2)-7 Remove the screw of the BKM and remove the cover.

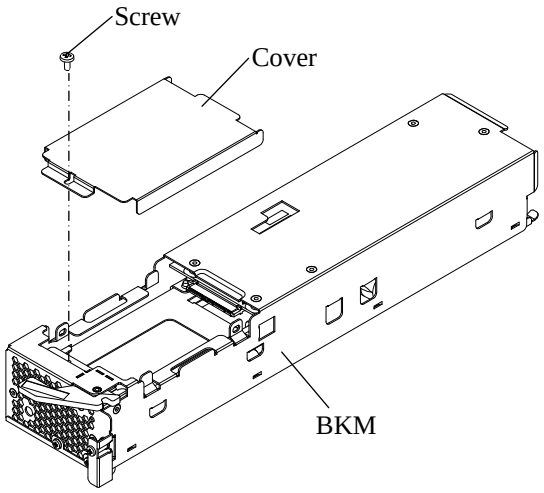


Fig. 4.3-34 Removal of Cover

(2)-8 Remove the two screws and remove the CFM from the BKM.
(2)-9 Attach the cover to the BKM and tighten it with the screw.

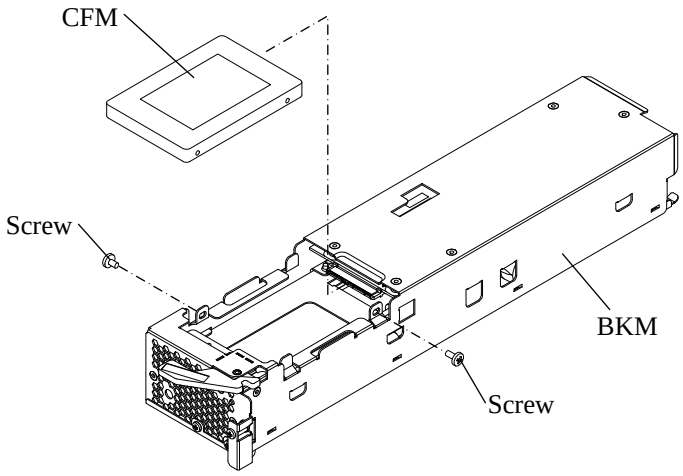
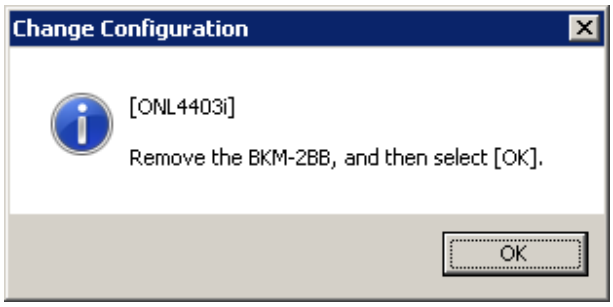


Fig. 4.3-35 Removal of CFM

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(3)

When a message, “Remove the BKM-nnn, and then select [OK].” is displayed, select (CL) the [OK] button.

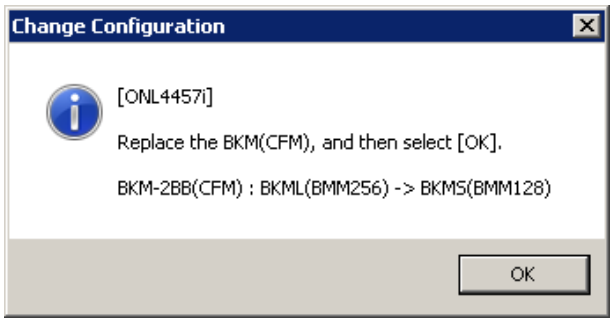


(Eg. BKM-2BB)

9-4 Replace Backup Module (Cluster 2)

(1) <Confirmation of Backup Module replacement>

A message, “Replace the BKM(CFM), and then select [OK]. BKM-nnn(CFM) : BKML(BMM256) -> BKMS(BMM128)” is displayed.



(Eg. BKM-2BB)

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(2) Replace the BKM on the cluster 2.

(2)-1 Check that the Shut Down LED on the BKM is lit.

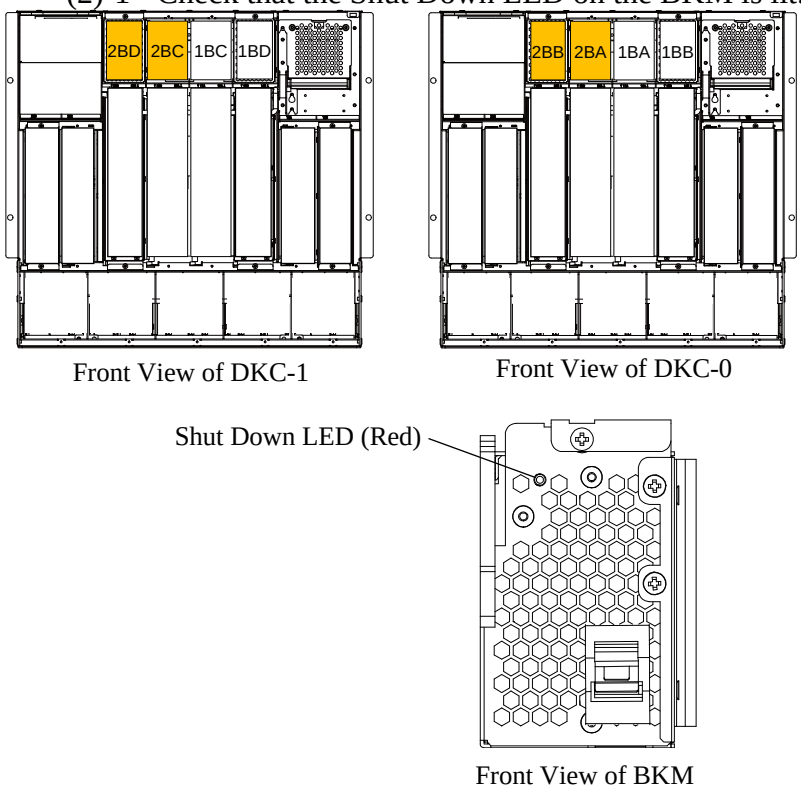


Fig. 4.3-36 Location of Shut Down LED

(2)-2 If the cables are attached to the BKMs, check that the screws to secure the BKMs are tightened.
If the cables are not attached to the BKMs, go to Step (2)-4.

NOTE: If the screw is loose, the BKM may be extracted when the cables or the locking clamp is moved.

(2)-3 Open the four locking clamps and move all the cables to where they cannot obstruct removal of the BKM.

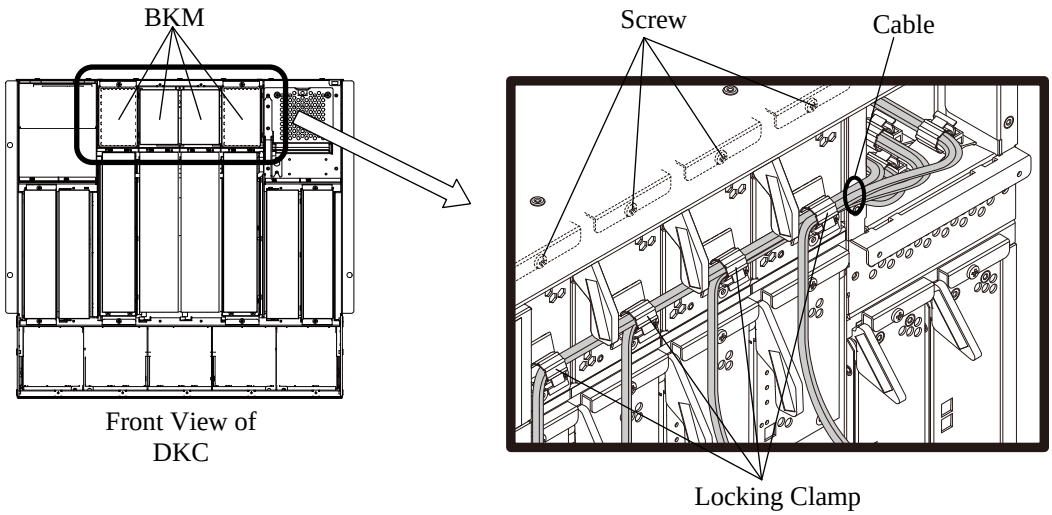
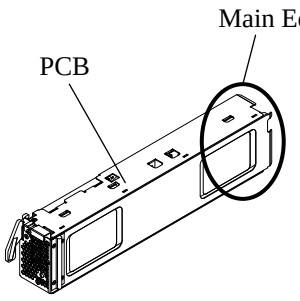


Fig. 4.3-37 Moving Cables

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(2)-4 Loosen the screw and remove the BKM from the DKC.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.

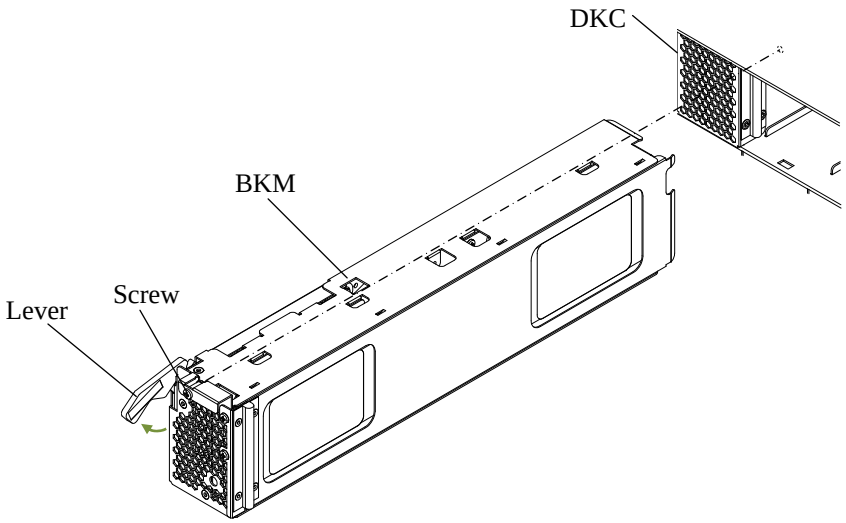


Fig. 4.3-38 Removal of BKM

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(2)-5 Replace the parts.

(2)-5-1 When you need to remove Cache Backup Module Kit (DKC-F810I-BKML) and Cache Flash Memory (DKC-F810I-BMM256) at the same time, replace the BKM and CFM. When you do not need to remove DKC-F810I-BKML and DKC-F810I-BMM256 at the same time, go to the Step (2)-5-2.

a. Remove the screw of the replacement BKM and remove the cover.

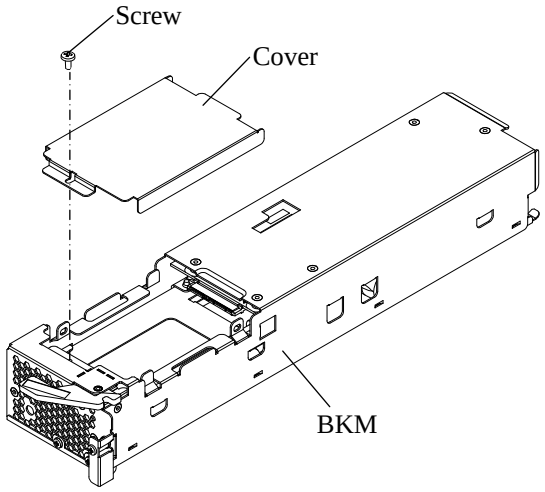


Fig. 4.3-39 Removal of Cover

b. Install the replacement CFM to the BKM and tighten it with the two screws.
c. Attach the cover to the BKM and tighten it with the screw.

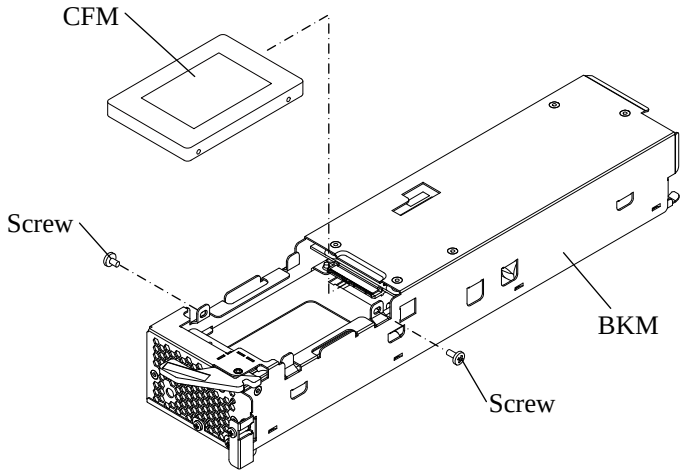


Fig. 4.3-40 Attachment of CFM

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(2)-5-2 When you need to remove only Cache Backup Module Kit (DKC-F810I-BKML), replace the BKM.
When you do not need to remove only DKC-F810I-BKML, go to the Step (2)-5-3.

a. Remove the screw of the replacement BKM and remove the cover.

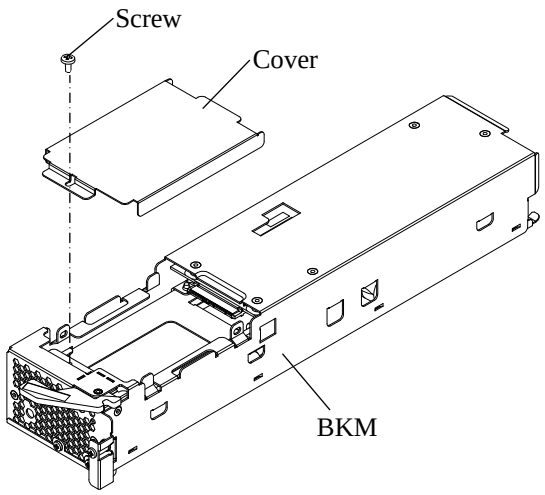


Fig. 4.3-41 Removal of Cover

b. Remove the two screws and detach the CFM.
c. Remove the screw of the replacement BKM and remove the cover.
d. Install the CFM to the replacement BKM and tighten it with the two screws.
e. Attach the cover to the BKM and tighten it with the screw.

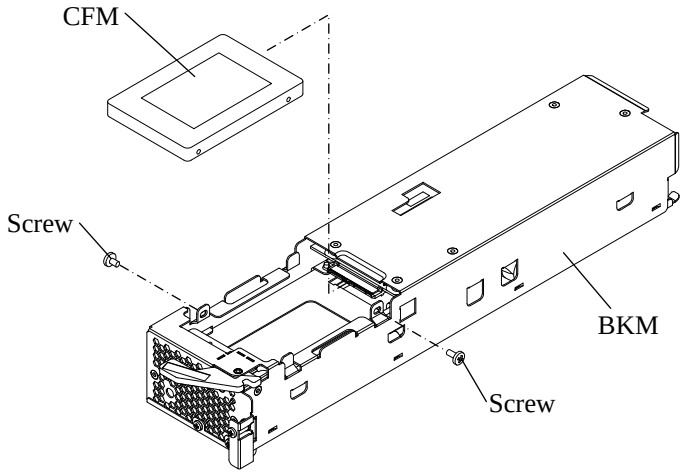


Fig. 4.3-42 Movement of CFM

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(2)-5-3 When you need to remove only Cache Flash Memory (DKC-F810I-BMM256), replace the CFM.
When you do not need to remove only DKC-F810I-BMM256, go to the Step (2)-6.

a. Remove the screw of the replacement BKM and remove the cover.

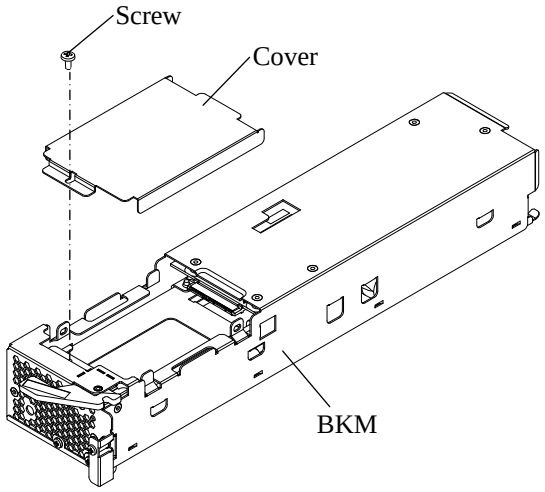


Fig. 4.3-43 Removal of Cover

b. Remove the two screws and detach the CFM.
c. Install the replacement CFM to the BKM and tighten it with the two screws.
d. Attach the cover to the BKM and tighten it with the screw.

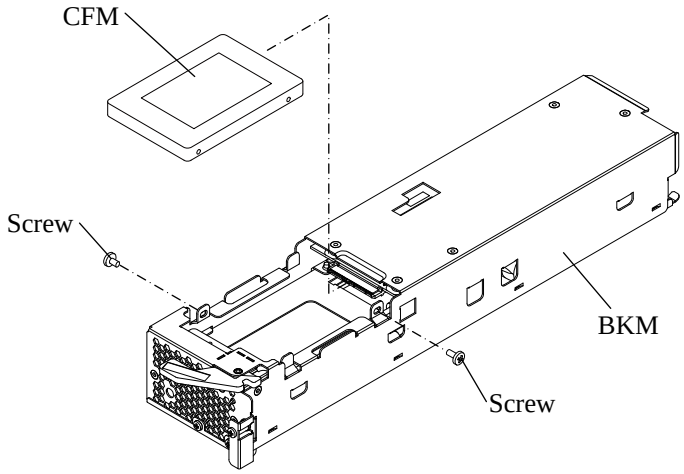
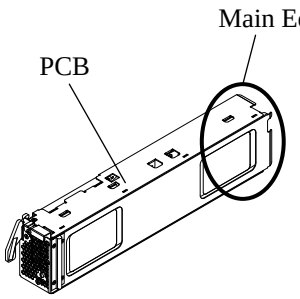


Fig. 4.3-44 Replacement of CFM

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(2)-6 Install the BKM to the DKC and tighten it with the screw.
(2)-7 If the cables were moved aside in Step (2)-3, put them back in place.



NOTICE:
- Check that the main edge connector of the PCB has no deformation, damage or sticking of dust before installing the PCB. (See INST03-01-80)
- When installing the PCB, hold the top and bottom of the PCB with both hands, and insert it straight not to contact the neighboring PCB.

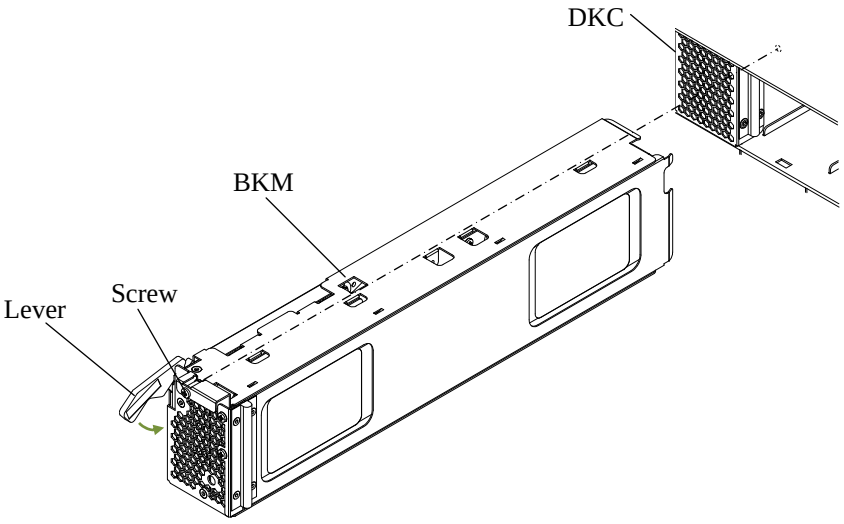
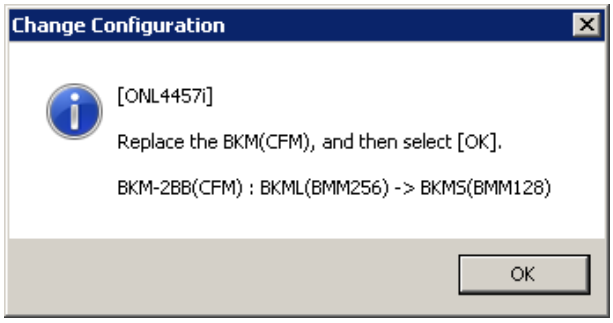


Fig. 4.3-45 Installation of BKM

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(3)

When a message, “Replace the BKM(CFM), and then select [OK]. BKM-nnn(CFM) : BKML(BMM256) -> BKMS(BMM128)” is displayed, select (CL) the [OK] button.



(Eg. BKM-2BB)

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10. SVP post procedure.

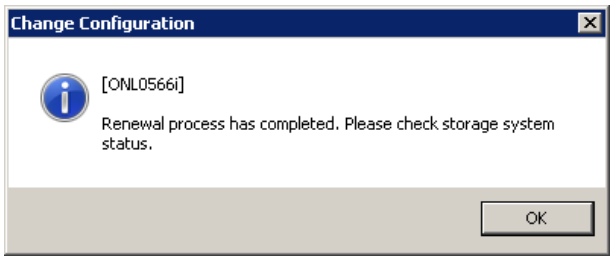
(1)

When CUDG is completed, the recovery processing is automatically started with the messages.

"Restoring the Cache Memory PCB..."

---

(2) <Check the end of removal procedure>
"Renewal process has completed. Please check storage system status." shown in the right figure displayed. Select (CL) [OK] in response to this message.

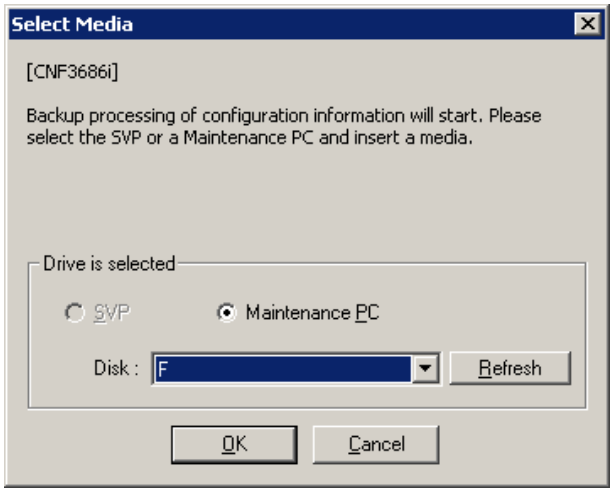


---

(3)

Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

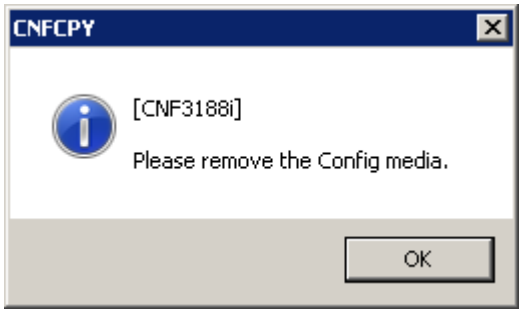
NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



---

(4)

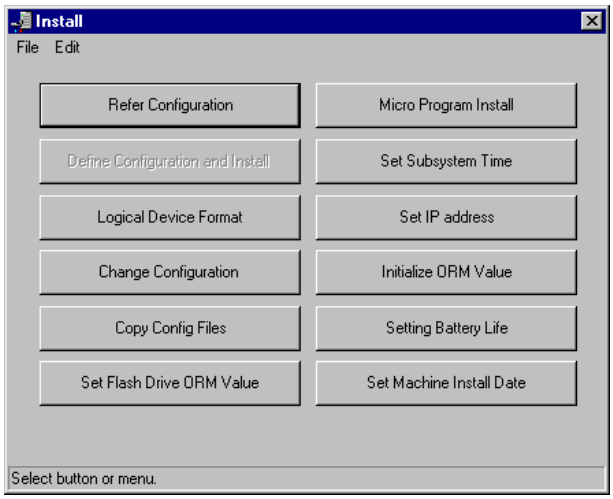
When this procedure is completed, the message "Please remove the Config media." is displayed. Remove the configuration information media, select (CL) [OK].



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(5)

After the procedure is completed, return to 'Install'.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

11. De-Installation Procedure of Inter-Controller Connecting Cable (DKC-F810I-MFC5/MFC30/MFC1J)

(1) When you need to remove Inter-Controller Connecting Cable (DKC-F810I-MFC5/MFC30/MFC1J), remove the eight cables from the rack. See "4.5.1 De-Installation of Module procedure 15 (INST04-05-610 through 690)".
When you do not need to remove Inter-Controller Connecting Cable (DKC-F810I-MFC5/MFC30/MFC1J), go to procedure (2).

(2) Return to the working table and do the rest of the work. (INST02-80)

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4.4 De-Installation of Channel Adapter

4.4.1 De-Installation of Fibre 8/16-port 8/16G Host Adapter (DKC-F810I-16FC8/8FC16)

Table 4.4.1-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-16FC8	WP810-A	5552772-A	2	CHA PCB
2	DKC-F810I-8FC16	WP812-A	5552773-A	2	CHA PCB

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Table 4.4.1-2 Working time

		Number of change (set)	Total (minutes)
CHA	Removal	1	10
		2	15
		3	20
		4	25
		5	30
		6	35
		7	40
		8	45
		9	50
		10	55
		11	60
		12	65
		13	70
		14	75
		15	80

NOTICE: When there are paths that are used for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, Universal Volume Manager, or global-active device on the Channel Adapter, delete the paths before executing the operation. The operation cannot be executed before deleting the paths.

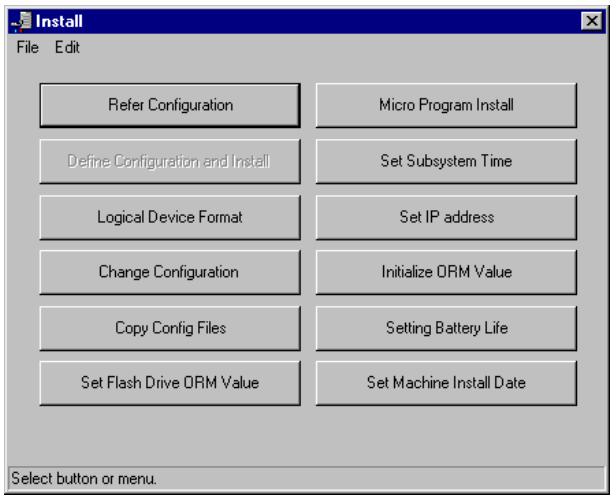
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1. Setting up the New Device Structure Information

   (1) <Mode Change>
   Change the mode to Modify Mode.
   Select (CL) [Install].

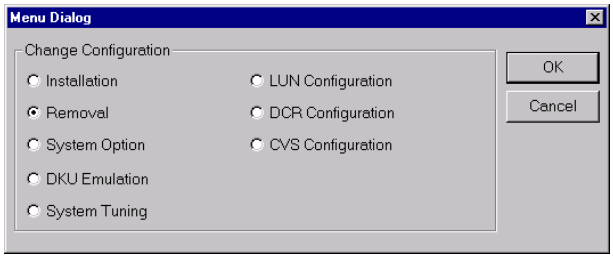
---

   (2) <Start the 'Menu Dialog' screen>
   Select (CL) [Change Configuration].



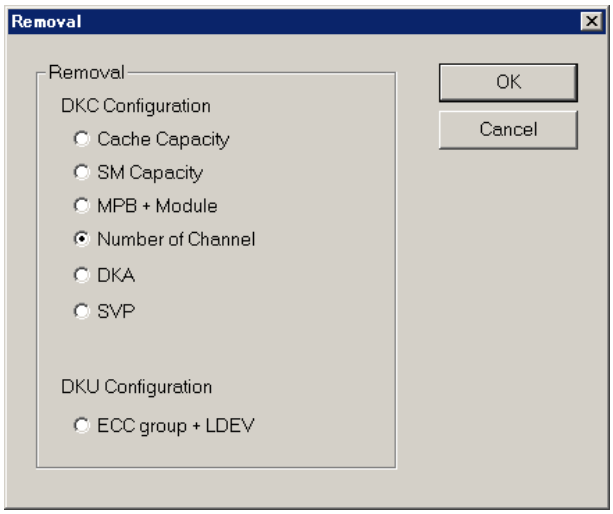
---

   (3) <Start Device Structure Setup screen>
   Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].

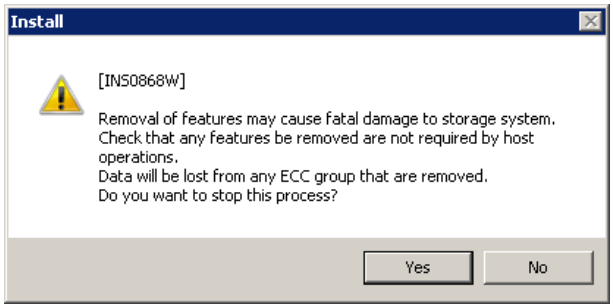


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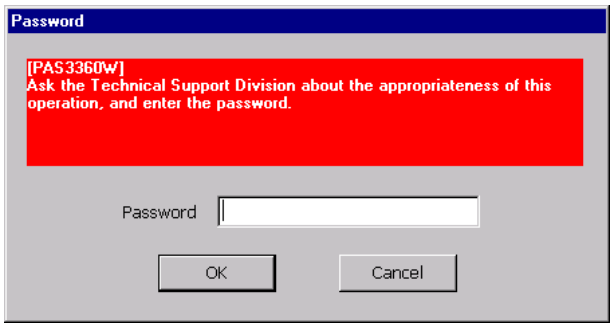
(4) <Select a part to be changed>
Select (CL) [Number of Channel], and select (CL) [OK].



(5)
Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(6) <Input password>
Enter a password and select (CL) the [OK].



⚠ CAUTION

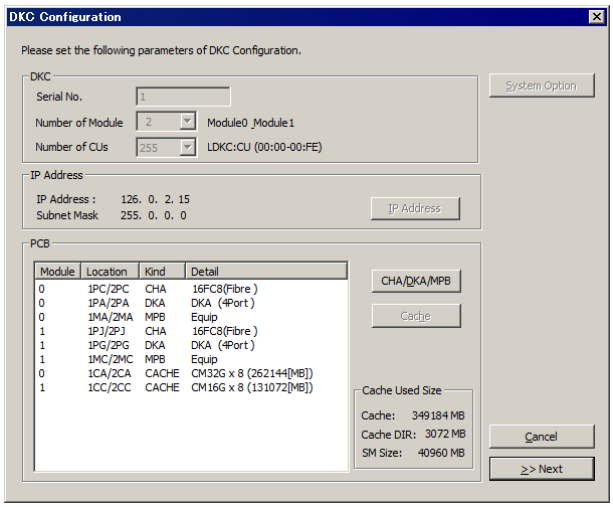
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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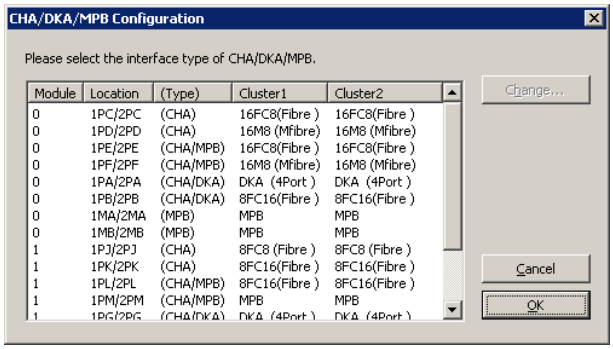
(7) <DKC Configuration screen>
Select (CL) [CHA/DKA/MPB] in the 'DKC Configuration' screen.
Go to Step (8).

After setting the items, select (CL) [>>Next].
Go to Step 2.

If [Cancel] is selected (CL), this operation procedure terminates.



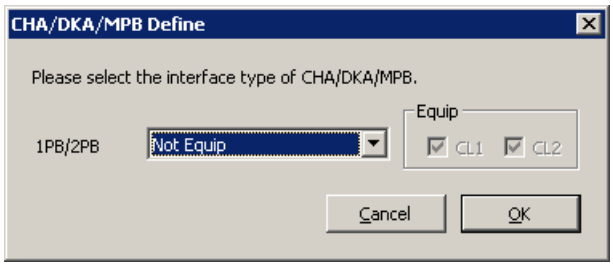
(8) <Updating the configuration information>
In the 'CHA/DKA/MPB Configuration' window, select the location(s) where the CHA is to be removed from, and select (CL) the [Change...].
Advances the routine to Step (9).
Make sure that the entry that has been made is correct and select (CL) the [OK].
The routine is returned to Step (7).



Refer to INST01-80 for the SVP screen display and the conversion of the option type names.

NOTICE: In the case of the multi-platform configuration
(1) When changing the configuration from multi-platform to open, remove the volume of the main frame first, and then remove the Channel PCB.
(2) When changing the configuration from multi-platform to main frame, remove the volume of the open first, and then remove the Channel PCB.

(9) <Select the CHA type>
In the 'CHA/DKA/MPB Define' window, select the [Not Equip].
After the setting is completed, select (CL) the [OK].
The routine is returned to Step (8).

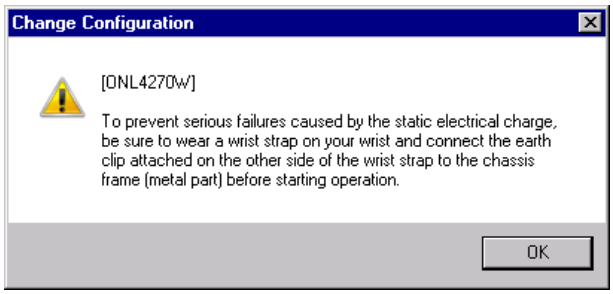


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2. SVP pre procedure

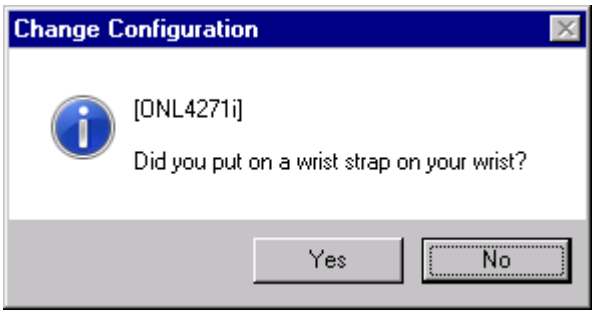
(1) <Wear a wrist strap>

Select (CL) [OK] in response to “To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.”.



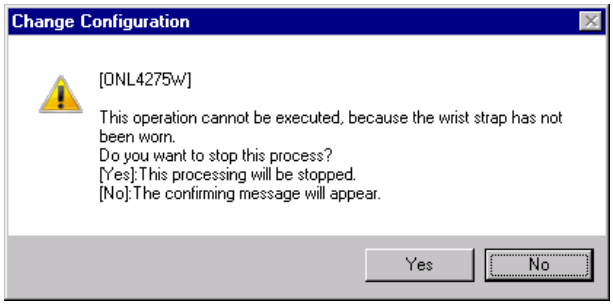
(1)-1<Confirm wearing wrist strap>

In response to a message, “Did you put on a wrist strap on your wrist?”.
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When [No] is selected (CL), go to Step (1)-2.



(1)-2

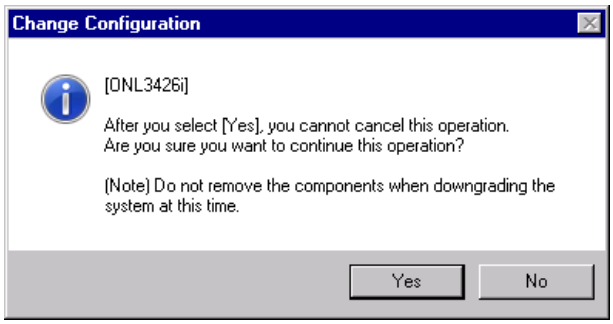
In response to a message, “This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear.”
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-04A-30.
When [No] is selected (CL), returned to Step (1).



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(2) <Start installation>

Select (CL) [Yes] in response to “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components when downgrading the system at this time.”.

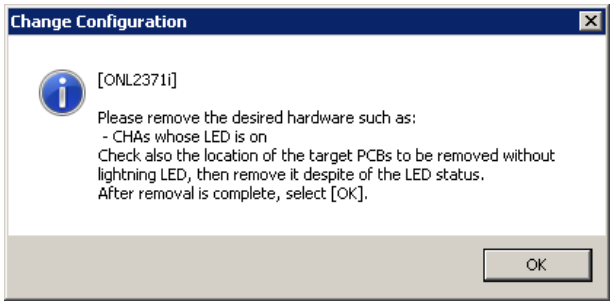


When [No] is selected (CL), the routine is returned to Step (2) on page INST04-04A-30.

(3) <Remove CHA>

At this point refrain from pressing the [OK] button.

“Please remove the desired hardware such as:
- CHAs whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].” is displayed.



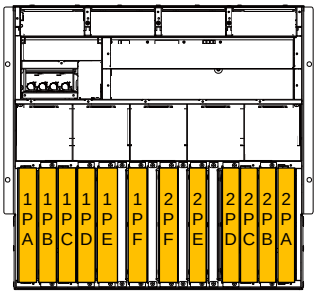
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3. De-Installation Procedure of Fibre 8/16-port 8/16G Host Adapter

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

3-1 Confirmation of the Shut Down LED

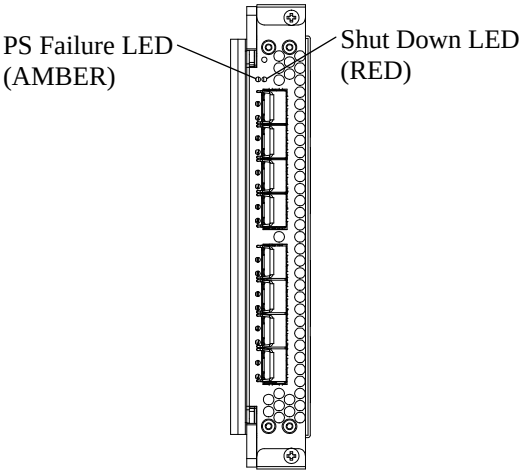
a. While referring to Fig. 4.4.1-1 and Table 4.4.1-3, check the Shut Down LED on the PCB.



Rear View of DKC-0



Rear View of DKC-1



CHA PCB

Fig. 4.4.1-1 Location of the Shut Down LED

Table 4.4.1-3 Inserting Location

DKC	Addition No.	Slot No.		Location No.		Remarks
		Cluster 1	Cluster 2	Cluster 1	Cluster 2	
DKC-0	Basic	1PC	2PC	CHA-1PC	CHA-2PC	
	Option 1	1PD	2PD	CHA-1PD	CHA-2PD	
	Option 2	1PE	2PE	CHA-1PE	CHA-2PE	
	Option 3	1PF	2PF	CHA-1PF	CHA-2PF	
	Option 4	1PB	2PB	CHA-1PB	CHA-2PB	All CHA
	Option 5	1PA	2PA	CHA-1PA	CHA-2PA	All CHA
DKC-1	Option 6	1PJ	2PJ	CHA-1PJ	CHA-2PJ	
	Option 7	1PK	2PK	CHA-1PK	CHA-2PK	
	Option 8	1PL	2PL	CHA-1PL	CHA-2PL	
	Option 9	1PM	2PM	CHA-1PM	CHA-2PM	
	Option 10	1PH	2PH	CHA-1PH	CHA-2PH	All CHA
	Option 11	1PG	2PG	CHA-1PG	CHA-2PG	All CHA

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3-2 Disconnection of the optical fibre cables

When the optical fibre cables have been wired from the floor

a. Disconnect the optical fibre cables from the PCB.

In case of DKC-0

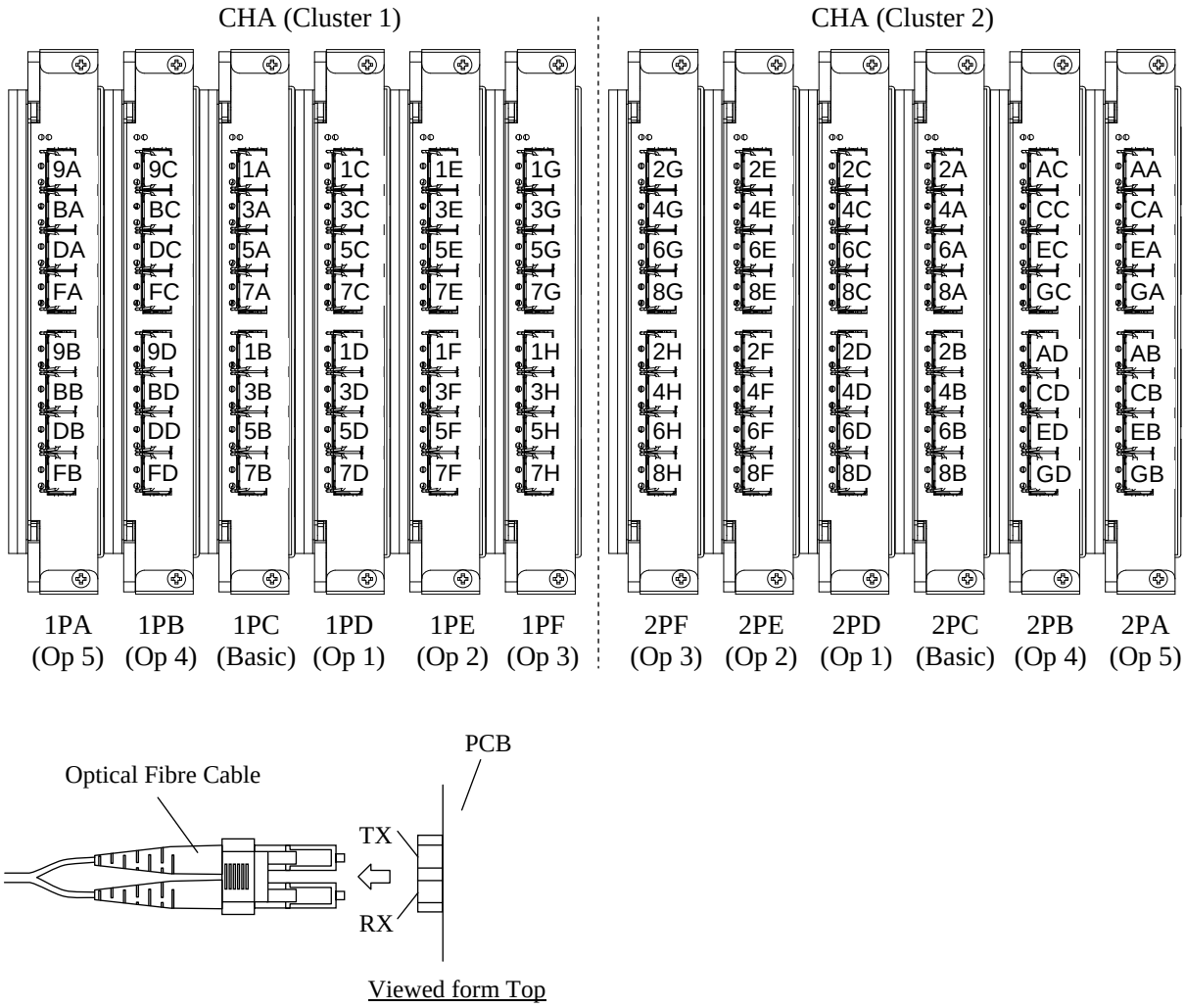


Fig. 4.4.1-2 Disconnection of Optical Fibre Cables (DKC-0)

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In case of DKC-1

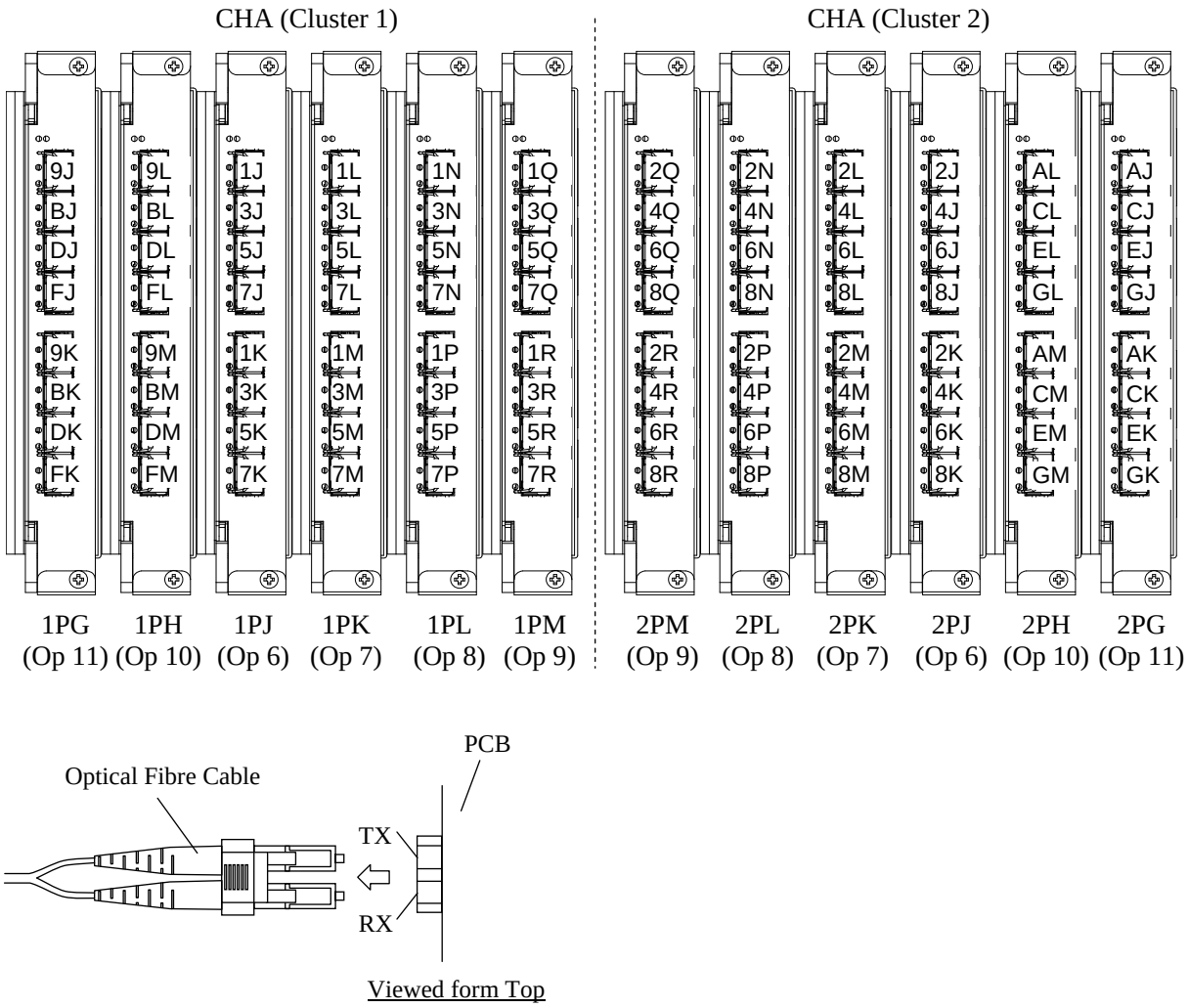


Fig. 4.4.1-3 Disconnection of Optical Fibre Cables (DKC-1)

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b. Loosen the two screws at the rear bottom of the frame and slide the S/R ASSY forward.
c. Remove the optical fibre cables from the frame.
d. Slide the S/R ASSY toward you and tighten the two screws.

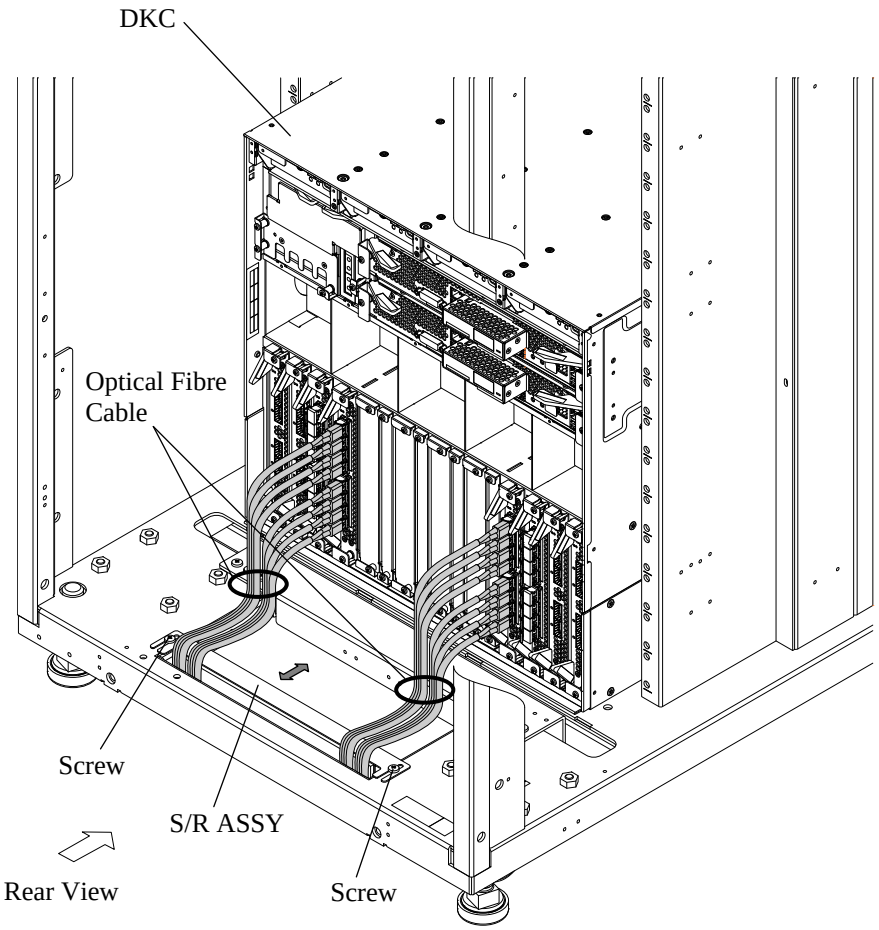


Fig. 4.4.1-4 Removal of Optical Fibre Cables

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When wiring for the optical fibre cables from the window opening of the top cover

a. Disconnect the optical fibre cables from the PCB in the DKC. (Refer to Fig. 4.4.1-2 or Fig. 4.4.1-3.)
b. Loosen the two screws of the top cover, and slide the window opening toward the front side.
c. Pull out the optical fibre cables from the opening of the top cover.
d. Slide the window to close the opening, and retighten it with the two screws.

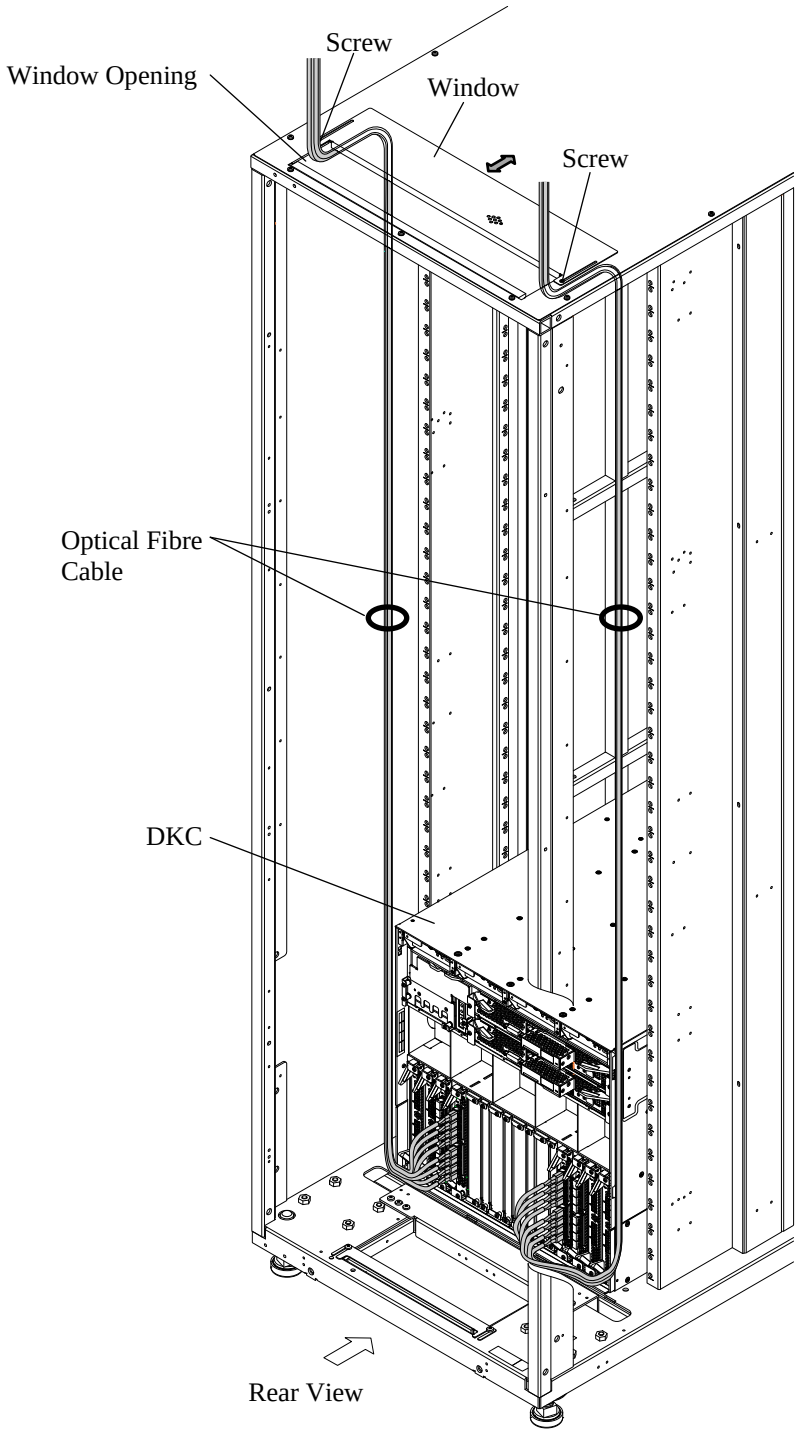


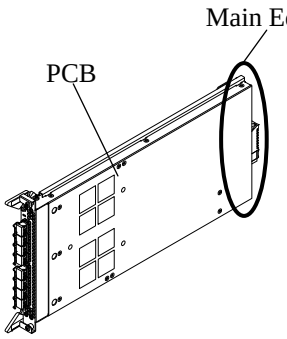
Fig. 4.4.1-5 Removal of Optical Fibre Cables

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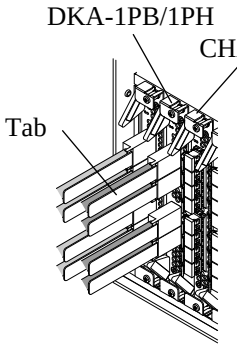
3-3 Removal of the PCB

a. Loosen the screws and remove the PCBs from the DKC. Refer to Table 4.4.1-3 and Fig. 4.4.1-6.

b. Attach the dummy plate and tighten the screws.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.



NOTICE: When inserting or removing the CHA PCB (CHA-1PC/1PJ), be careful so that the tab of the DEV interface cable that connects to the adjacent DKA PCB (DKA-1PB/1PH) is not caught in it.

NOTICE: Install the dummy plate immediately after removing the PCB.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

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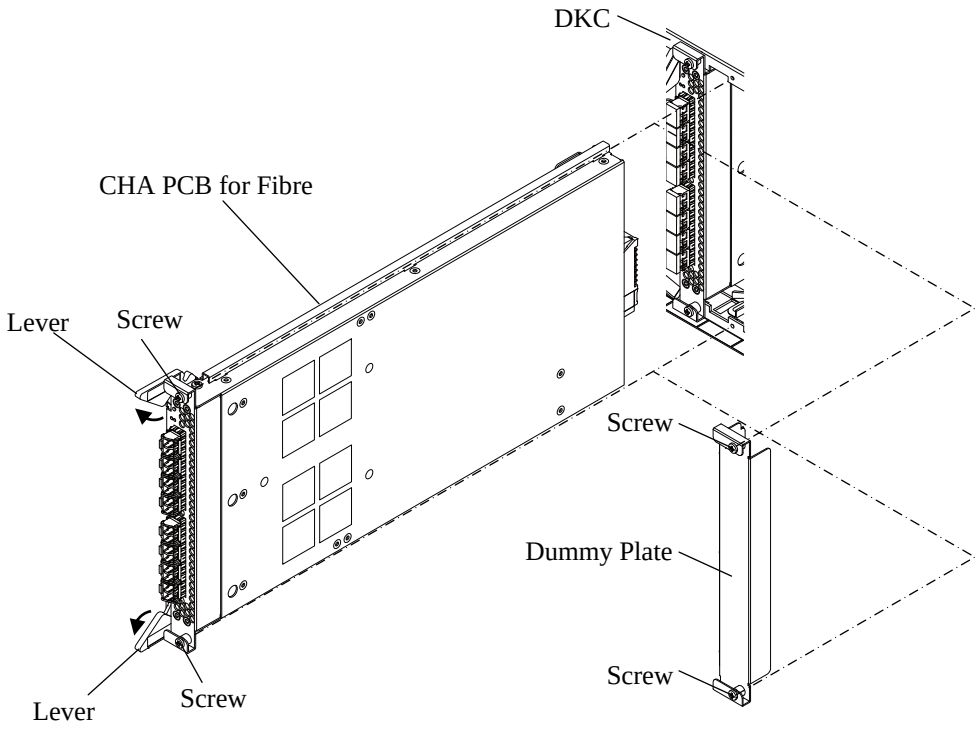


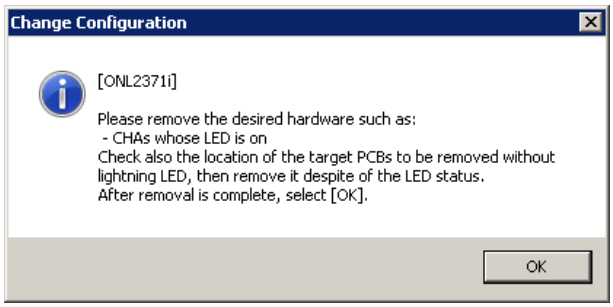
Fig. 4.4.1-6 Removal of PCB

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4. SVP procedure

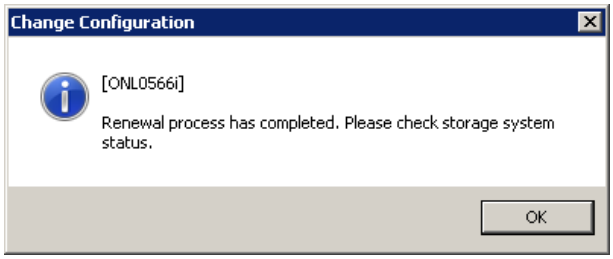
(1) <Making sure of completion of the CHA removal>

In response to a message, “Please remove the desired hardware such as:
- CHAs whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].”, select (CL) [OK].



(2)

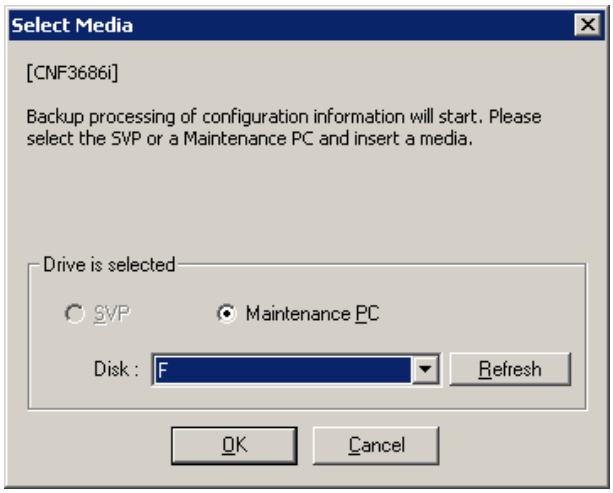
A message, “Renewal process has completed. Please check storage system status.” is displayed. In response to the message, select (CL) [OK].



(3)

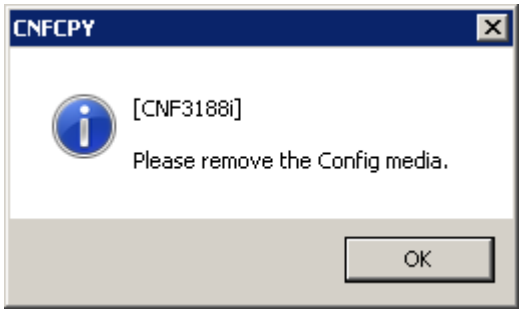
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



(4)

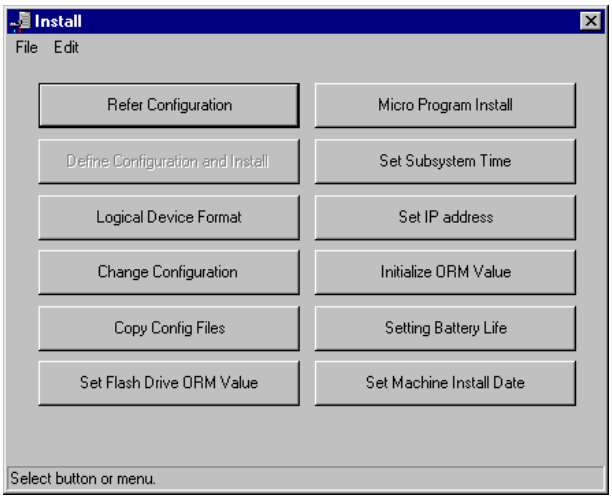
When this procedure is completed, the message “Please remove the Config media.” is displayed. Remove the configuration information media, select (CL) [OK].



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(5)

After the procedure is completed, return to ‘Install’.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

Return to the working table and do the rest of the work. (INST02-80)

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4.4.2 De-Installation of Mainframe Fibre 16-port 8G Host Adapter (DKC-F810I-16MS8/16ML8)

Table 4.4.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-16MS8	WP811-A	5552775-A	2	CHA PCB
2	DKC-F810I-16ML8	WP811-B	5552776-A	2	CHA PCB

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Table 4.4.2-2 Working time

		Number of change (set)	Total (minutes)
CHA	Removal	1	10
		2	15
		3	20
		4	25
		5	30
		6	35
		7	40
		8	45
		9	50
		10	55
		11	60
		12	65
		13	70
		14	75
		15	80

NOTICE: When there are paths that are used for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe and Universal Volume Manager on the Channel Adapter, delete the paths before executing the operation. The operation cannot be executed before deleting the paths.

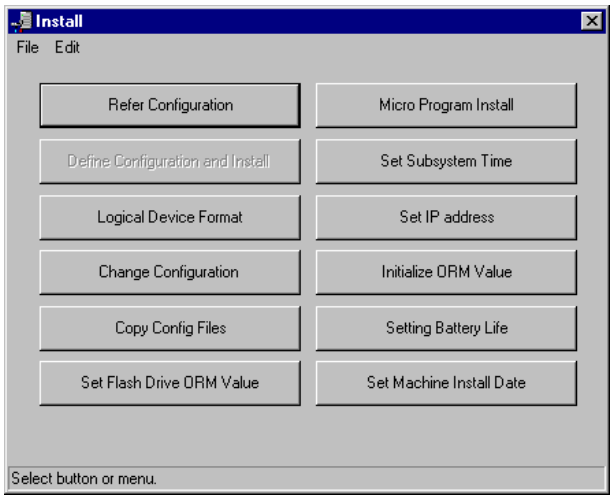
Copyright © 2014, Hitachi, Ltd.

1. Setting up the New Device Structure Information

   (1) <Mode Change>
   Change the mode to Modify Mode.
   Select (CL) [Install].

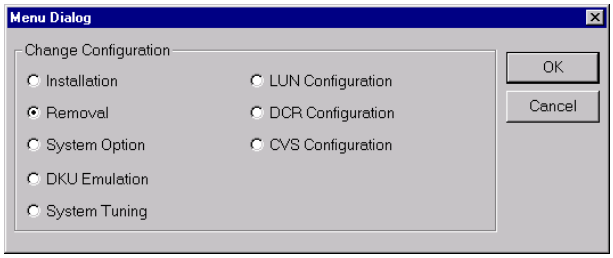
---

   (2) <Start the 'Menu Dialog' screen>
   Select (CL) [Change Configuration].



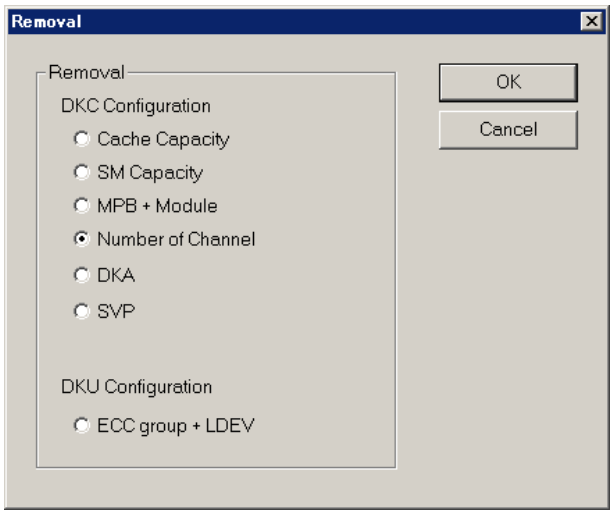
---

   (3) <Start Device Structure Setup screen>
   Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].

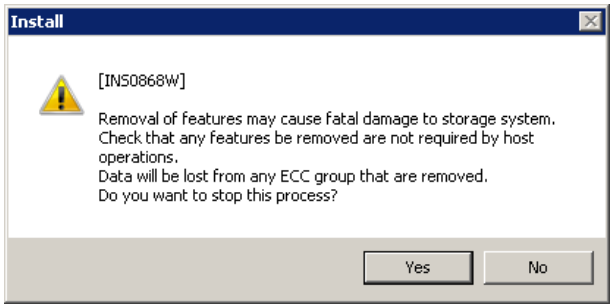


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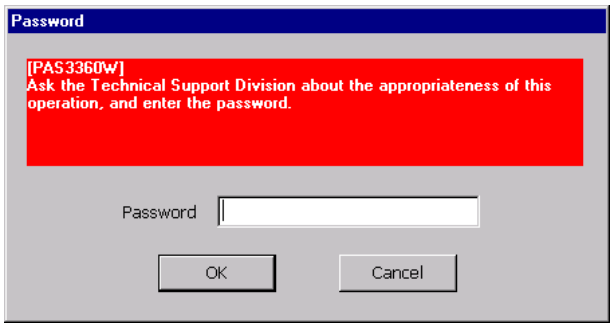
(4) <Select a part to be changed>
Select (CL) [Number of Channel], and select (CL) [OK].



(5)
Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(6) <Input password>
Enter a password and select (CL) the [OK].



⚠ CAUTION

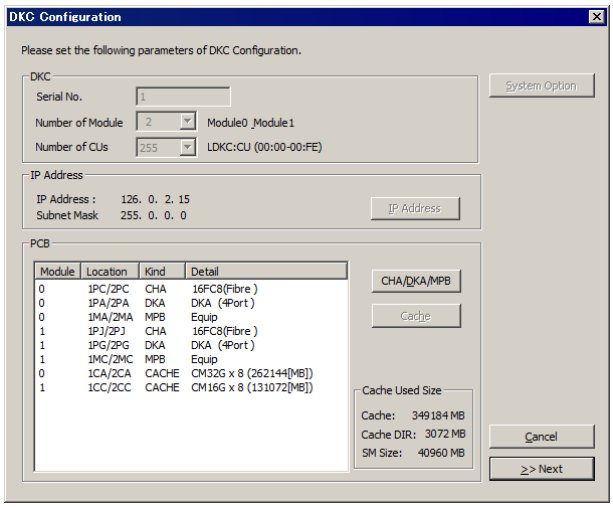
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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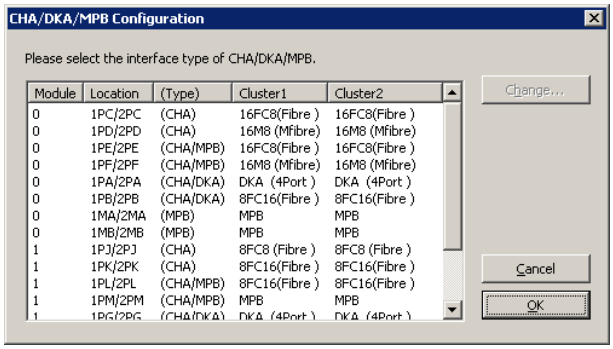
(7) <DKC Configuration screen>
Select (CL) [CHA/DKA/MPB] in the 'DKC Configuration' screen.
Go to Step (8).

After setting the items, select (CL) [>>Next].
Go to Step 2.

If [Cancel] is selected (CL), this operation procedure terminates.



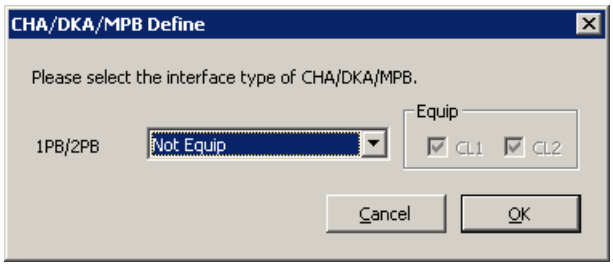
(8) <Updating the configuration information>
In the 'CHA/DKA/MPB Configuration' window, select the location(s) where the CHA is to be removed from, and select (CL) the [Change...].
Advances the routine to Step (9).
Make sure that the entry that has been made is correct and select (CL) the [OK].
The routine is returned to Step (7).



Refer to INST01-80 for the SVP screen display and the conversion of the option type names.

NOTICE: In the case of the multi-platform configuration
(1) When changing the configuration from multi-platform to open, remove the volume of the main frame first, and then remove the Channel PCB.
(2) When changing the configuration from multi-platform to main frame, remove the volume of the open first, and then remove the Channel PCB.

(9) <Select the CHA type>
In the 'CHA/DKA/MPB Define' window, select the [Not Equip].
After the setting is completed, select (CL) the [OK].
The routine is returned to Step (8).

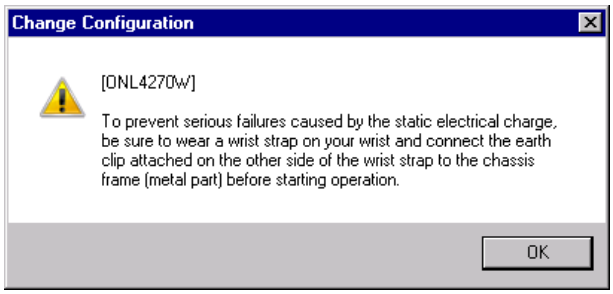


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2. SVP pre procedure

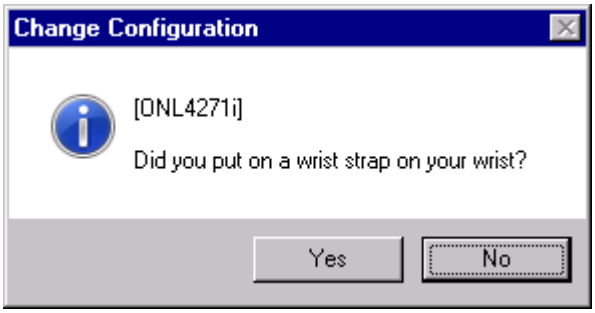
(1) <Wear a wrist strap>

Select (CL) [OK] in response to “To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.”.



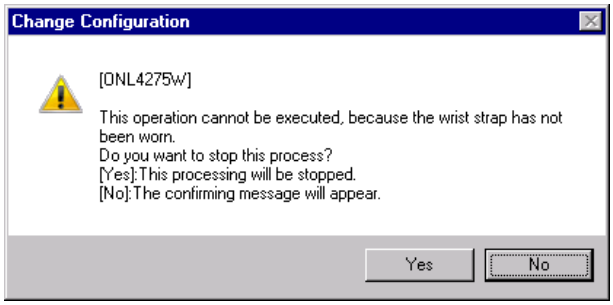
(1)-1 <Confirm wearing wrist strap>

In response to a message, “Did you put on a wrist strap on your wrist?”.
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When [No] is selected (CL), go to Step (1)-2.



(1)-2

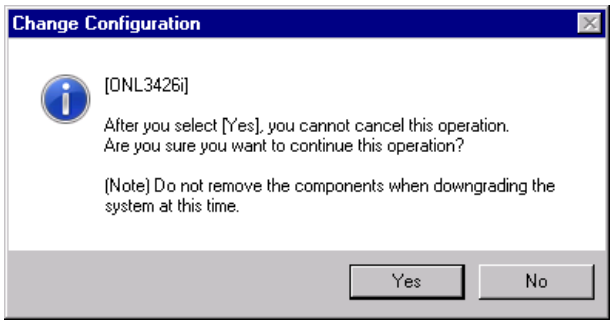
In response to a message, “This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear.”
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-04B-30.
When [No] is selected (CL), returned to Step (1).



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(2) <Start installation>

Select (CL) [Yes] in response to “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components when downgrading the system at this time.”.

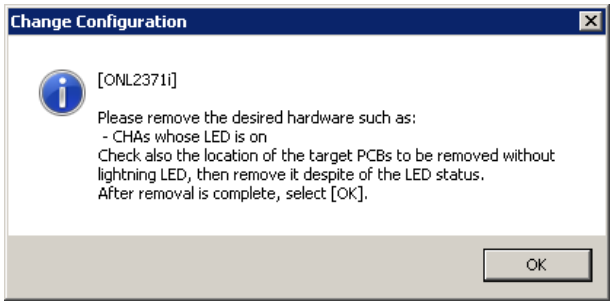


When [No] is selected (CL), the routine is returned to Step (2) on page INST04-04B-30.

(3) <Remove CHA>

At this point refrain from pressing the [OK] button.

“Please remove the desired hardware such as:
- CHAs whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].” is displayed.



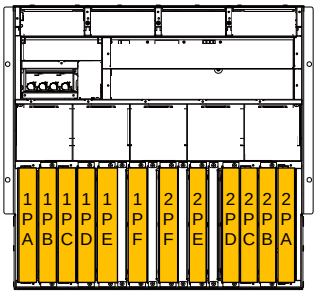
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3. De-Installation Procedure of Mainframe Fibre 16-port 8G Host Adapter

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

3-1 Confirmation of the Shut Down LED

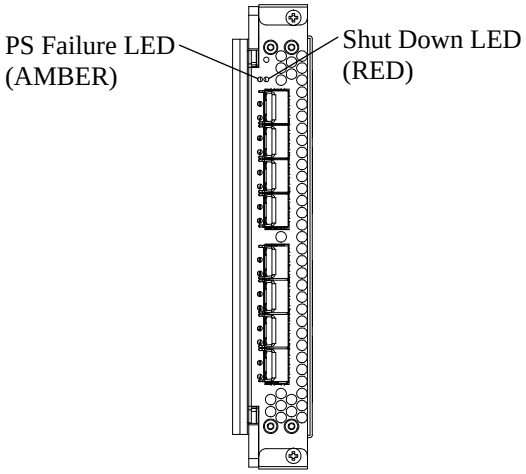
a. While referring to Fig. 4.4.2-1 and Table 4.4.2-3, check the Shut Down LED on the PCB.



Rear View of DKC-0



Rear View of DKC-1



CHA PCB

Fig. 4.4.2-1 Location of the Shut Down LED

Table 4.4.2-3 Inserting Location

DKC	Addition No.	Slot No.		Location No.		Remarks
		Cluster 1	Cluster 2	Cluster 1	Cluster 2	
DKC-0	Basic	1PC	2PC	CHA-1PC	CHA-2PC	
	Option 1	1PD	2PD	CHA-1PD	CHA-2PD	
	Option 2	1PE	2PE	CHA-1PE	CHA-2PE	
	Option 3	1PF	2PF	CHA-1PF	CHA-2PF	
	Option 4	1PB	2PB	CHA-1PB	CHA-2PB	All CHA
	Option 5	1PA	2PA	CHA-1PA	CHA-2PA	All CHA
DKC-1	Option 6	1PJ	2PJ	CHA-1PJ	CHA-2PJ	
	Option 7	1PK	2PK	CHA-1PK	CHA-2PK	
	Option 8	1PL	2PL	CHA-1PL	CHA-2PL	
	Option 9	1PM	2PM	CHA-1PM	CHA-2PM	
	Option 10	1PH	2PH	CHA-1PH	CHA-2PH	All CHA
	Option 11	1PG	2PG	CHA-1PG	CHA-2PG	All CHA

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3-2 Disconnection of the optical fibre cables

When the optical fibre cables have been wired from the floor

a. Disconnect the optical fibre cables from the PCB.

In case of DKC-0

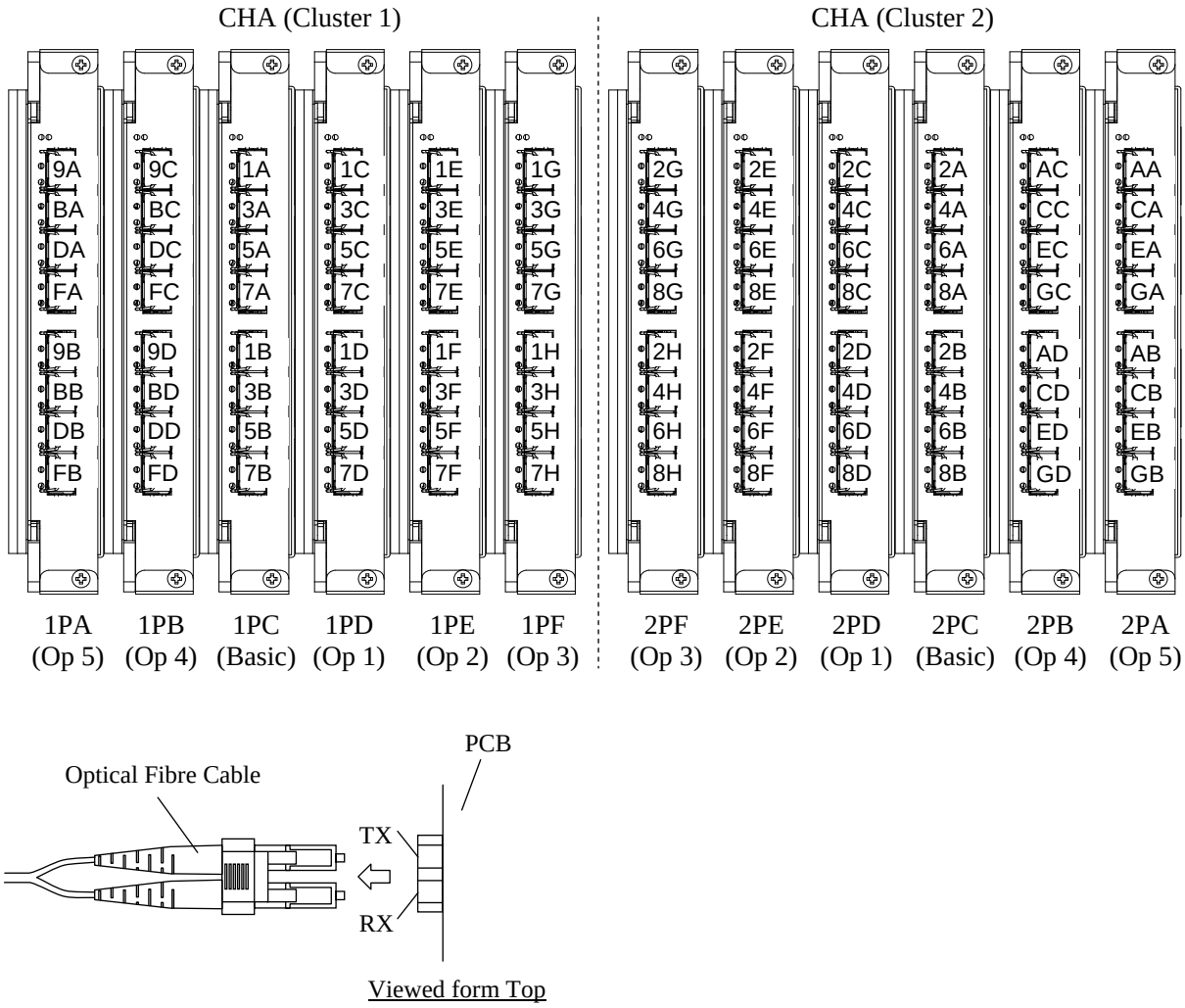


Fig. 4.4.2-2 Disconnection of Optical Fibre Cables (DKC-0)

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In case of DKC-1

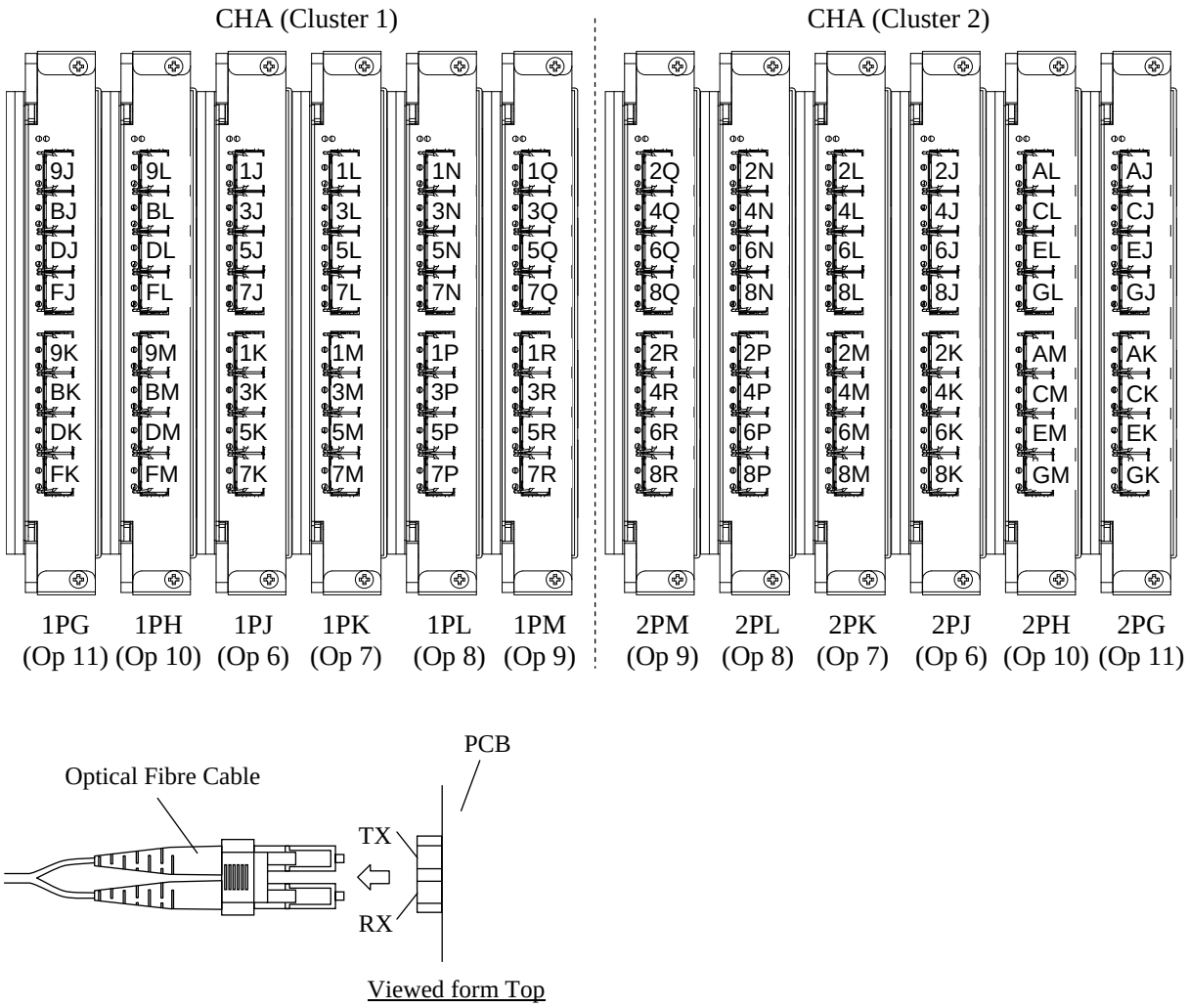


Fig. 4.4.2-3 Disconnection of Optical Fibre Cables (DKC-1)

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b. Loosen the two screws at the rear bottom of the frame and slide the S/R ASSY forward.
c. Remove the optical fibre cables from the frame.
d. Slide the S/R ASSY toward you and tighten the two screws.

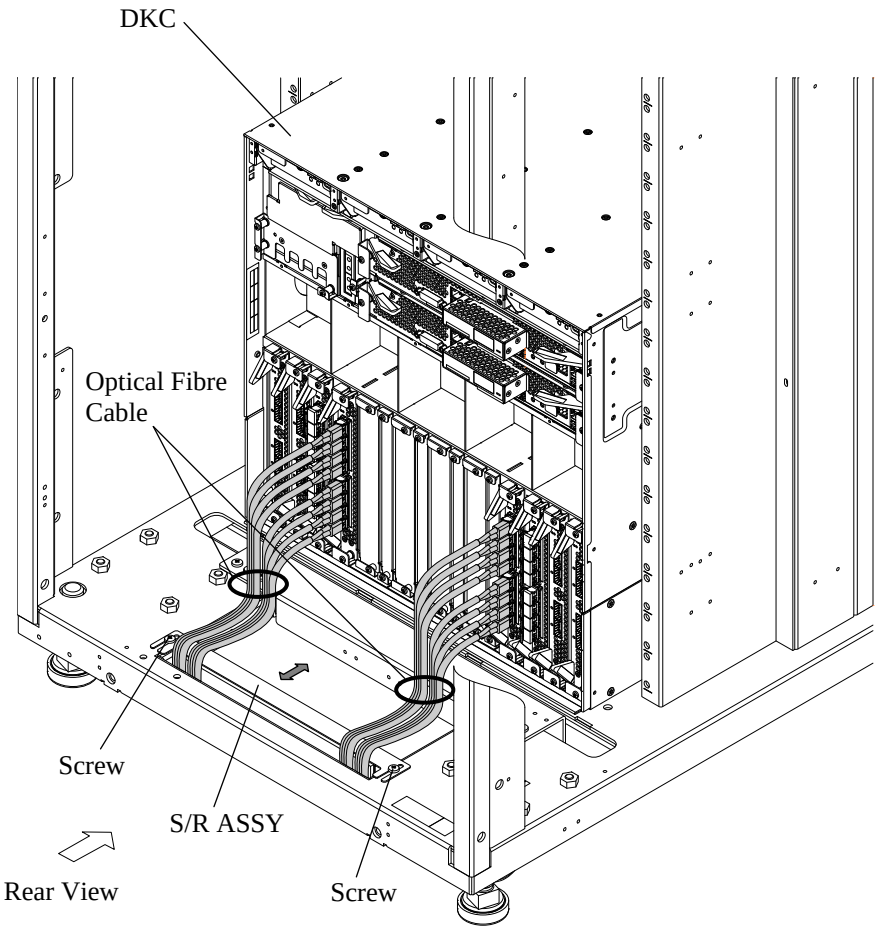


Fig. 4.4.2-4 Removal of Optical Fibre Cables

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When wiring for the optical fibre cables from the window opening of the top cover

a. Disconnect the optical fibre cables from the PCB in the DKC. (Refer to Fig. 4.4.2-2 or Fig. 4.4.2-3.)
b. Loosen the two screws of the top cover, and slide the window opening toward the front side.
c. Pull out the optical fibre cables from the opening of the top cover.
d. Slide the window to close the opening, and retighten it with the two screws.

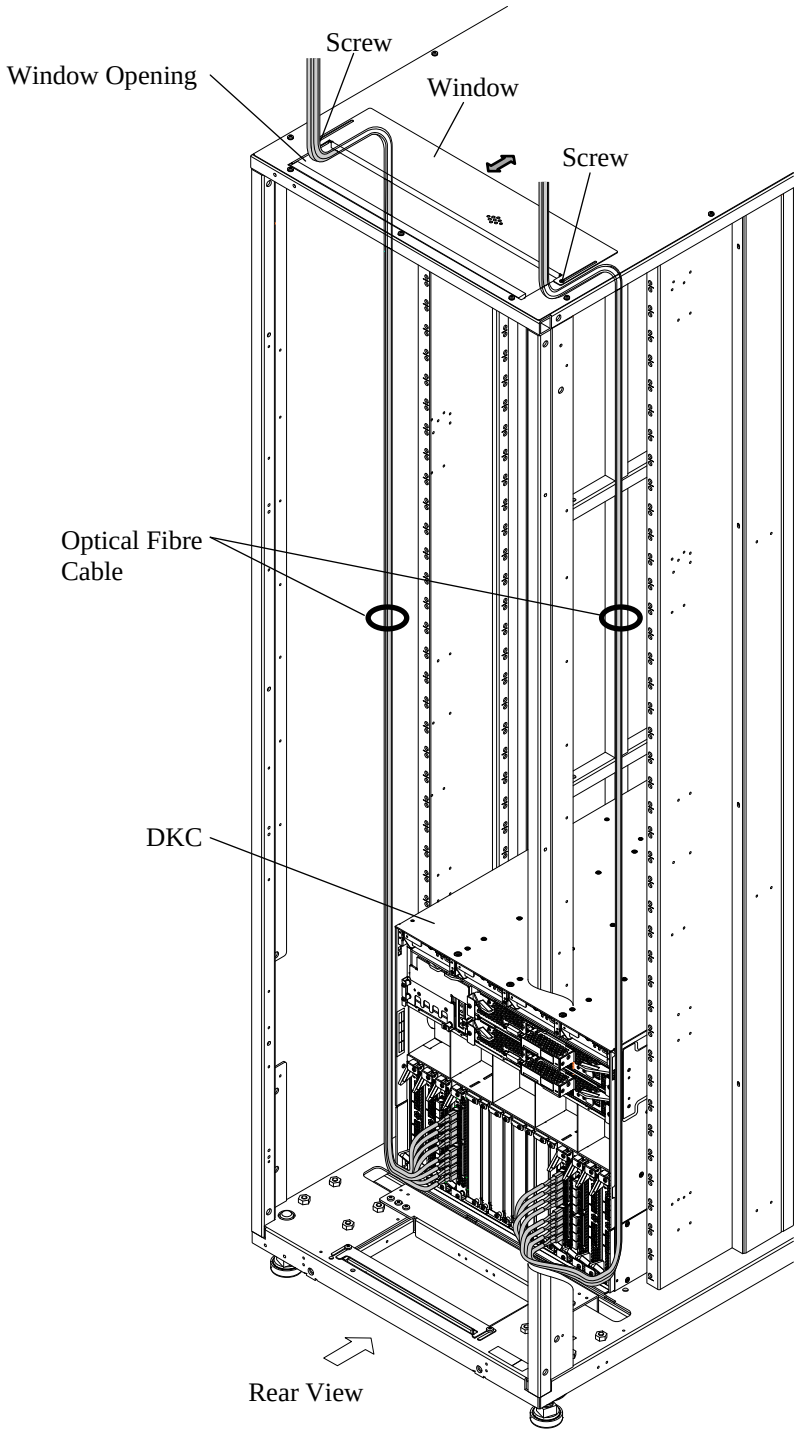


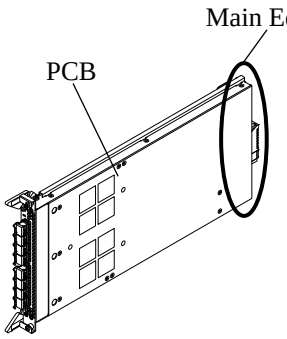
Fig. 4.4.2-5 Removal of Optical Fibre Cables

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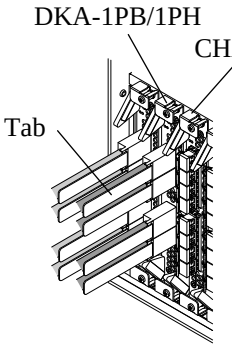
3-3 Removal of the PCB

a. Loosen the screws and remove the PCBs from the DKC. Refer to Table 4.4.2-3 and Fig. 4.4.2-6.

b. Attach the dummy plate and tighten the screws.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.



NOTICE: When inserting or removing the CHA PCB (CHA-1PC/1PJ), be careful so that the tab of the DEV interface cable that connects to the adjacent DKA PCB (DKA-1PB/1PH) is not caught in it.

NOTICE: Install the dummy plate immediately after removing the PCB.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

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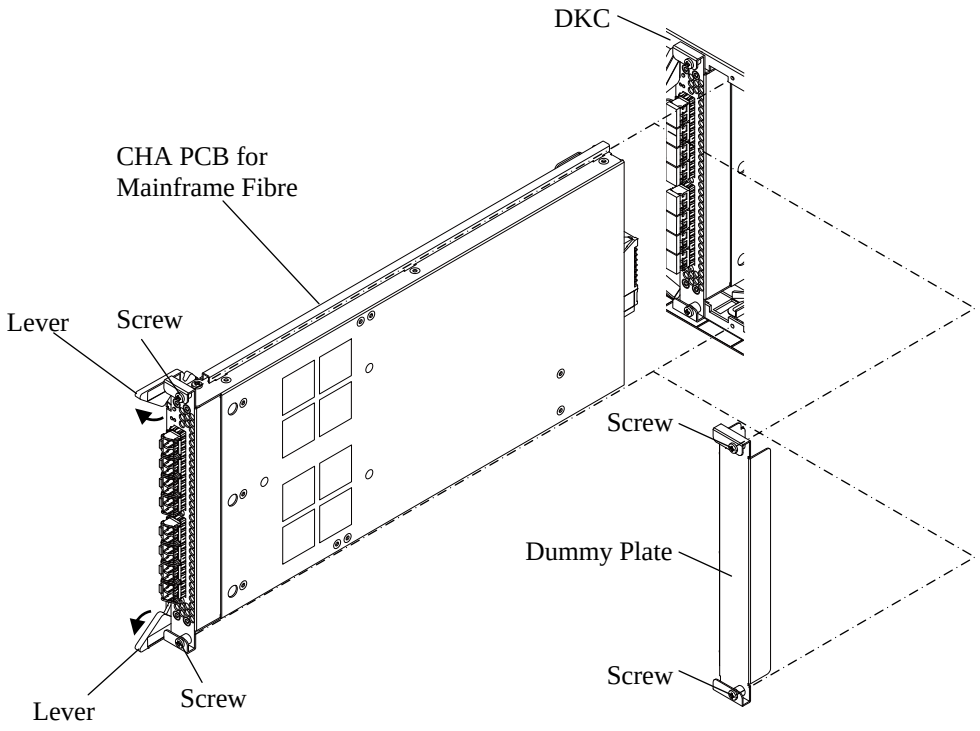


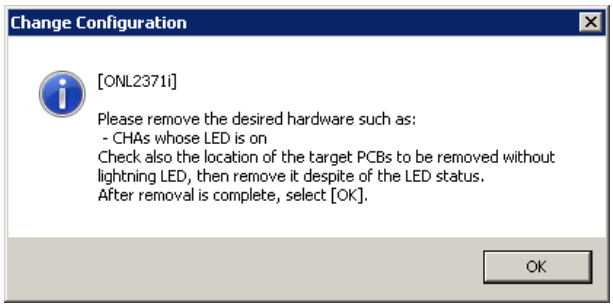
Fig. 4.4.2-6 Removal of PCB

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4. SVP procedure

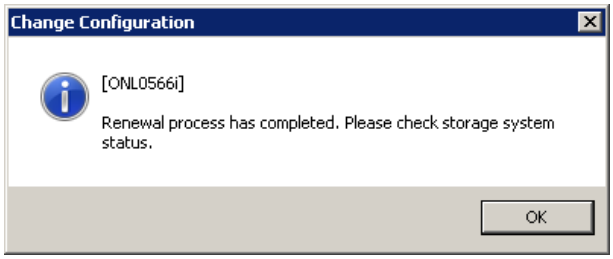
(1) <Making sure of completion of the CHA removal>

In response to a message, “Please remove the desired hardware such as:
- CHAs whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].”, select (CL) [OK].



(2)

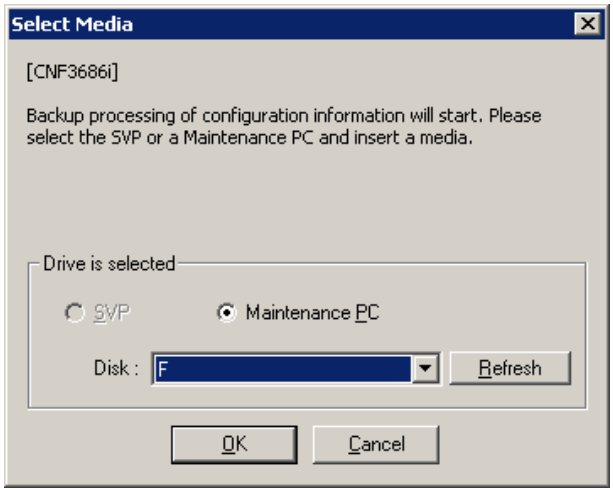
A message, “Renewal process has completed. Please check storage system status.” is displayed. In response to the message, select (CL) [OK].



(3)

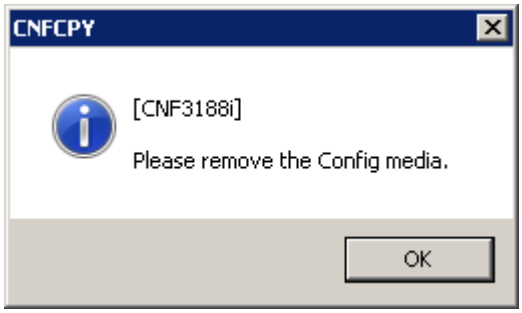
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



(4)

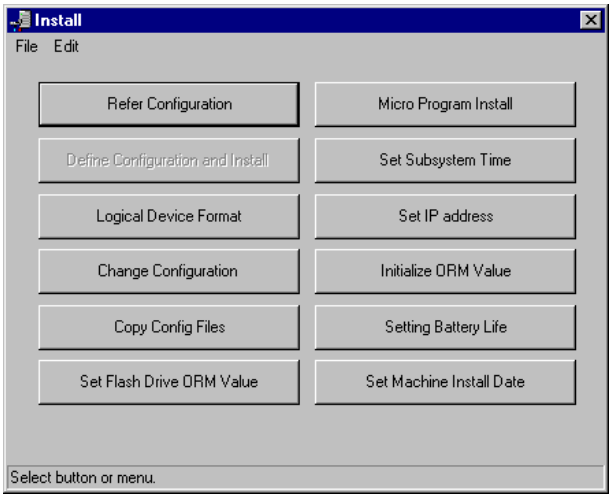
When this procedure is completed, the message “Please remove the Config media.” is displayed. Remove the configuration information media, select (CL) [OK].



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(5)

After the procedure is completed, return to ‘Install’.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

Return to the working table and do the rest of the work. (INST02-80)

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4.5 De-Installation of Processor Blade, HUB, Cache Memory, Cache Backup Module kit and Cache Flash Memory, Inter-Controller Connecting Kit and Inter-Controller Connecting Cable (DKC-F810I-MP/HUB/CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MOD5/MOD30/MOD1J/MFC5/MFC30/MFC1J)

The de-installation examples when the CHA, DKA and HDD or the like are removed at the same time as CBXB are shown in the following.

Notes when uninstalling Processor Blade:

Uninstalling a Processor Blade may affect I/O when there is much write pending data in cache. We recommend to uninstall a Processor Blade when all the cache write pending rate per CLPR in a Processor Blade is less than 40%.

[De-Installation Sample]

Step1: De-Installation of Disk Adapter, Drive and DEV Interface Cable INST04-01-10
Step2: De-Installation of Drive Chassis (DKC-F810I-UBX/SBX/FBX) INST04-02-10
Step3: De-Installation of Channel Adapter (DKC-F810I-8FC16/16FC8/16MS8/16ML8) INST04-04A-10
Step4: De-Installation of Processor Blade, HUB, Cache Memory, Cache Backup Module kit and Cache Flash Memory, Inter-Controller Connecting Kit and Inter-Controller Connecting Cable (DKC-F810I-MP/HUB/CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MOD5/MOD30/MOD1J/MFC5/MFC30/MFC1J) INST04-05-10
Step5: De-Installation of Controller Chassis (DKC-F810I-CBXB) INST04-06-10

Table 4.5-1 Parts List (Only MPB)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-MP	WP850-A	5552761-A	2	
		WP850-B			
2	DKC-F810I-HUB	HUBBOX	5552760-A	1	

Table 4.5-2 Parts List (Module De-Installation)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-MOD5	MODCON	5552749-A	2	
		H-PCF Cable	5555027-A	2	MODCON Cable
		LAN Cable	5555029-A	1	
		MFC Cable	5552752-A	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*1)
		Cleat	5409055-2	1	(*1)
		Clamp Tape	5544251-3	1	(*1)

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
2	DKC-F810I-MOD30	MODCON	5552749-A	2	
		H-PCF Cable	5555153-A	2	MODCON Cable
		LAN Cable	5555154-A	1	
		MFC Cable	5555155-A	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*1)
		Cleat	5409055-2	1	(*1)
		Clamp Tape	5544251-3	1	(*1)
3	DKC-F810I-MOD1J	MODCON	5552749-A	2	
		H-PCF Cable	5555028-A	2	MODCON Cable
		LAN Cable	5555030-A	1	
		MFC Cable	3287340-B	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*1)
		Cleat	5409055-2	1	(*1)
		Clamp Tape	5544251-3	1	(*1)
4	DKC-F810I-MFC5	MFC Cable	5552752-A	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*1)
		Cleat	5409055-2	1	(*1)
		Clamp Tape	5544251-3	1	(*1)
5	DKC-F810I-MFC30	MFC Cable	5555155-A	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*1)
		Cleat	5409055-2	1	(*1)
		Clamp Tape	5544251-3	1	(*1)

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
6	DKC-F810I-MFC1J	MFC Cable	3287340-B	8	
		Label (Address) 3	3287145-1	3	
		Label (Protect)	3287450-1	3	
		FE Cable Jig	5555008-A	1	
		Packing Work (PARTS)	3287318-C	1	
		Screw	SB406N	1	(*1)
		Cleat	5409055-2	1	(*1)
		Clamp Tape	5544251-3	1	(*1)
7	DKC-F810I-CM16G	16GB DIMM	5552764-A	1	CM Module
8	DKC-F810I-CM32G	32GB DIMM	5552765-A	1	CM Module
9	DKC-F810I-CPEX	WP840-A	5552763-A	2	CM PCB
		HU Jumper	5521578-1	2	Maintenance Jumper
10	DKC-F810I-BKMS	BKM	2855832-A	2	
11	DKC-F810I-BKML	BKM	2856455-A	2	
12	DKC-F810I-BMM128	SSD(128GB)	5552768-A	1	CFM
		Screw	SB305N	2	
13	DKC-F810I-BMM256	SSD(256GB)	5552769-A	1	CFM
		Screw	SB305N	2	

*1: These parts are included in Packing Work (PARTS).

Total rough time of removal will be the sum of rough time removal of each item.

Table 4.5-3 Working time

		Number of change (set)	Total (minutes)
MPB	Removal	5min × target CM PCB num.	
		Total (minutes)	
CACHE	Target CM PCB blocking time	5 ~ 60min × 2 (*1)	
	Cache memory, CFM equipment process	Cache memory module: 6min × target CM PCB num. CFM: 7.5min × target CM PCB num.	

*1: Standard processing time is indicated. The processing time depends on the use situation, especially, the influence of the amount of write pending is received. When the amount of write pending is large, time more than the indication value might be required.

NOTE: For CACHE removal, additional time for wiring cables is necessary to newly route cable(s) between modules. (It is not applied to 1 module configuration).

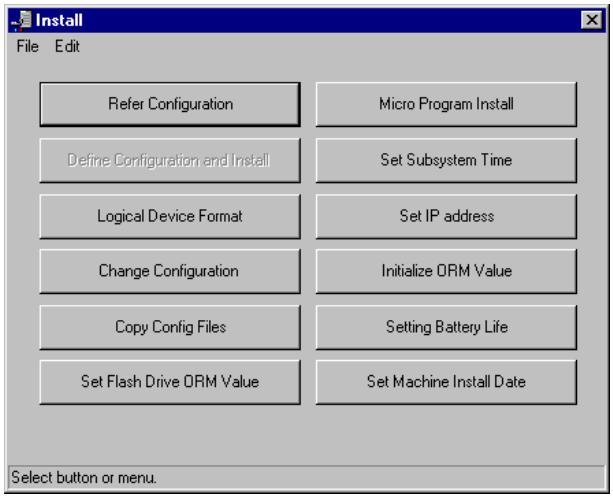
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4.5.1 De-Installation of Module (DKC-F810I-MP/HUB/CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MOD5/MOD30/MOD1J/MFC5/MFC30/MFC1J)

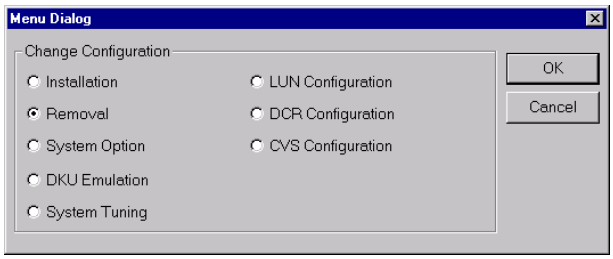
1. Setting up the New Device Structure Information

   (1) <Mode Change>
   Change the mode to Modify Mode.
   Select (CL) [Install].

   (2) <Start the 'Menu Dialog' screen>
   Select (CL) [Change Configuration].

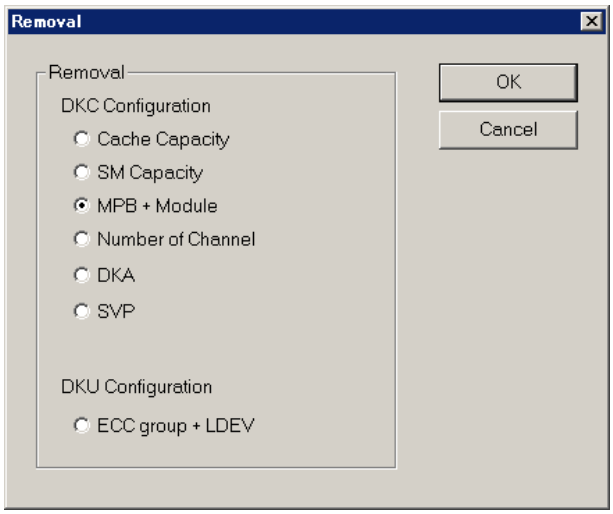


   (3) <Start Device Structure Setup screen>
   Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].

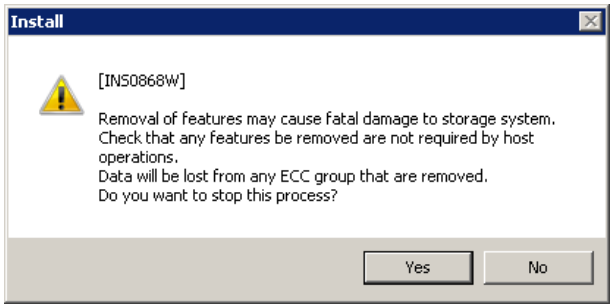


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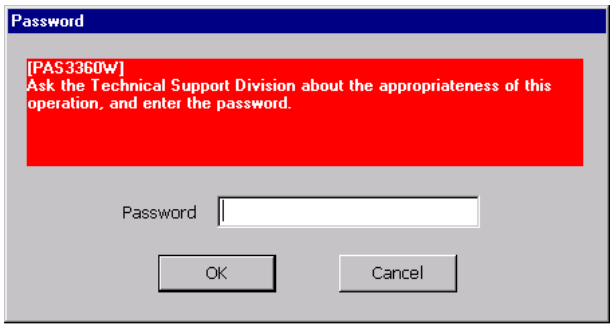
(4) <Select a part to be changed>
Select (CL) [MPB + Module], and select (CL) [OK].



(5)
Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(6) <Input password>
Enter a password and select (CL) [OK].

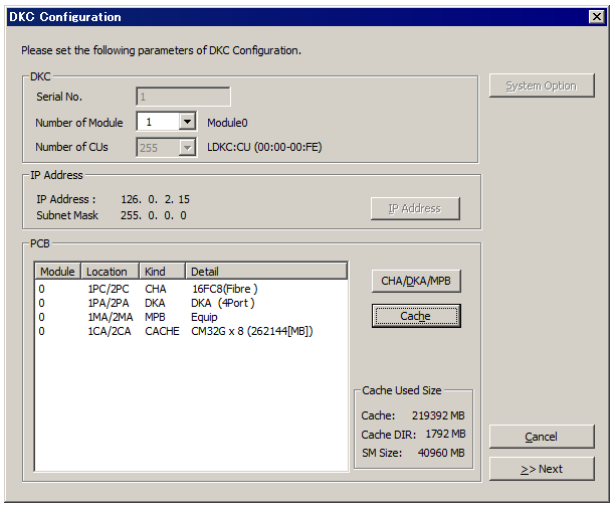


⚠ CAUTION

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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(7) <DKC Configuration screen>



When removal of the Module is required:
Select (CL) [Number of Module].
With [Number of Module], select the number of modules from a pull down menu.
Select (CL) [Cache].
Go to Step (8).

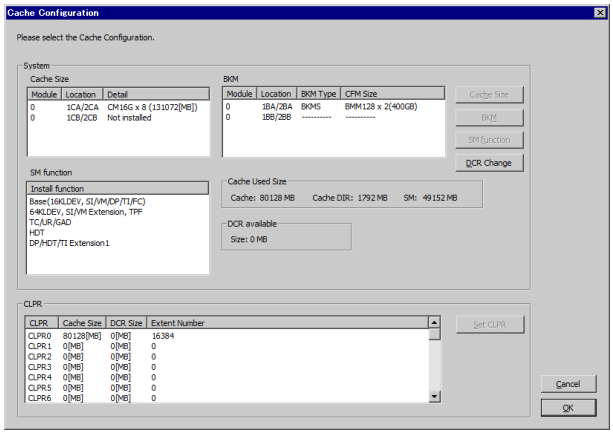
When removal of the MPB is required:
Select (CL) [CHA/DKA/MPB] in the 'DKC Configuration' screen.
Go to Step (9).

After setting items, select (CL) [>>Next].
Go to Step 2.

If [Cancel] is selected (CL), this operation procedure terminates.

---

(8) <Define Cache>



Define each item in the 'Cache Configuration' window.

If you want to change the DCR available size, select (CL) [DCR Change] of DCR available to change it.
Go to Step (8)-1.
(See SSD Optional Function Section)

When a change in the CLPR setting is necessary, select (CL) the CLPR to be changed, and select (CL) the [Set CLPR].
Go to Step (8)-2.

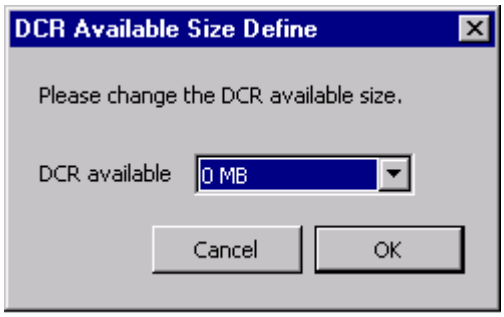
After setting up all items, select (CL) [OK].
Return to Step (7).

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(8)-1 <Define DCR Available Size>

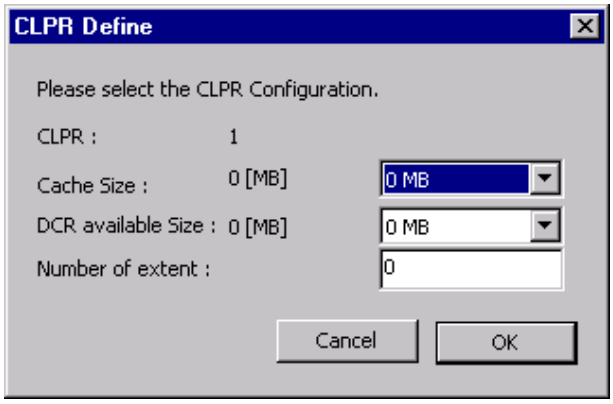
Define the DCR available size in the 'DCR Available Size Define' dialog box.
And select (CL) [OK].

Go back to Step (8).



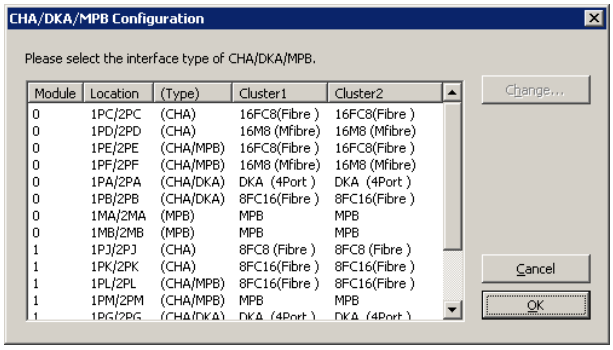
(8)-2 <Setting CLPR>

Set the Cache Size/DCR available Size/ Number of extent in the 'CLPR Define' window and select (CL) the [OK].
Go back to Step (8).



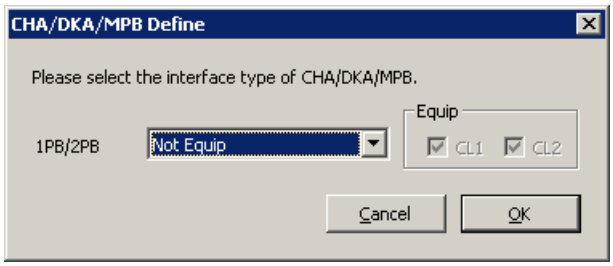
(9) <CHA/DKA/MPB configuration screen>

In the 'CHA/DKA/MPB Configuration' window, select the location(s) where the MPB is to be removed from, and select (CL) [Change...].
Go to Step (10).
Make sure that the entry that has been made is correct and select (CL) [OK].



(10) <CHA/DKA/MPB Define screen>

In the 'CHA/DKA/MPB Define' screen, select (CL) [Not Equip].
After the setting is completed, select (CL) [OK].
The routine is returned to Step (9).

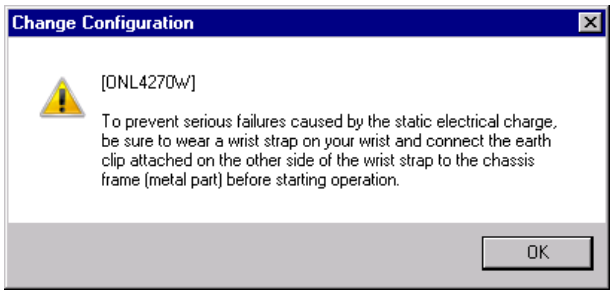


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2. SVP pre procedure (Cache memory) (Cluster 1)

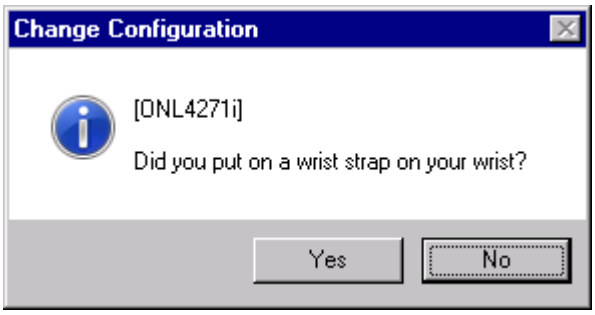
(1) <Wear a wrist strap>

Select (CL) [OK] in response to "To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.".



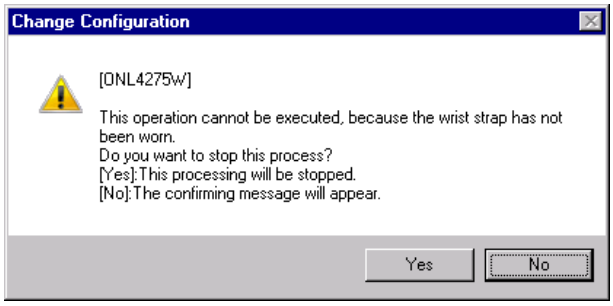
(1)-1 <Confirm wearing wrist strap>

In response to a message, "Did you put on a wrist strap on your wrist?".
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When [No] is selected (CL), go to Step (1)-2.



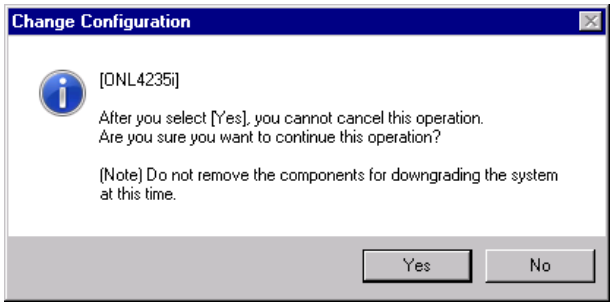
(1)-2

In response to a message, "This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear."
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-05-40.
When [No] is selected (CL), returned to Step (1).



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(2) <Start installation>
Select (CL) [Yes] in response to “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components for downgrading the system at this time.”



When [No] is selected (CL), the routine is returned to Step (2) on page INST04-05-40.

---

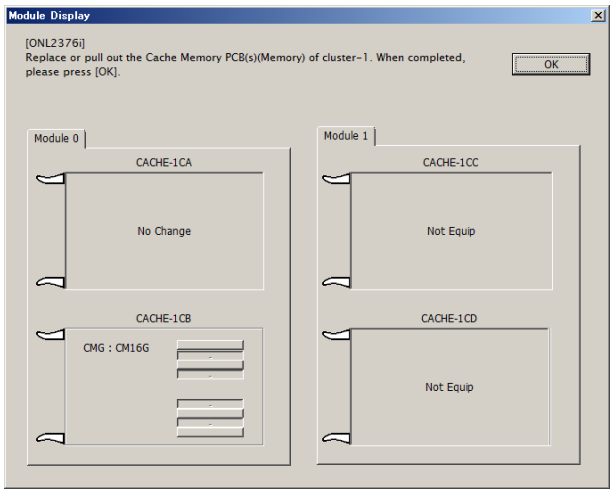
(3) <Memory blocking on cluster 1>
When blocking of cluster 1 of shared memory and Cache memory is completed, “The Cache Memory PCB is being blocked...” and “The Shared Memory PCB is being blocked...” are displayed.

---

(4)
“Lighting LED of the PCB...” is displayed.

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(5) <Perform cache hardware removal>
At this point refrain from pressing the [OK] button.
When “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-1. When completed, please press OK.” is displayed, perform the hardware removal steps according to the cache hardware removal procedure.



Make sure of the installation location of the module to be removed and remove the correct module.
(The Shared Memory capacity may be changed at the same time, depending on the set Cache Memory capacity.)

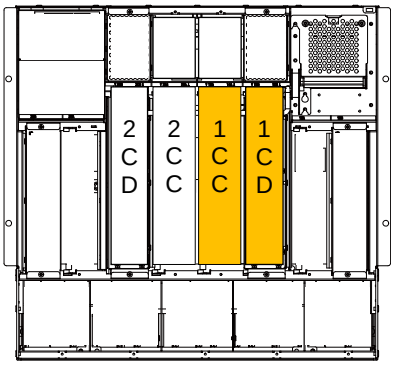
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3. Remove the Cache Memory

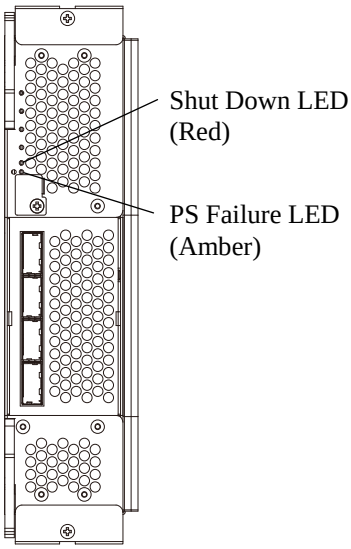
NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

3-1 Remove the PCB.

a. Check that the Shut Down LED on the Cache Memory PCB is lit.



Front View of DKC-1



CM PCB

Fig. 4.5.1-1 Location of Shut Down LED

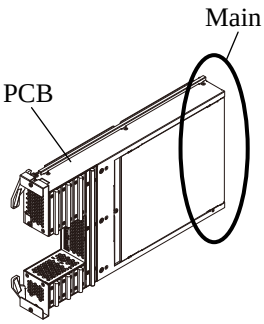
Table 4.5.1-1 Location of Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
1	DKC-1	1CC	CACHE-1CC	
		1CD	CACHE-1CD	

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b. If the cables are connected to the CM PCB, disconnect the cables after checking "3.1.7 Notes when connecting and disconnecting MFC cable" (INST03-01-190).
If the cables are not connected to the CM PCB, go to Step c.
c. Remove the two screws and remove the CM PCB.

NOTE: When removing the CM PCB, be careful not to pull cables.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.

NOTICE: After removing the CM PCB, de-install the parts of it immediately and install the extracted CM PCB or the dummy plate.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

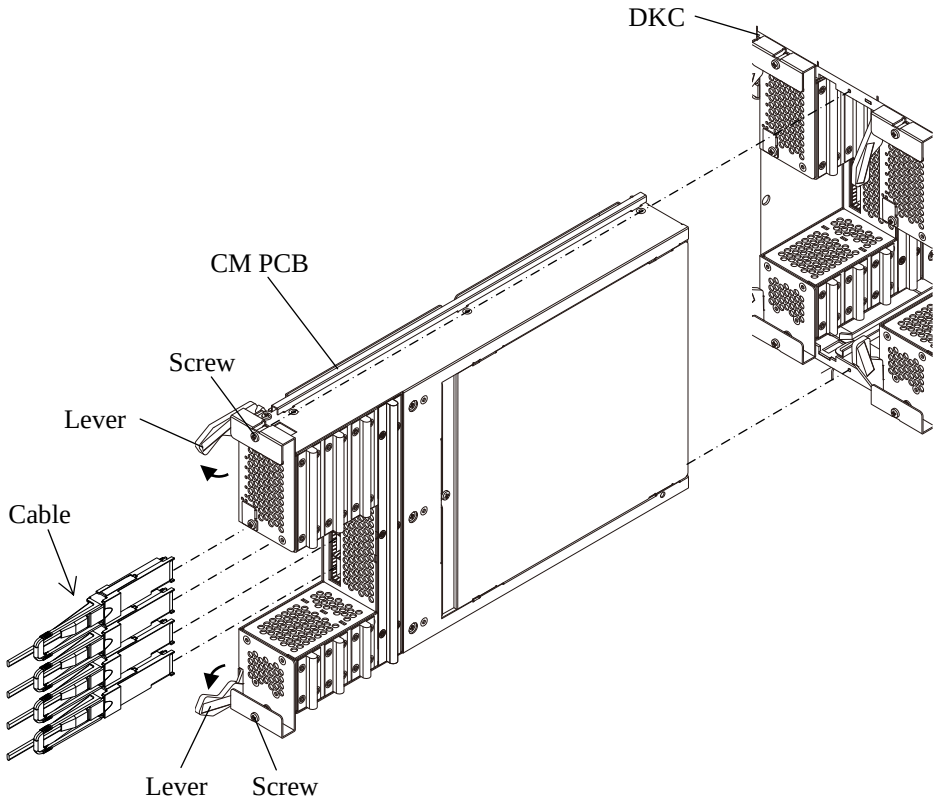


Fig. 4.5.1-2 Removal of PCB

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3-2 Remove the Cache Memory Modules.

a. Loosen the screw and remove the cover.

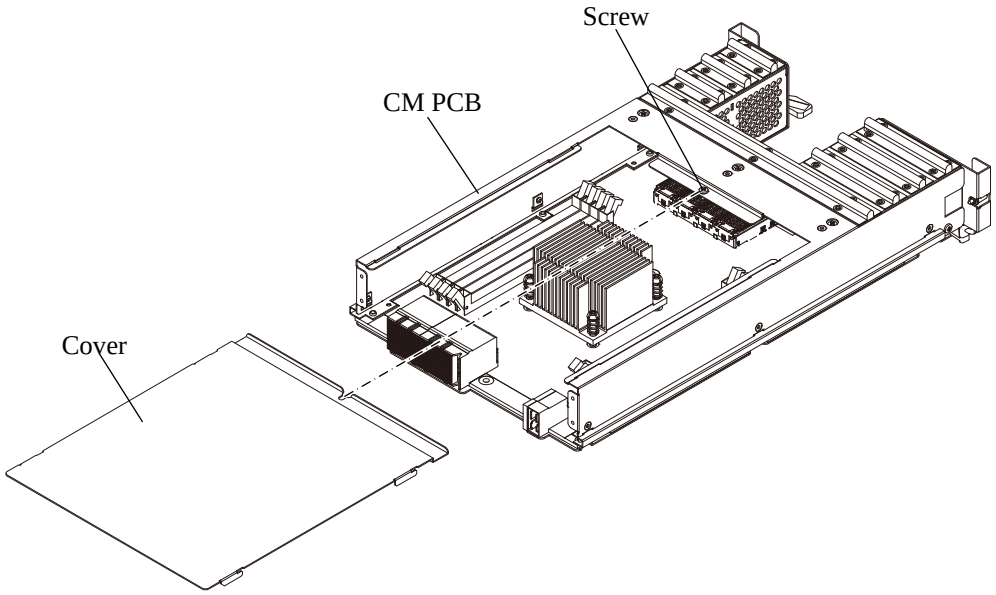


Fig. 4.5.1-3 Removal of Cover

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b. Remove all the Cache Memory Modules from the removed CM PCB.
c. Insert the dust covers into the vacant sockets.
d. Attach the cover and fasten the screw. (Refer to Fig. 4.5.1-3.)

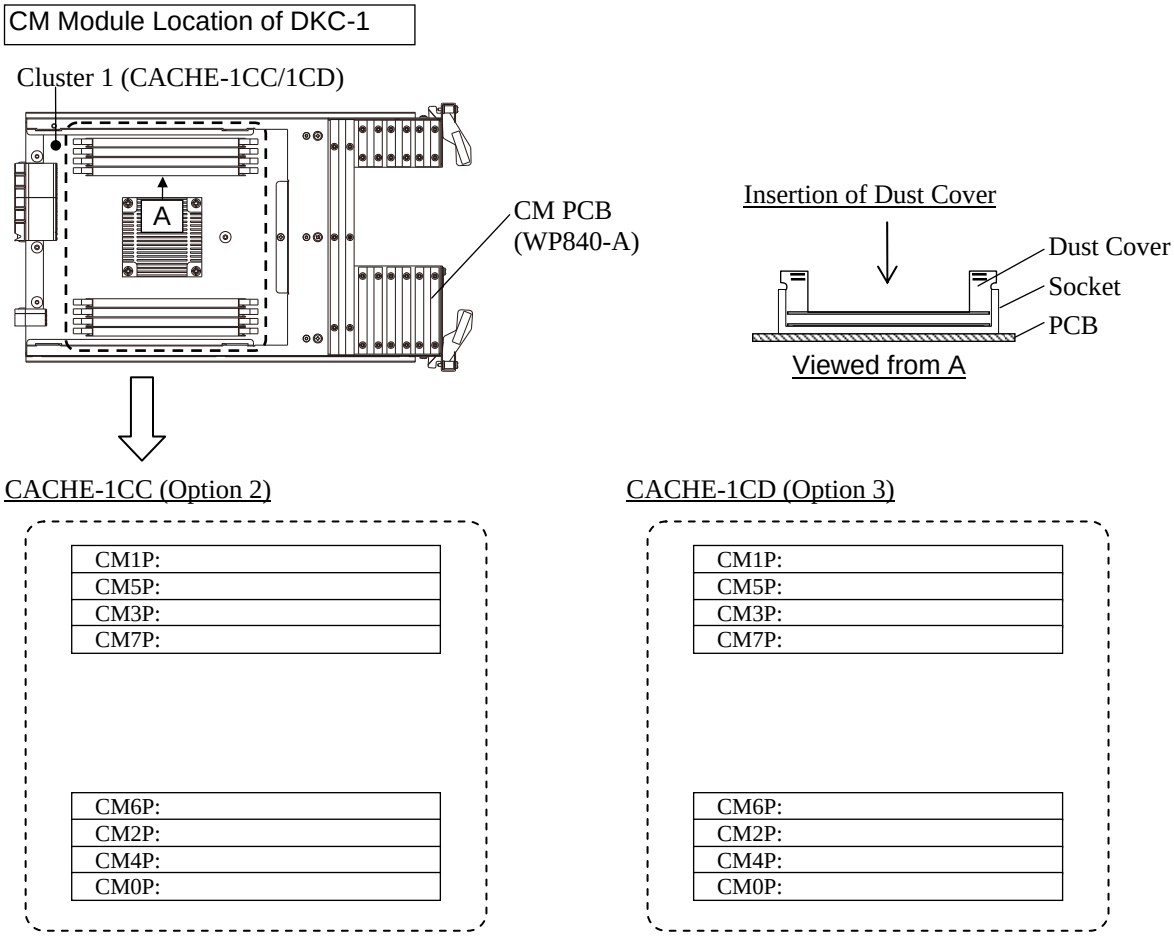
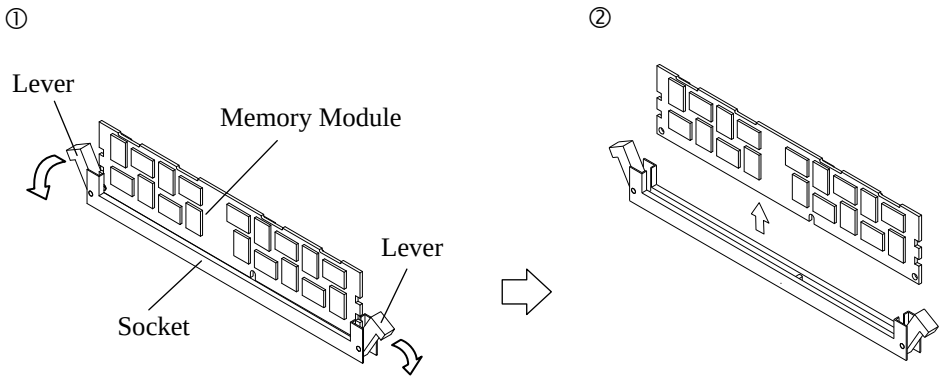


Fig. 4.5.1-4 Inserting Location of the Cache Memory Module

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Removal

① Pull the lever outward.
② Hold both ends of the memory module by the fingers, and pull out the memory module from the socket.

Fig. 4.5.1-5 Removal of Memory Module

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3-3 Insert the dummy plate.

a. Attach the dummy plate to the DKC-1 and tighten the screw.

NOTICE: Remove the dummy plate just before installing the PCB.
If the dummy plate is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

NOTE: When inserting the dummy plate, be careful not to get cables caught on anything.

Table 4.5.1-2 Location of the Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
1	DKC-1	1CC	CACHE-1CC	
		1CD	CACHE-1CD	

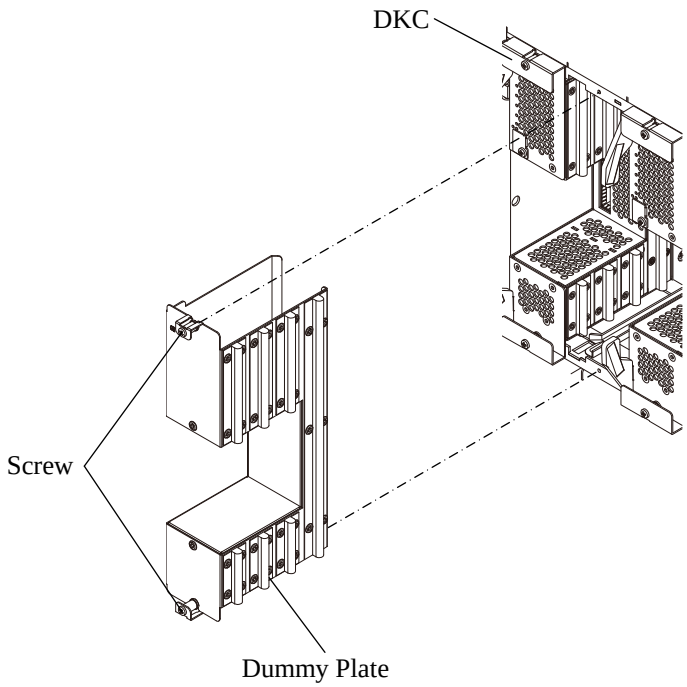


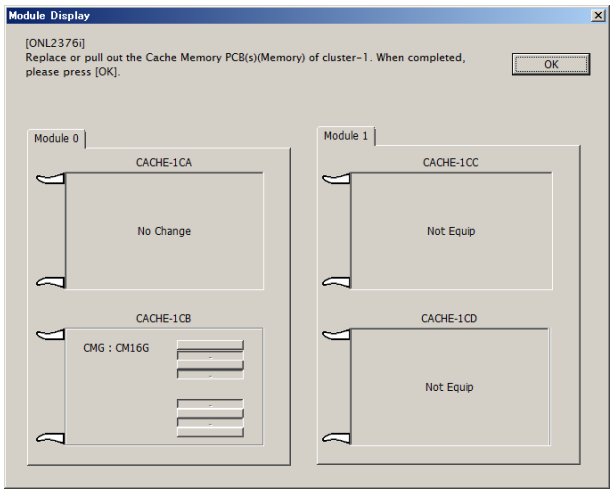
Fig. 4.5.1-6 Attachment of the Dummy Plate

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4. SVP Post-Procedure

4-1

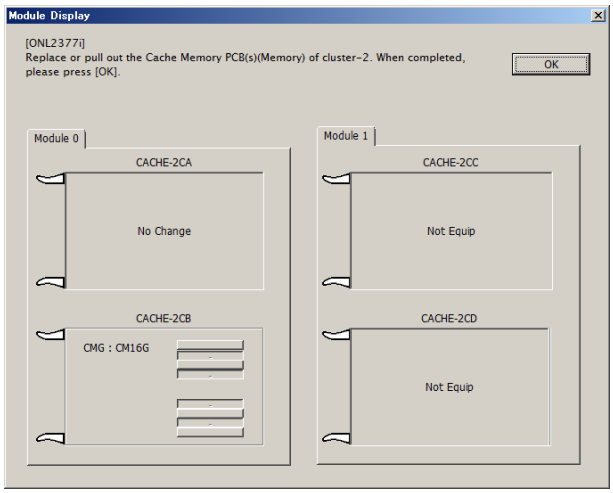
After completing the hardware removal procedure of the cache memory, select (CL) [OK] in response to “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-1. When completed, please press OK.”.



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5. SVP pre procedure (Cache memory) (Cluster 2)

(1) <Perform cache hardware removal>
At this point refrain from pressing the [OK] button.
When “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-2. When completed, please press OK.” is displayed, perform the hardware removal steps according to the cache hardware removal procedure.



Make sure of the installation location of the module to be removed and remove the correct module.
(The Shared Memory capacity may be changed at the same time, depending on the set Cache Memory capacity.)

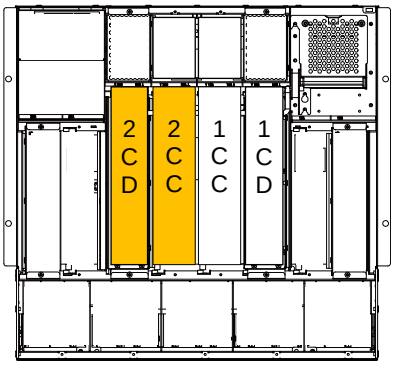
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6. Remove the Cache Memory

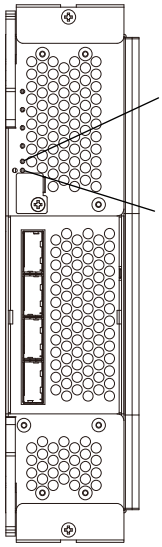
NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

6-1 Remove the PCB.

a. Check that the Shut Down LED on the Cache Memory PCB is lit.



Front View of DKC-1



CM PCB

Fig. 4.5.1-7 Location of Shut Down LED

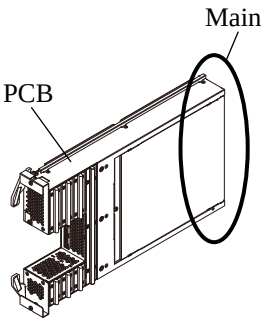
Table 4.5.1-3 Location of Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
2	DKC-1	2CC	CACHE-2CC	
		2CD	CACHE-2CD	

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b. If the cables are connected to the CM PCB, disconnect the cables after checking "3.1.7 Notes when connecting and disconnecting MFC cable" (INST03-01-190).
If the cables are not connected to the CM PCB, go to Step c.
c. Remove the two screws and remove the CM PCB.

NOTE: When removing the CM PCB, be careful not to pull cables.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and pull it out straight not to contact the neighboring PCB.

NOTICE: After removing the CM PCB, de-install the parts of it immediately and install the extracted CM PCB or the dummy plate.
If the PCB is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

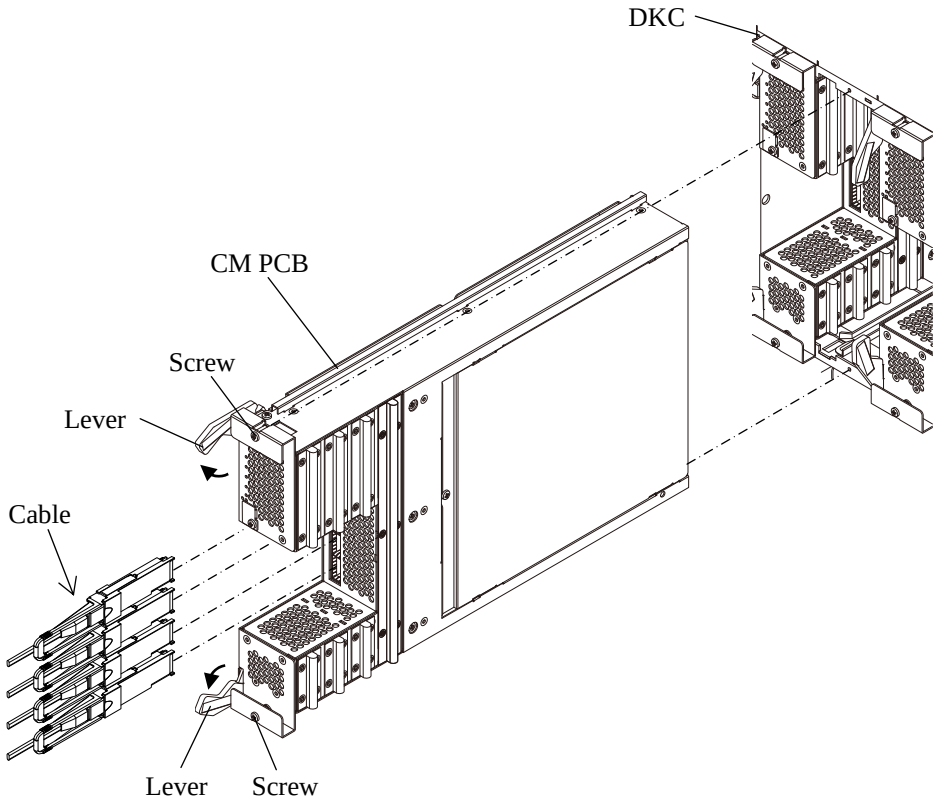


Fig. 4.5.1-8 Removal of PCB

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6-2 Remove the Cache Memory Modules.

a. Loosen the screw and remove the cover.

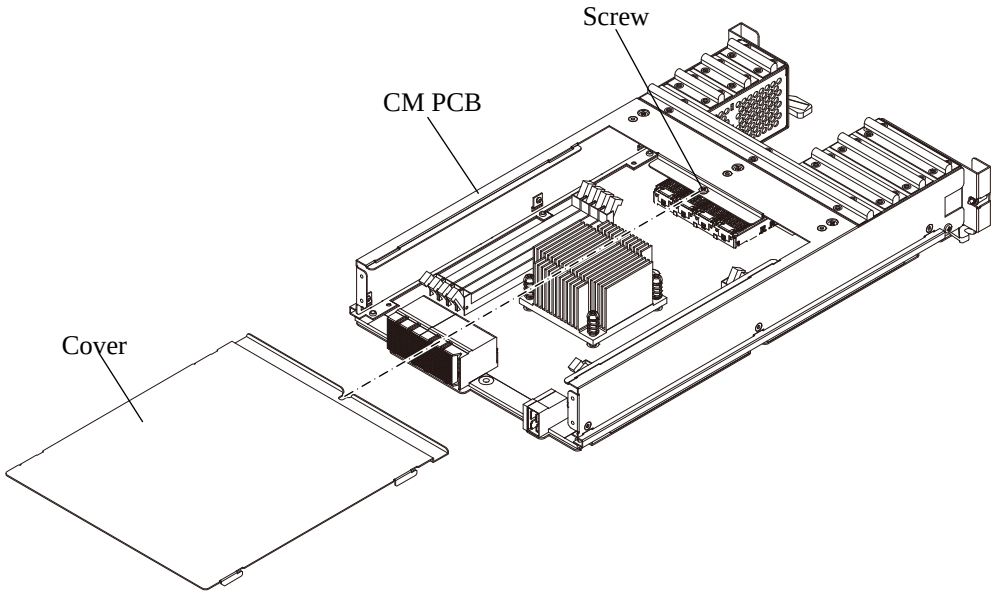


Fig. 4.5.1-9 Removal of Cover

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b. Remove all the Cache Memory Modules from the removed CM PCB.
c. Insert the dust covers into the vacant sockets.
d. Attach the cover and fasten the screw. (Refer to Fig. 4.5.1-9.)

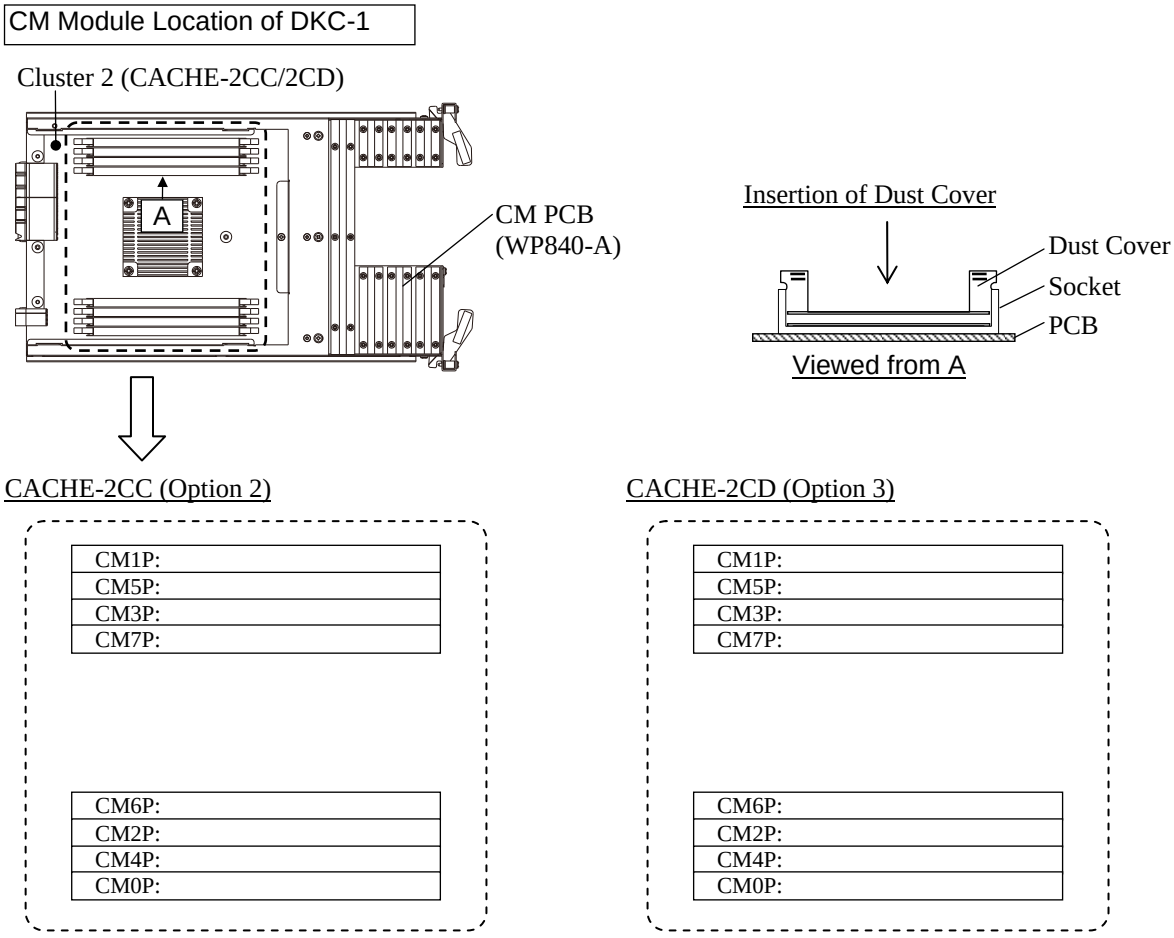
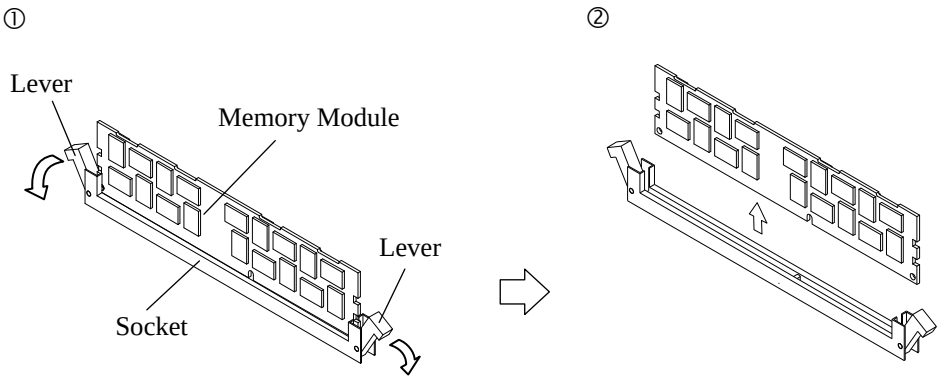


Fig. 4.5.1-10 Inserting Location of the Cache Memory Module

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Removal

① Pull the lever outward.
② Hold both ends of the memory module by the fingers, and pull out the memory module from the socket.

Fig. 4.5.1-11 Removal of Memory Module

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6-3 Insert the dummy plate.

a. Attach the dummy plate and fasten the screws.

NOTICE: Remove the dummy plate just before installing the PCB.
If the dummy plate is kept removed for 30 minutes or more, the wind doesn't flow among installed PCBs, causing the PCBs' temperature rise which may result in temperature warning or temperature alarm.

NOTE: When inserting the dummy plate, be careful not to get cables caught on anything.

Table 4.5.1-4 Location of the Cache Memory PCB

Cluster	Box	Slot No.	Location No.	Remarks
2	DKC-1	2CC	CACHE-2CC	
		2CD	CACHE-2CD	

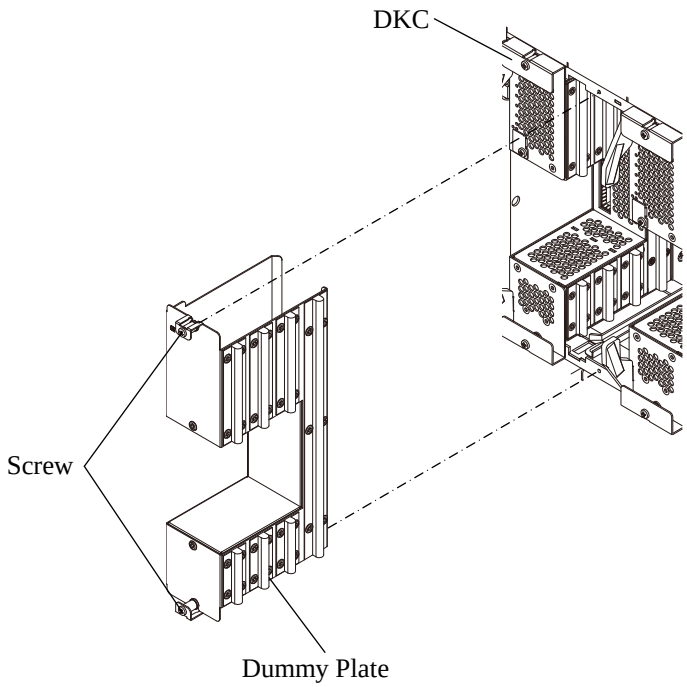


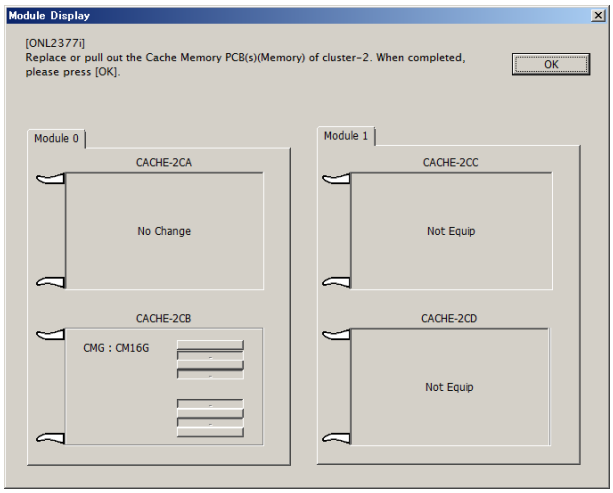
Fig. 4.5.1-12 Attachment of the Dummy Plate

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7. SVP Post-Procedure

(1)

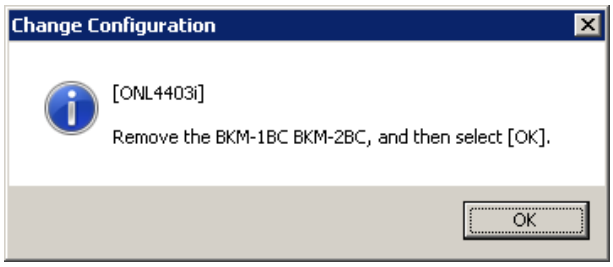
After completing the hardware removal procedure of the cache memory, select (CL) [OK] in response to “Replace or pull out the Cache Memory PCB(s)(Memory) of cluster-2. When completed, please press OK.”.



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8. Backup Module

(1) Confirmation of Backup Module removal
A message, “Remove the BKM-nnn BKM-nnn, and then select [OK].” is displayed.



(Eg. BKM-1BC, BKM-2BC)

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(2) Remove the BKM on the Cluster 1.
(2)-1 Loosen the three screws ① on the front side of the DKC and remove the cable cover.
(2)-2 Loosen the screw ② and remove the accessory box.
(2)-3 Remove the two dummy plates from the accessory box.
(2)-4 Put the accessory box in place and fix it with the screw ②.
(2)-5 Put the cable cover in place and fix it with the three screws ①.

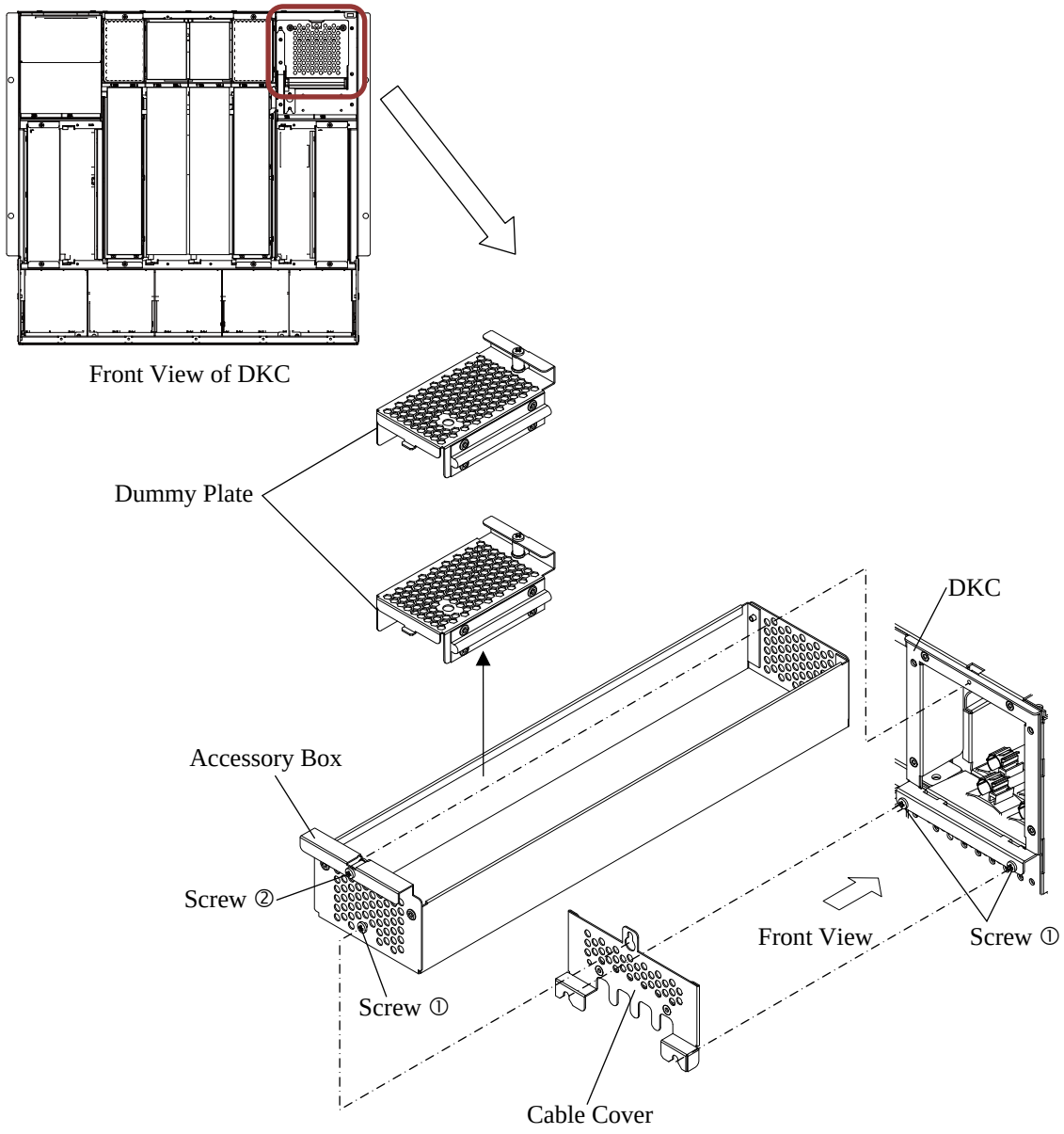
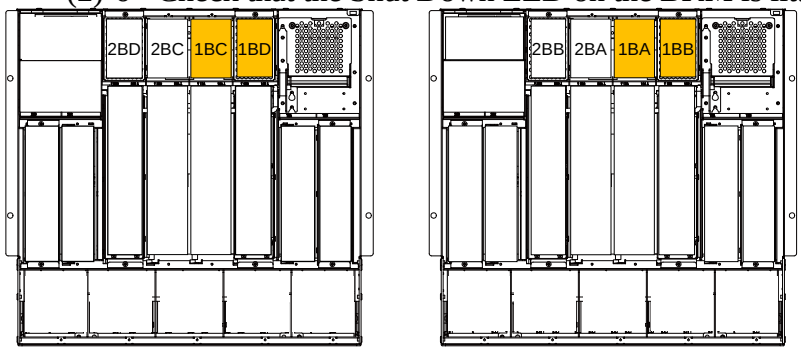


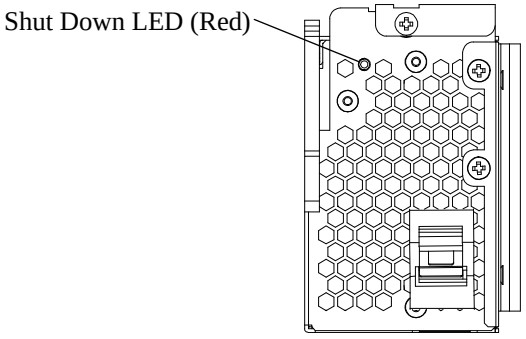
Fig. 4.5.1-13 Removal of Dummy Plates

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(2)-6 Check that the Shut Down LED on the BKM is lit.



Front View of DKC-1 Front View of DKC-0



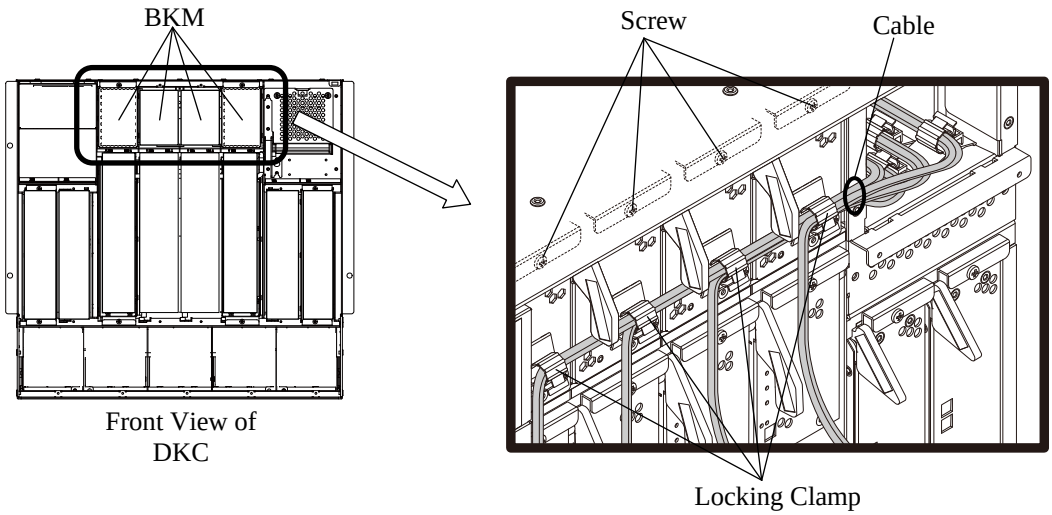
Front View of BKM

Fig. 4.5.1-14 Location of Shut Down LED

(2)-7 If the cables are attached to the BKMs, check that the screws to secure the BKMs are tightened.
If the cables are not attached to the BKMs, go to Step (2)-9.

NOTE: If the screw is loose, the BKM may be extracted when the cables or the locking clamp is moved.

(2)-8 Open the four locking clamps and move all the cables to where they cannot obstruct removal of the BKM.

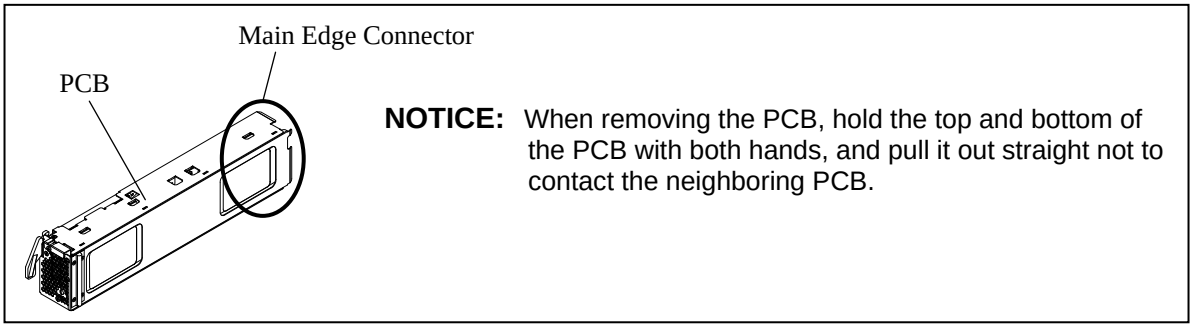


Front View of DKC

Fig. 4.5.1-15 Moving Cables

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(2)-9 Loosen the screw and remove the BKM from the DKC.
(2)-10 Attach the dummy plate to the DKC and tighten the screw.
(2)-11 If the cables were moved aside in Step (2)-8, put them back in place.



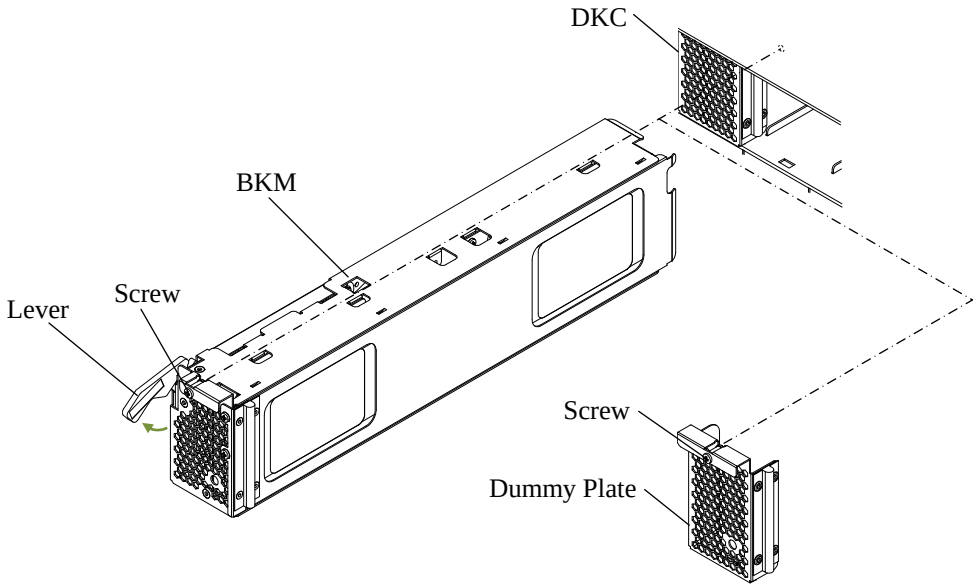


Fig. 4.5.1-16 Removal of BKM

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(2)-12 Remove the screw of the BKM and remove the cover.

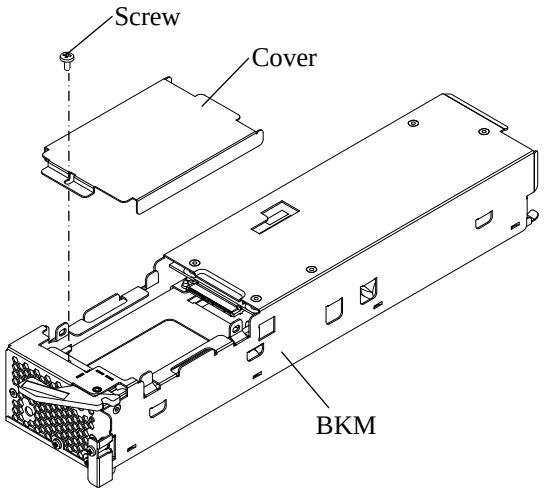


Fig. 4.5.1-17 Removal of Cover

(2)-13 Remove the two screws and remove the CFM from the BKM.
(2)-14 Attach the cover to the BKM and tighten it with the screw.

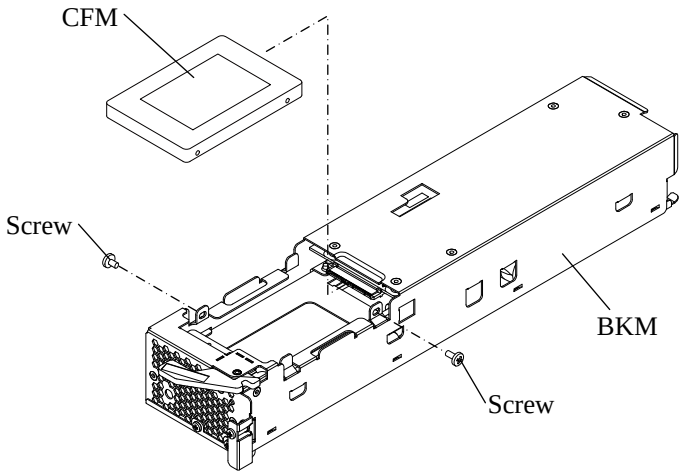


Fig. 4.5.1-18 Removal of CFM

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(3) Remove the BKM on the Cluster 2.

(3)-1 Check that the Shut Down LED on the BKM is lit.

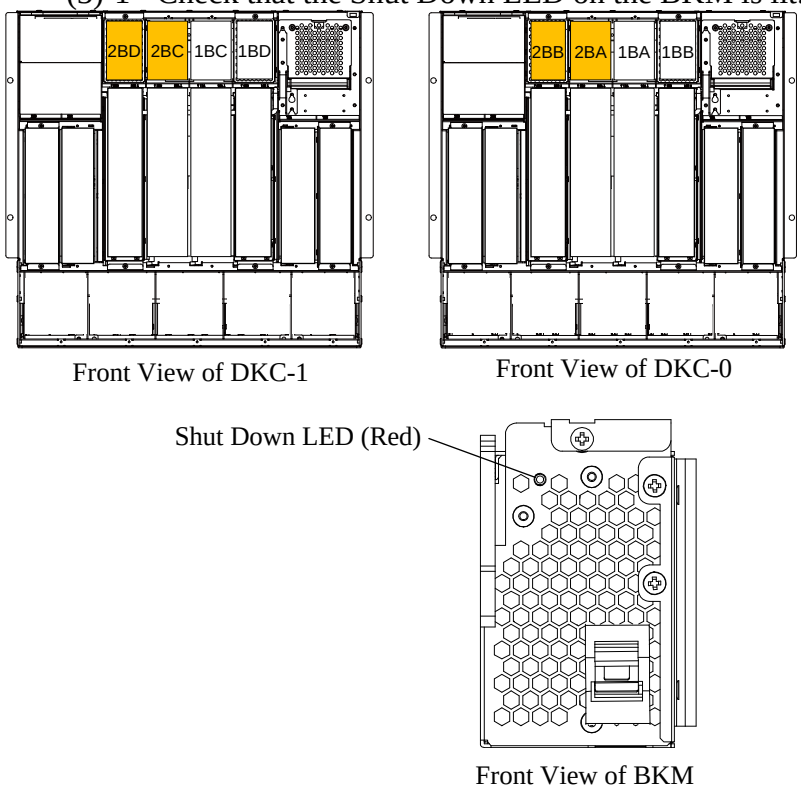


Fig. 4.5.1-19 Location of Shut Down LED

(3)-2 If the cables are attached to the BKMs, check that the screws to secure the BKMs are tightened.
If the cables are not attached to the BKMs, go to Step (2)-9.

NOTE: If the screw is loose, the BKM may be extracted when the cables or the locking clamp is moved.

(3)-3 Open the four locking clamps and move all the cables to where they cannot obstruct removal of the BKM.

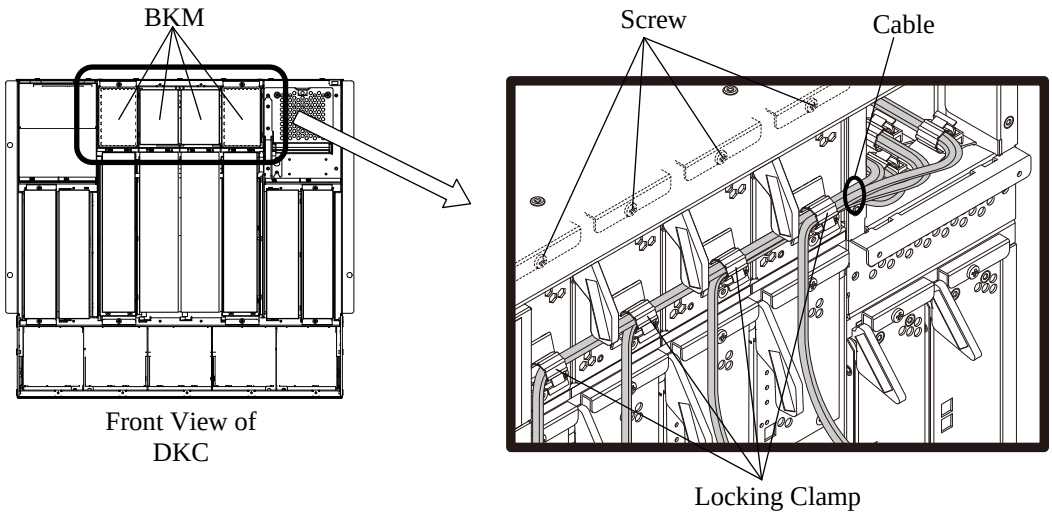
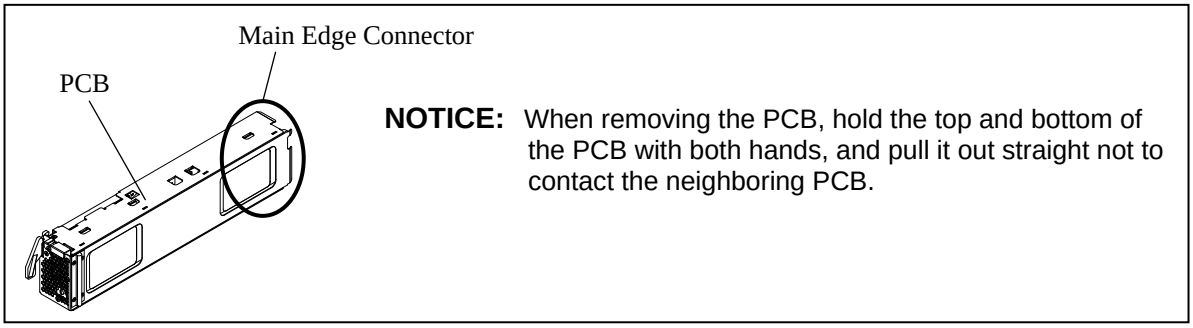


Fig. 4.5.1-20 Moving Cables

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(3)-4 Loosen the screw and remove the BKM from the DKC.
(3)-5 Attach the dummy plate to the DKC and tighten the screw.
(3)-6 If the cables were moved aside in Step (2)-8, put them back in place.



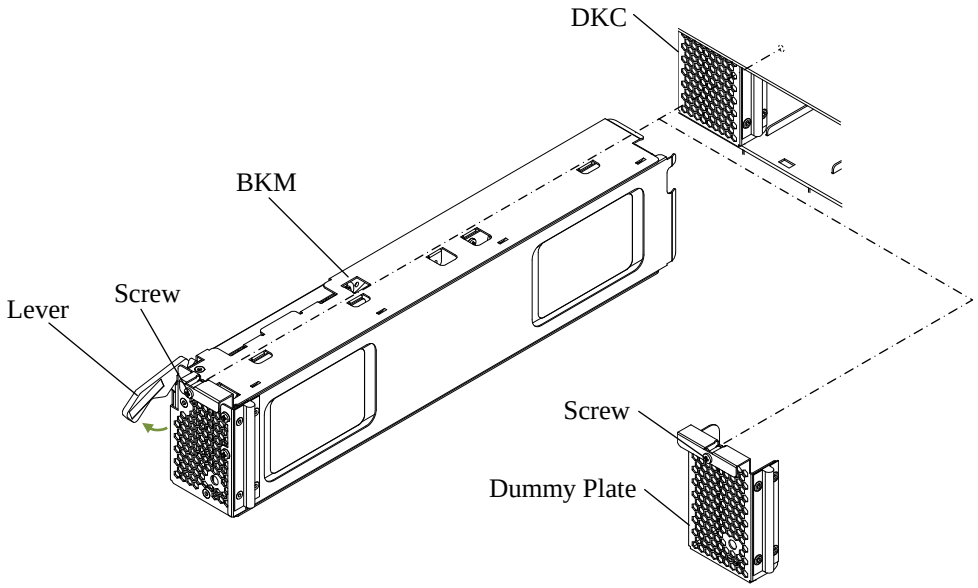


Fig. 4.5.1-21 Removal of BKM

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(3)-7 Remove the screw of the BKM and remove the cover.

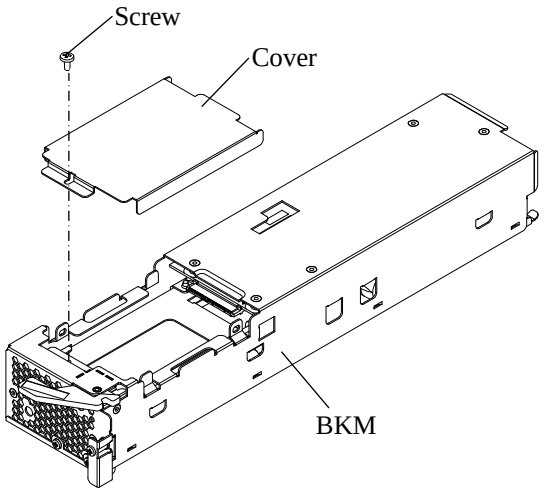


Fig. 4.5.1-22 Removal of Cover

(3)-8 Remove the two screws and remove the CFM from the BKM.
(3)-9 Attach the cover to the BKM and tighten it with the screw.

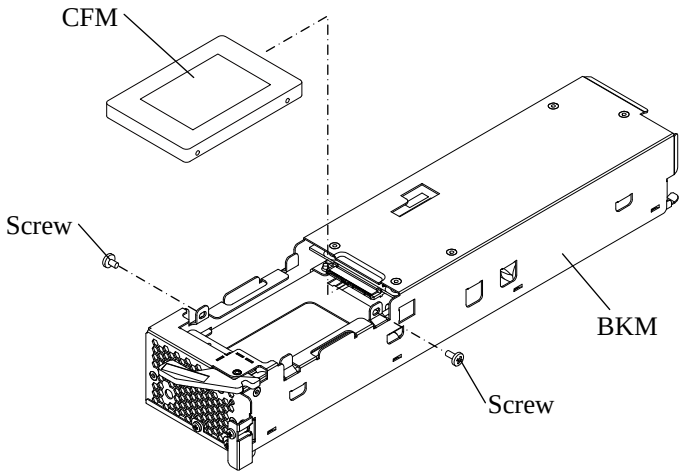
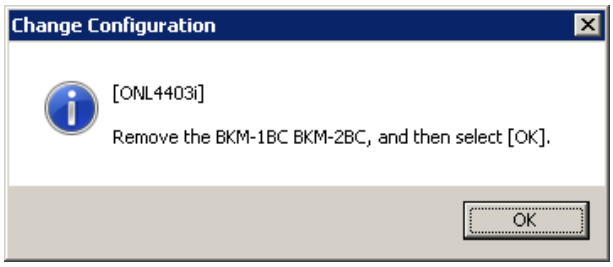


Fig. 4.5.1-23 Removal of CFM

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(4)

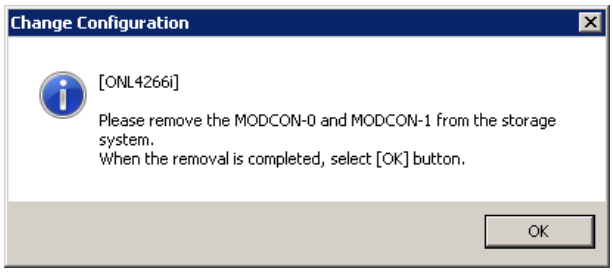
When a message, “Remove the BKM-nnn BKM-nnn, and then select [OK].” is displayed, select (CL) the [OK] button.



(Eg. BKM-1BC, BKM-2BC)

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9. SVP pre procedure (MODCON cable)
   (1) <MODCON Cable Removal Operation>
   When installation of the MODCON is required, a message, “Please remove the MODCON-0 and MODCON-1 from the storage system. When the removal is completed, select [OK] button.”.



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10. Removal of MODCON

10-1 Removal of MODCON Cables

Cable wiring through the bottom of the rack

a. Disconnect the MODCON cables from the MODCON-0 and the MODCON-1 on the rear side of the rack while pressing the lock part of the cables.
b. Attach the caps to the MODCON cables.
c. Loosen the four screws on the rear bottom of the rack and slide the two S/R ASSYs to the back.
d. Remove the MODCON cable (two cables) from the rear side of the rack.

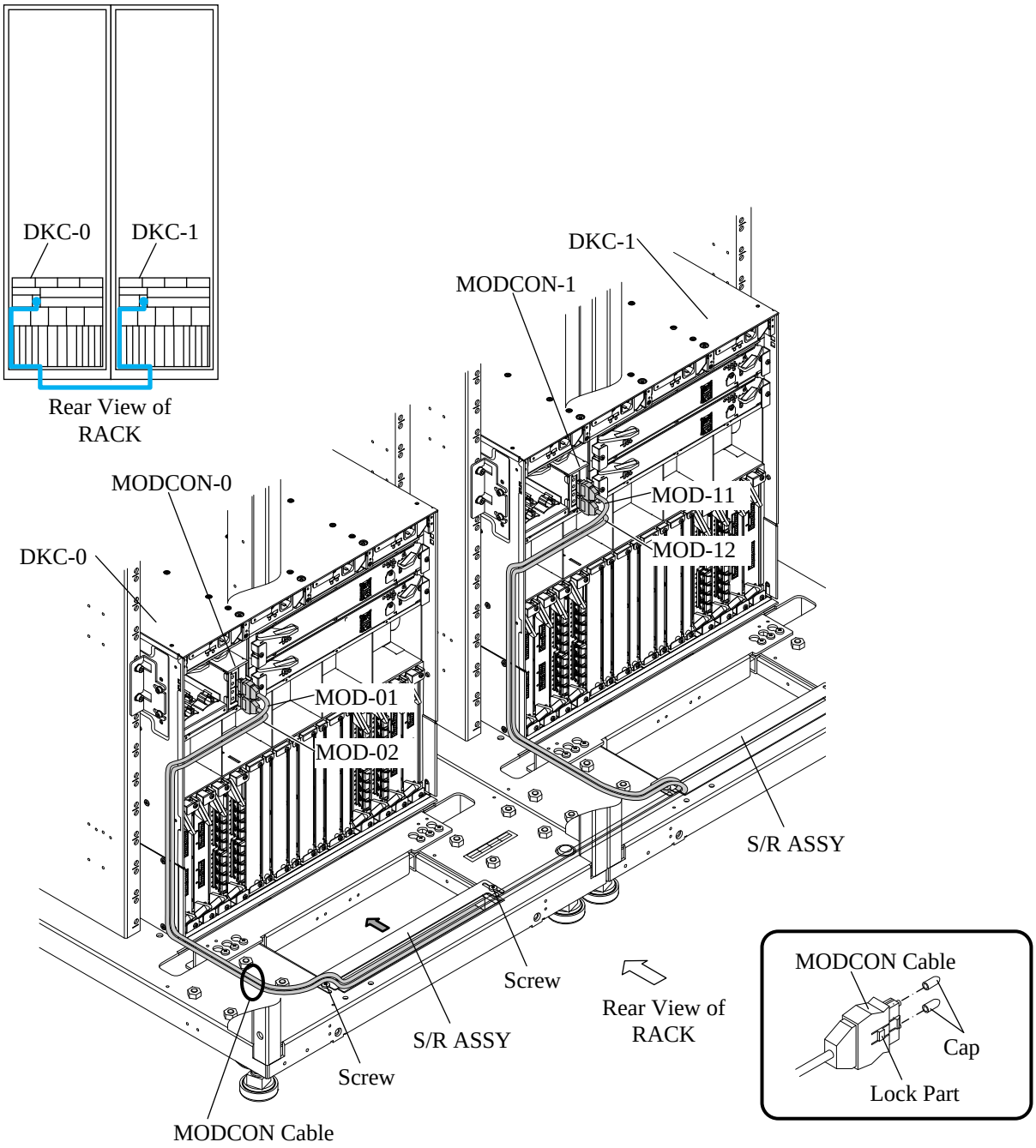


Fig. 4.5.1-24 Removal of MODCON Cable

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Cable wiring through the top of the rack

a. Disconnect the MODCON cables from the MODCON-0 and the MODCON-1 on the rear side of the rack while pressing the lock part of the cables.
b. Attach the caps to the MODCON cables.
c. Loosen the four screws on the top of the rack and slide the two Windows of the openings.
d. Remove the MODCON cable (two cables) from the rear side of the rack.

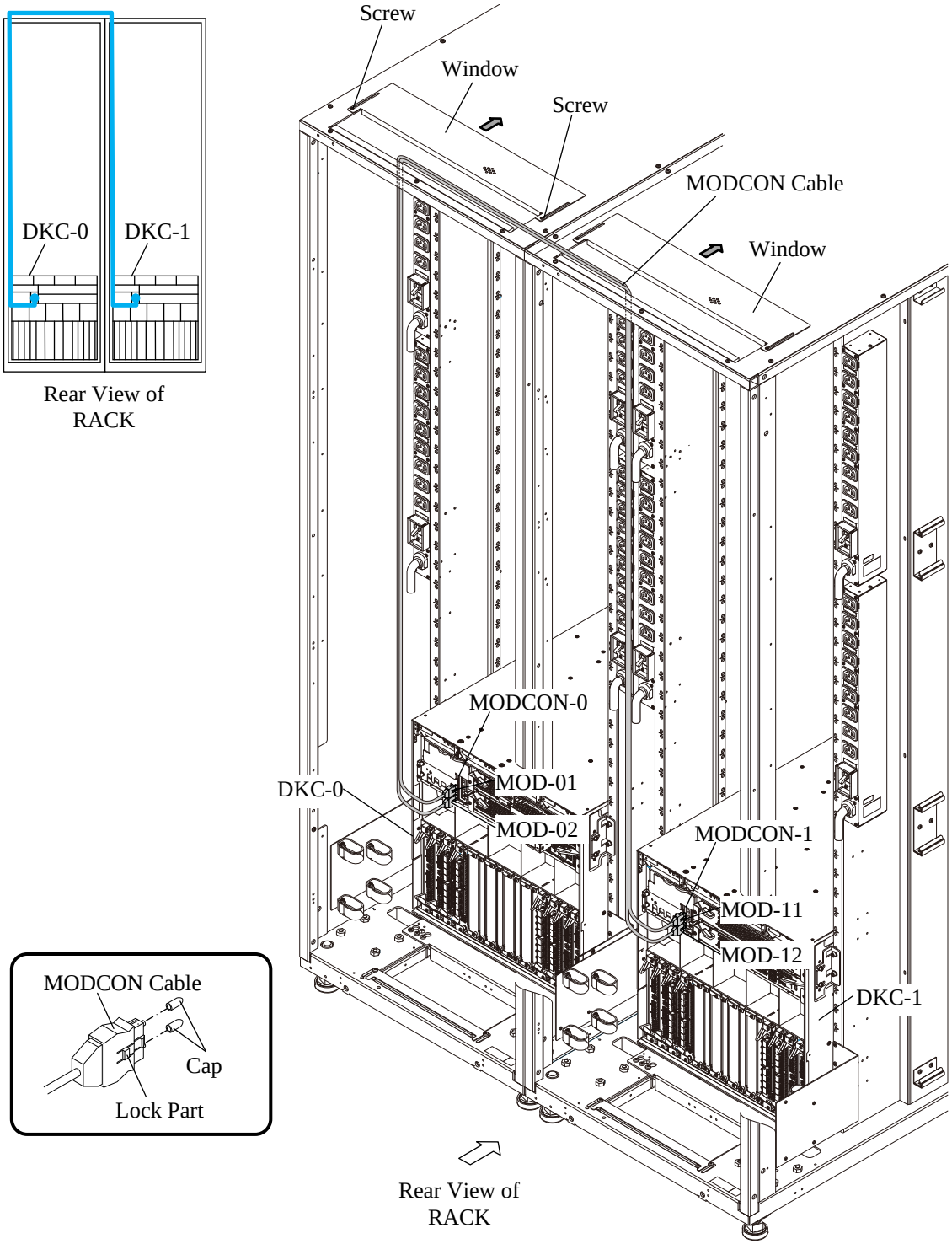


Fig. 4.5.1-25 Removal of MODCON Cable

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Cable wiring within a same rack

a. Disconnect the MODCON cables from the MODCON-0 and the MODCON-1 on the rear side of the rack while pressing the lock part of the cables.
b. Attach the caps to the MODCON cables.
c. Remove the MODCON cable (two cables) from the rear side of the rack.

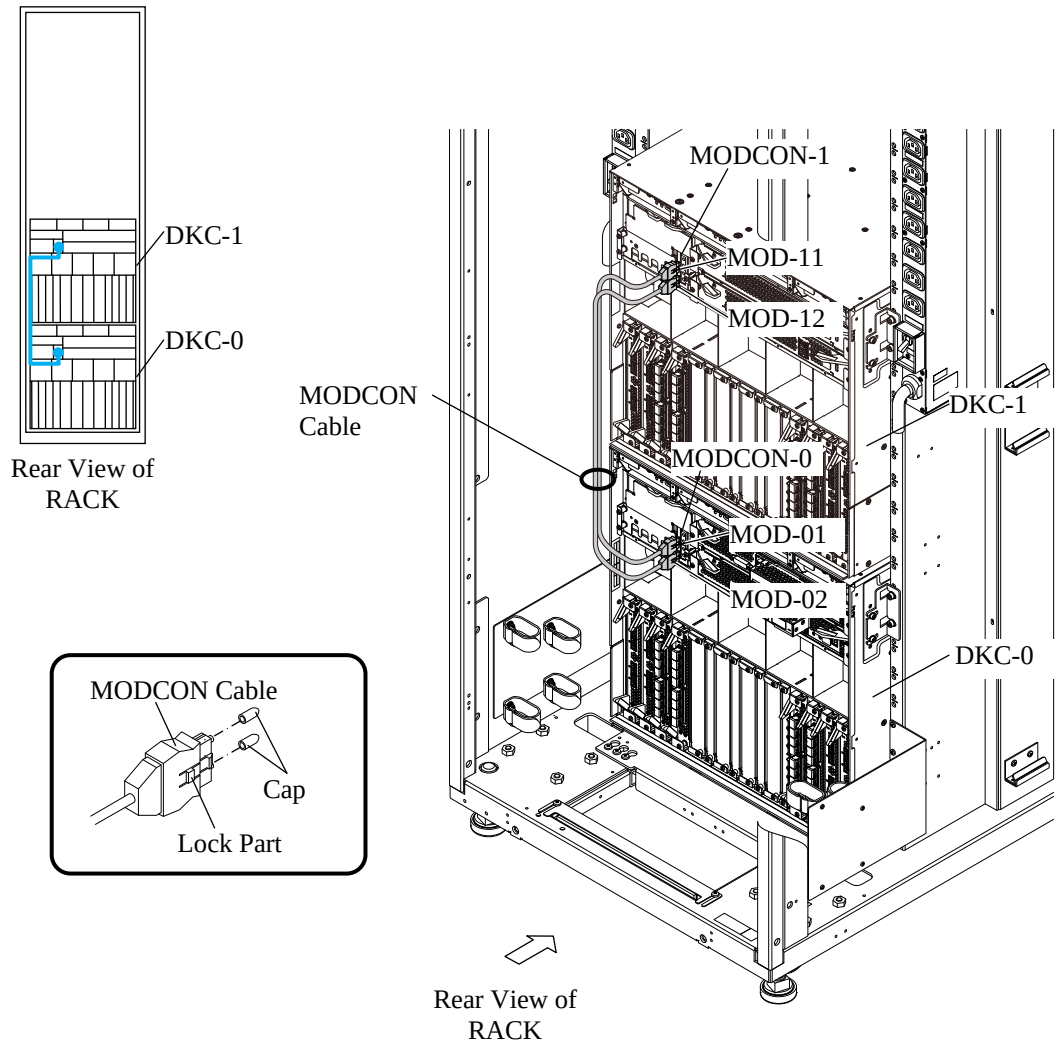
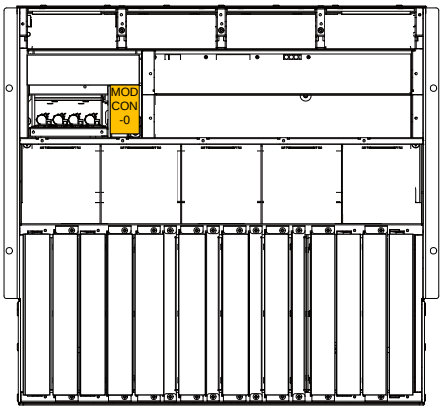


Fig. 4.5.1-26 Removal of MODCON Cable

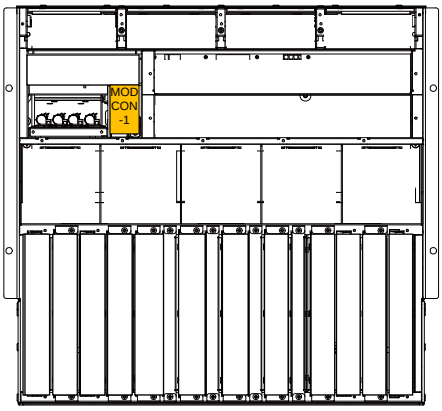
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10-2 Removal of MODCON

a. Loosen the screw and remove the MODCON from the rear of the DKC-0.
b. Loosen the screw and remove the MODCON from the rear of the DKC-1.



Rear View of DKC-0



Rear View of DKC-1

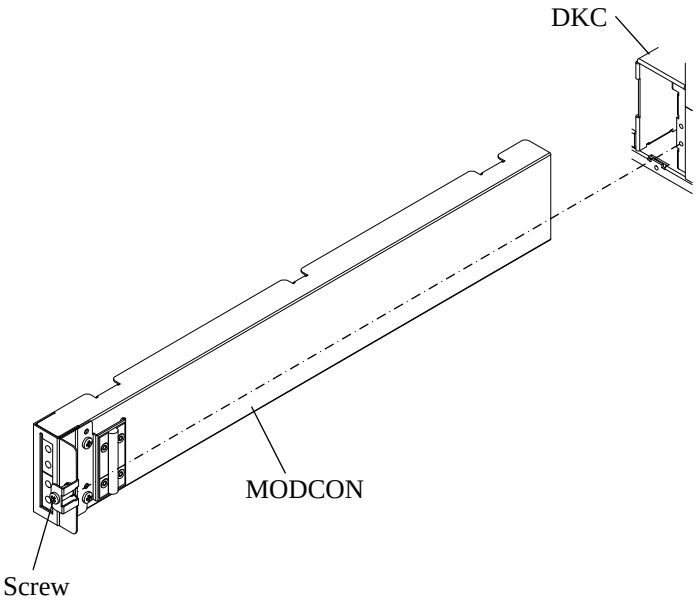
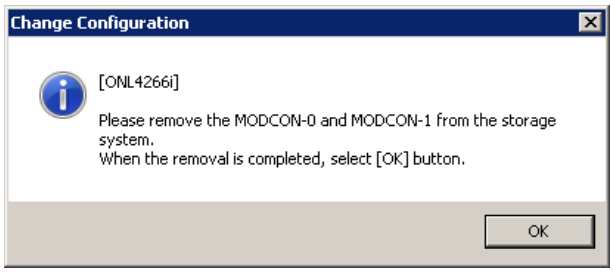


Fig. 4.5.1-27 Removal of MODCON

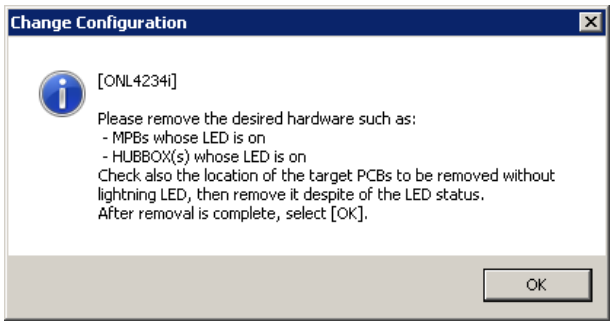
Copyright © 2014, Hitachi, Ltd.

11. SVP pre procedure (MPB Removal)

(1) <Start de-installation>
Select (CL) [OK] in response to “Please remove the MODCON-0 and MODCON-1 from the storage system. When the removal is completed, select [OK] button.”.



(2) <Removal MPB>
At this point, refrain from selecting (CL) [OK].
“Please remove the desired hardware such as:
- MPBs whose LED is on
- HUBBOX(s) whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].” is displayed.



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12. De-Installation Procedure of Processor Blade

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

12-1 Confirmation of Shut Down LED

a. Check that the Shut Down LED on the MPB is lit.

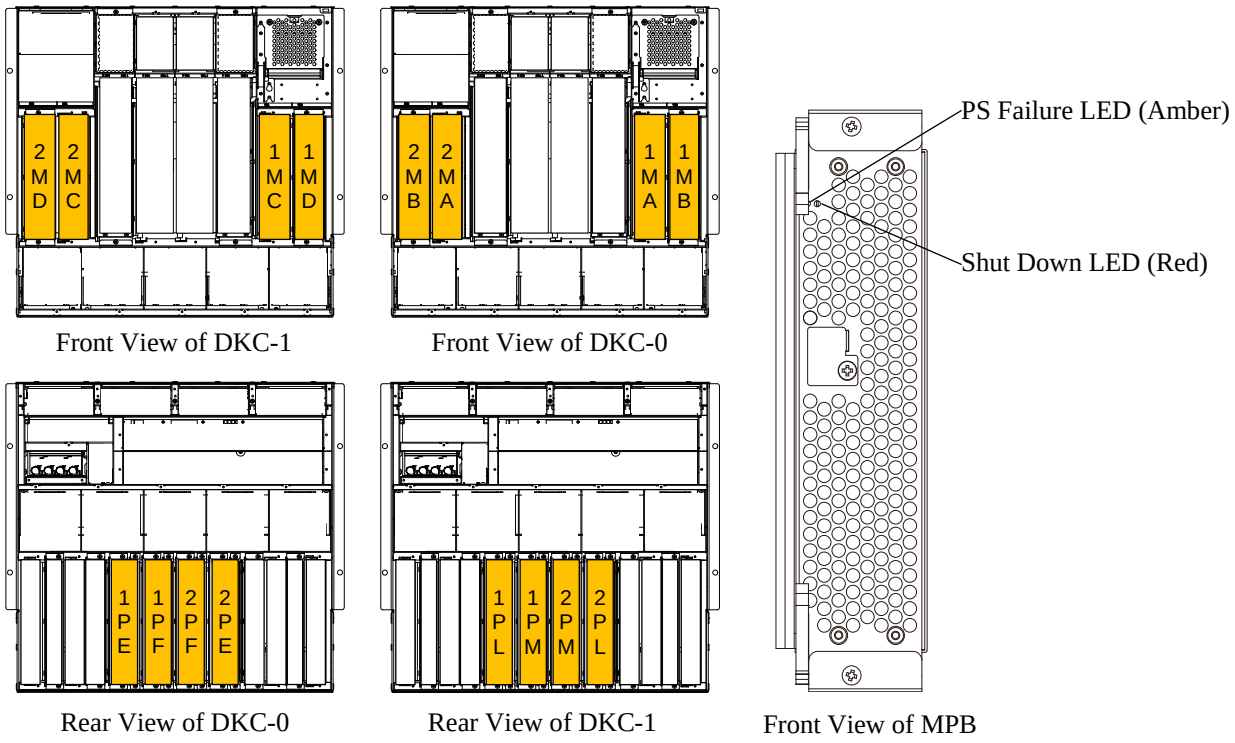


Fig. 4.5.1-28 Location of the Shut Down LED

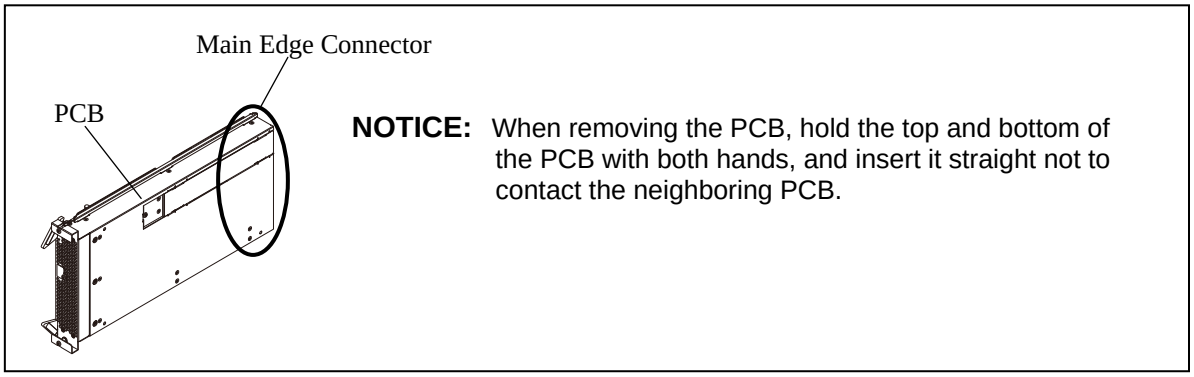
Table 4.5.1-5 Inserting Location

DKC	Addition No.	Slot No.		Location No.		Remarks
		Cluster 1	Cluster 2	Cluster 1	Cluster 2	
DKC-0	Basic	1MA	2MA	MPB-1MA	MPB-2MA	Standard Equipment
	Option 1	1MB	2MB	MPB-1MB	MPB-2MB	
	Option 2	1PF	2PF	MPB-1PF	MPB-2PF	
	Option 3	1PE	2PE	MPB-1PE	MPB-2PE	
DKC-1	Option 4	1MC	2MC	MPB-1MC	MPB-2MC	Standard Equipment
	Option 5	1MD	2MD	MPB-1MD	MPB-2MD	
	Option 6	1PM	2PM	MPB-1PM	MPB-2PM	
	Option 7	1PL	2PL	MPB-1PL	MPB-2PL	

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12-2 Removal of MPB

a. Loosen the screws and remove the MPBs from the DKC. Refer to Table 4.5.1-5, Fig. 4.5.1-29 and Fig. 4.5.1-30.
b. Attach the dummy plates and fasten the screws.



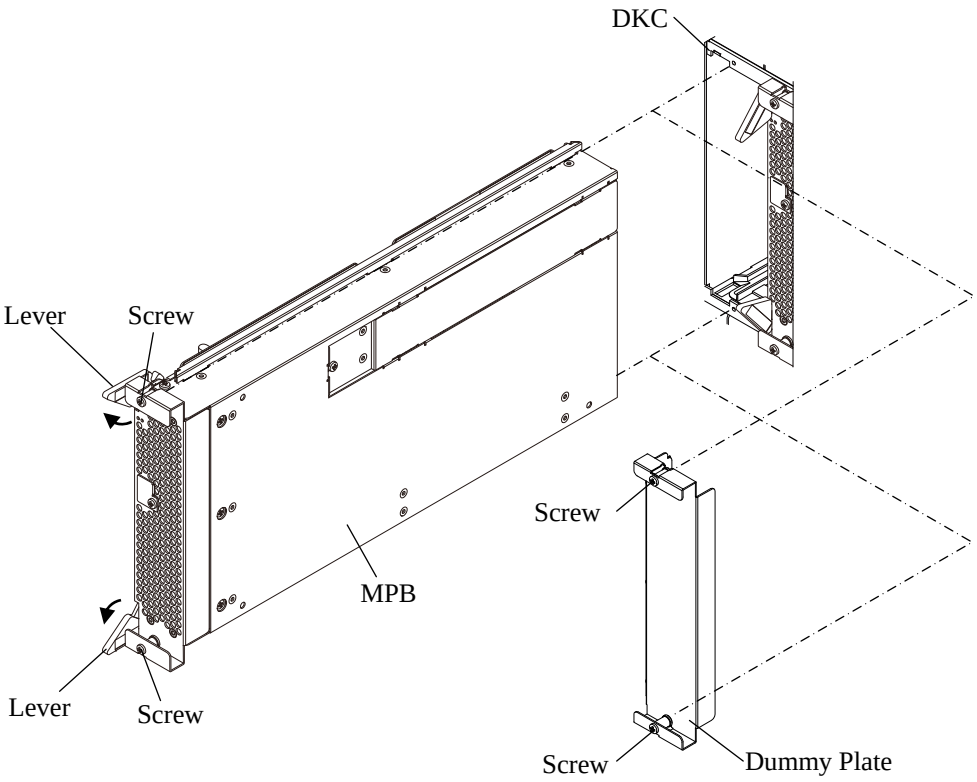


Fig. 4.5.1-29 Removal of MPB (MPB-#MB/#MD)

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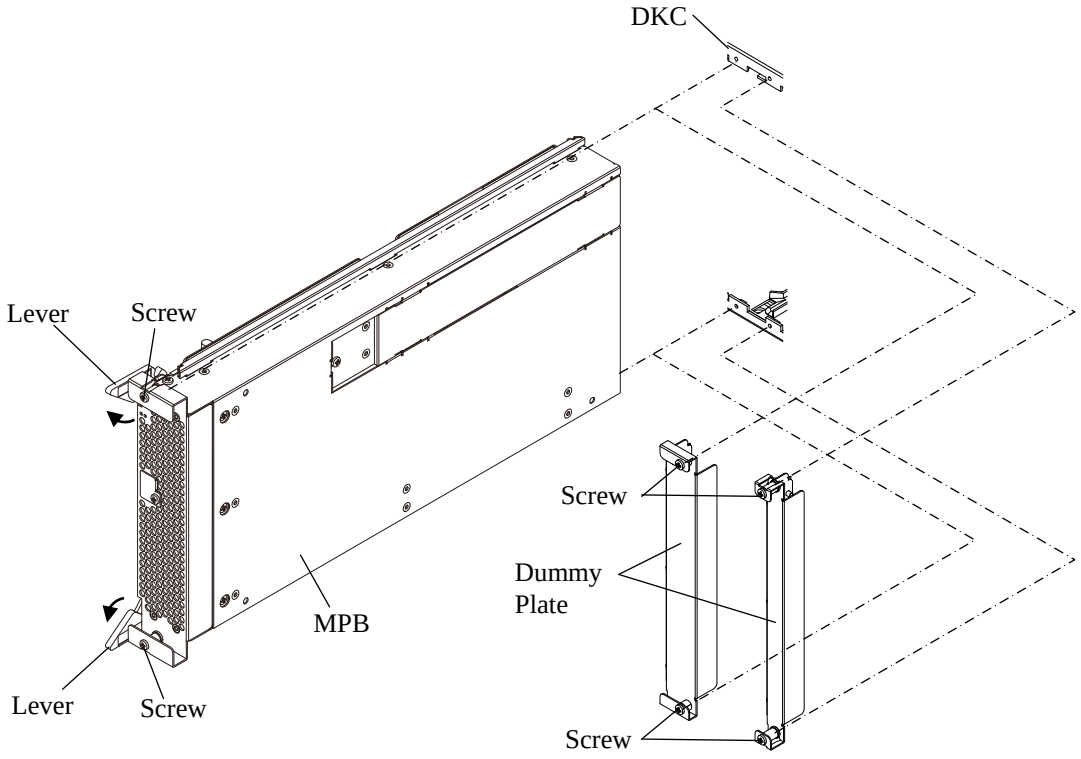


Fig. 4.5.1-30 Removal of MPB (MPB-#PF/#PE/#PM/#PL)

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13. De-Installation Procedure of HUB

De-Installation Condition

The HUB (DKC-F810I-HUB) is an indispensable option that is to be removed when the storage system configuration of DKC is corresponding to the following conditions.

In case of DKC-0

① Removal of the first set (HUBBOX-01)
- The HUBBOX-01 is required to be removed when the MPB is removed from the Option 2 (1PF/2PF) and Option 3 (1PE/2PE) MPB slots.

In case of DKC-1

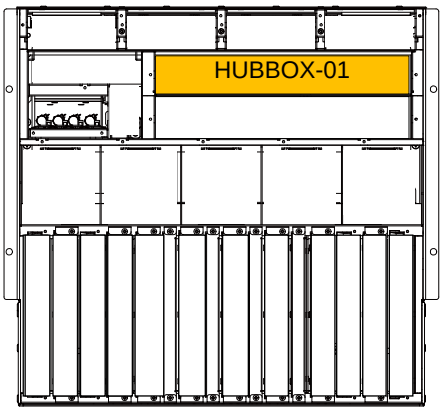
① Removal of the second set (HUBBOX-11)
- The HUBBOX-11 is required to be removed when the MPB is removed from the Option 6 (1PM/2PM) and Option 7 (1PL/2PL) MPB slots.

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

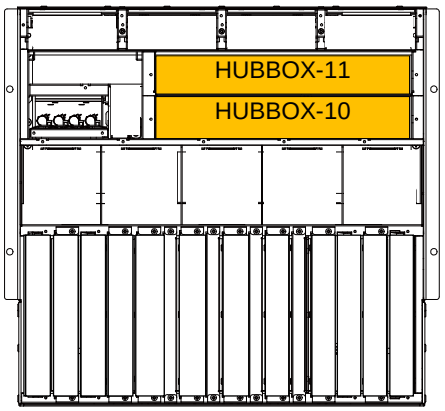
Copyright © 2014, Hitachi, Ltd.

13-1 When the HUB (DKC-F810I-HUB) is required to remove, check the Shut Down LED on the HUBBOX.
When the HUB (DKC-F810I-HUB) is not required to remove, go to the procedure 14. De-Installation Procedure of Inter-Controller Connecting Kit.

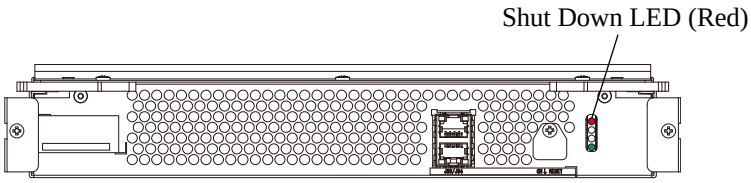
a. Check that the Shut Down LED on the HUBBOX is lit.



Rear View of DKC-0



Rear View of DKC-1



Front View of HUBBOX

Fig. 4.5.1-31 Location of the Shut Down LED

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13-2 Storage of Dummy Plate

a. Loosen the three screws ① on the front side of the DKC and remove the cable cover.
b. Loosen the screw ② and remove the accessory box.
c. Remove the dummy plate from the accessory box.
d. Put the accessory box in place and fix it with the screw ②.
e. Put the cable cover in place and fix it with the three screws ①.

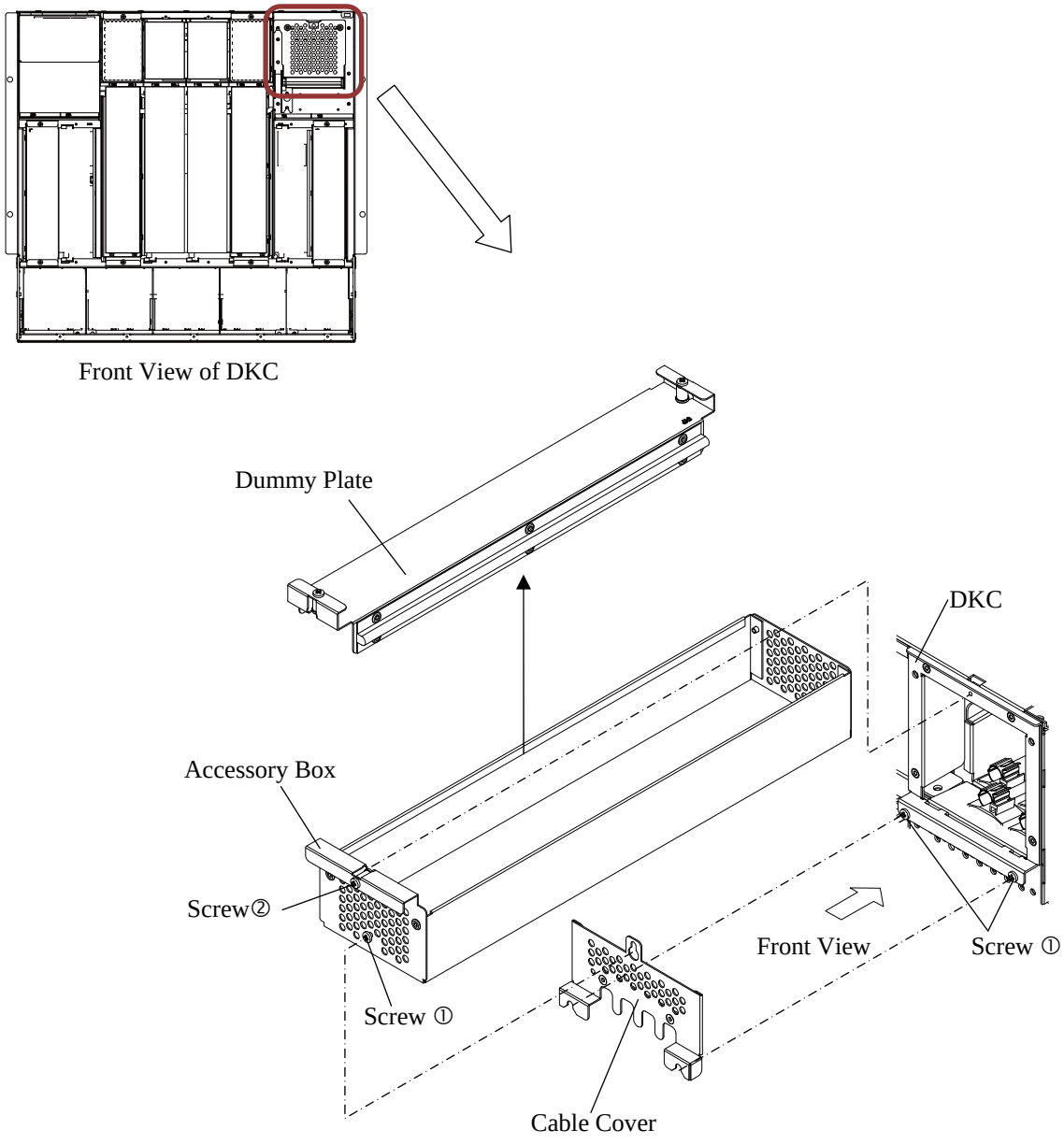


Fig. 4.5.1-32 Storage of Dummy Plate

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13-3 Removal of HUBBOX

a. In the case of the HUBBOX-10, remove the LAN cable (P83) from the connector (J83). In the case of other than the HUBBOX-10, go to the procedure b.
b. Loosen the two screws and remove the HUBBOX.
c. Install the dummy plate to the HUBBOX slot and tighten the two screws.

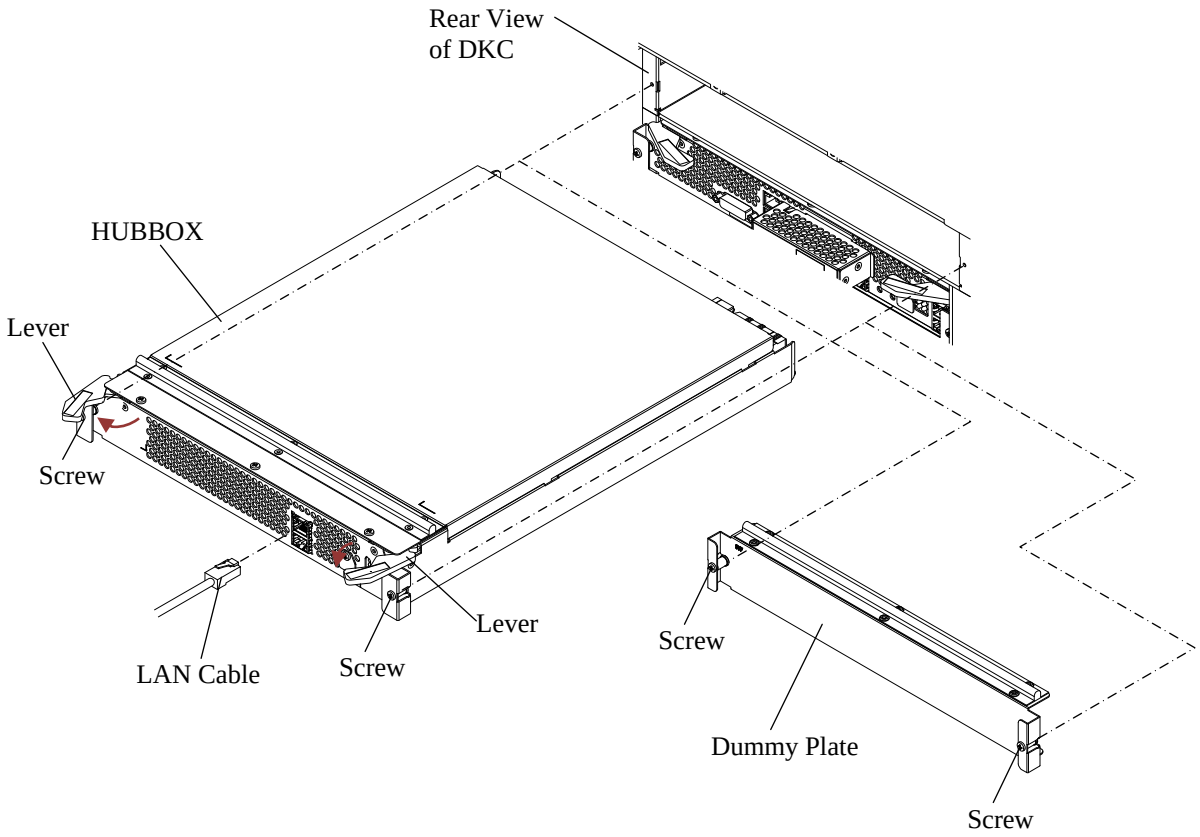


Fig. 4.5.1-33 Removal of HUBBOX

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14. De-Installation Procedure of Inter-Controller Connecting Kit (DKC-F810I-MOD5/MOD30/ MOD1J)

14-1 Removal of LAN cable

a. Disconnect the LAN cable (P83) from the connector (J83) on the HUBBOX-10 on the rear side of the DKC-1. (See Fig. 4.5.1-34, Fig. 4.5.1-35 or Fig. 4.5.1-36.)
b. Disconnect the LAN cable (P84) from the connector (J84) on the SVP-BASIC on the rear side of the DKC-0.
c. Remove the LAN cable from the rear side of the rack.

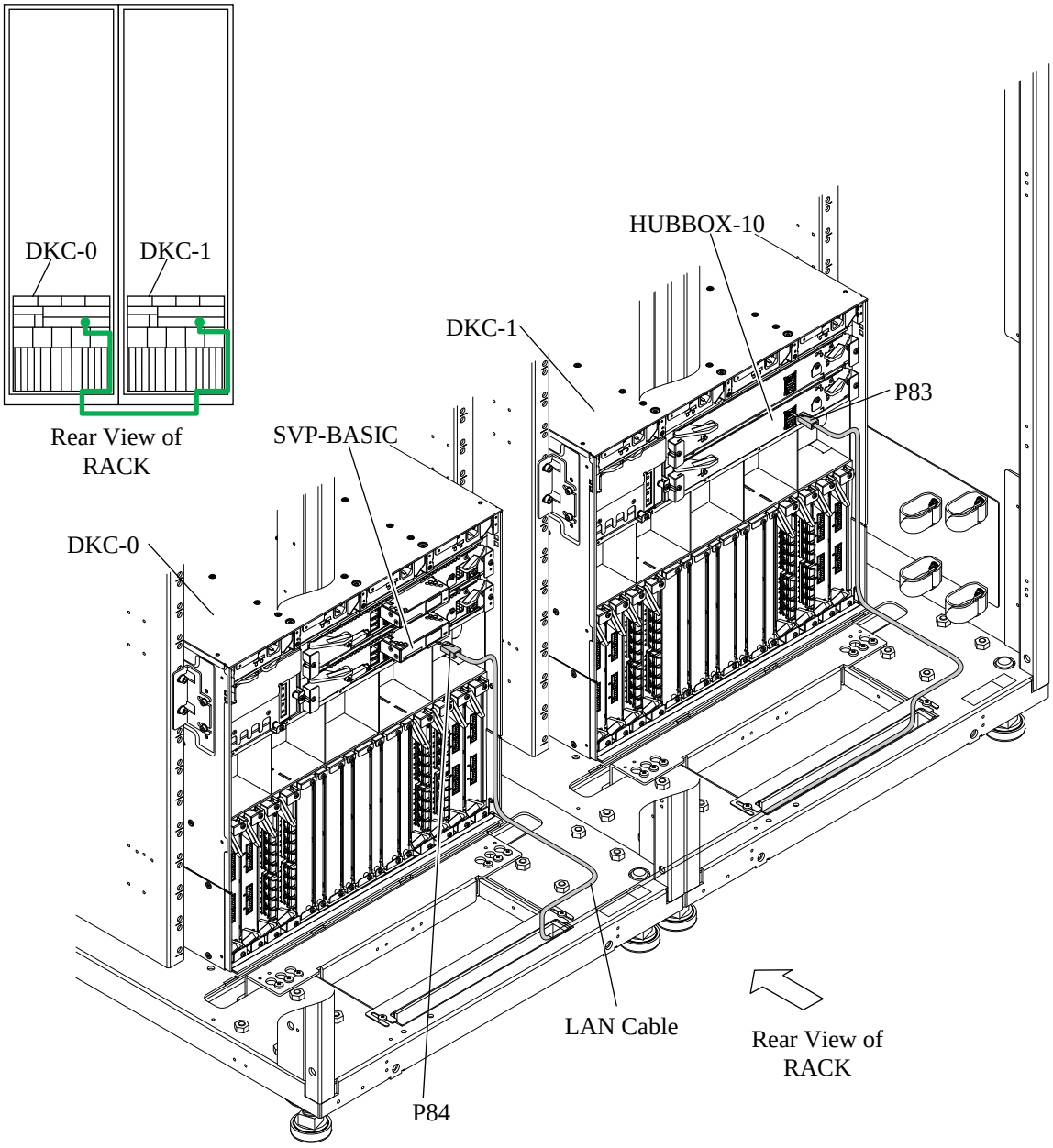


Fig. 4.5.1-34 Removal of LAN Cable

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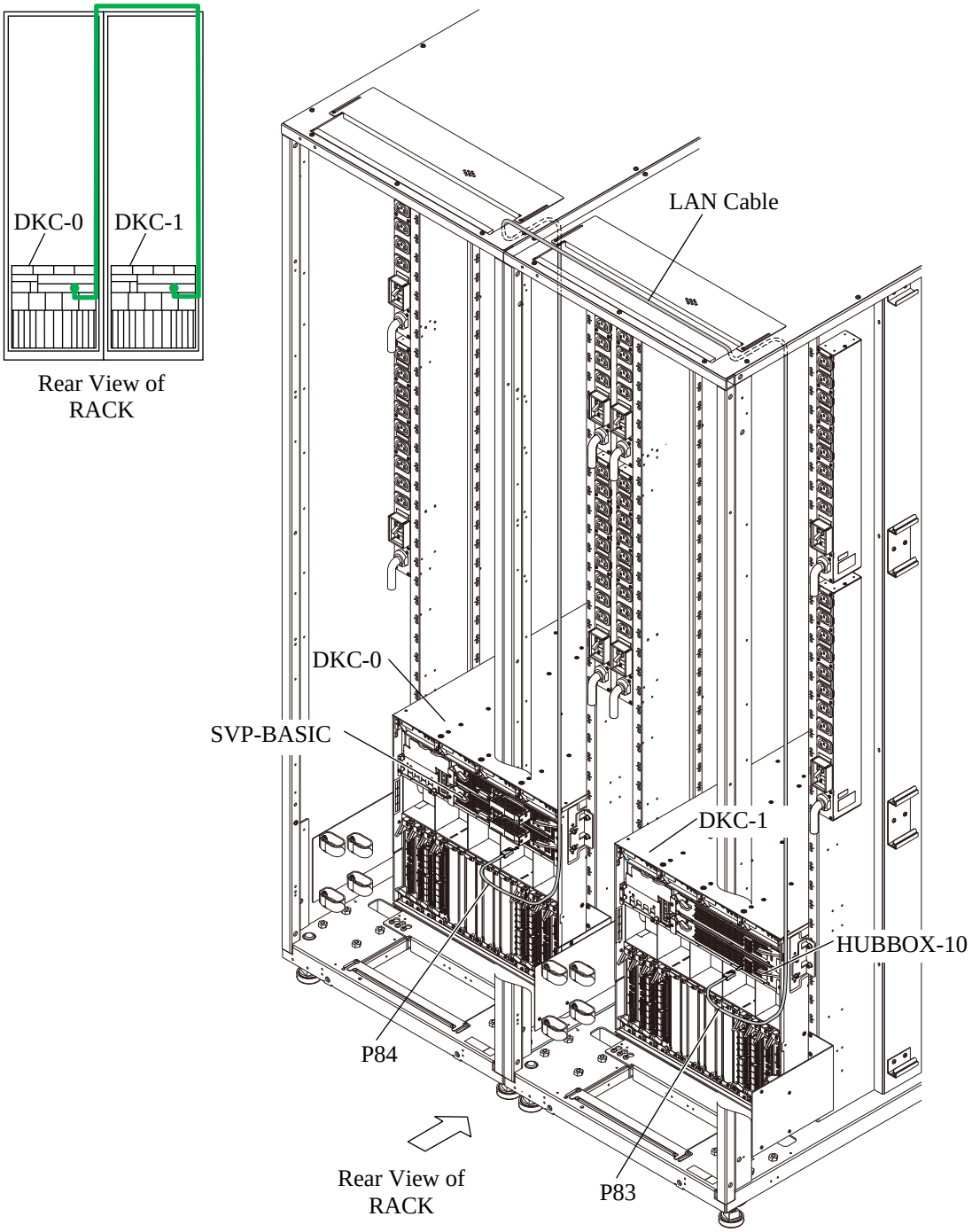


Fig. 4.5.1-35 Removal of LAN Cable

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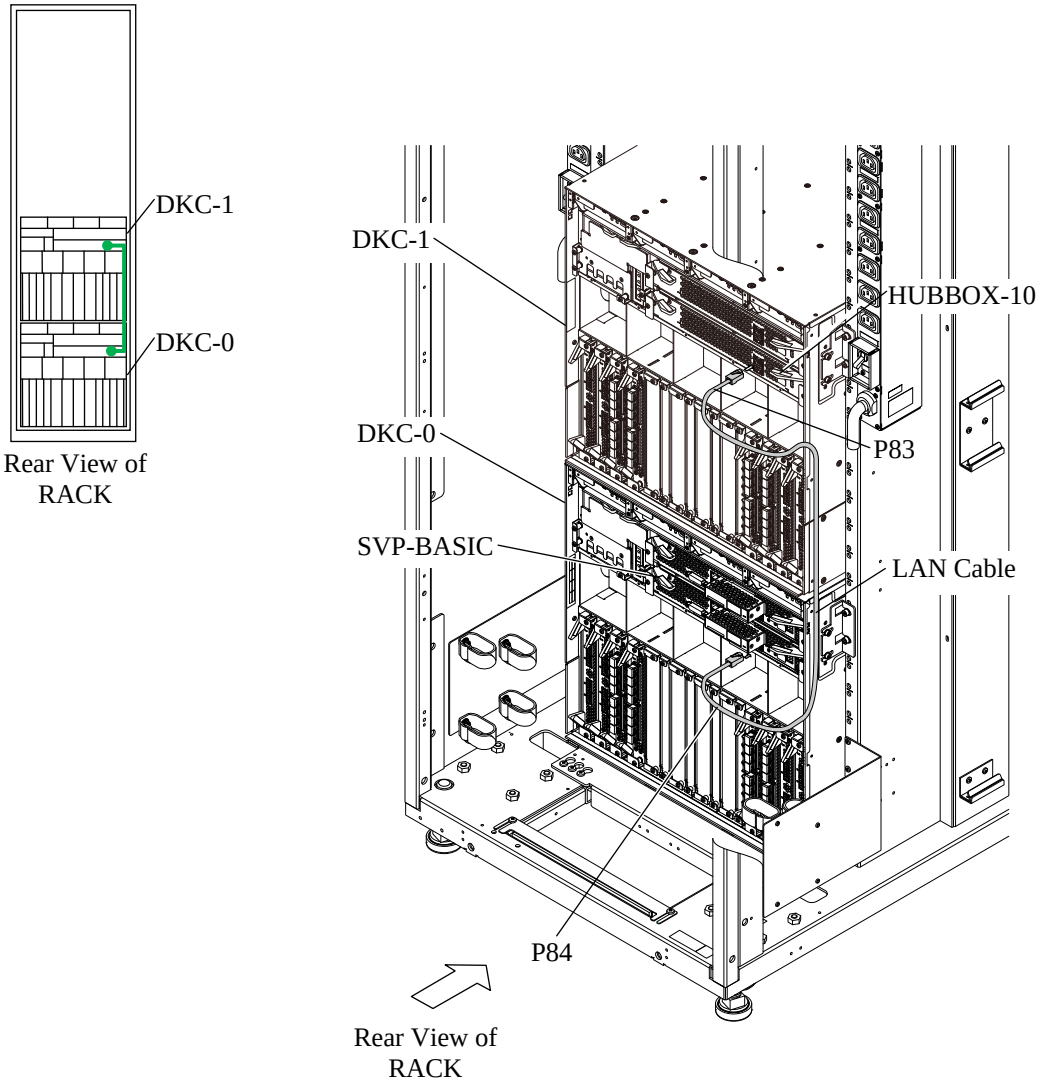


Fig. 4.5.1-36 Removal of LAN Cable

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14-2 Removal of Cable Covers and Accessory Box (If they are already removed, this procedure is not necessary)

a. Loosen the three screws ① on the front side of the DKC-0 and remove the cable cover.

b. Loosen the screw ② and remove the accessory box.

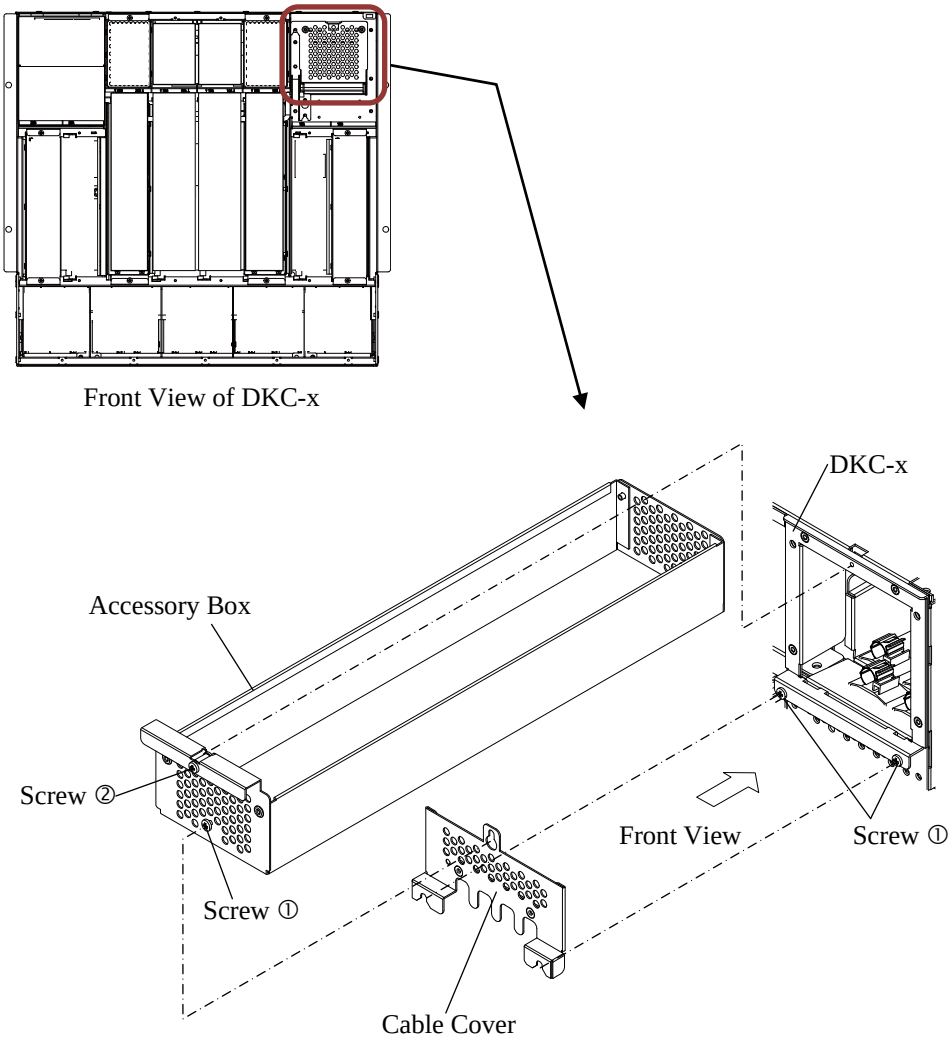


Fig. 4.5.1-37 Removal of Cable Cover and Accessory Box

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c. Loosen the three screws on the rear side of the DKC-0 and remove the cable cover.
d. In the same manner, remove the two cable covers and the accessory box from the DKC-1.

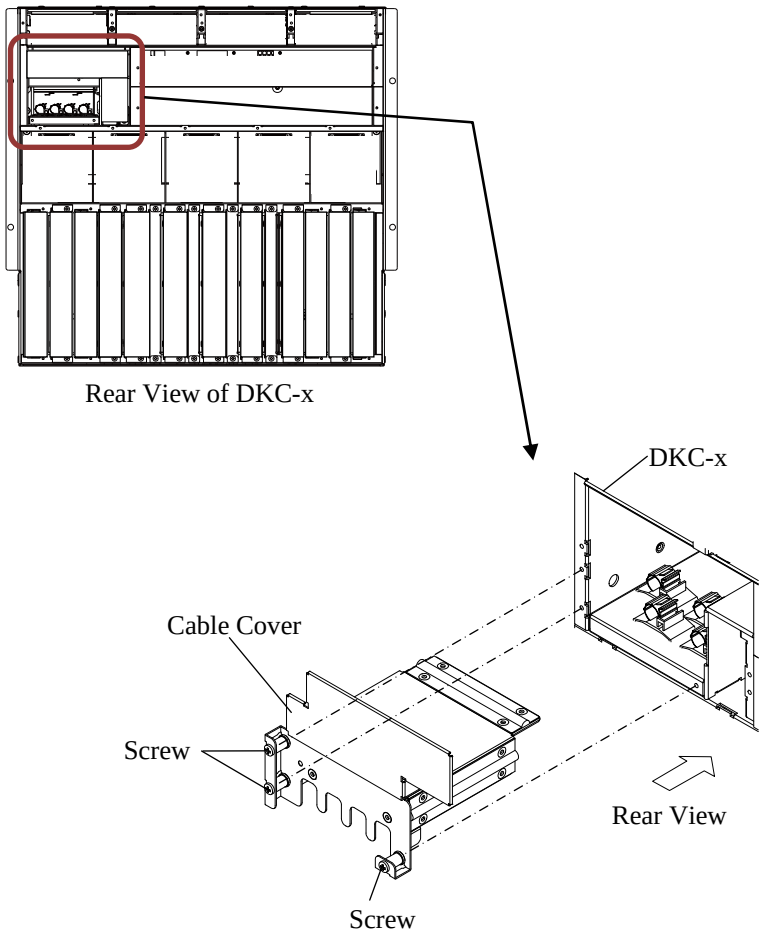


Fig. 4.5.1-38 Removal of Cable Cover

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14-3Removal of Cables

a. Disconnect the cables from CM PCBs (CACHE-1CA/1CC/2CA/2CC) on the front side of the DKC-0 and the DKC-1 after checking “3.1.7 Notes when connecting and disconnecting MFC cable” (INST03-01-190).

b. Attach the caps to the disconnected cables.

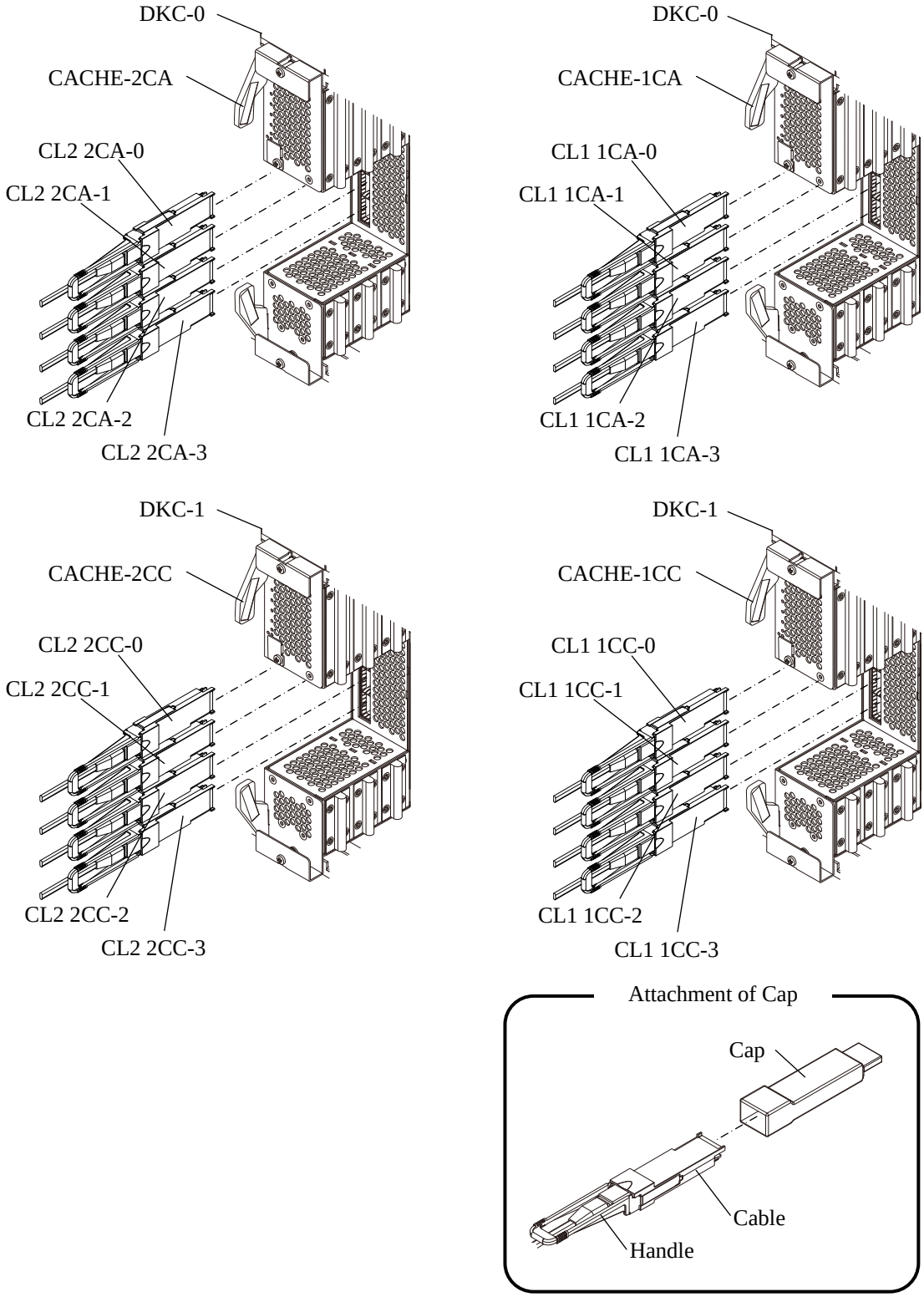


Fig. 4.5.1-39 Disconnection of Cables

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c. Open the locking clamps on the front side of the rack and remove the MFC Cable (eight cables). (See Fig. 4.5.1-40 or Fig. 4.5.1-41.)

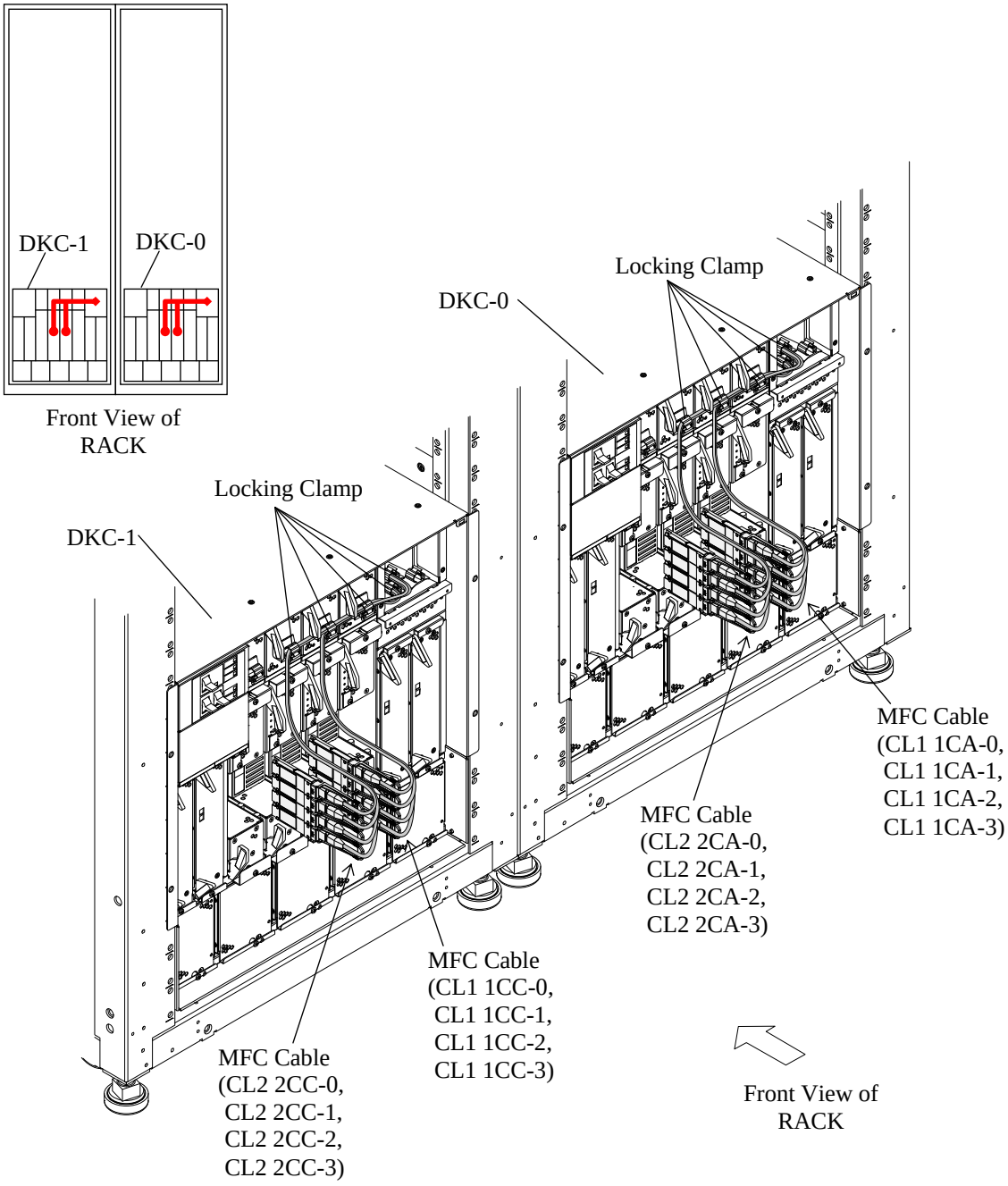


Fig. 4.5.1-40 Removal of Cables

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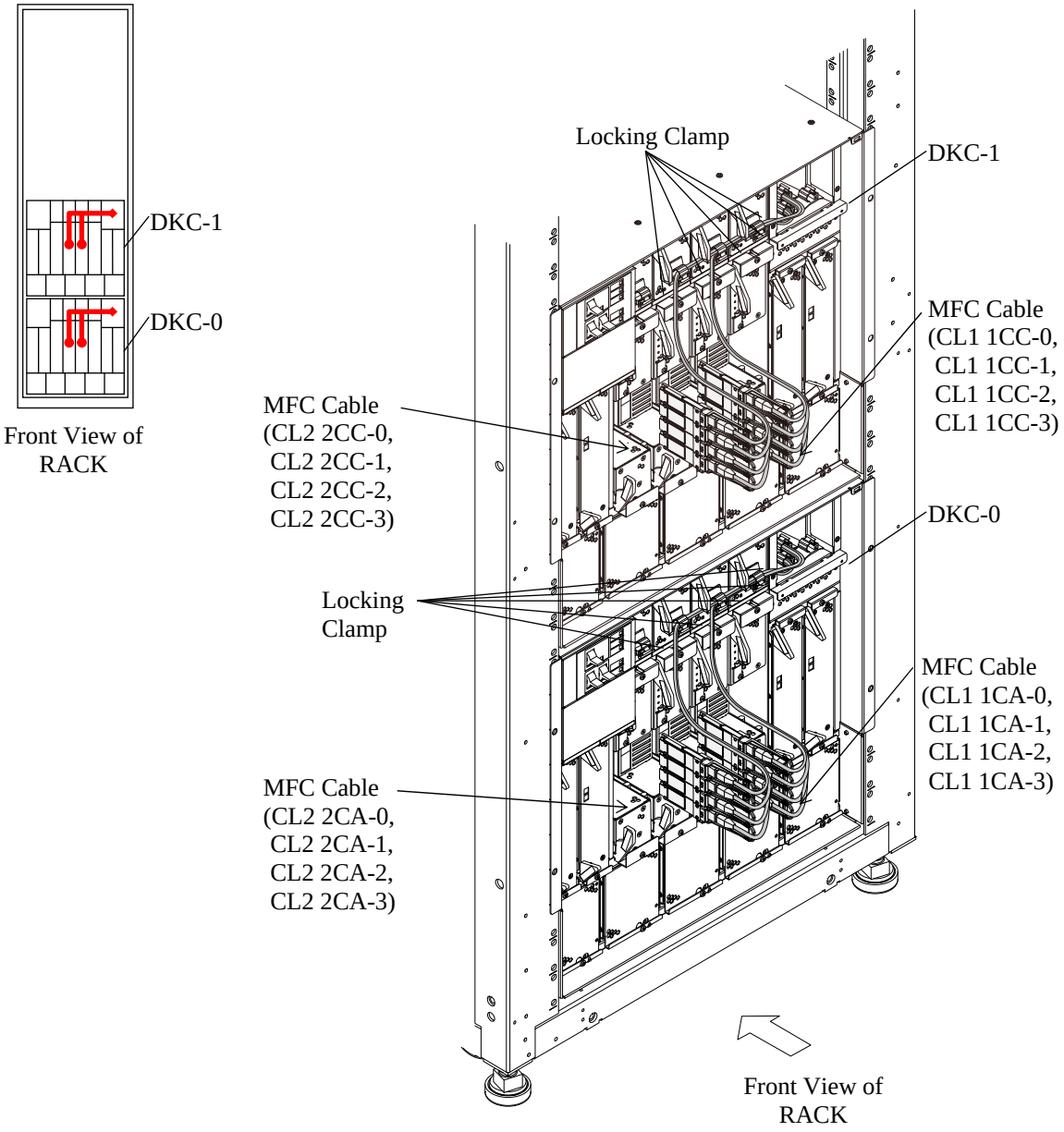


Fig. 4.5.1-41 Removal of Cables

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Cable wiring through the bottom of the rack

d. Open the four Locking Clamps on the rear side of the DKC and remove the MFC Cable (eight cables) from the Locking Clamps.
e. Pull out the MFC Cable (eight cables) from the DKC using the FE Cable Jig. (See Fig. 4.5.1-45.)
f. Remove the MFC Cable (eight cables) from the rack.
g. Slide the two S/R ASSYs toward you and tighten the four screws.

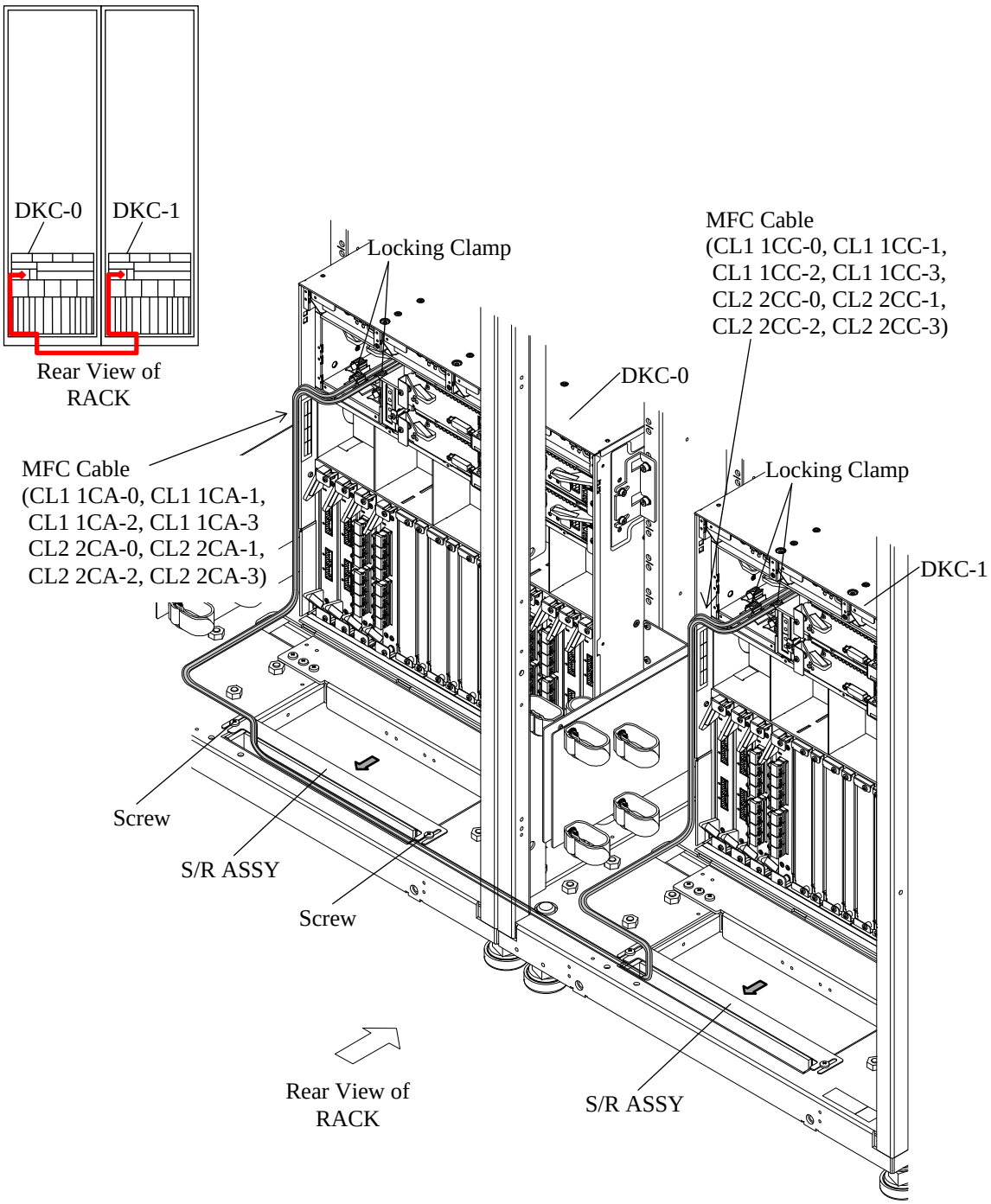


Fig. 4.5.1-42 Removal of Cables

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Cable wiring through the top of the rack

d. Open the four Locking Clamps on the rear side of the DKC and remove the MFC Cable (eight cables) from the Locking Clamps.
e. Pull out the MFC Cable (eight cables) from the DKC using the FE Cable Jig. (See Fig. 4.5.1-45.)
f. Remove the MFC Cable (eight cables) from the rack.
g. Slide the two Windows to close the openings. Then, tighten the four screws.

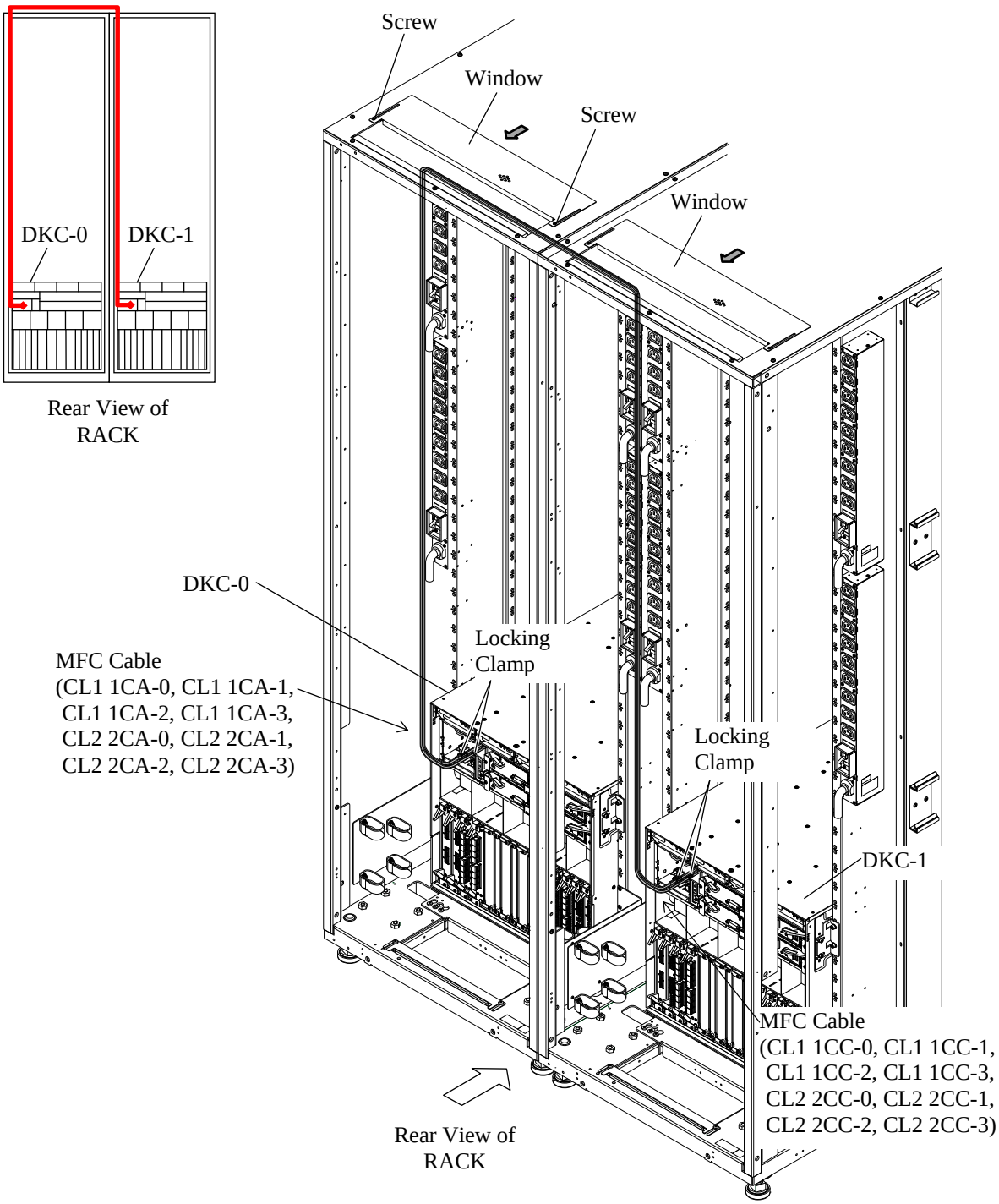


Fig. 4.5.1-43 Removal of Cables

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Cable wiring within a same rack

d. Open the four Locking Clamps on the rear side of the DKC and remove the MFC Cable (eight cables) from the Locking Clamps.
e. Pull out the MFC Cable (eight cables) from the DKC using the FE Cable Jig. (See Fig. 4.5.1-45.)
f Remove the MFC Cable (eight cables) from the rack.

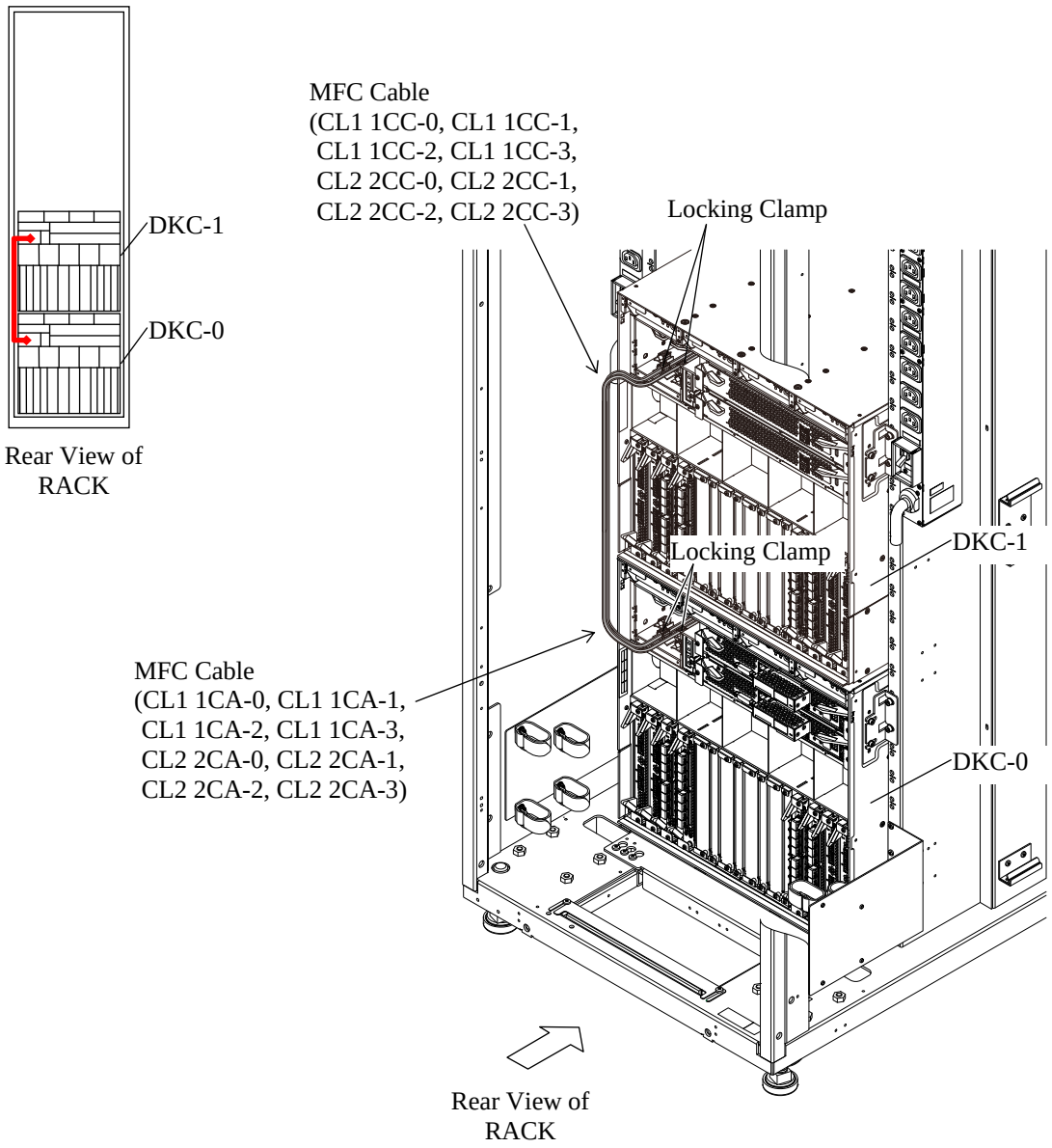


Fig. 4.5.1-44 Removal of Cables

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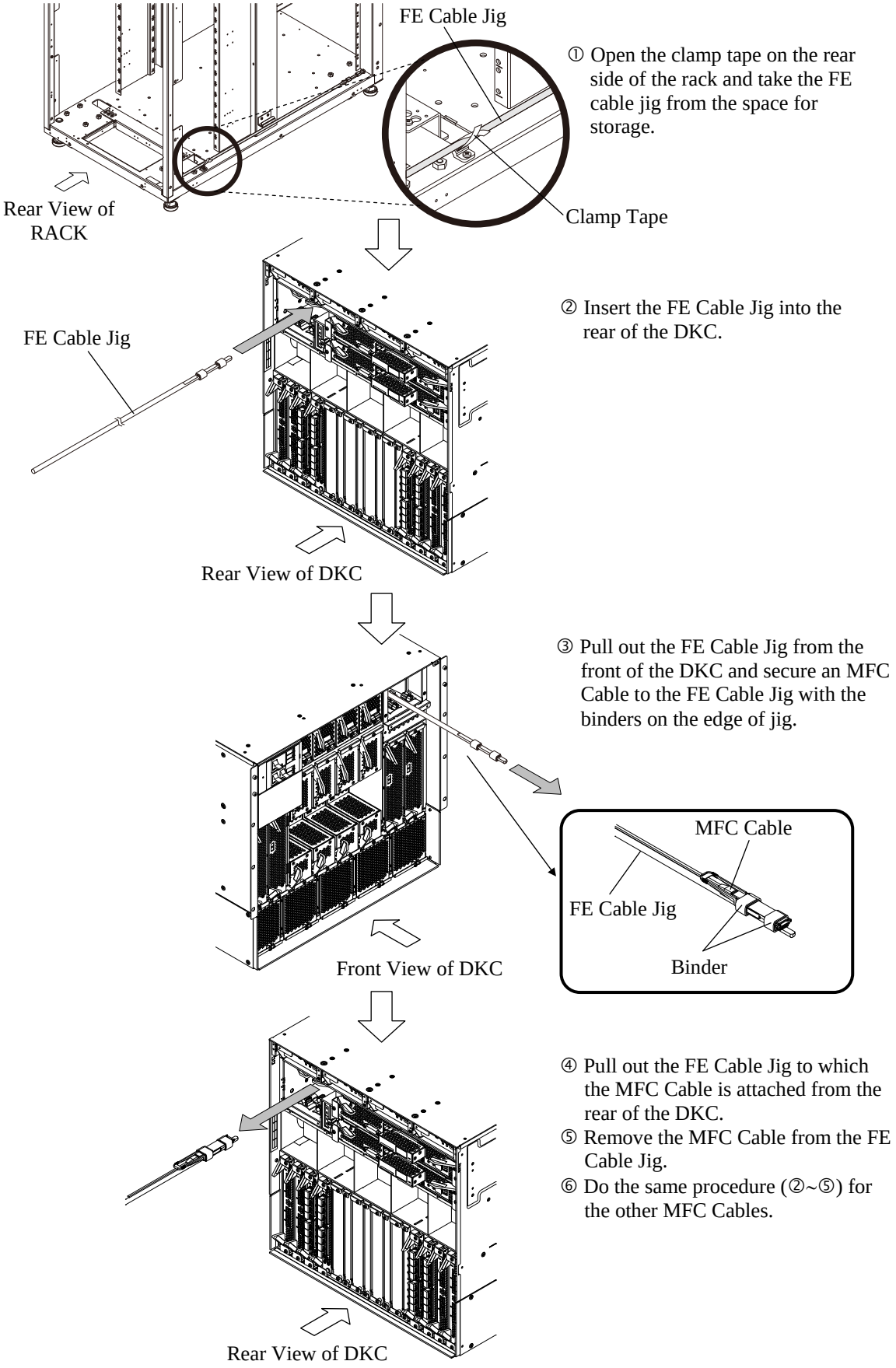


Fig. 4.5.1-45 Using FE Cable Jig

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14-4 Installation of Cable Covers and Accessory Box (If the Inter-Controller Connecting Cable (DKC-F810I-MFC5/MFC30/MFC1J) is removed, this procedure is not necessary.)

a. Install the accessory box into the front of the DKC-0 and fix it with the screw.
b. Install the cable cover into the front of the DKC-0 and fix it with the three screws.
c. Install the cable cover into the rear of the DKC-0 and fix it with the three screws.
d. In the same manner, install the two cable covers and the accessory box in the DKC-1.

14-5 Removal of the Parts to Store the FE Cable Jig

a. Remove the screw from the rear side of the rack and remove the cleat and clamp tape.
b. Detach the clamp tape from the cleat.

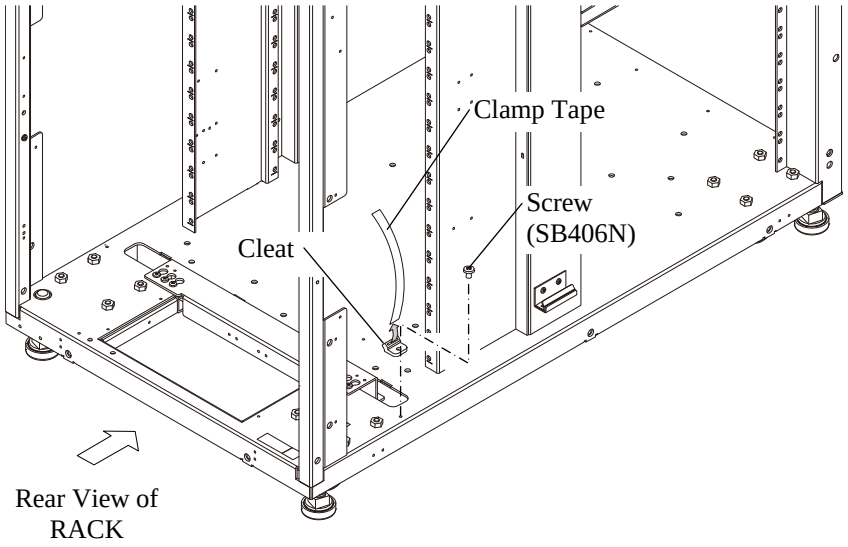


Fig 4.5.1-46 Removal of Cleat and Clamp Tape

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15. De-Installation Procedure of Inter-Controller Connecting Cable (DKC-F810I-MFC5/MFC30/MFC1J)

15-1 Removal of Cable Covers and Accessory Box (If they are already removed, this procedure is not necessary.)

a. Loosen the three screws ① on the rear side of the DKC-0 and remove the cable cover.
b. Loosen the screw ② and remove the accessory box.

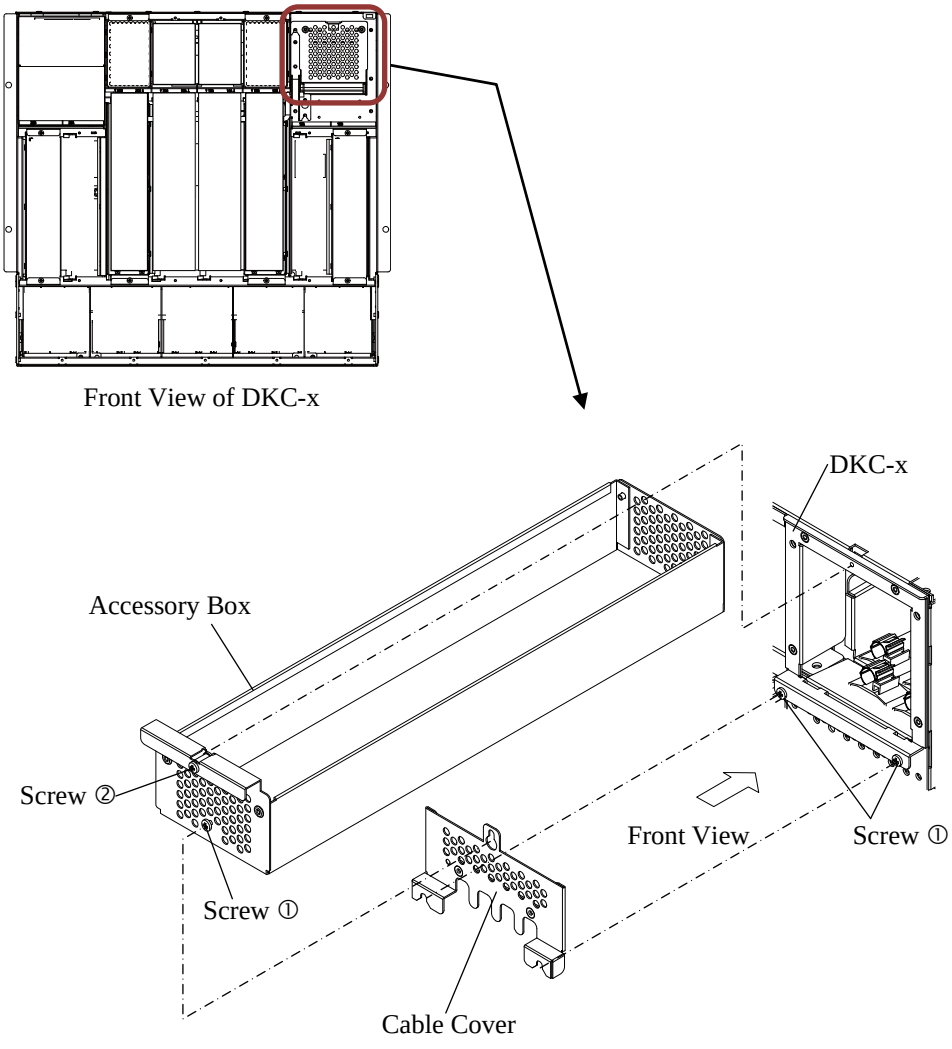


Fig. 4.5.1-47 Removal of Cable Cover and Accessory Box

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c. Loosen the three screws on the rear side of the DKC-0 and remove the cable cover.
d. In the same manner, remove the two cable covers and the accessory box from the DKC-1.

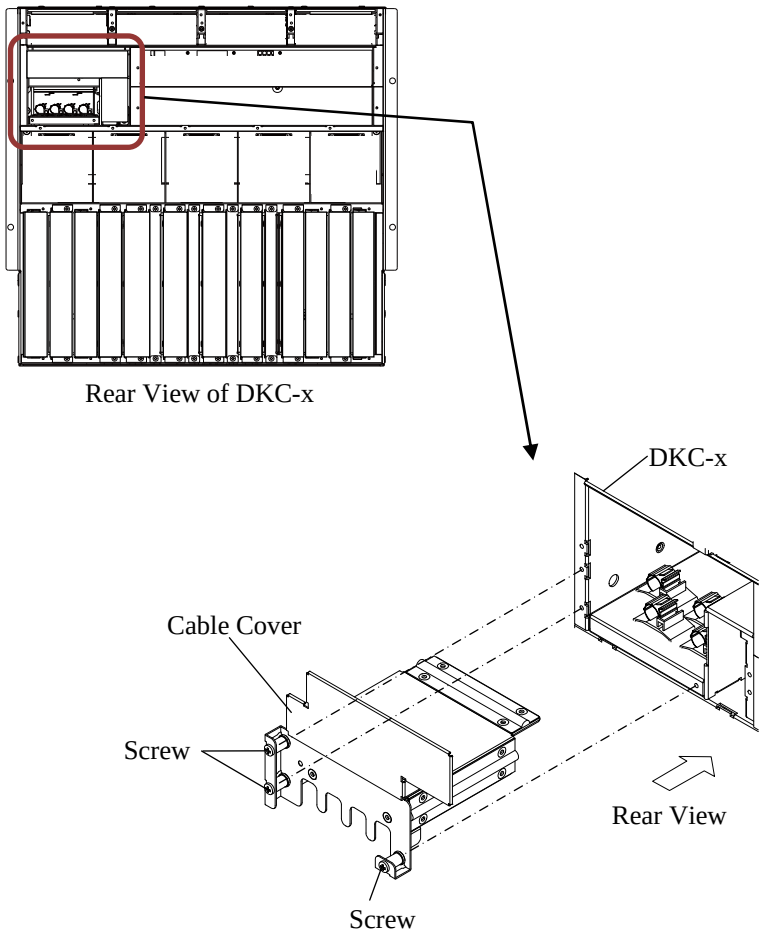


Fig. 4.5.1-48 Removal of Cable Cover

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15-2 Removal of Cables

a. Disconnect the cables from CM PCBs (CACHE-1CB/1CD/2CB/2CD) on the front side of the DKC-0 and the DKC-1 after checking “3.1.7 Notes when connecting and disconnecting MFC cable” (INST03-01-190).

b. Attach the caps to the disconnected cables.

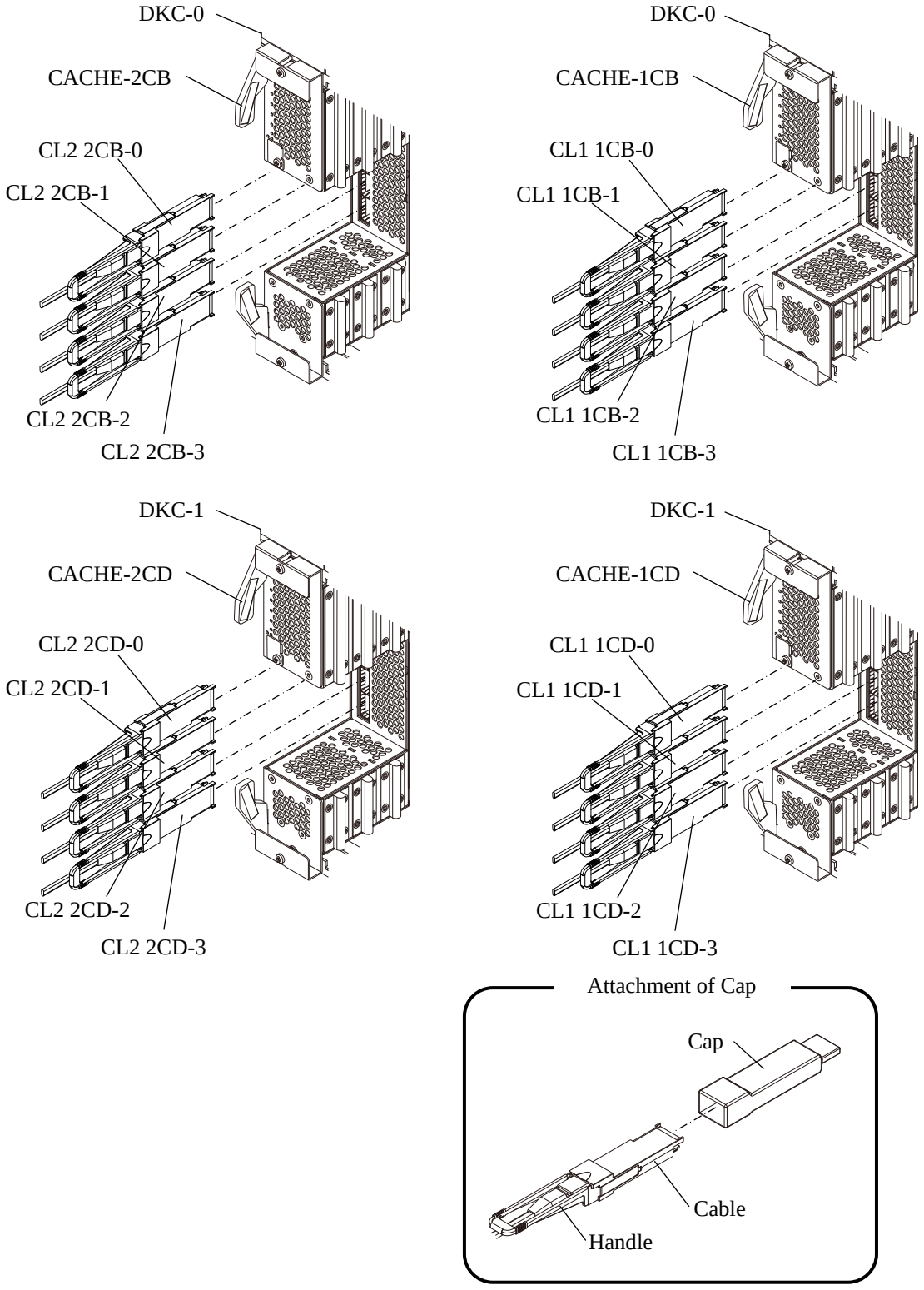


Fig. 4.5.1-49 Disconnection of Cables

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c. Open the locking clamps on the front side of the rack and remove the MFC Cable (eight cables). (See Fig. 4.5.1-50 or Fig. 4.5.1-51.)

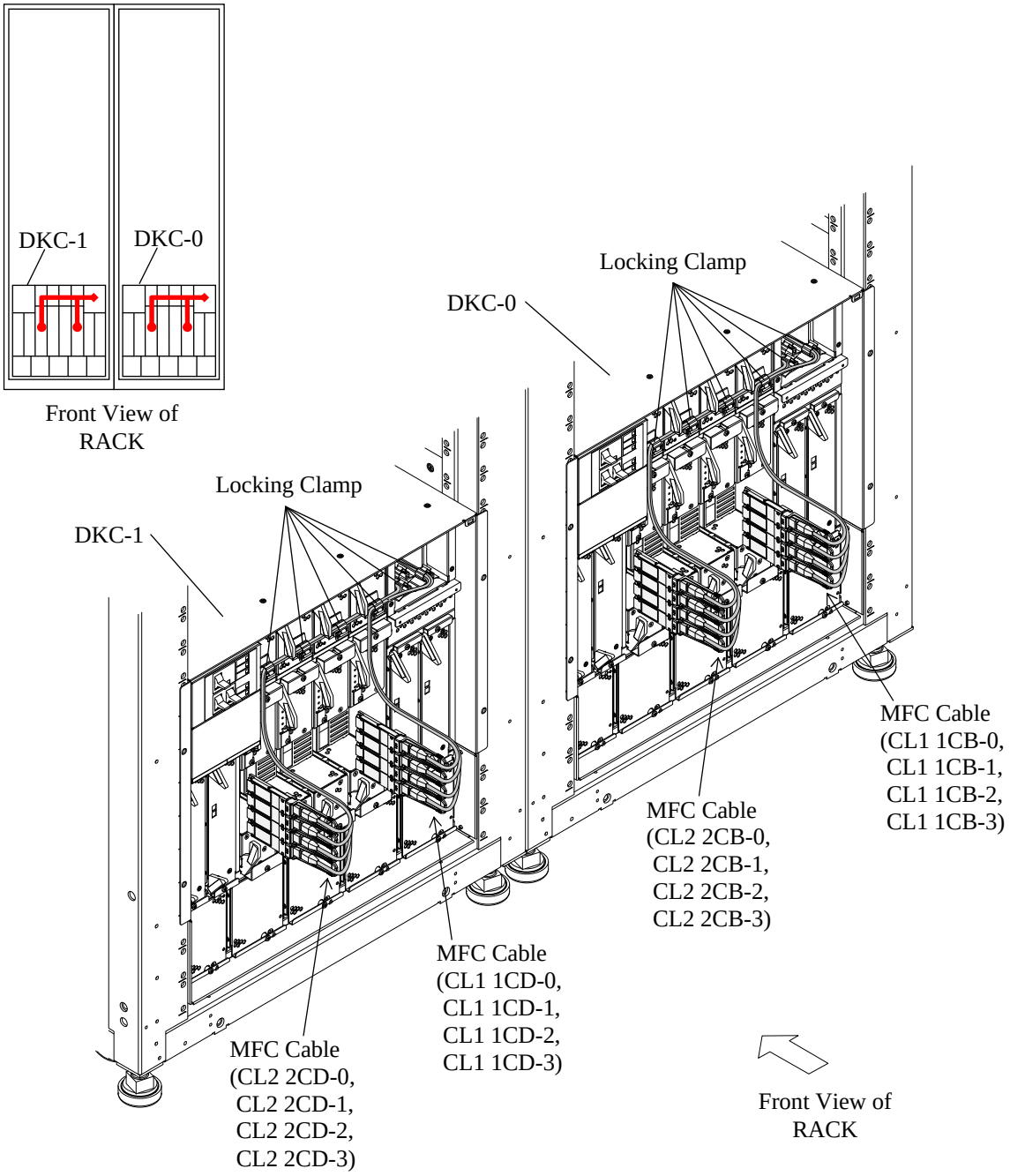


Fig. 4.5.1-50 Removal of Cables

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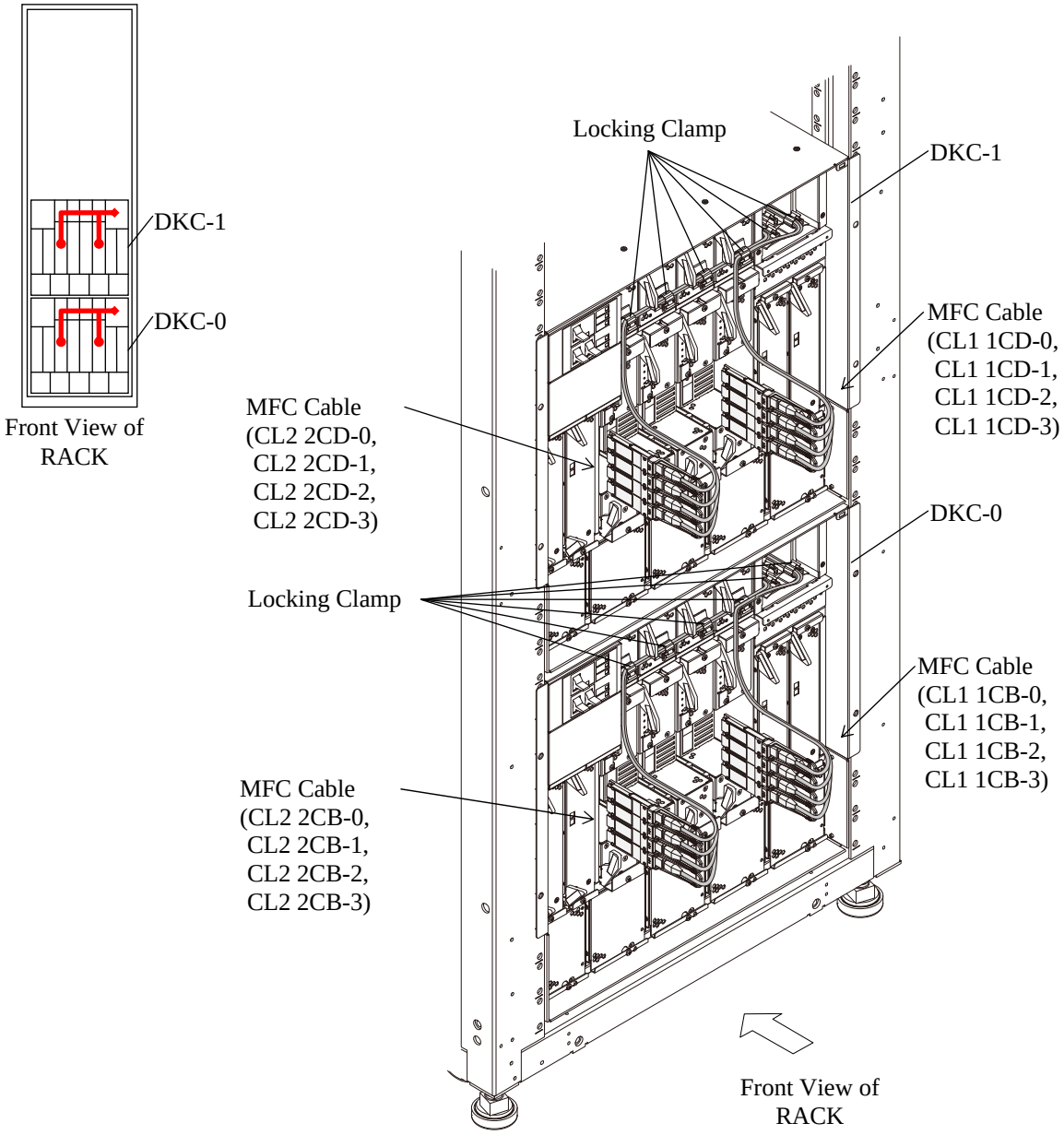


Fig. 4.5.1-51 Removal of Cables

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Cable wiring through the bottom of the rack

d. Open the four Locking Clamps on the rear side of the DKC and remove the MFC Cable (eight cables) from the Locking Clamps.
e. Pull out the MFC Cable (eight cables) from the DKC using the FE Cable Jig. (See Fig. 4.5.1-45.)
f. Loosen the four screws on the rear bottom of the rack and slide the two S/R ASSYs to the back.
g. Remove the MFC cable (eight cables) from the rack.
h. Slide the two S/R ASSYs toward you and tighten the four screws.

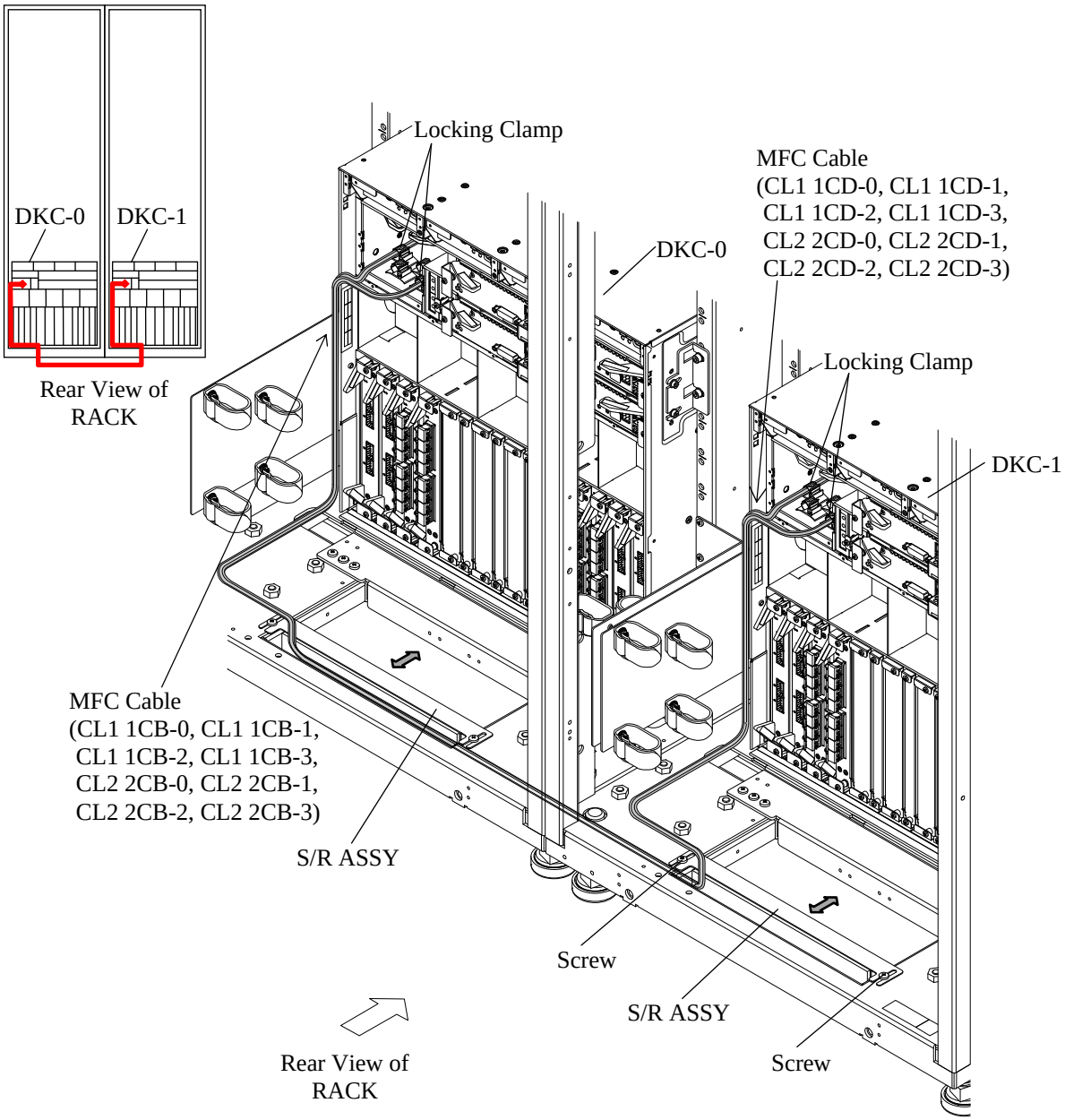


Fig. 4.5.1-52 Removal of Cables

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Cable wiring through the top of the rack

d. Open the four Locking Clamps on the rear side of the DKC and remove the MFC Cable (eight cables) from the Locking Clamps.
e. Pull out the MFC Cable (eight cables) from the DKC using the FE Cable Jig. (See Fig. 4.5.1-45.)
f. Loosen the four screws on the top of rack and slide the two Windows of the openings.
g. Remove the MFC Cable (eight cables) from the rack.
h. Slide the two Windows to close the openings. Then, tighten the four screws.

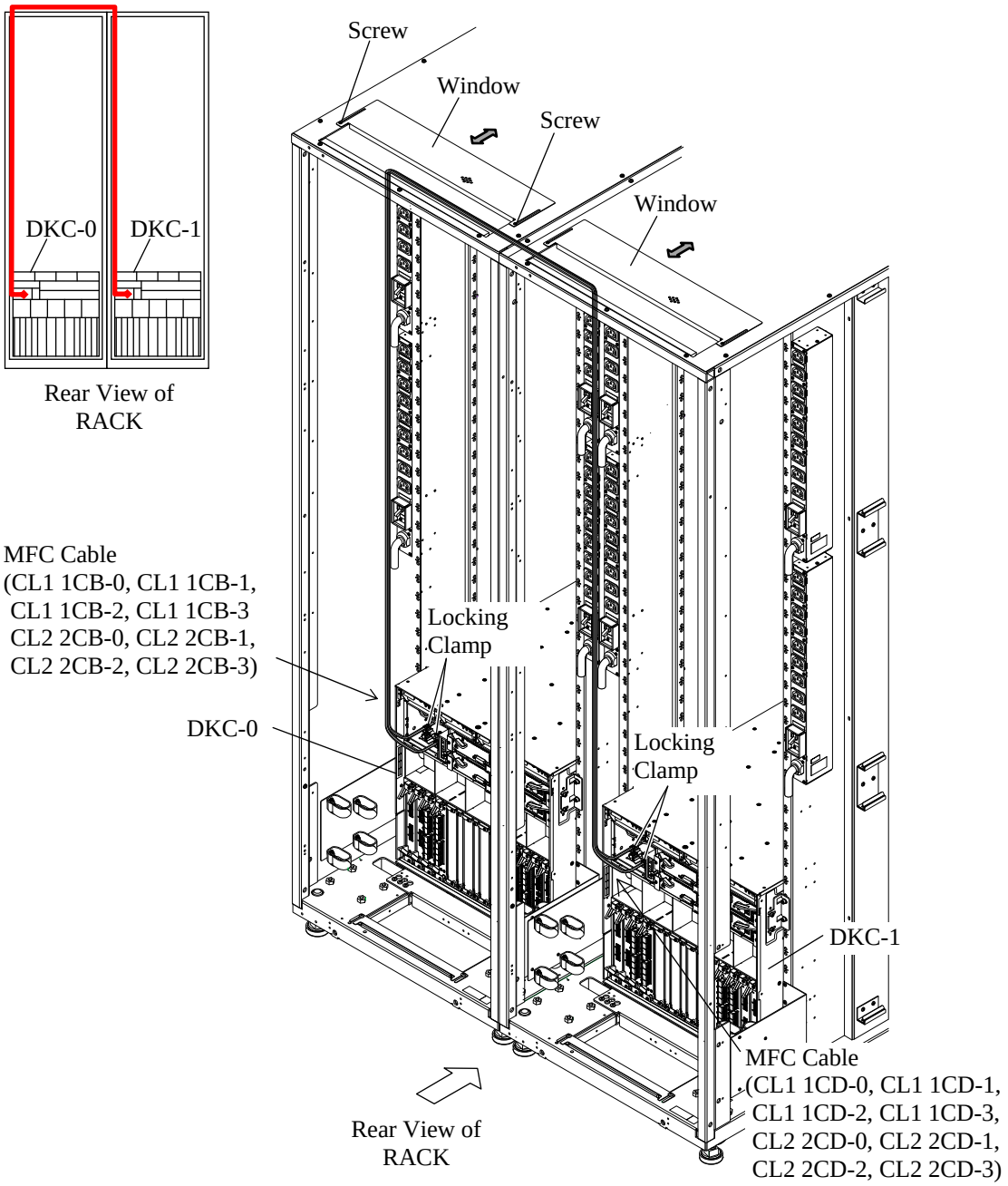


Fig. 4.5.1-53 Removal of Cables

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Cable wiring in a same rack

e. Open the four Locking Clamps on the rear side of the DKC and remove the MFC Cable (eight cables) from the Locking Clamps.
f. Pull out the MFC Cable (eight cables) from the DKC using the FE Cable Jig. (See Fig. 4.5.1-45.)
g. Remove the MFC Cable (eight cables) from the rack.

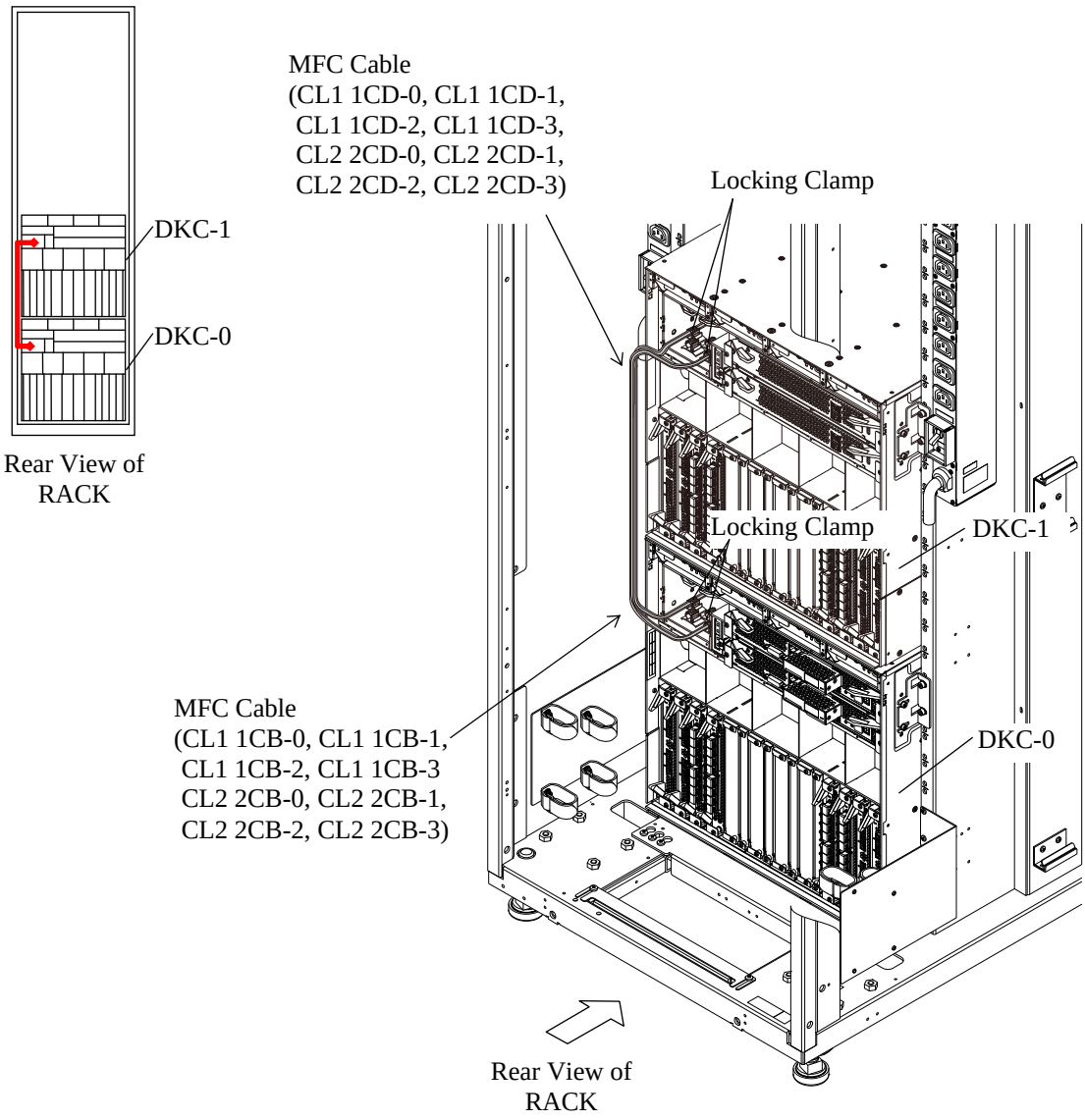


Fig. 4.5.1-54 Removal of Cables

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15-3 Installation of Cable Covers and Accessory Box

a. Install the accessory box into the front of the DKC-0 and fix it with the screw.
b. Install the cable cover into the front of the DKC-0 and fix it with the three screws.
c. Install the cable cover into the rear of the DKC-0 and fix it with the three screws.
d. In the same manner, install the two cable covers and the accessory box in the DKC-1.

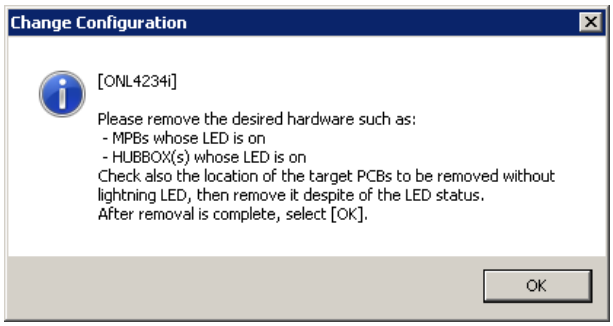
15-4 Storing FE Cable Jig

a. If storing the FE cable jig, put it on the side of the rack and fasten it with the clamp tape. (See Fig. 4.5.1-45.)
   If not storing the FE cable jig, go to Procedure 16.

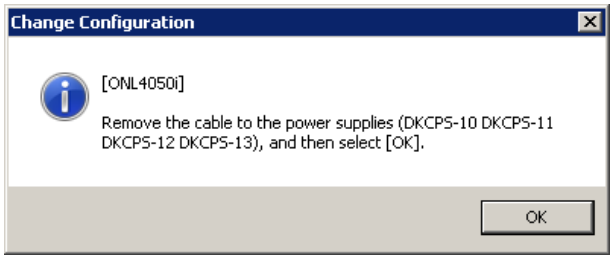
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16. SVP pre procedure (Check Power OFF)

(1) <Removal MPB>
Select (CL) [OK] in response to “Please remove the desired hardware such as:
- MPBs whose LED is on
- HUBBOX(s) whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].”.



(2) <Power OFF>
“Remove the cable to the power supplies (DKCPS-10 DKCPS-11 DKCPS-12 DKCPS-13), and then select [OK].” is displayed.



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17. When you need to remove DKC-F810I-MOD5/MOD30/MOD1J, disconnect the power cables from the DKCPSs.
    When you do not need to remove DKC-F810I-MOD5/MOD30/MOD1J, go to Step 18.

    a. Pull and open the cable holders and disconnect the power cables (DKCPS-1PSx0, DKCPS-1PSx1, DKCPS-2PSx0 and DKCPS-2PSx1) from the DKCPSs on the rear side of the DKC-1.

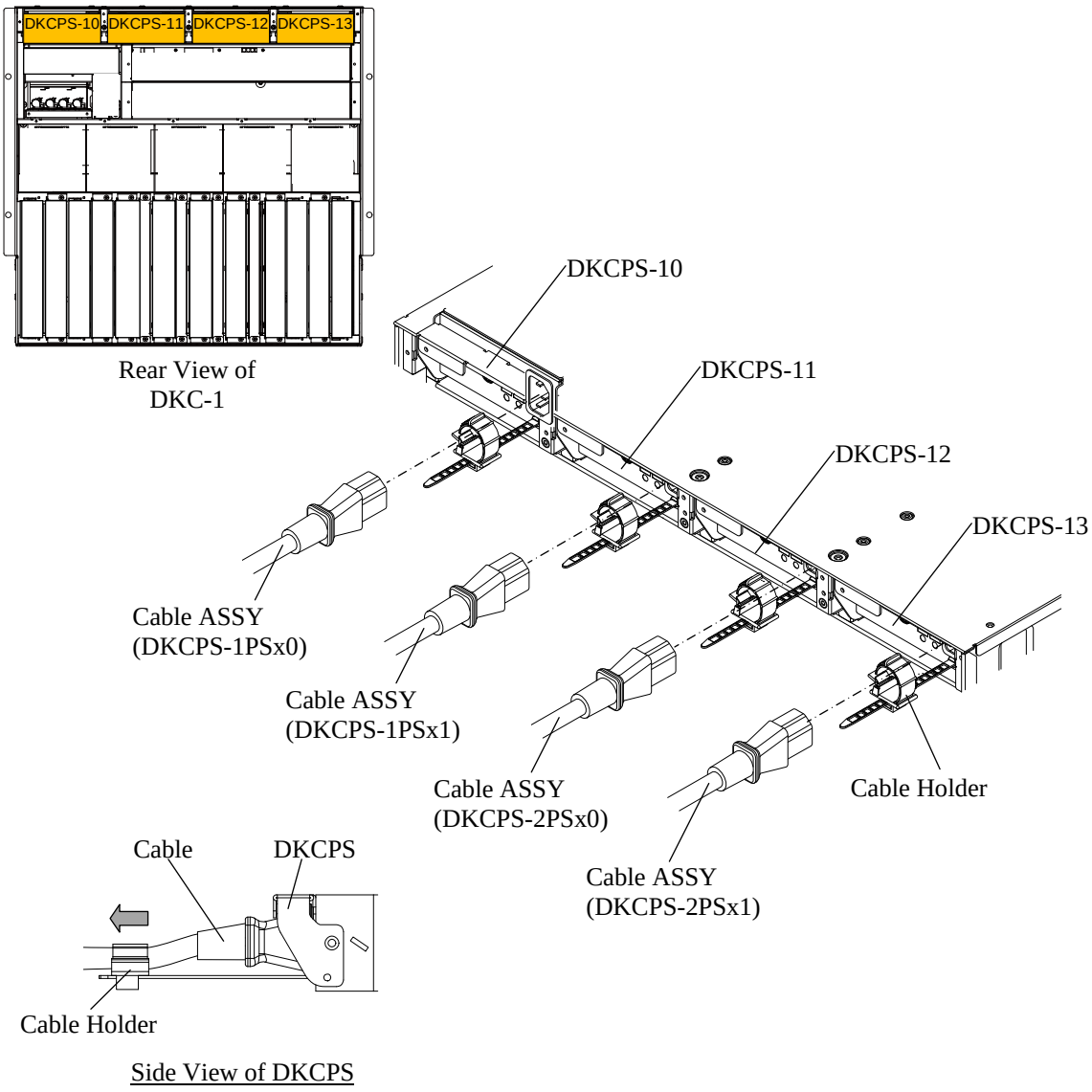


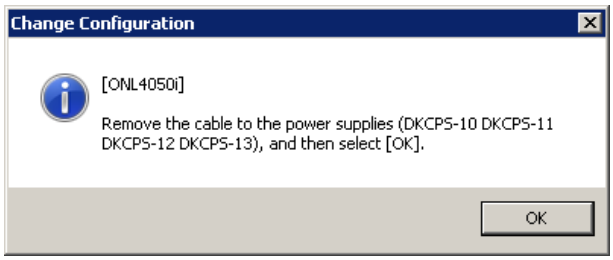
Fig. 4.5.1-55 Disconnection of Power Cables

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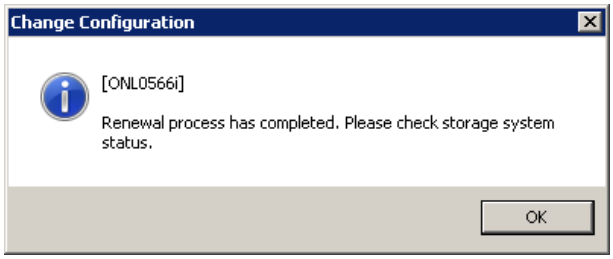
18. SVP procedure

(1)

Select (CL) [OK] in response to “Remove the cable to the power supplies (DKCPS-10 DKCPS-11 DKCPS-12 DKCPS-13), and then select [OK].”.



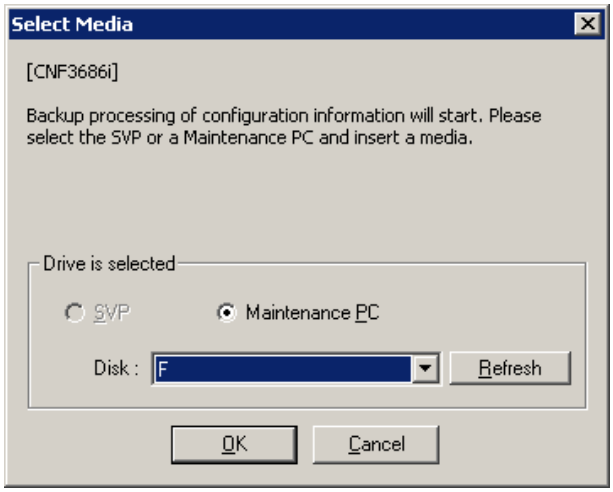
(2) <End of system update processing>
“Renewal process has completed. Please check storage system status.” is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



(3)

Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

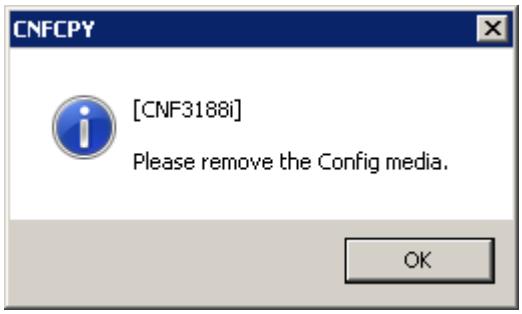
NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



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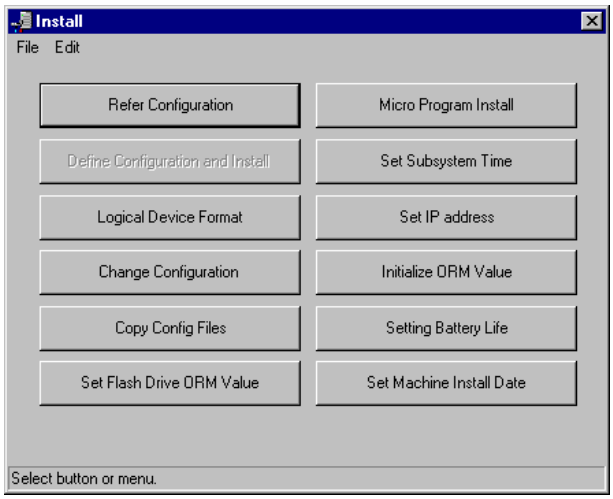
(4)

When this procedure is completed, the message “Please remove the Config media.” is displayed. Remove the configuration information media, and select (CL) [OK].



(5)

After the procedure is completed, return to ‘Install’.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

Return to the working table and do the rest of the work. (INST02-80)

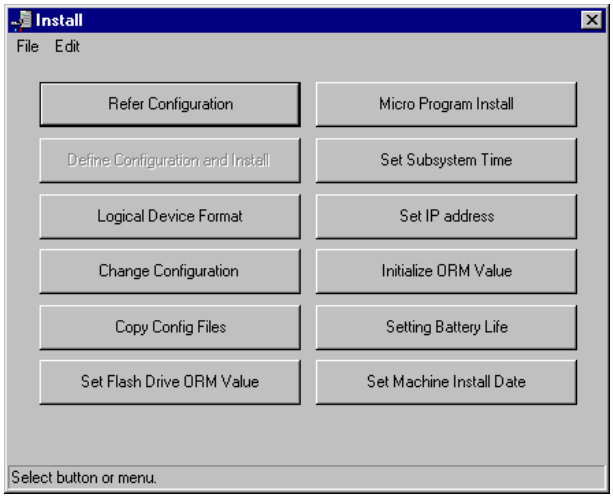
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4.5.2 De-Installation of Processor Blade, HUB (DKC-F810I-MP/HUB)

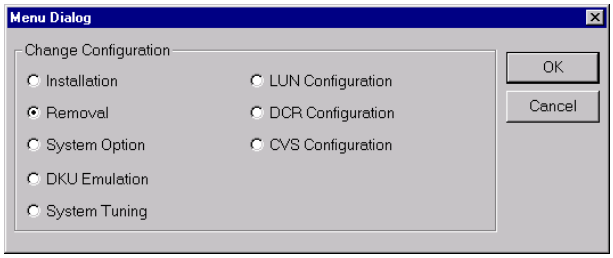
1. Setting up the New Device Structure Information

   (1) <Mode Change>
   Change the mode to Modify Mode.
   Select (CL) [Install].

   (2) <Start the 'Menu Dialog' screen>
   Select (CL) [Change Configuration].

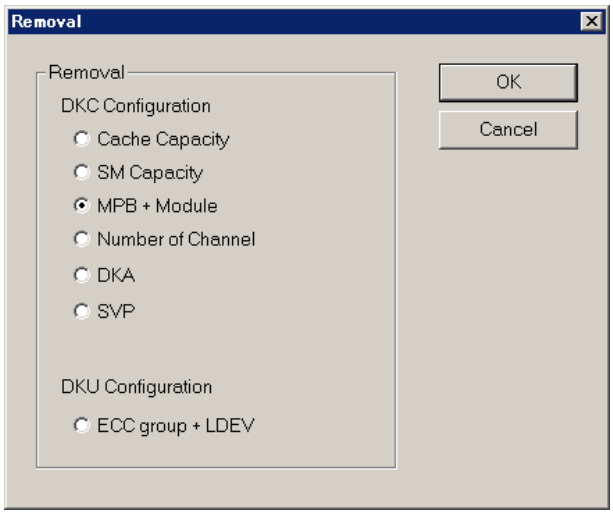


   (3) <Start Device Structure Setup screen>
   Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].

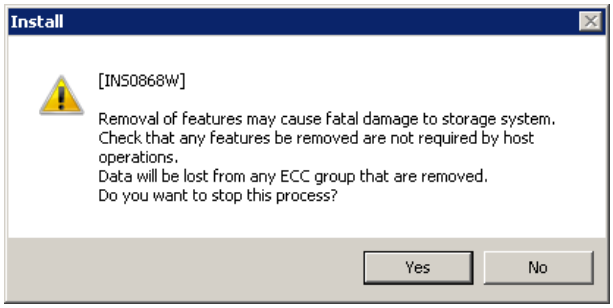


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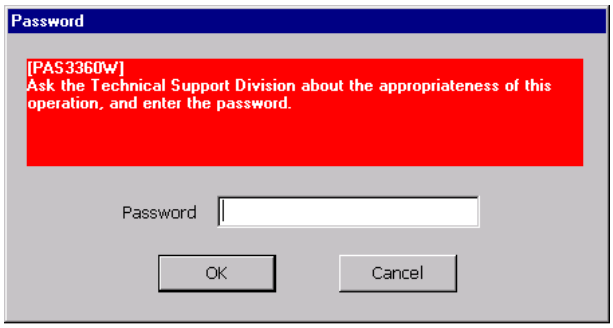
(4) <Select a part to be changed>
Select (CL) [MPB + Module], and select (CL) [OK].



(5)
Select (CL) [No] in response to "Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?".



(6) <Input password>
Enter a password and select (CL) [OK].



⚠ CAUTION

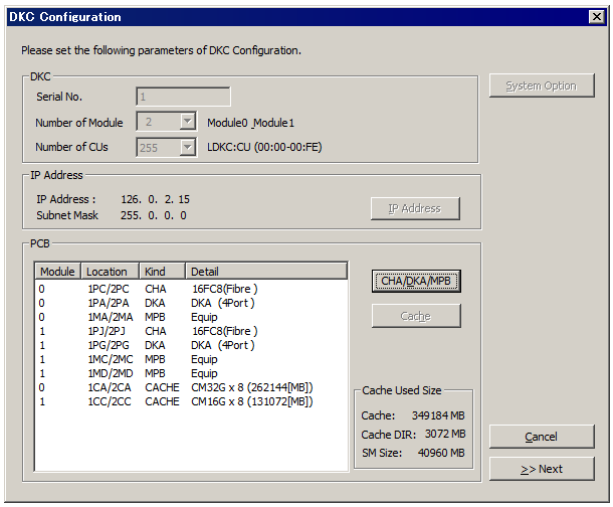
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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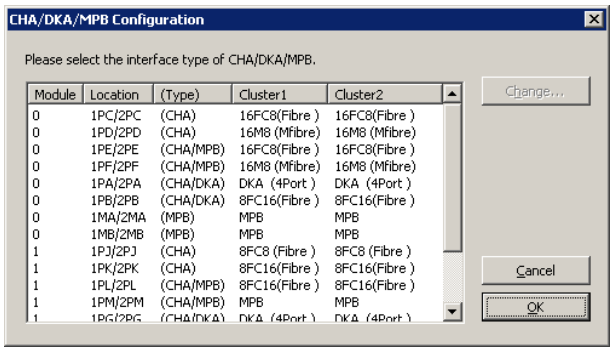
(7) <DKC Configuration screen>
When removal of the MPB is required:
Select (CL) [CHA/DKA/MPB] in the 'DKC Configuration' screen.
Go to Step (8).

After setting items, select (CL) [>>Next].
Go to Step 2.

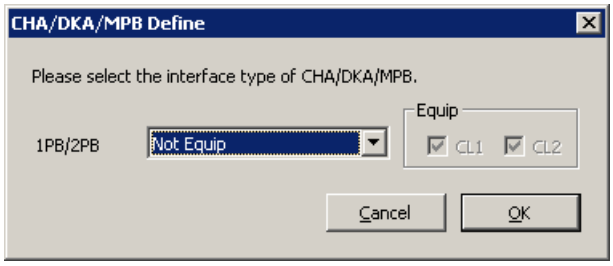
If [Cancel] is selected (CL), this operation procedure terminates.



(8) <CHA/DKA/MPB configuration screen>
In the 'CHA/DKA/MPB Configuration' window, select the location(s) where the MPB is to be removed from, and select (CL) [Change...].
Go to Step (9).
Make sure that the entry that has been made is correct and select (CL) [OK].



(9) <CHA/DKA/MPB Define screen>
In the 'CHA/DKA/MPB Define' screen, select (CL) [Not Equip].
After the setting is completed, select (CL) [OK].
The routine is returned to Step (8).

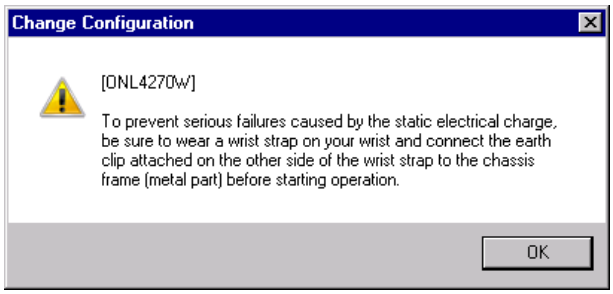


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2. SVP pre procedure (MPB Removal)

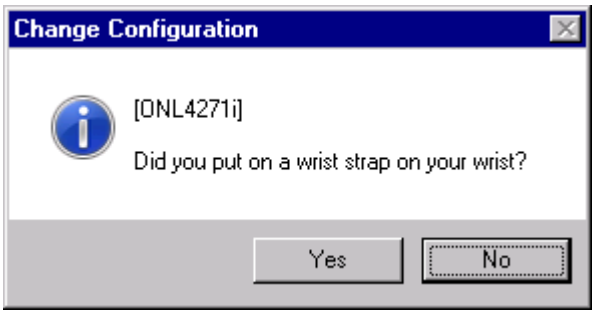
(1) <Wear a wrist strap>

Select (CL) [OK] in response to “To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.”.



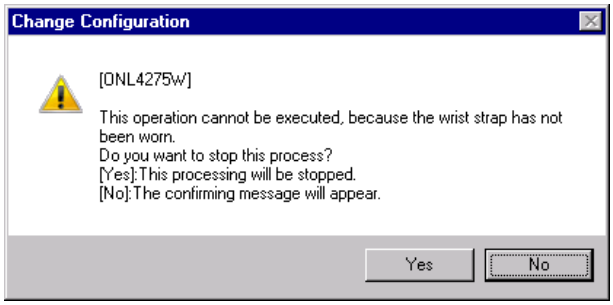
(1)-1 <Confirm wearing wrist strap>

In response to a message, “Did you put on a wrist strap on your wrist?”.
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When [No] is selected (CL), go to Step (1)-2.



(1)-2

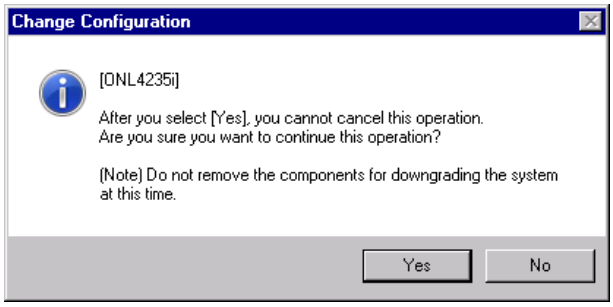
In response to a message, “This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear.”
When [Yes] is selected (CL), the routine is returned to Step (2) on page INST04-05A-10.
When [No] is selected (CL), returned to Step (1).



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(2) <Start installation>

Select (CL) [Yes] in response to “After you select [Yes], you cannot cancel this operation. Are you sure you want to continue this operation? (Note) Do not remove the components for downgrading the system at this time.”

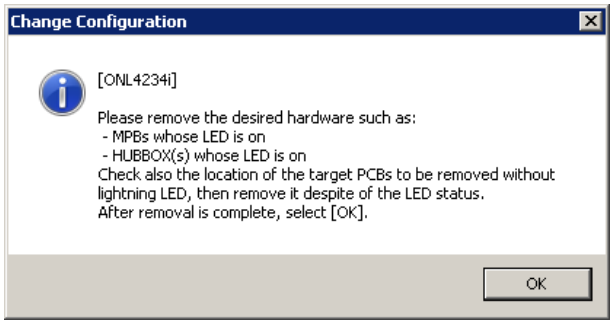


When [No] is selected (CL), the routine is returned to Step (2) on page INST04-05A-10.

(3) <Removal MPB>

At this point, refrain from selecting (CL) [OK].

“Please remove the desired hardware such as:
- MPBs whose LED is on
- HUBBOX(s) whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].” is displayed.



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3. De-Installation Procedure of Processor Blade

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

3-1 Confirmation of Shut Down LED

a. Check that the Shut Down LED on the MPB is lit.

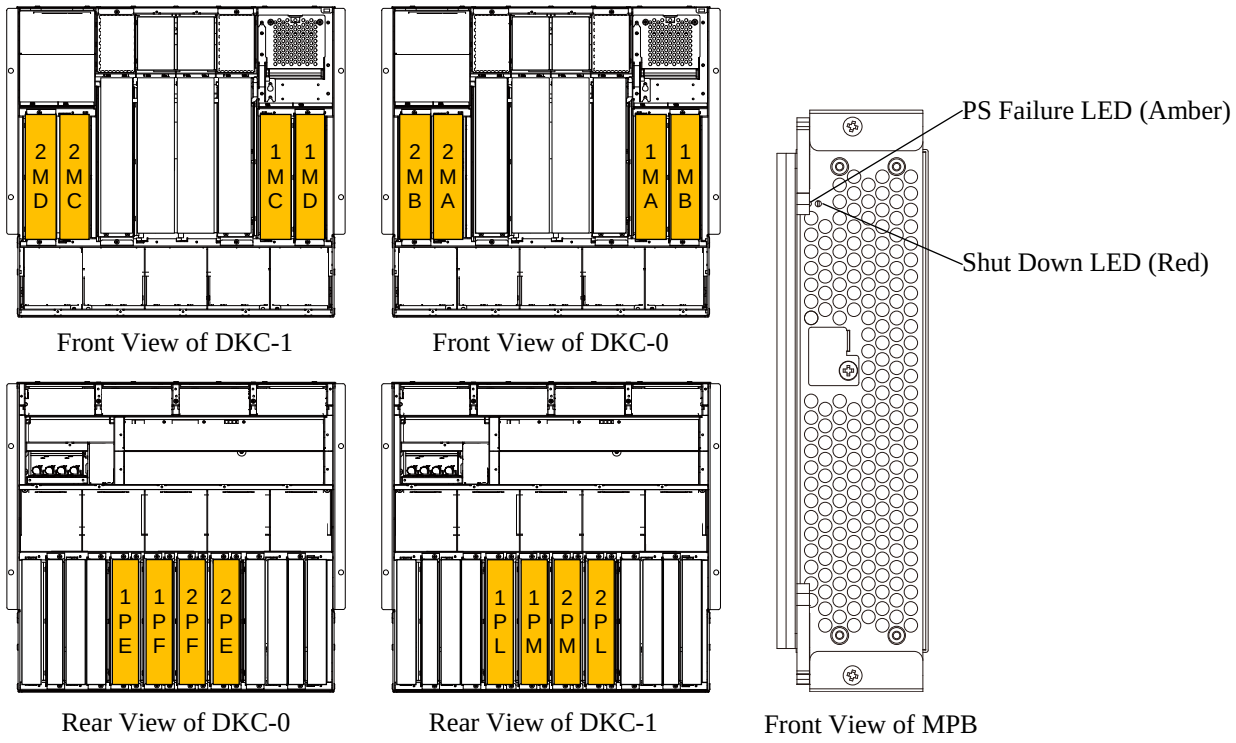


Fig. 4.5.2-1 Location of the Shut Down LED

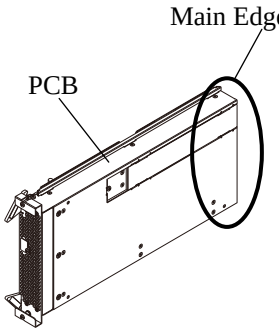
Table 4.5.2-1 Inserting Location

DKC	Addition No.	Slot No.		Location No.		Remarks
		Cluster 1	Cluster 2	Cluster 1	Cluster 2	
DKC-0	Basic	1MA	2MA	MPB-1MA	MPB-2MA	Standard Equipment
	Option 1	1MB	2MB	MPB-1MB	MPB-2MB	
	Option 2	1PF	2PF	MPB-1PF	MPB-2PF	
	Option 3	1PE	2PE	MPB-1PE	MPB-2PE	
DKC-1	Option 4	1MC	2MC	MPB-1MC	MPB-2MC	Standard Equipment
	Option 5	1MD	2MD	MPB-1MD	MPB-2MD	
	Option 6	1PM	2PM	MPB-1PM	MPB-2PM	
	Option 7	1PL	2PL	MPB-1PL	MPB-2PL	

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3-2 Removal of MPB

a. Loosen the screws and remove the MPBs from the DKC. Refer to Table 4.5.2-1, Fig. 4.5.2-2 and Fig. 4.5.2-3.
b. Attach the dummy plates and fasten the screws.



NOTICE: When removing the PCB, hold the top and bottom of the PCB with both hands, and insert it straight not to contact the neighboring PCB.

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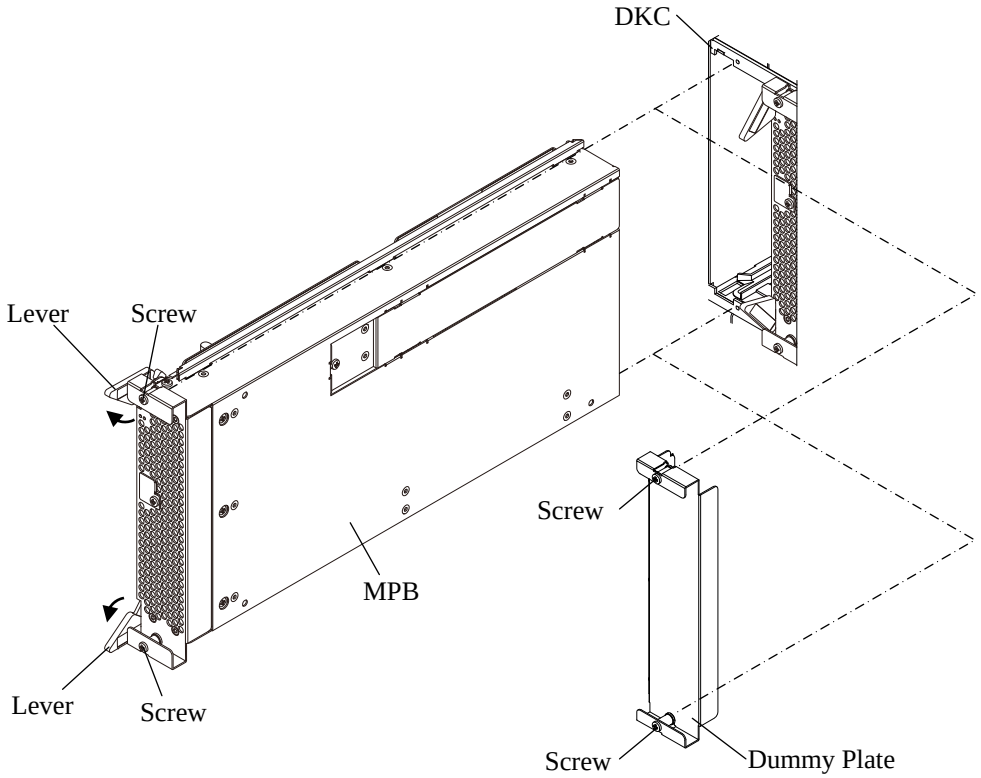


Fig. 4.5.2-2 Removal of MPB (MPB-#MB/#MD)

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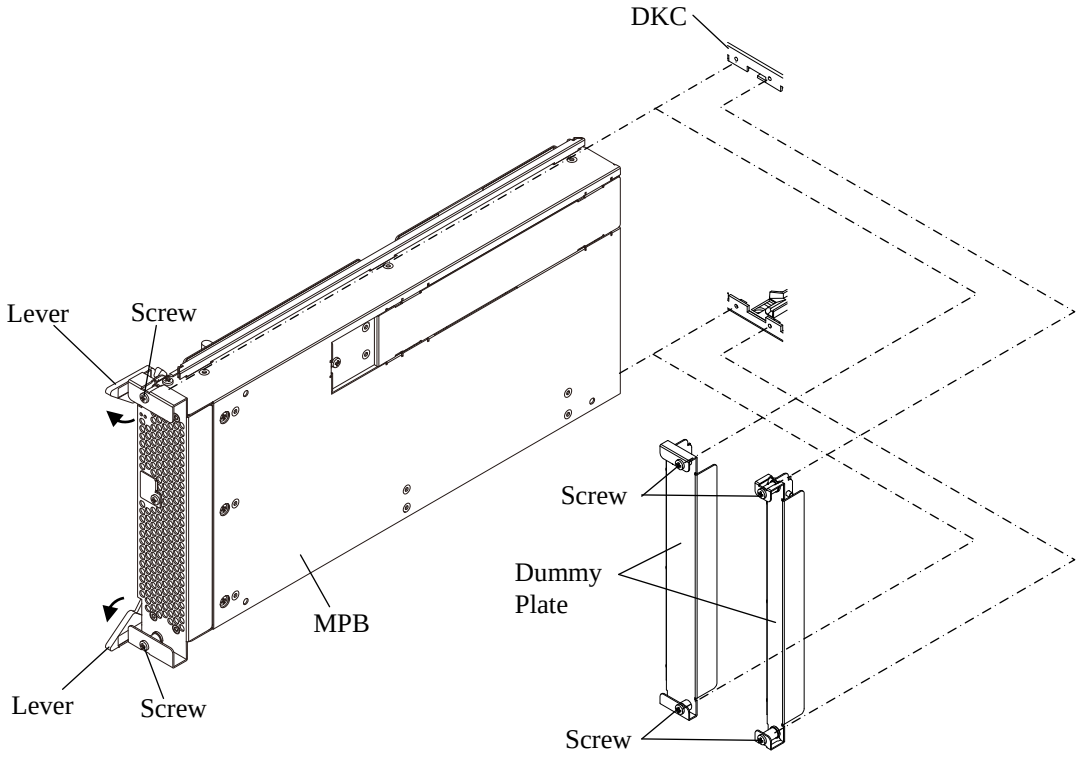


Fig. 4.5.2-3 Removal of MPB (MPB-#PF/#PE/#PM/#PL)

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4. De-Installation Procedure of HUB

De-Installation Condition

The HUB (DKC-F810I-HUB) is an indispensable option that is to be removed when the storage system configuration of DKC is corresponding to the following conditions.

In case of DKC-0

① Removal of the first set (HUBBOX-01)
- The HUBBOX-01 is required to be removed when the MPB is removed from the Option 2 (1PF/2PF) and Option 3 (1PE/2PE) MPB slots.

In case of DKC-1

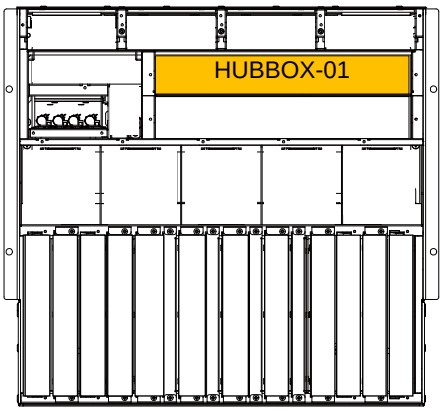
① Removal of the second set (HUBBOX-11)
- The HUBBOX-11 is required to be removed when the MPB is removed from the Option 6 (1PM/2PM) and Option 7 (1PL/2PL) MPB slots.

NOTICE: Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

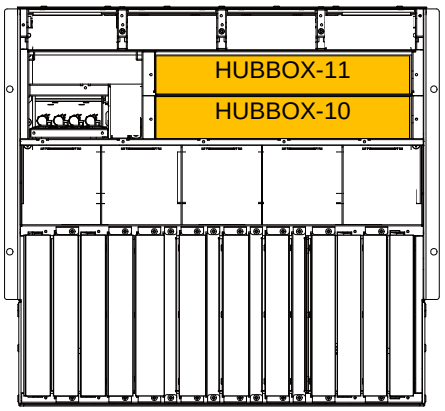
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4-1 When the HUB (DKC-F810I-HUB) is required to remove, check the Shut Down LED on the HUBBOX.
When the HUB (DKC-F810I-HUB) is not required to remove, go to the procedure 5. SVP procedure.

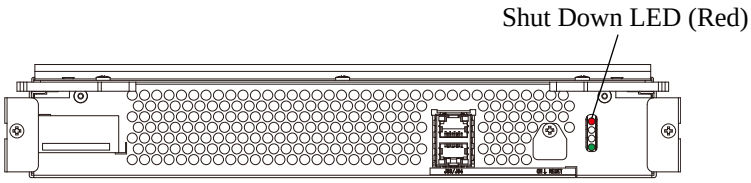
a. Check that the Shut Down LED on the HUBBOX is lit.



Rear View of DKC-0



Rear View of DKC-1



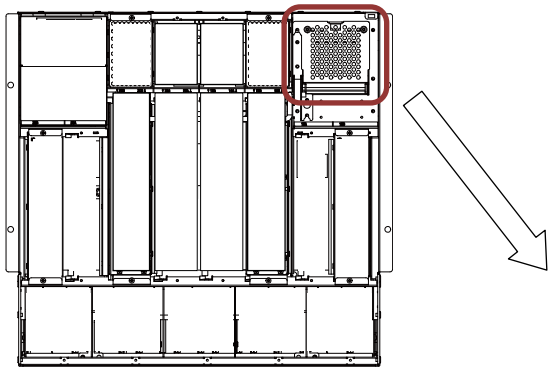
Front View of HUBBOX

Fig. 4.5.2-4 Location of the Shut Down LED

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4-2 Storage of Dummy Plate

a. Loosen the three screws ① on the front side of the DKC and remove the cable cover.
b. Loosen the screw ② and remove the accessory box.
c. Remove the dummy plate from the accessory box.
d. Put the accessory box in place and fix it with the screw ②.
e. Put the cable cover in place and fix it with the three screws ①.



Front View of DKC

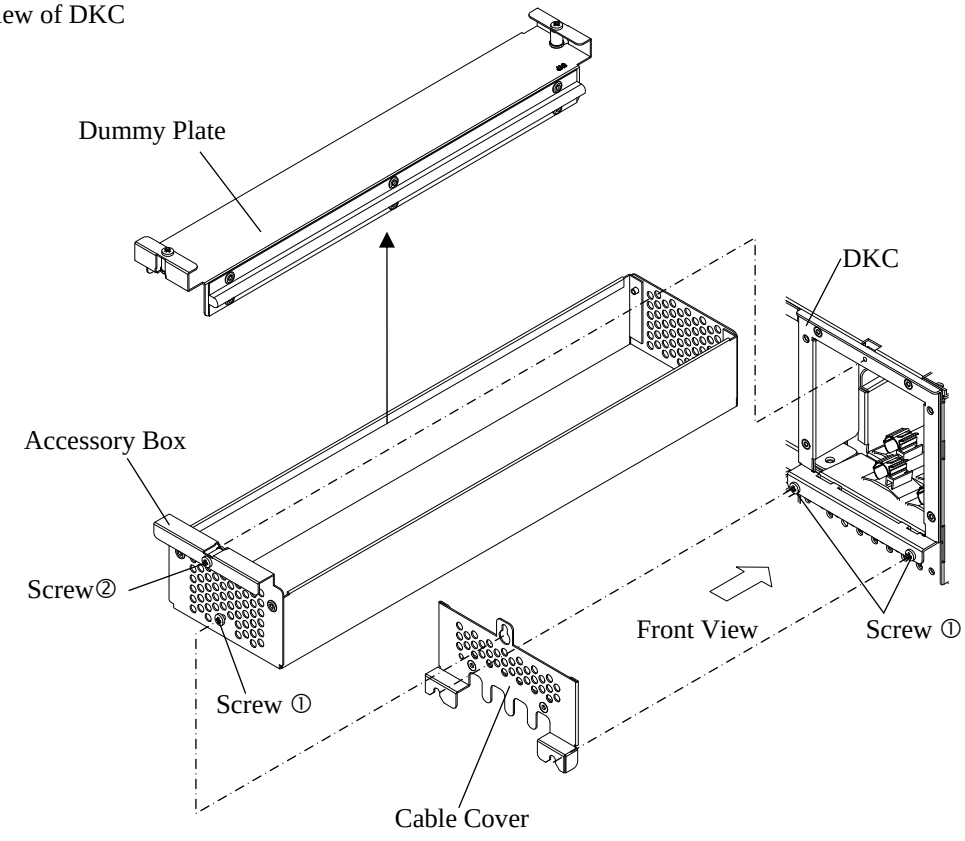


Fig. 4.5.2-5 Storage of Dummy Plate

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4-3 Removal of HUBBOX

a. In the case of the HUBBOX-10, remove the LAN cable (P83) from the connector (J83). In the case of other than the HUBBOX-10, go to the procedure b.
b. Loosen the two screws and remove the HUBBOX.
c. Install the dummy plate to the HUBBOX slot and tighten the two screws.

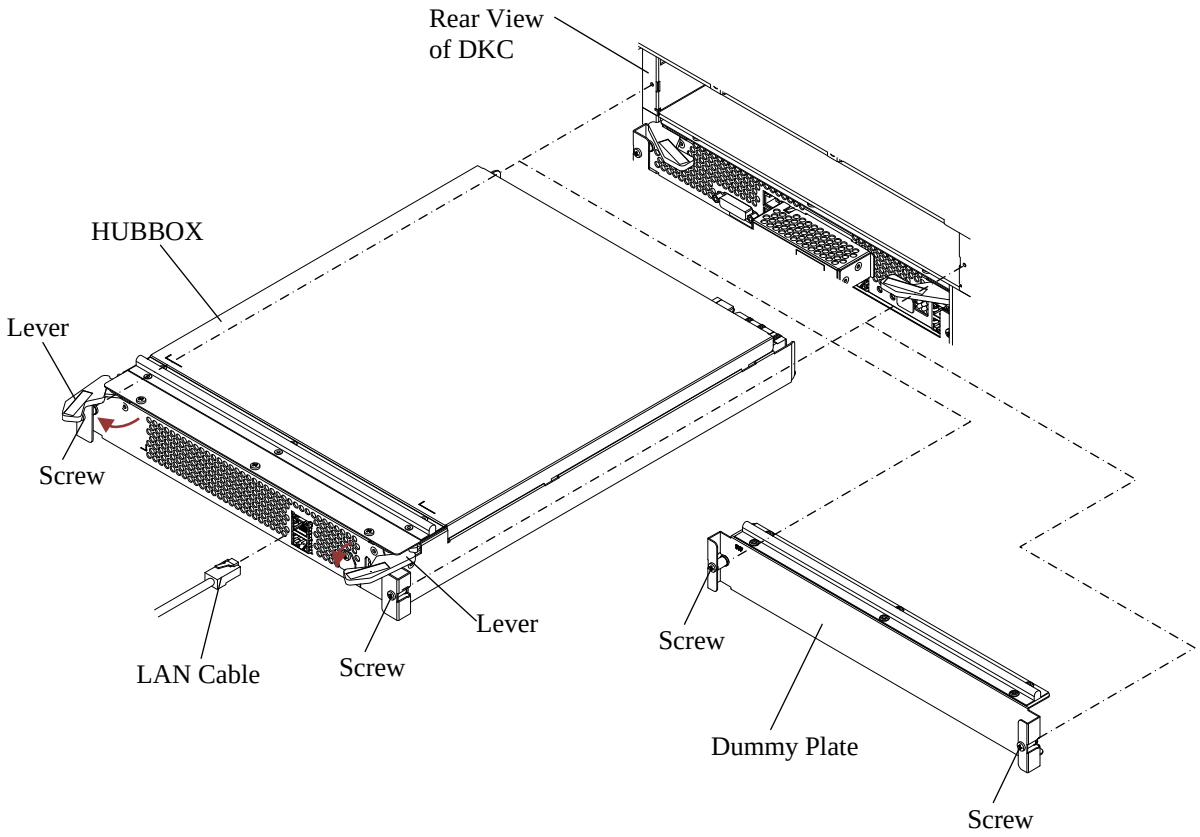
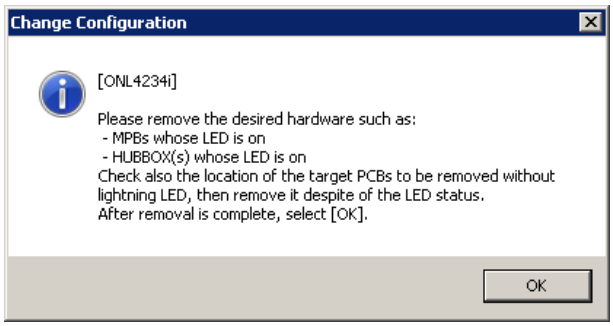


Fig. 4.5.2-6 Removal of HUBBOX

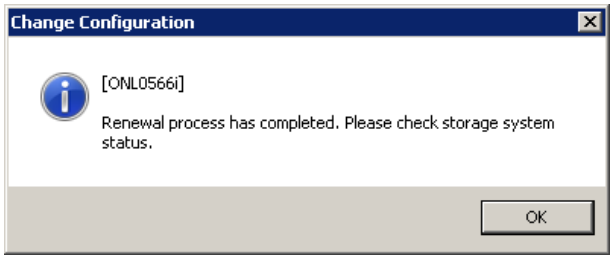
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5. SVP procedure

(1) <Removal MPB>
Select (CL) [OK] in response to "Please remove the desired hardware such as:
- MPBs whose LED is on
- HUBBOX(s) whose LED is on
Check also the location of the target PCBs to be removed without lightning LED, then remove it despite of the LED status. After removal is complete, select [OK].".

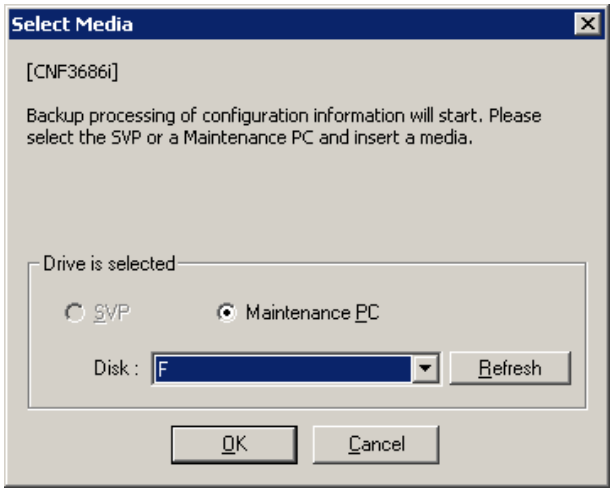


(2) <End of system update processing>
"Renewal process has completed. Please check storage system status." is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



(3)
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

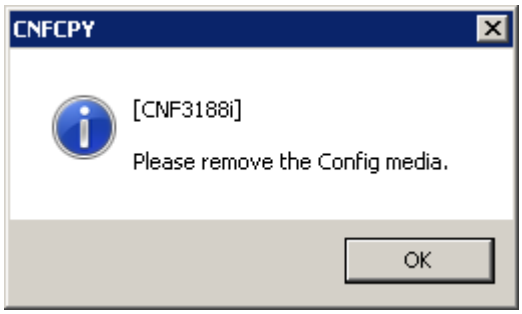
NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



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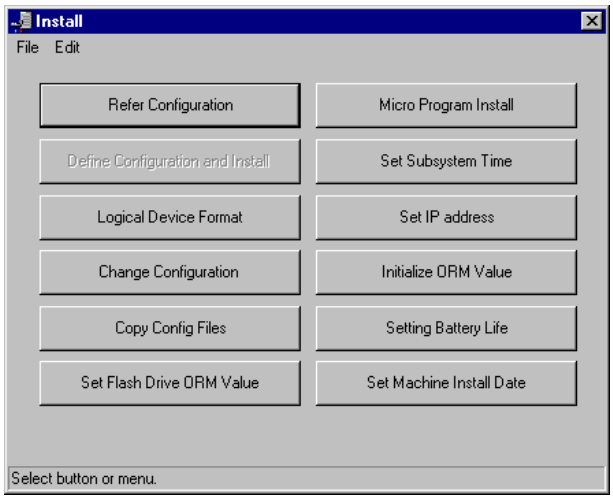
(4)

When this procedure is completed, the message “Please remove the Config media.” is displayed. Remove the configuration information media, and select (CL) [OK].



(5)

After the procedure is completed, return to ‘Install’.
Select (CL) [File]-[Exit].



(6) <Mode Change>
Change the mode to View Mode.

Return to the working table and do the rest of the work. (INST02-80)

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4.6 De-Installation of Controller Chassis (DKC810I-CBXA, DKC-F810I-CBXB/CRF42/ CRF3R/BCH/BCP)

Table 4.6-1 Parts List of DKC810I-CBXA

Item No.	Part Name	Part No.	Quantity	Remarks
1	DKC	1510157-B	1	
2	Rear Stopper	3287250-1	1	
3	Rear Stopper	3287250-2	1	
4	WA Socket Bolt	3261959-516	4	
5	WA Socket Bolt	3261959-408	4	
6	Screw	SB510N	8	
7	HU Jumper	5521578-1	6	Maintenance Jumper
8	Rack Nut	5510146-1	12	
9	Cable Duct	3287313-A	1	
10	Cable Duct	3287313-B	1	
11	Label (QTY)	3268905-1	1	
12	Label (V/Hz/PH.)	3283091-1	2	
13	S/R ASSY	3287308-A	1	
14	Screw	SB406N	2	
15	Parts Location	5557373-1	1	
16	Label (VCCI)	5545024-1	1	For HDS/HP
17	Label (BSMI-D3300)	3265644-4	1	For HDS
18	Label NOISE (FCC/CSA)	3283107-1	1	For HDS/HP
19	Label (KOREA-KC)	3287464-1	1	For HDS
20	Label (BSMI)	3269907-1	1	For HP
21	Label (BSMI NAME)	5552998-1	1	
22	CE Address Label	2854907-1	1	For HDS
		3290520-1		
23	CE Address Label	2854907-2	1	For HP
		3290520-2		
24	Modular Plug Cord	5533144-5	1	
25	EMI Core	5513535-1	3	
26	Nameplate (HDS)	2854917-4	1	ITPD
	(DKC810I-CBXA)	2855885-31		HICAM
		2855885-531		HICEF
27	Nameplate (HP)	2854917-6	1	ITPD
	(H6F56A (Regulatory))	2855885-33		HICAM
		2855885-506		HICEF
28	Nameplate (HDS)	2854918-1	1	ITPD
	(DKC810I-CBXA (Traceable))	2855886-1		HICAM
		2855886-501		HICEF

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Table 4.6-2 Parts List of DKC-F810I-CBXB

Item No.	Part Name	Part No.	Quantity	Remarks
1	DKC	1510157-B	1	
2	Rear Stopper	3287250-1	1	
3	Rear Stopper	3287250-2	1	
4	WA Socket Bolt	3261959-516	4	
5	WA Socket Bolt	3261959-408	4	
6	Screw	SB510N	8	
7	HU Jumper	5521578-1	6	Maintenance Jumper
8	Rack Nut	5510146-1	12	
9	Cable Duct	3287313-A	1	
10	Cable Duct	3287313-B	1	
11	Label (QTY)	3268905-1	1	
12	Label (V/Hz/PH.)	3283091-1	2	
13	S/R ASSY	3287308-A	1	
14	Screw	SB406N	2	
15	Parts Location	5546147-1	1	
16	Label (VCCI)	5545024-1	1	For HDS/HP
17	Label (BSMI-D3300)	3265644-4	1	For HDS
18	Label NOISE (FCC/CSA)	3283107-1	1	For HDS/HP
19	Label (KOREA-KC)	3287464-1	1	For HDS
20	Label (BSMI)	3269907-1	1	For HP
21	Label (BSMI NAME)	5552998-1	1	
22	CE Address Label	2854907-1	1	For HDS
		3290520-1		
23	CE Address Label	2854907-2	1	For HP
		3290520-2		
24	—	—	—	
25	—	—	—	
26	Nameplate (HDS)	2854917-5	1	ITPD
	(DKC-F810I-CBXB)	2855885-32		HICAM
		2855885-532		HICEF
27	Nameplate (HP)	2854917-7	1	ITPD
	(H6F57A (Regulatory))	2855885-34		HICAM
		2855885-507		HICEF
28	Nameplate (HDS)	2854918-2	1	ITPD
	(DKC-F810I-CBXB (Traceable))	2855886-2		HICAM
		2855886-502		HICEF

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Table 4.6-3 Parts List of DKC-F810I-CRF42

Item No.	Part Name	Part No.	Quantity	Remarks
101	Rail	3287119-2	2	
102	Rack Nut	5510146-1	8	
103	WA Socket Bolt	3261959-510	8	

Table 4.6-4 Parts List of DKC-F810I-CRF3R

Item No.	Part Name	Part No.	Quantity	Remarks
201	Rail L	3287401-A	1	
202	Rail R	3287401-B	1	

Table 4.6-5 Parts List of DKC-F810I-BCH

Item No.	Part Name	Part No.	Quantity	Remarks
301	Bezel (8U) ASSY	3287331-B	1	
302	Bezel (2U) ASSY	3287332-A	1	
303	Bezel Bracket (2U)	5555016-A	2	
304	Bezel Bracket R	5555017-A	1	
305	Side Cover L	2854990-101	1	
306	Side Cover R	2854991-1	1	
307	Lower Cover	3287273-1	1	
308	Bezel Bracket L	3287274-1	1	
309	Sheet (BLIND)	5555005-1	1	
310	Screw	SB305N	6	
311	TAG INST	5557047-A	1	Key

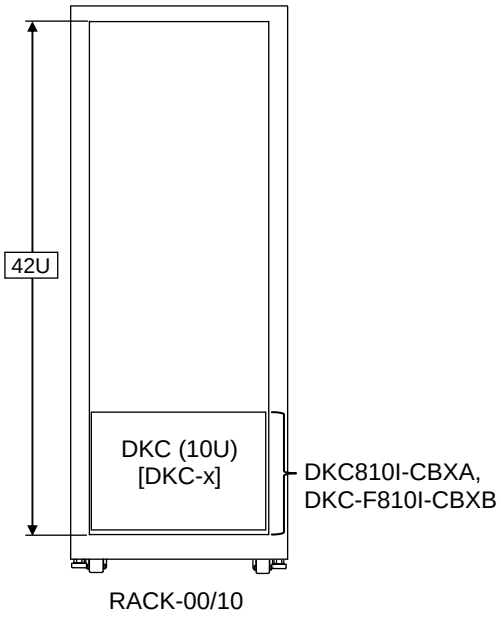
Table 4.6-6 Parts List of DKC-F810I-BCP

Item No.	Part Name	Part No.	Quantity	Remarks
301	HP Bezel (8U) ASSY	3290503-B	1	
302	HP Bezel (2U) ASSY	3290504-A	1	
303	Bezel Bracket (2U)	5555016-A	2	
304	Bezel Bracket R	5555017-A	1	
305	Side Cover L	2854990-2	1	
306	Side Cover R	2854991-2	1	
307	Lower Cover	3287273-1	1	
308	Bezel Bracket L	3287274-1	1	
309	Sheet (BLIND)	5557315-1	1	
310	Screw	SB305N	6	
311	TAG INST	5557047-A	1	Key

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1. Confirmation of Removal Position
   a. The following figure shows a configuration example of installing Controller Chassis (DKC810I-CBXA, DKC-F810I-CBXB) in 42 units rack frame. However, installing positions of Controller Chassis may differ according to the construction within the rack frame.

Single DKC Configuration



Twin DKC Configuration

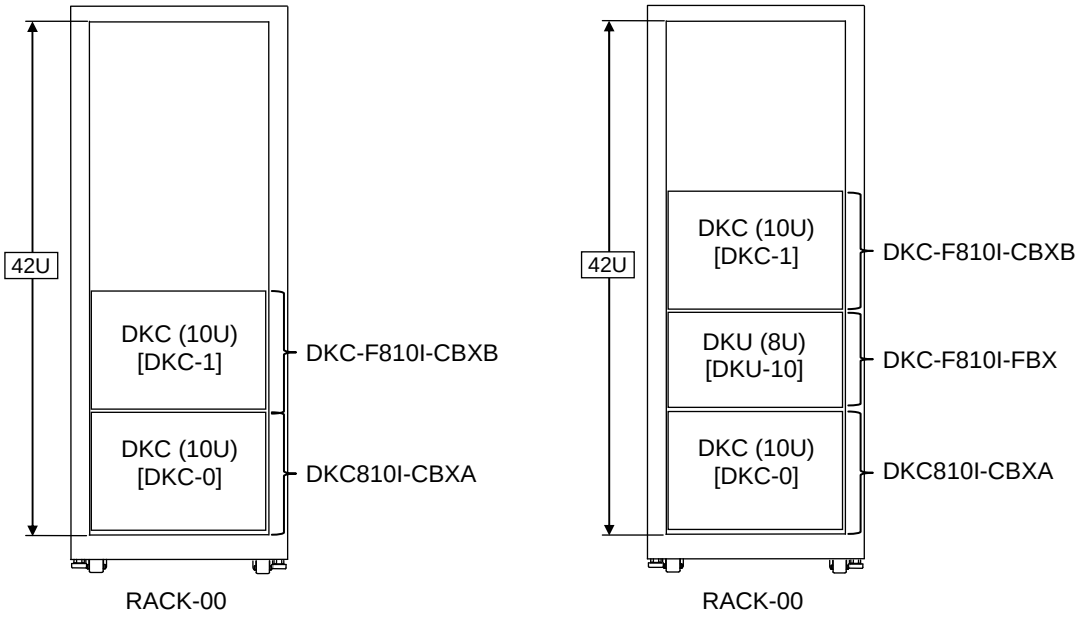


Fig. 4.6-1 Mounting Position of Controller Chassis

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4.6.1 De-Installation Procedure of Bezel

1. When you need to remove Controller Chassis Bezel (DKC-F810I-BCH), remove the bezel from the front side of DKC.
   When you do not need to remove Controller Chassis Bezel (DKC-F810I-BCH), go to "4.6.2 De-Installation Procedure of Controller Chassis" (INST04-06-80).
   a. Insert the key into the keyhole on the bezel and release the lock of the bezel (①).
   b. Pull the key toward you while holding the lower right portion of the bezel, and then disengage the right side of the bezel from the ball catch (②).

      NOTE: When disengaging the bezel, work with the opening angle between the bezel and the chassis of up to 45 degrees.
      Do not force the bezel open too wide. Otherwise, a damage of bezel may be caused.

   c. Disengage the bezel from the left tabs and then remove it (③).

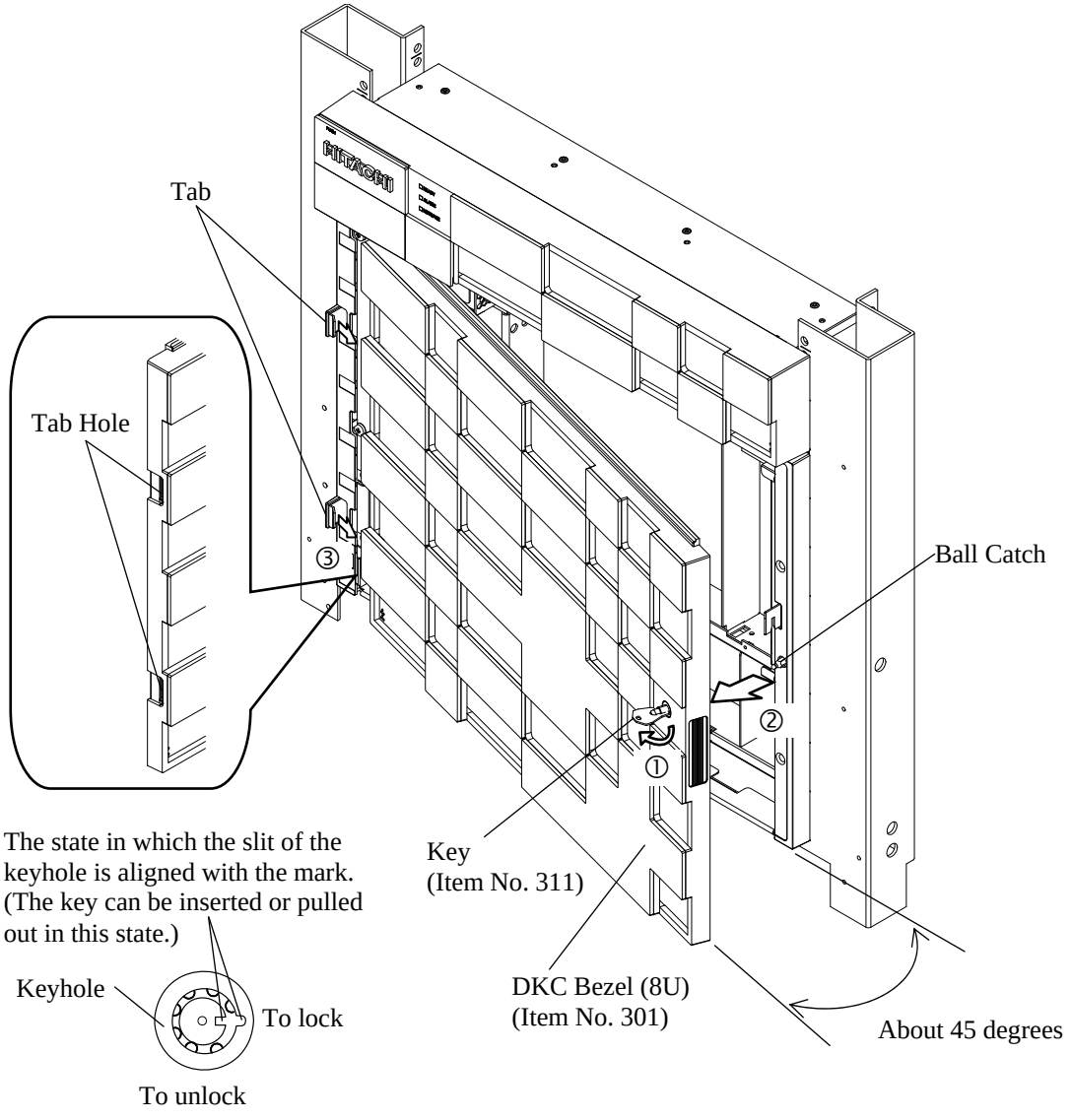


Fig. 4.6.1-1 Removal of DKC Bezel (8U)

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d. Pull the bezel toward you holding its sides and disengage it from the ball catches to remove the bezel.

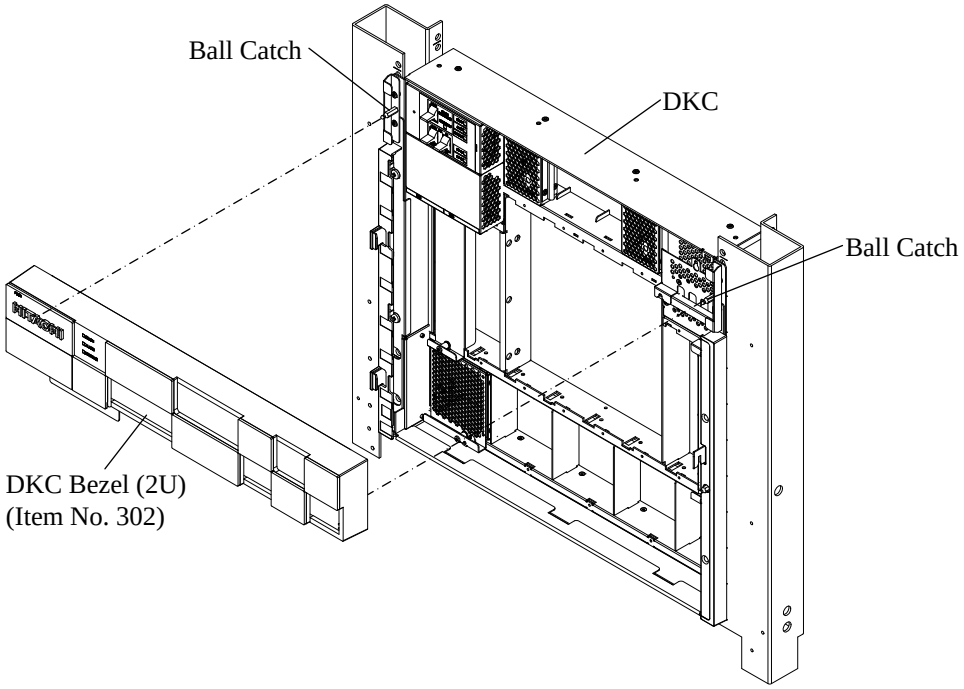


Fig. 4.6.1-2 Removal of DKC Bezel (2U)

e. When removing the bezels from the DKC-F810I-CBXB, remove the Sheet (BLIND) from the DKC Bezel (2U).
When removing the bezels from the DKC810I-CBXA, go to Procedure 2.

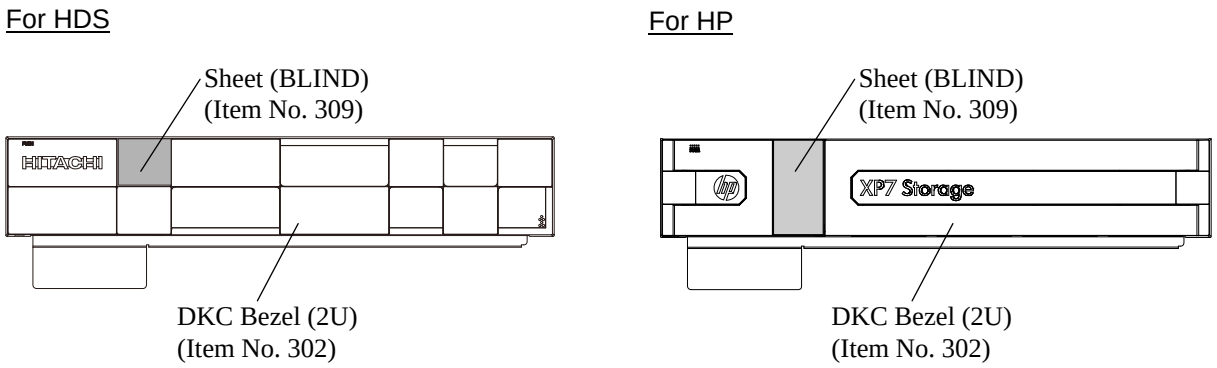


Fig. 4.6.1-3 Removal of Sheet (BLIND)

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2. Removal of Parts
   a. Remove the Side Cover L from the Bezel Bracket L on the front left side of the DKC.
   b. Remove the Side Cover R from the Bezel Bracket R on the front right side of the DKC.
   c. Remove the two screws and remove the Lower Cover from the Bezel Bracket L and the Bezel Bracket R.
   d. Remove the four screws and remove the two Bezel Brackets (2U).
   e. Remove the four screws and remove the Bezel Bracket L and the Bezel Bracket R from the front of the DKC.

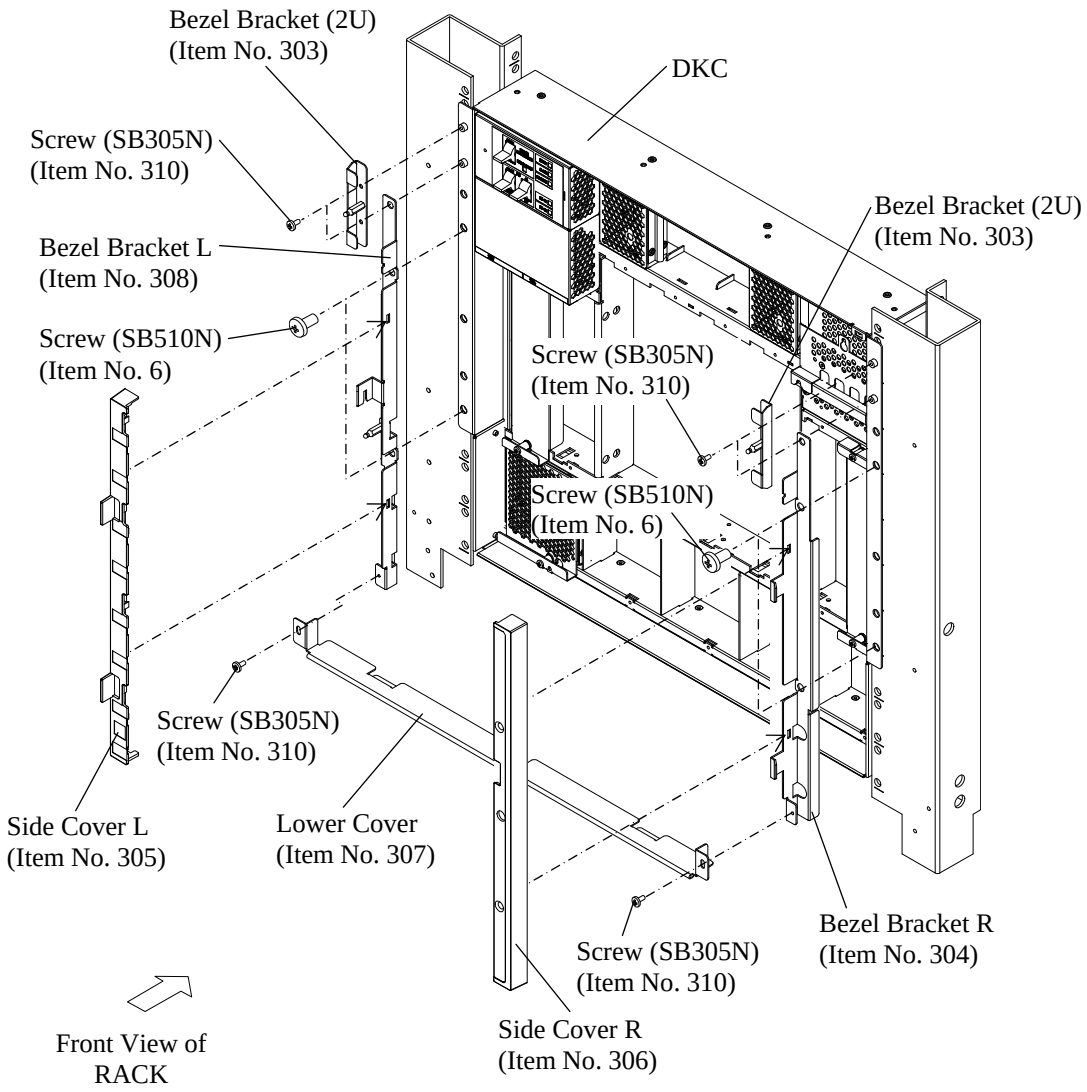


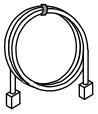
Fig. 4.6.1-4 Removal of Parts

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4.6.2 De-Installation Procedure of Controller Chassis

1. Removal of parts
   a. Remove the Modular Plug Cord, three EMI Cores and Parts Location from the storage bag.

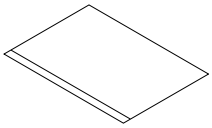
Modular Plug Cord
(Item No. 24) (*1)



EMI Core
(Item No. 25) (*1)



Parts Location
(Item No. 15)



*1: For DKC-F810I-CBXB, these parts are unattached.

Fig. 4.6.2-1 Removal of Parts

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2. Removal of DKC
   a. Remove the two screws. And then, remove the S/R ASSY from the rear side of rack.

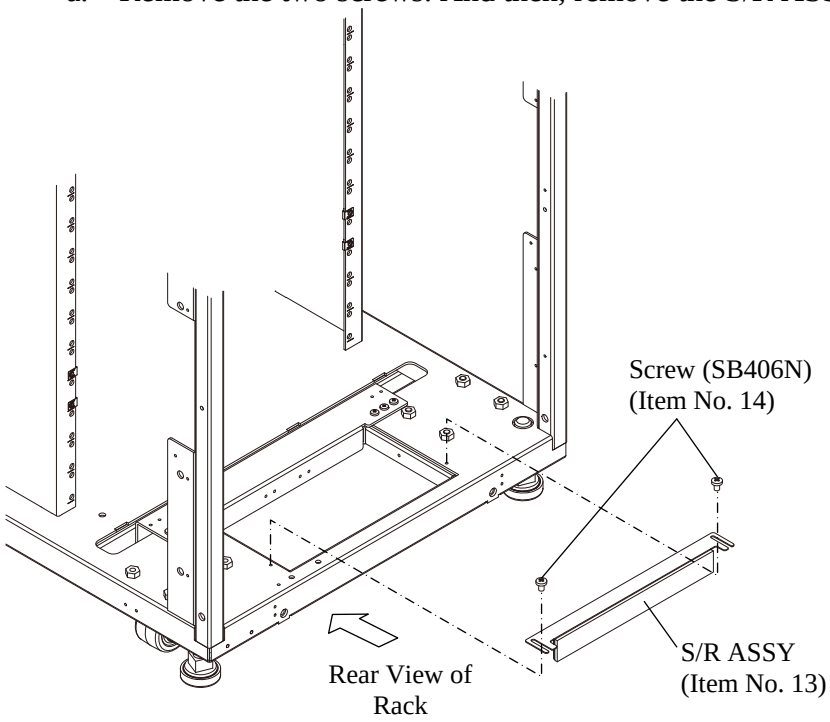


Fig. 4.6.2-2 Removal of S/R ASSY

   b. Remove the four screws. And then, remove the two cable ducts from the rear side of rack.

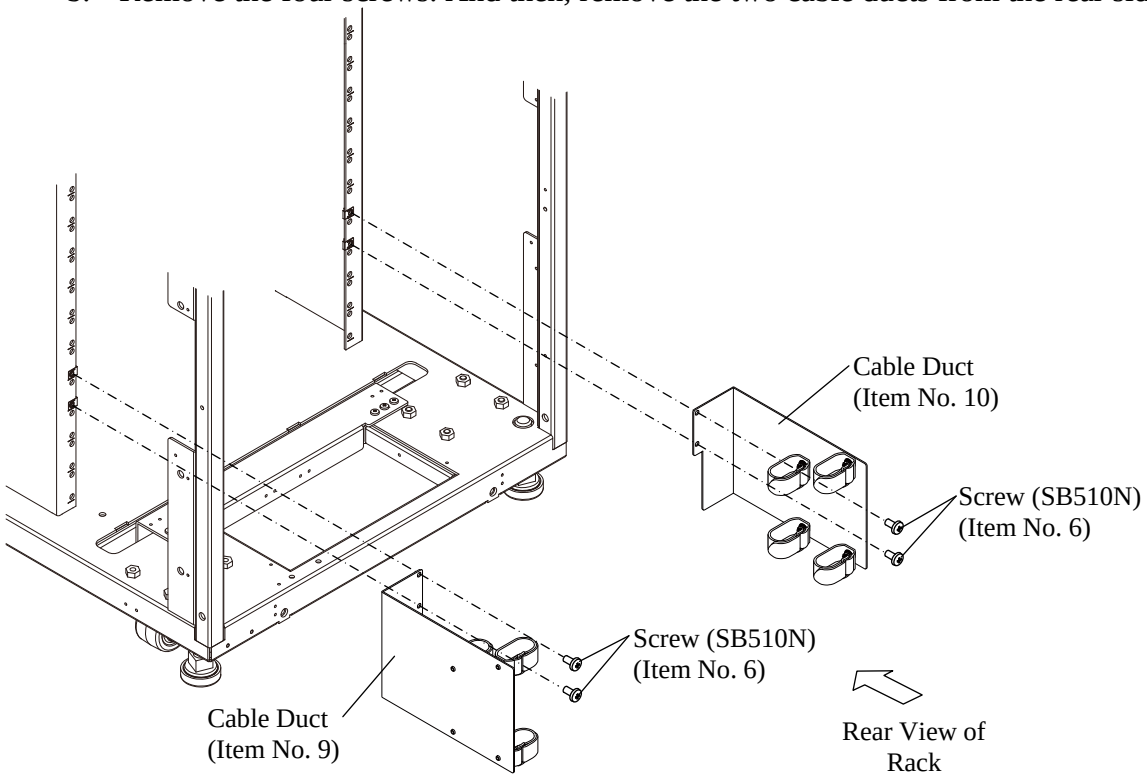


Fig. 4.6.2-3 Removal of Cable Ducts

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c. Remove the WA socket bolts and two rear stoppers from the rear side of DKC.

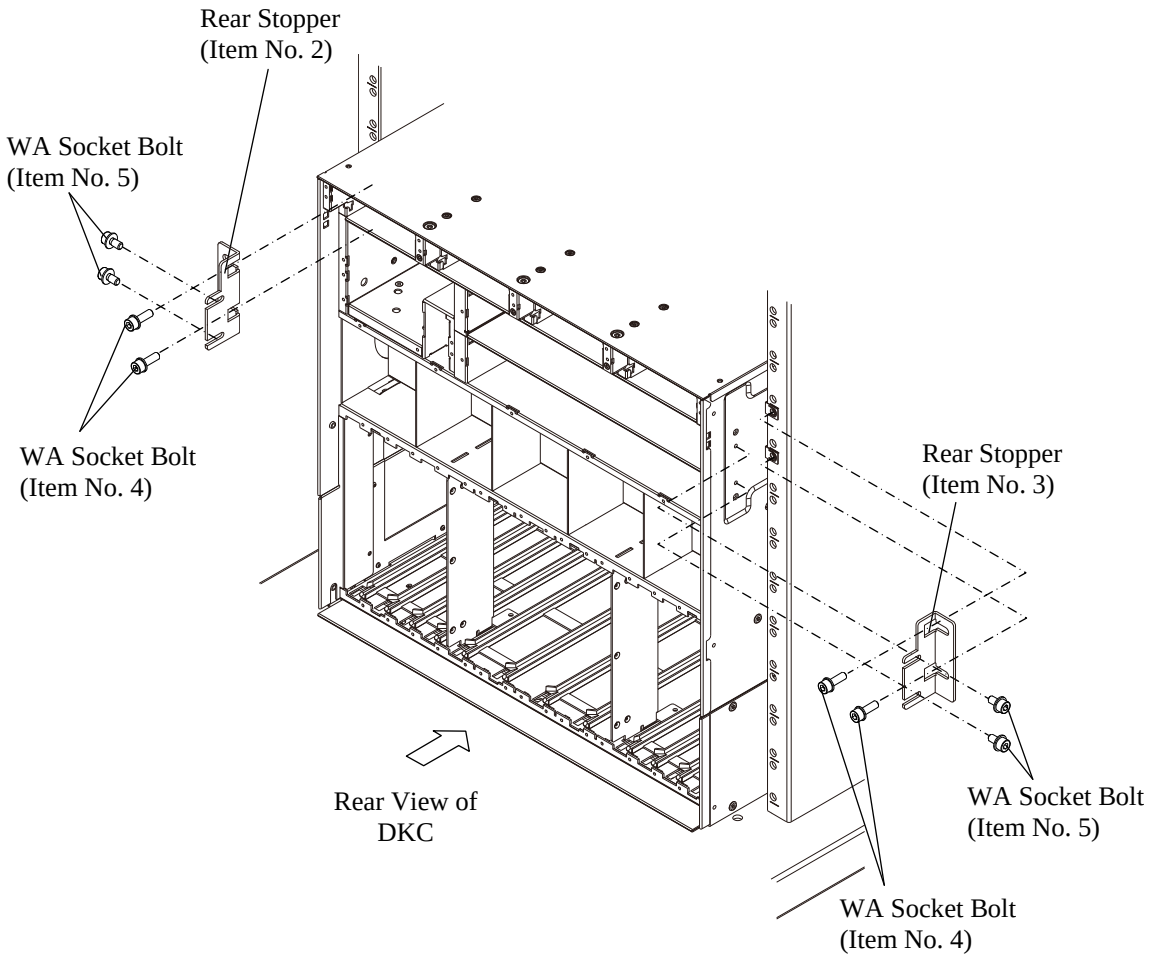


Fig. 4.6.2-4 Removal of Stoppers

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⚠ CAUTION

Paying attention to falls:
Work carefully because the mass of the single DKC is about 140 kg.

d. When the front of the DKC is secured with the screws, remove the four screws from the front side of the DKC.
When the front of the DKC is not secured with the screws, go to Procedure e.

e. Remove the DKC from the Rack frame referring to mounting procedure using the special lifter. (See INST03-15-10 through 40.)

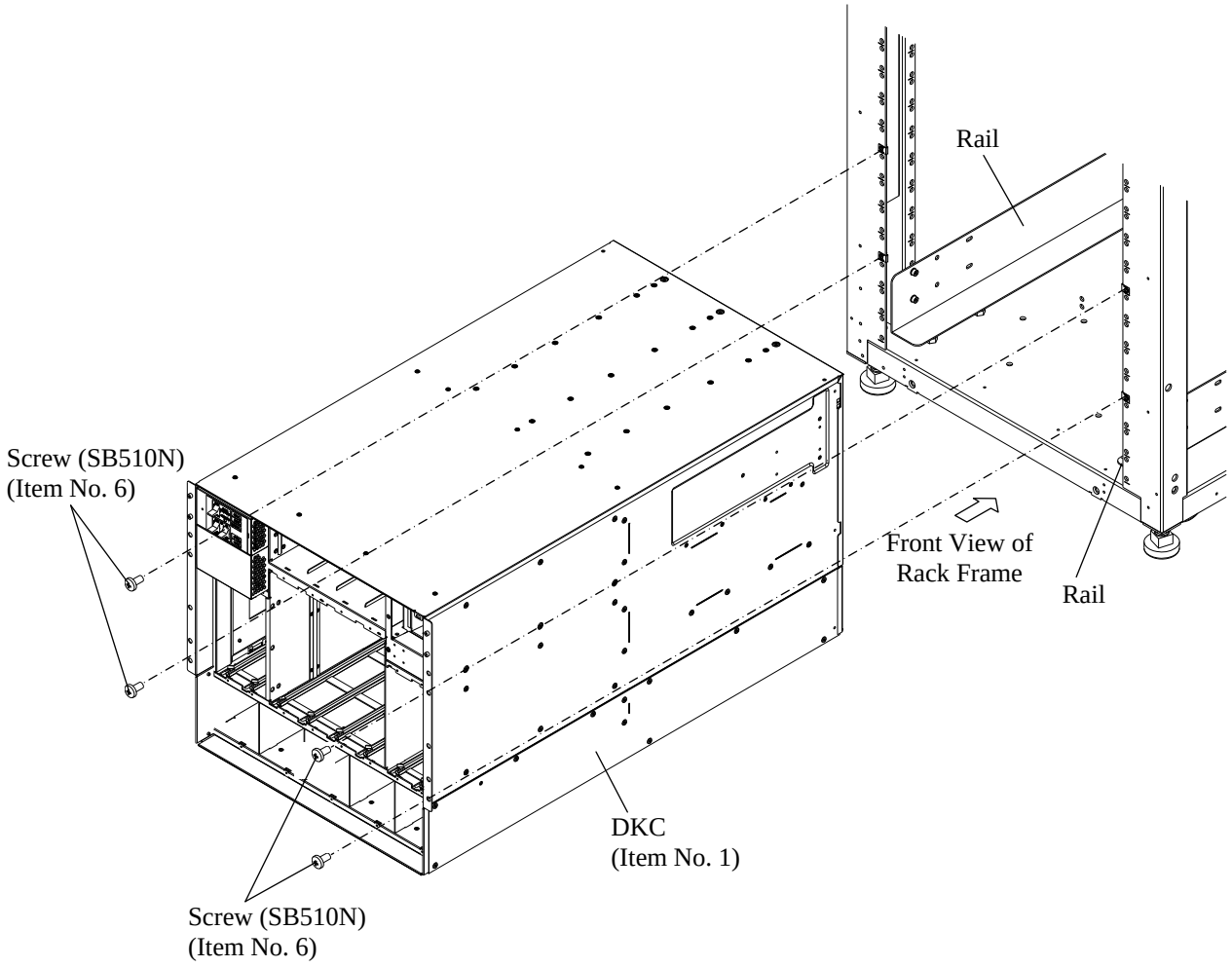
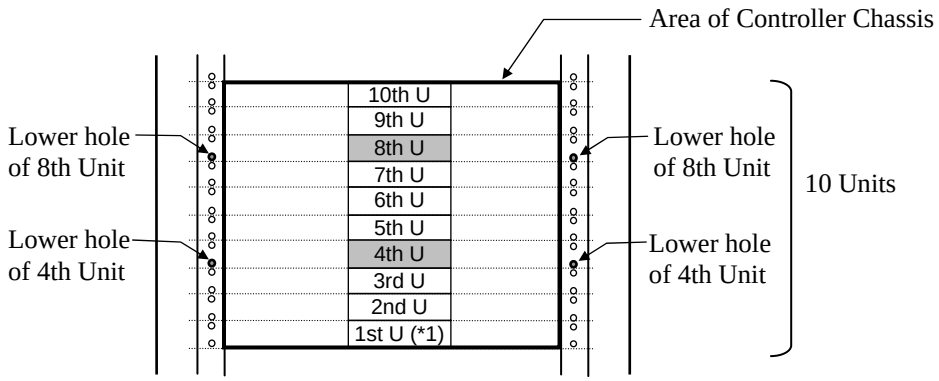


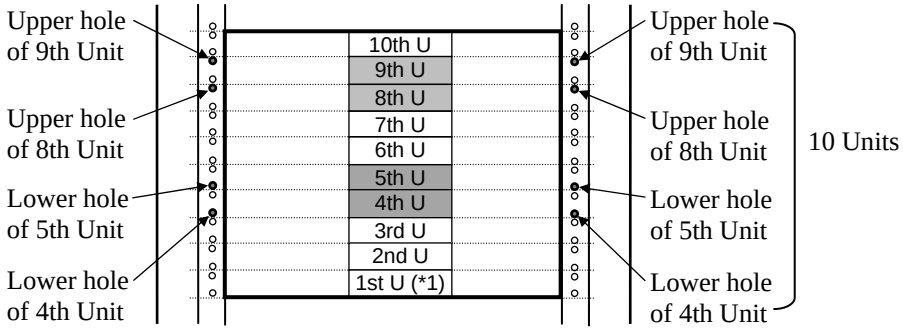
Fig. 4.6.2-5 Removal of DKC

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3. Removal of rack nuts on the rack frame
   a. Remove the two rack nuts from each of the right and left beams on the front side of the rack frame.
   b. Remove the four rack nuts from each of the right and left beams on the rear side of the rack frame.



Front View of Rack Frame



Rear View of Rack Frame

*1: Bottom Unit of Installation Position

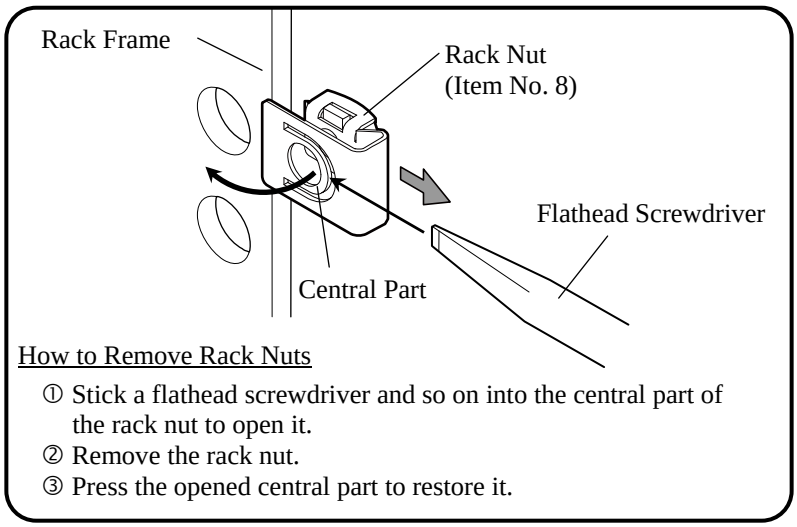


Fig. 4.6.2-6 Removal of Rack Nuts

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4. Removal of Rails

4-1 In the Case of Standard Rails

a. Remove the four WA socket bolts and remove the rail from the right side of the rack frame.

b. Remove the four rack nuts from the rack frame.

c. Remove the rail from the left side of the rack frame in the same way.

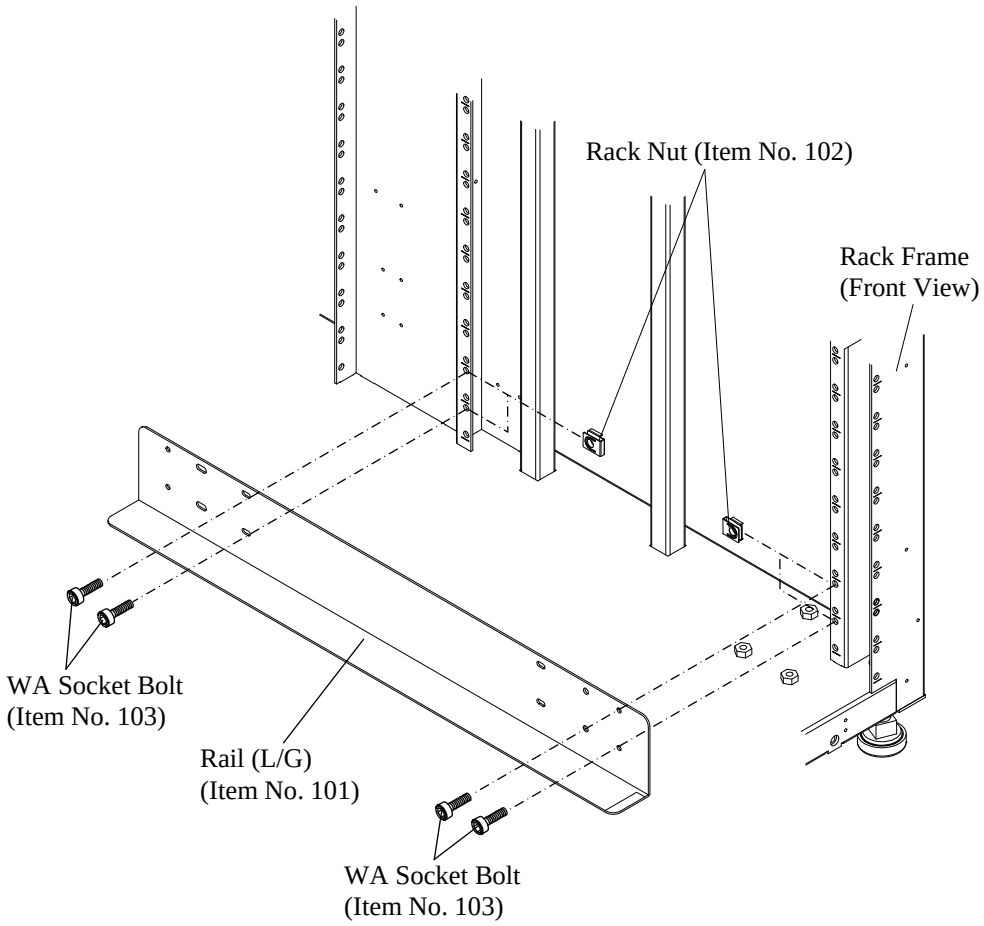


Fig. 4.6.2-7 Removal of Rails

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4-2 In the Case of Adjustable Rails

a. Loosen the six screws on the side of the rail. (See Fig. 4.6.2-8 or Fig. 4.6.2-9.)
b. Remove the four screws and four washers that secure the rail to the right side of the rack frame.
c. Remove the rail from the right side of the rack frame.
d. Tighten the six screws on the side of the rail.
e. Remove the rail from the left side of the rack frame in the same way.

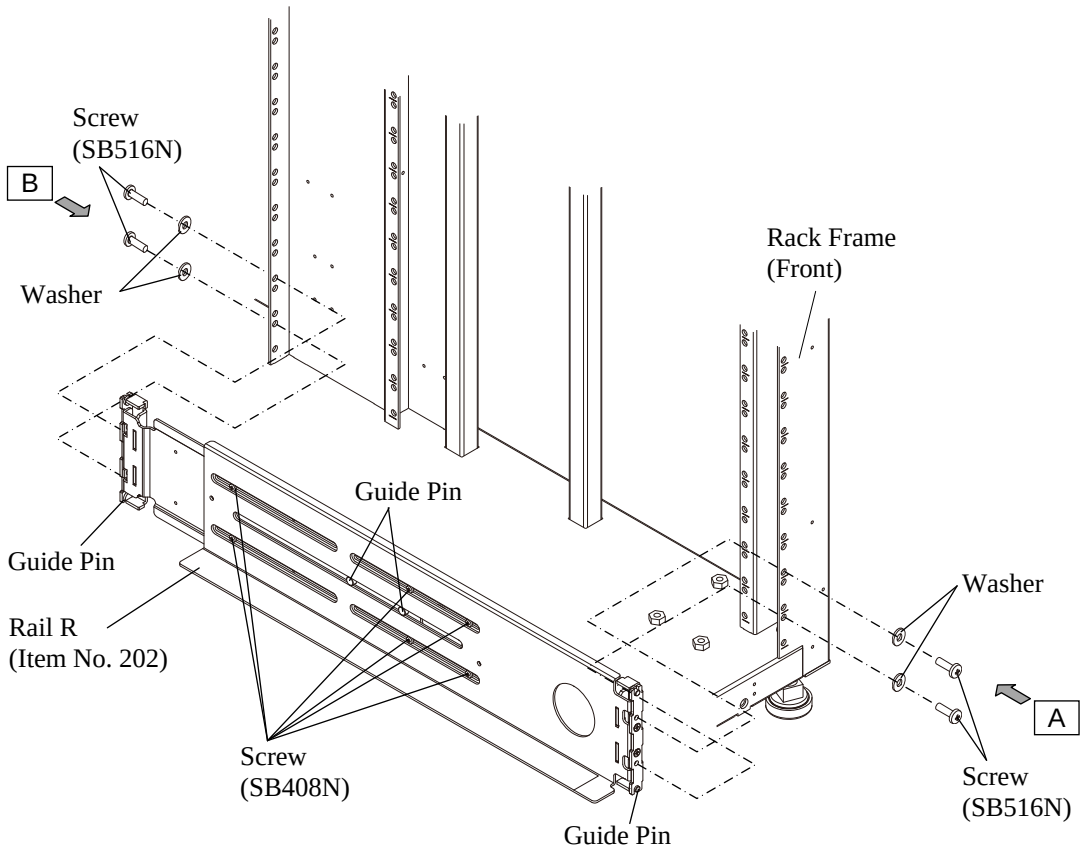


Fig. 4.6.2-8 Removal of Adjustable Rails (in the Case of Round Insertion Holes)

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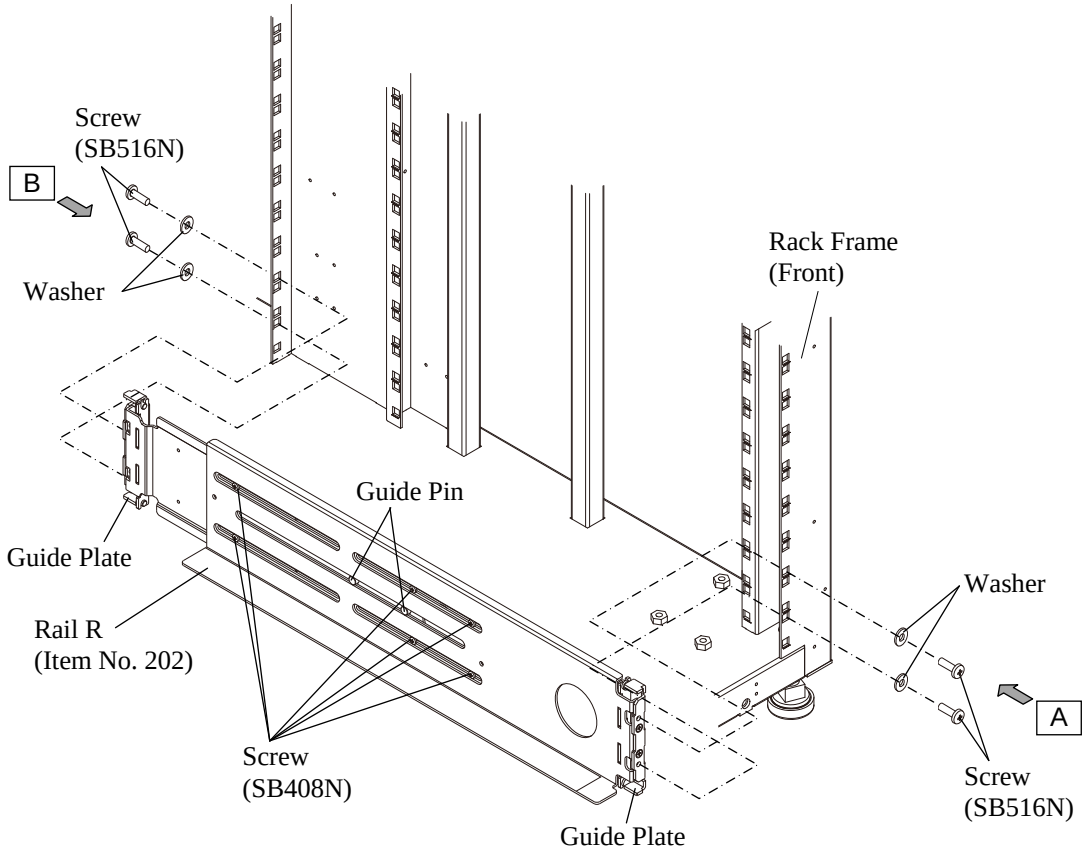


Fig. 4.6.2-9 Removal of Adjustable Rails (in the Case of Square Insertion Holes)

f. Attach the four washers and four screws to the front and rear side of the rail.

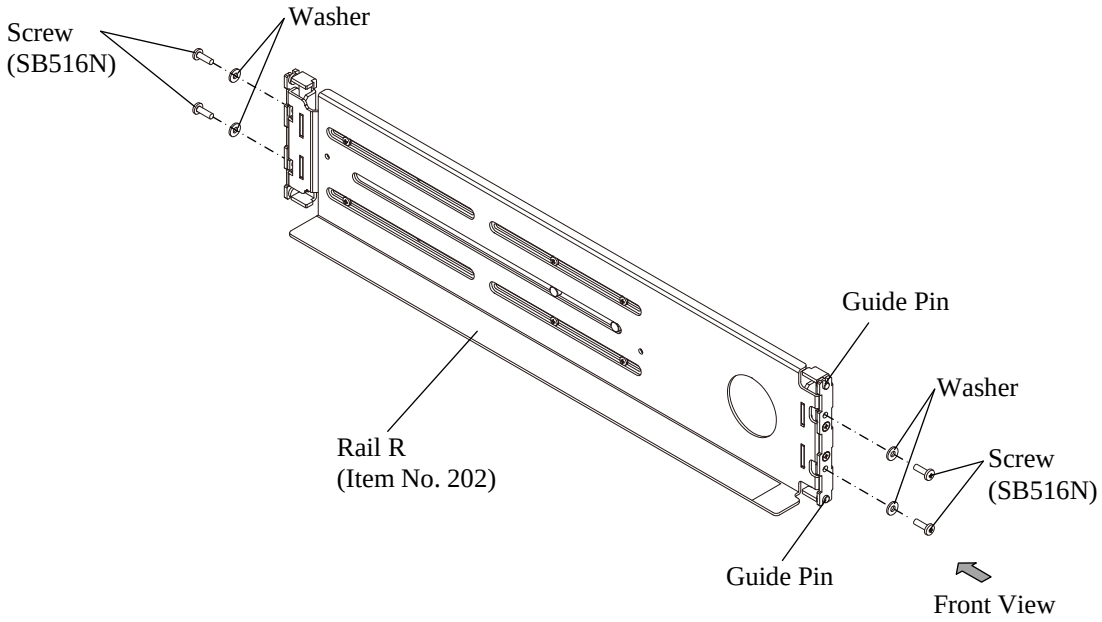


Fig. 4.6.2-10 Attachment of Screws and Washers

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5. Removal of Labels and Nameplates
   a. Remove the labels and nameplates from the DKC. (Refer to Fig. 4.6.2-11 or Fig. 4.6.2-12.)

For HDS

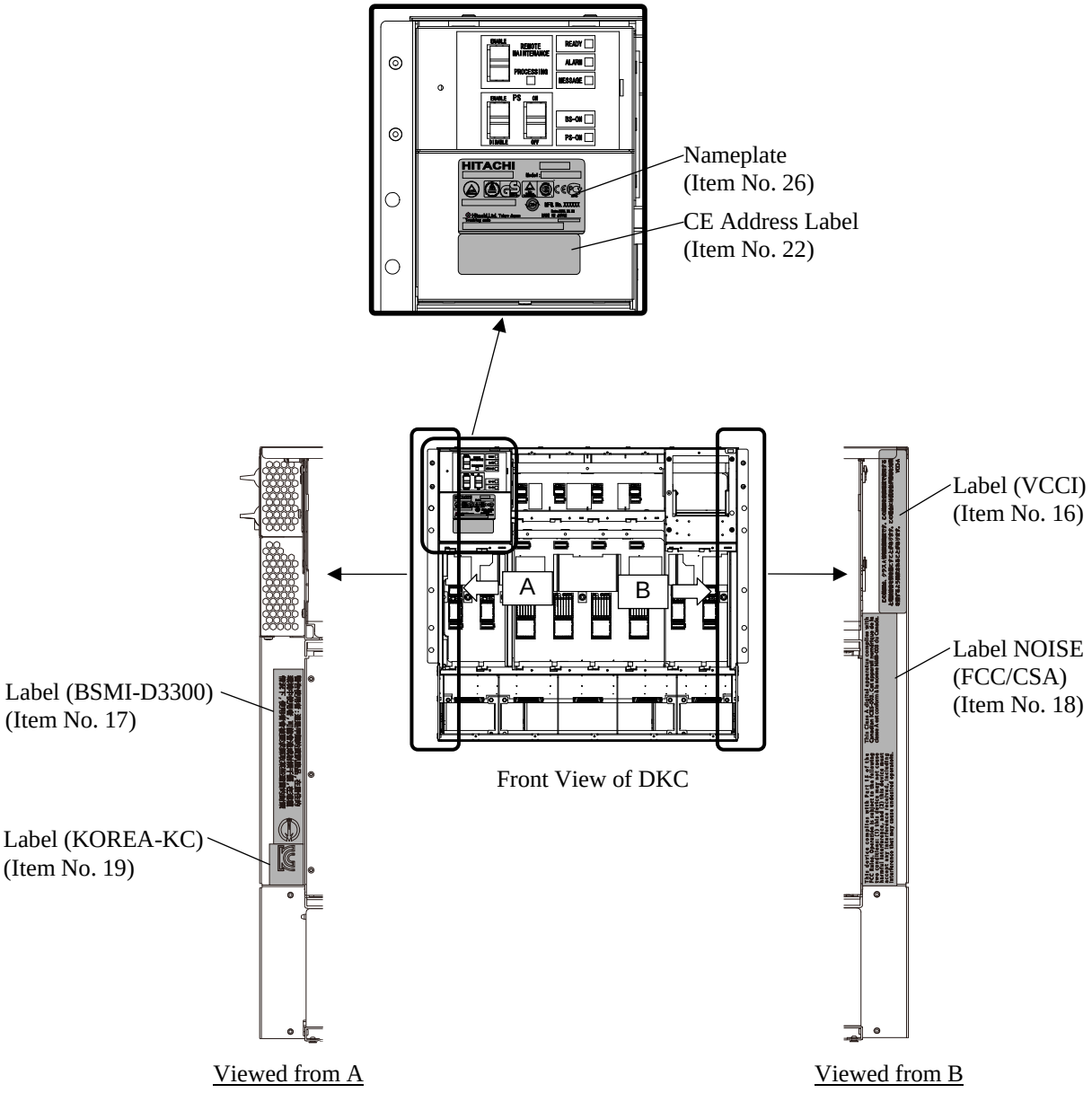


Fig. 4.6.2-11 Removal of Labels and Nameplates (For HDS)

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For HP

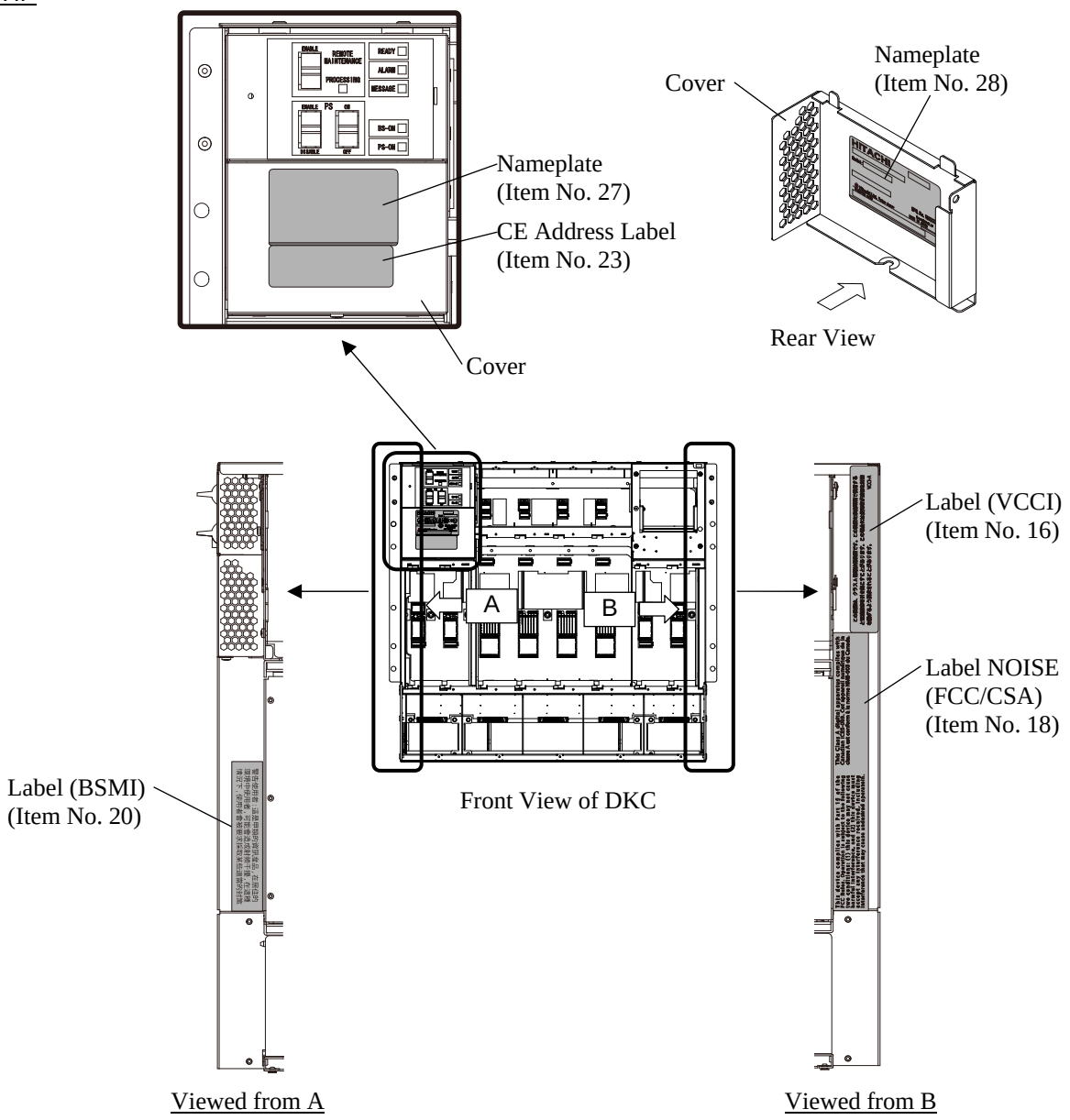


Fig. 4.6.2-12 Removal of Labels and Nameplates (For HP)

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b. Remove the Label (V/Hz/PH.) and Label (BSMI NAME) from the DKC.

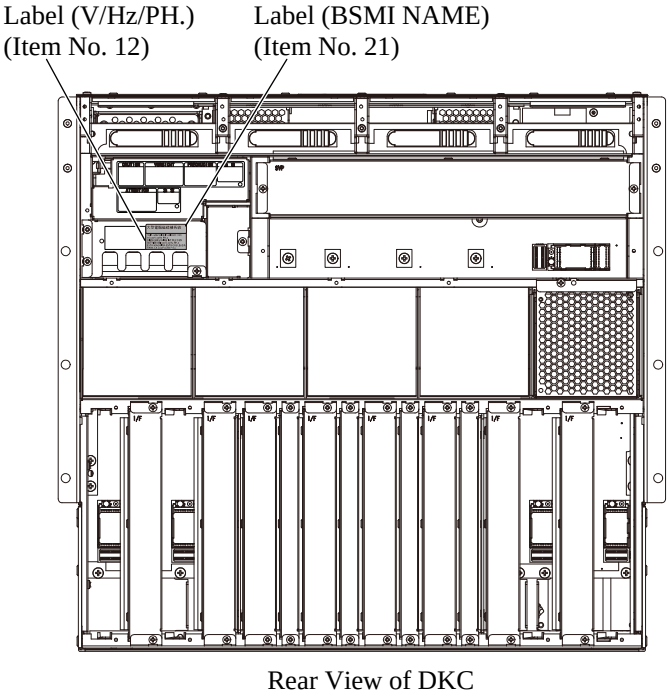


Fig. 4.6.2-13 Removal of Labels

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4.7 De-Installation of Rack and Side Cover (DKC-F810I-RK42/SCOV/SCOVH)

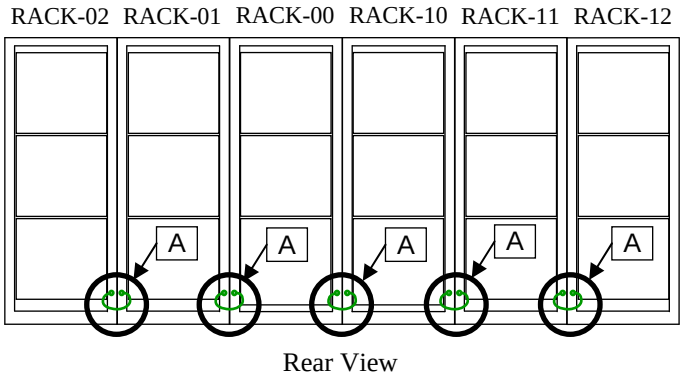
Table 4.7-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-RK42	42U Rack Frame	1510159-C	1	
		Packing Work ①	3284263-D	1	
		Screw	SB410N	8	Components of Packing Work ①
		Packing Work ②	3283388-B	1	
		HEX Socket Bolt	BS871N	2	Components of Packing Work ②
		Washer	WP008N	4	
		Nut	NF008S	2	
		Packing Work ③	3283388-D	1	
		Screw	SB406N	2	Components of Packing Work ③
		Lock Washer	WT004N	2	
		FG Cable	5524153-1	1	
		Packing Work ④	3287251-A	1	
		Rack Nut	5510146-1	4	Components of Packing Work ④
		Packing Work ⑤	3287251-C	1	
		Screw	SB510N	4	Components of Packing Work ⑤
		Fix Plate	5546451-1	2	Fix Plate S
		Loop Cable Tie	5552567-1	4	
		Nameplate (HDS)	2854918-4	1	ITPD
		(DKC-F810I-RK42)	2855886-4/504		HICAM/HICEF
		Nameplate (HP)	2855811-4	1	ITPD
		(H6F54A)	2855994-4/504		HICAM/HICEF
2	DKC-F810I-SCOV	Side Cover	2853308-1	3	
		Side Cover	2853308-2	3	
		Screw	SB406N	12	
		Screw	SB432N	6	
		Washer	5513553-433	6	
3	DKC-F810I-SCOVH	Side Cover	2854995-1	1	HITACHI Logotype
		Side Cover	2854995-2	1	HITACHI Logotype
		Side Cover	2853308-2	1	
		Side Cover	2854995-3	1	HITACHI Logotype
		Side Cover	2854995-4	1	HITACHI Logotype
		Side Cover	2853308-1	1	
		Screw	SB406N	12	
		Screw	SB432N	6	
		Washer	5513553-433	6	

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4.7.1 De-Installation Procedure of Rack and Side Cover

1. Removal of FG cable
   a. Remove the two screws, the two lock washers and the FG cable from the rear side of the racks.



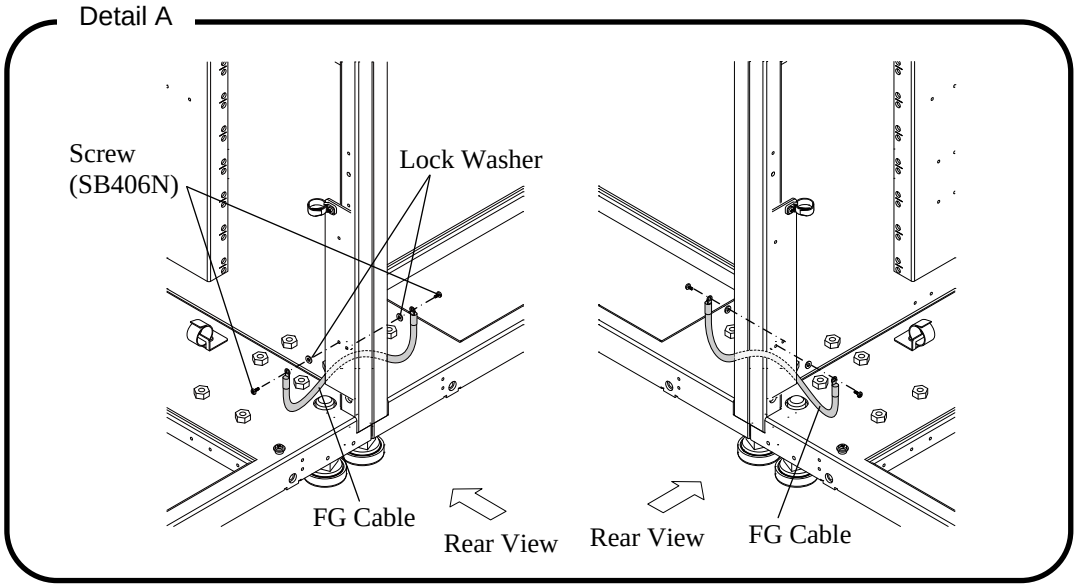


Fig. 4.7.1-1 Removal of FG Cable

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2. Disconnection of Rack Frames
   a. Remove the two screws from the front of the Rack Frames to be disconnected and then remove the two panels by moving them upward.

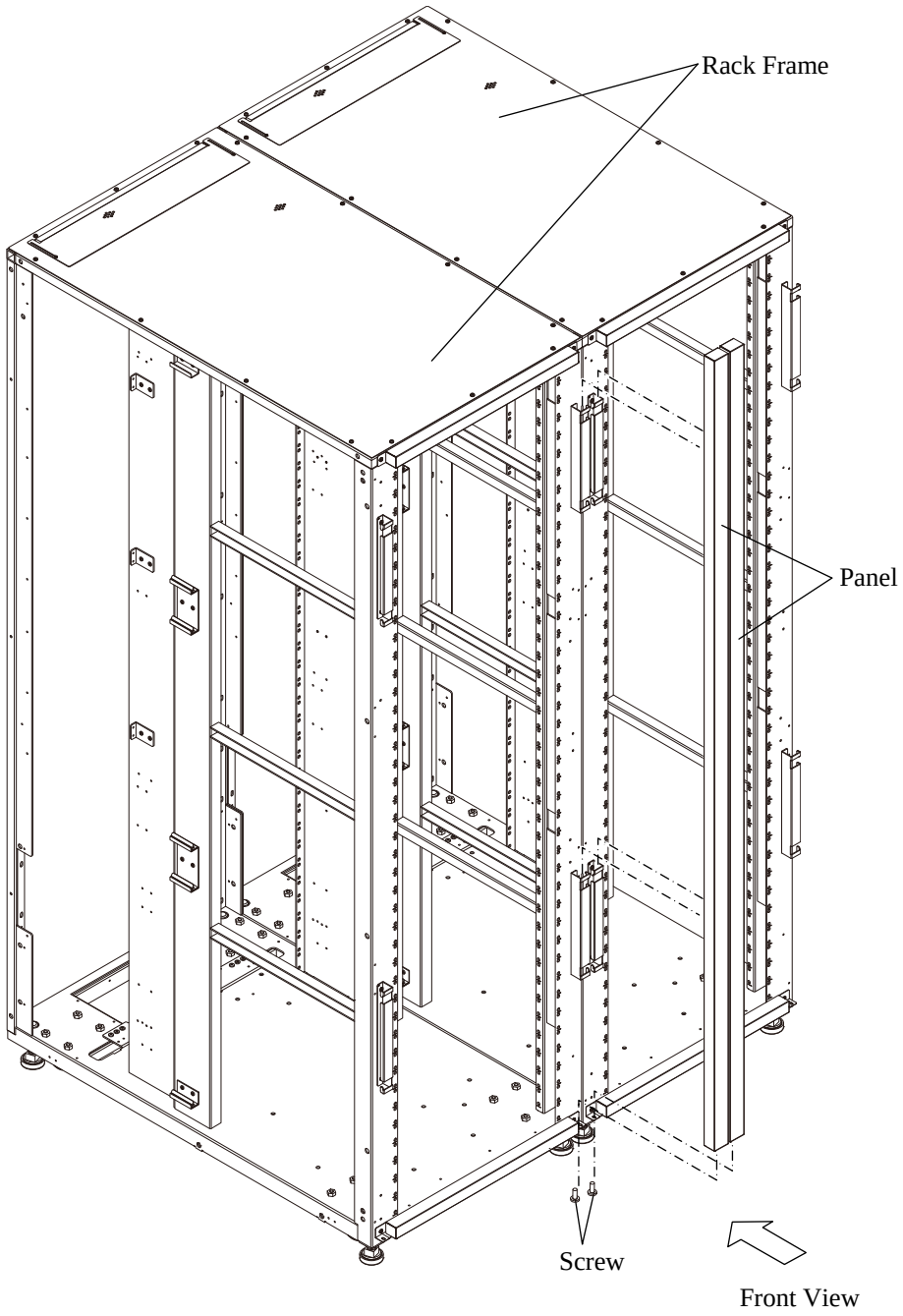


Fig. 4.7.1-2 Removal of Panels

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b. Remove the eight screws and the two fix plates from the front of Rack Frames.

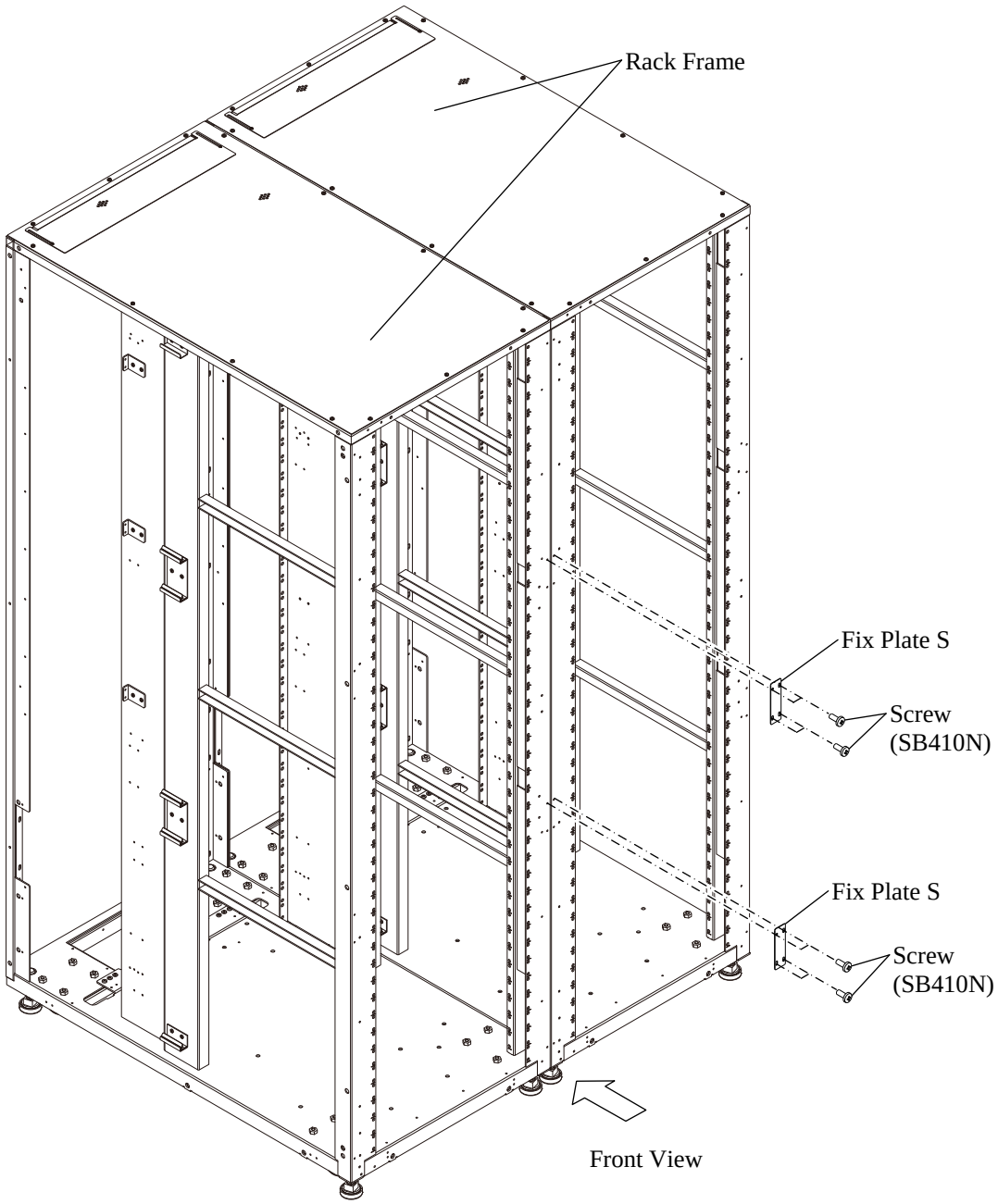


Fig. 4.7.1-3 Disconnection of Rack Frames (Front)

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c. Remove the two HEX socket bolts, the four washers and the two nuts from the Rack Frames.
d. Reinstall the two panels that is removed on the procedure a, and secure them with the two screws. (Refer to Fig. 4.7.1-2.)

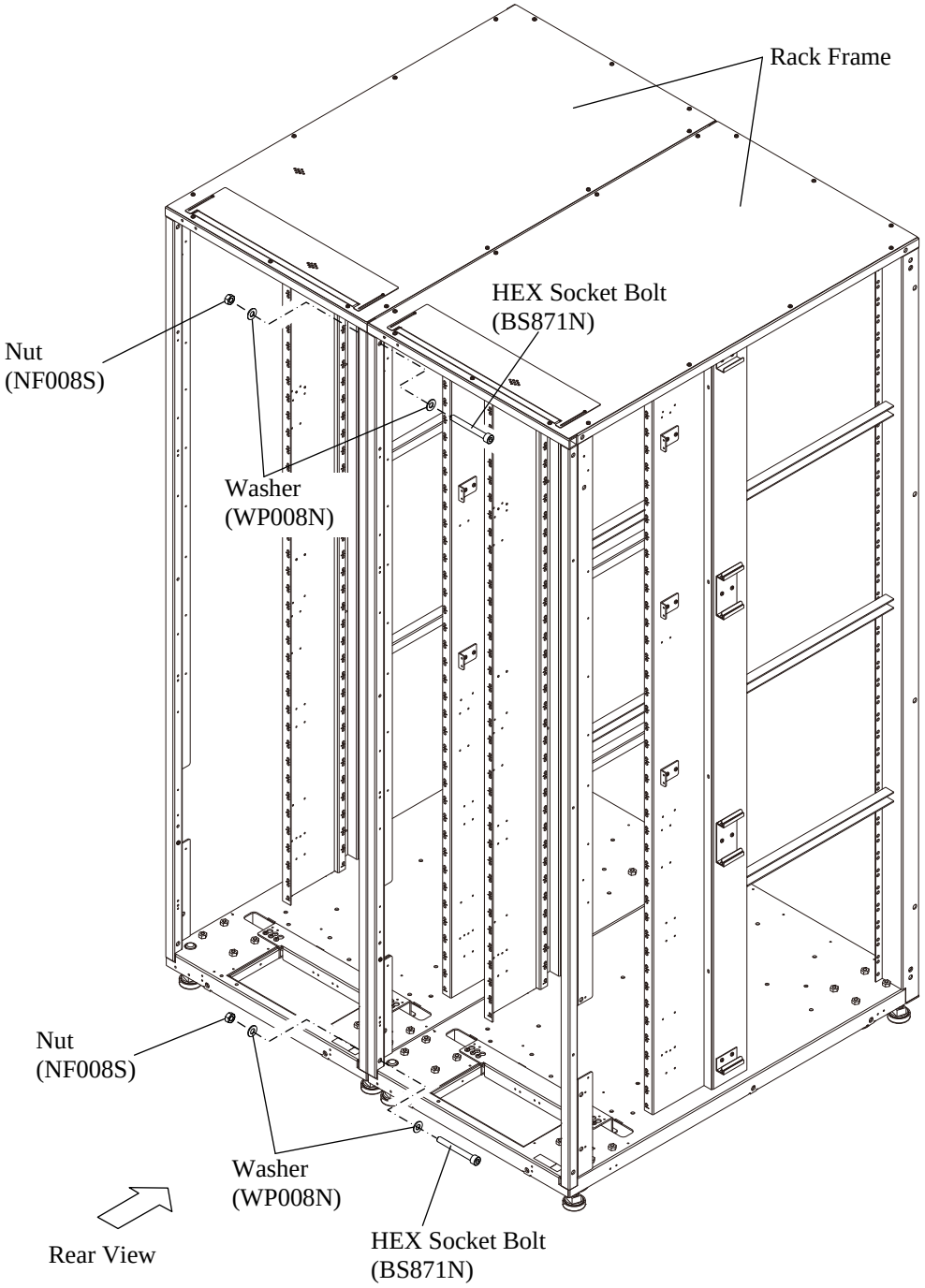


Fig. 4.7.1-4 Disconnection of Rack Frames (Rear)

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3. Movement of RACK Frames
   a. Set the Caster down by lifting the four screw jacks at the bottom of the RACK frame. (Screw Jack 1 turn = 2.5mm)

⚠ CAUTION

Caution of Over-Turning/Jammed Connecting Bolts:
Work carefully for the height adjustment. A lack of balance that only one part rises too much causes the over-turning. The height of the screw jacks shall be adjusted in 1/4 rotations evenly into the four places in order. Failure to do this may put too much stress on the connecting bolts and jam the bolts, making it impossible to remove them in the worst case scenario.

Caution of Breakage:
This equipment is very heavy and applies pressure to screw jacks. If you fail to jack up the equipment by rotating the four screw jacks in 1/4 turn increments evenly, the screw jacks may jam and be broken.

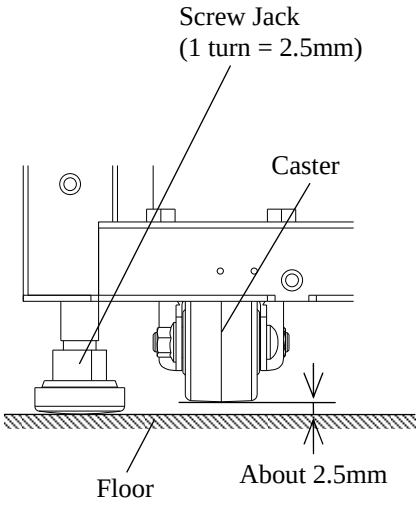


Fig. 4.7.1-5 Adjustment of Screw Jacks

   b. Displace the RACK frame.

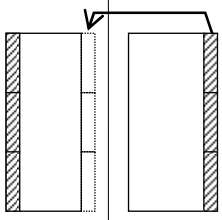
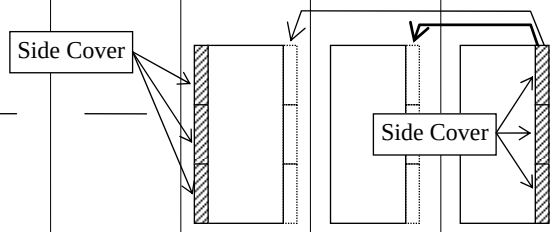
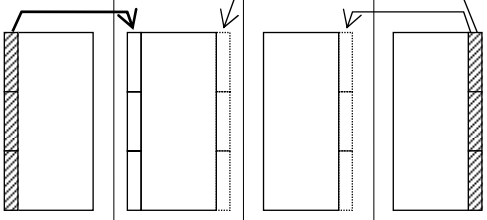
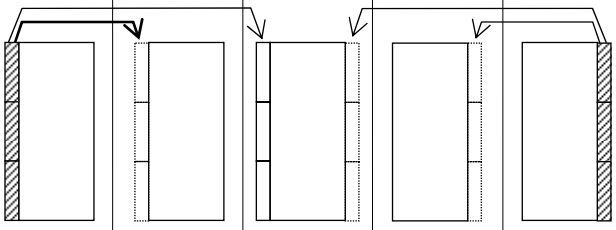
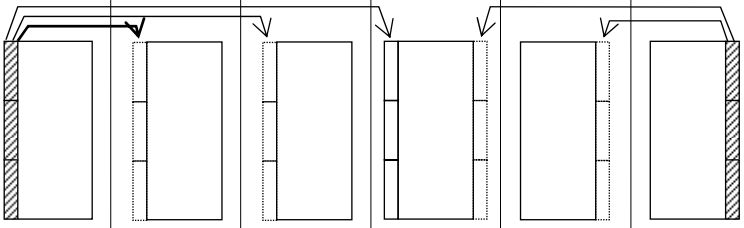
⚠ CAUTION

Caution of Movement and Over-Turning:
Make sure no obstacle and hole exist on the floor, and a movement of equipment must be operated by two operators or more. Confirm the stability of the equipment carefully, and exercise extreme caution for over-turning of the equipment when operating.

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4. Movement of Side Covers
   a. Confirm the Rack Frames de-installation location and the side covers installation position.

Table 4.7.1-1 Removal and Re-installation of Side Covers

Configuration	RACK-12	RACK-11	RACK-10	RACK-00	RACK-01	RACK-02
2 Frames	———	———	———			———
3 Frames	———	———	———			
4 Frames		———				
5 Frames	———					
6 Frames						

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⚠ CAUTION

Paying attention to falls:
Dropping a side cover may cause injury.
When installing or removing the side cover, hold the cover firmly with both hands and be careful not to drop it on your feet. Make sure the side cover is hung on the hook of the rack frame side when it is installed.

b. Remove the six screws ①, the three screws ② and the three washers from the removed rack frame. And then, remove the three side covers from the removed rack frame.
Remove the side covers from the top sequentially.
c. Install the side covers on the end of the storage system, and secure them with the six screws ①, the three screws ② and the three washers.
Install the side covers from the lower sequentially.

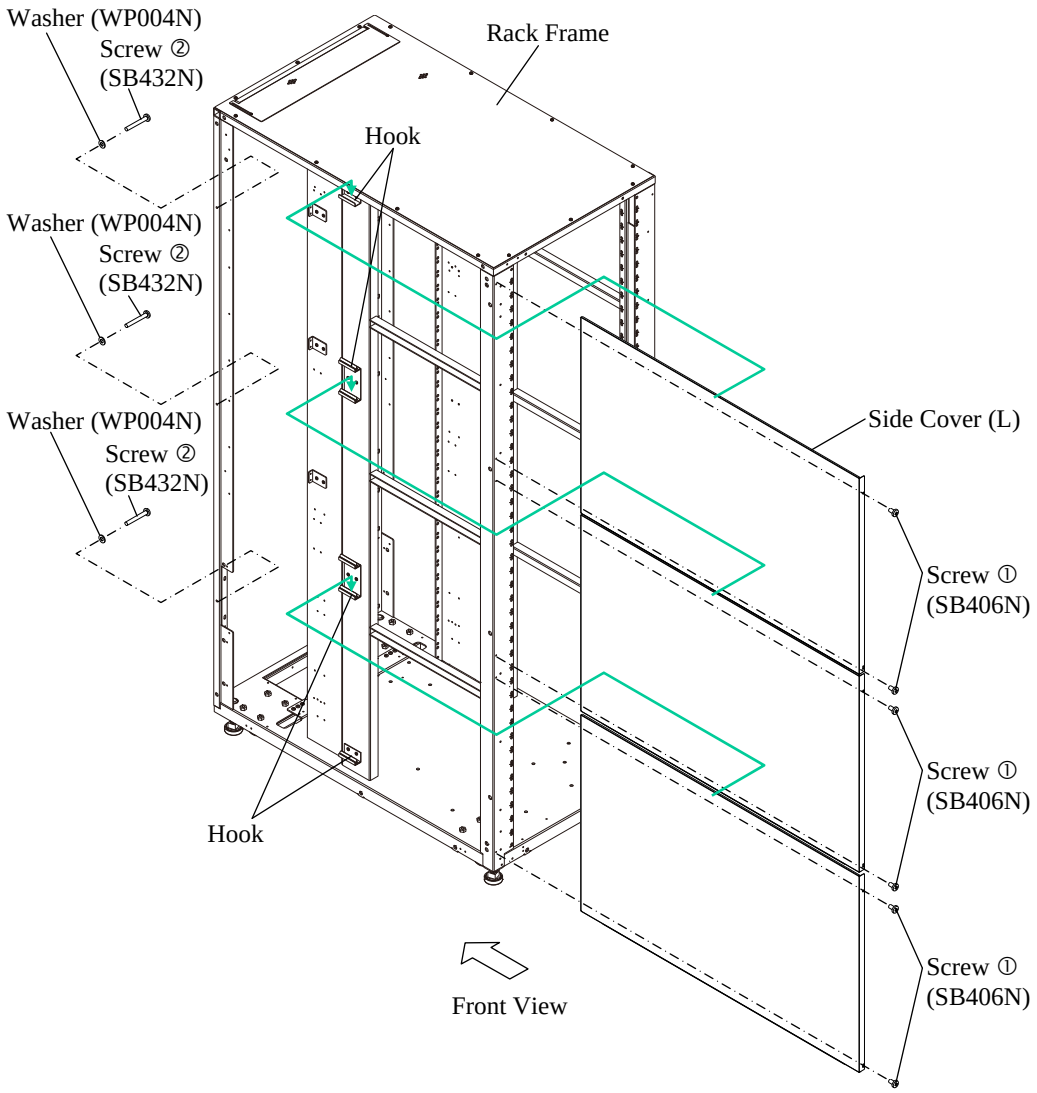


Fig. 4.7.1-6 Removal and Re-installation of Side Covers (SCOV)

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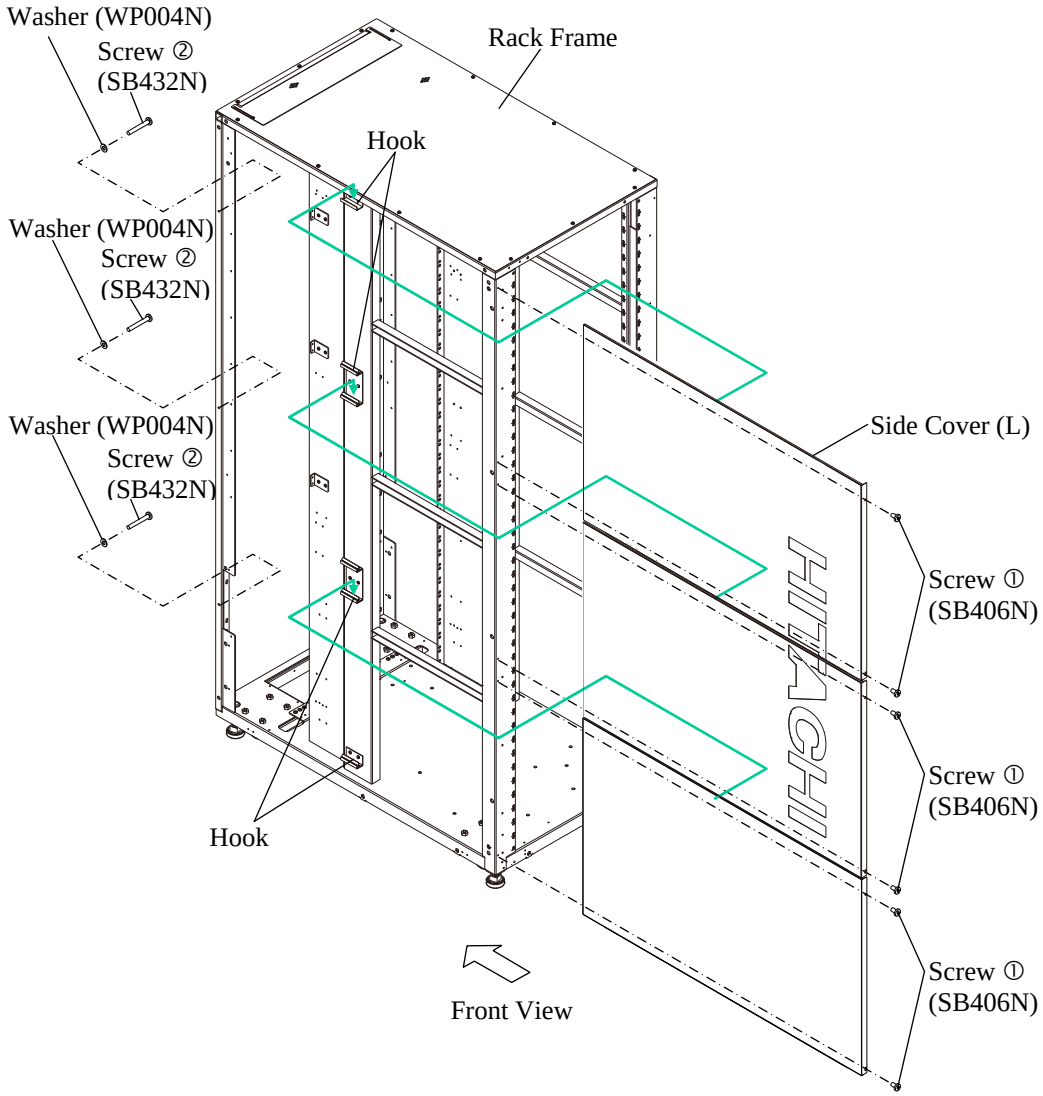


Fig. 4.7.1-7 Removal and Re-installation of Side Covers (SCOVH)

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5. Removal of Nameplate
   a. Remove the DKC-F810I-RK42 nameplate form the RACK bottom base of the rear side.

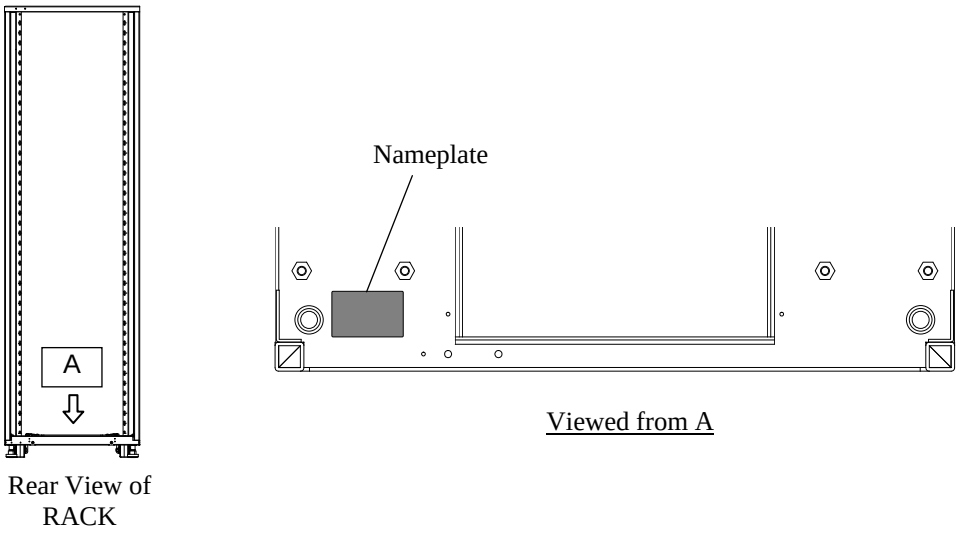


Fig. 4.7.1-8 Removal of Nameplate

6. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-80

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4.8 De-Installation of Service Processor (DKC-F810I-SVP)

NOTICE: This work takes about two hours. During the work, the Web Console cannot be used for some time because of a rebooting of the SVP PC and verification. Inform the customer of the following before starting the addition.

① During this installation, customer cannot use Web Console/Storage Navigator via a customer PC.

② When SNMP is being used:
- 'cold start' trap is reported several times.
- The obstacle trap which occurred during work may not be notified.
- SNMP command may not answer normally.

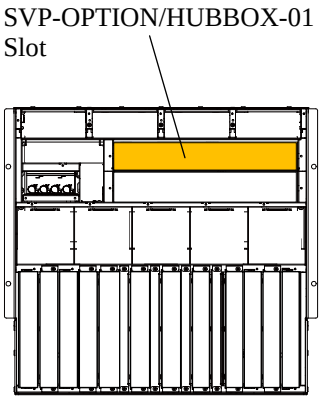
③ The following SIMs may occur during this work, just complete them when finished:
- BFE3F2 - SVP settings are duplicated
- BF86A3 - SVP RAS Switch#1 remains

④ When two or more sets of the DKC-F810I-MP are installed in the DKC810I-CBXA (*1), the HUBBOX (DKC-F810I-HUB) is required to install.
In this case, remove the SVP redundant option and install the HUBBOX (DKC-F810I-HUB) to the same mounting position as the SVP. The removing the SVP and installing the HUBBOX must be operated according to the de-installation procedures.
(The DKC-1 (DKC-F810I-CBXB) of this instruction is excluded.)

*1: The installation requirements of the HUBBOX are according to the configuration of the DKC-F810I-MP in the DKC810I-CBXA.
(DKC-F810I-CBXB is excluded.)

Table 4.8-1 Installation Requirements of DKC-F810I-MP and HUBBOX

No.	Number of DKC-F810I-MP installed in DKC810I-CBXA	SVP-OPTION/HUBBOX-01 Slot	
		Without SVP Duplication	With SVP Duplication
1	1	Free space	SVP
2	2 ~ 3	HUBBOX	SVP



Rear View of DKC810I-CBXA

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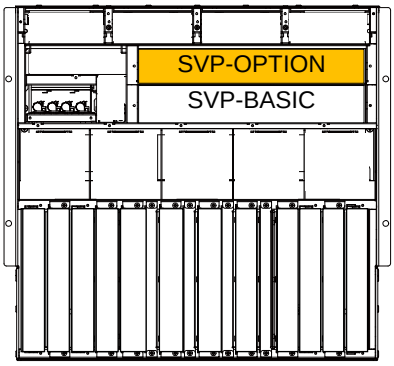
Table 4.8-2 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-SVP	SVP	5552759-A	1	
		EMI Core	5513535-1	1	
2	DKC-F810I-HUB	HUBBOX	5552760-A	1	

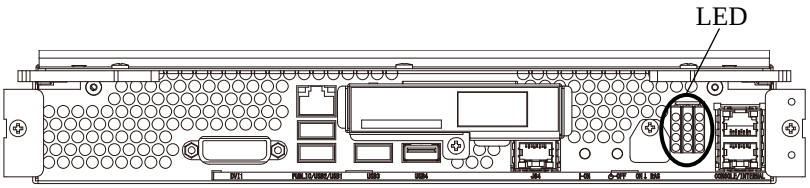
Copyright © 2014, Hitachi, Ltd.

4.8.1 De-Installation Procedure of Service Processor (DKC-F810I-SVP)

1. Status of the Additional SVP
   a. Check statuses of the LEDs on the Additional SVP.
      When they are in the statuses ①, start operation from Procedure 2, “Operating the Additional SVP” (page INST04-08-40).
      When they are in the statuses ②, start operation from Procedure 3, “De-Installation Procedure of Service Processor” (page INST04-08-70).



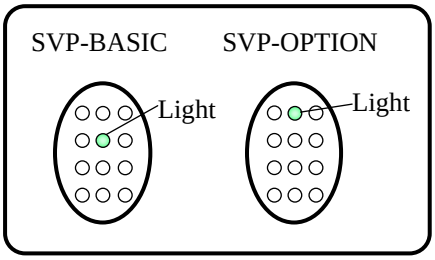
Rear View of DKC-0



Front View of SVP

LED Statuses ①

A combination of LED statuses shown when the SVP-OPTION is operating as a Master SVP.



LED Statuses ②

A combination of LED statuses shown when the SVP-OPTION is operating as a Standby SVP.

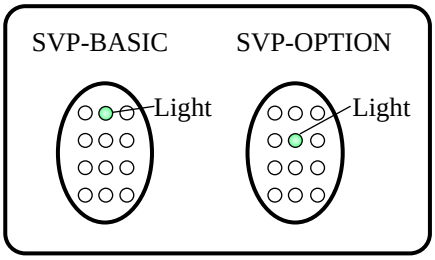


Fig. 4.8.1-1 LED Statuses on SVP

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2. Operating the Additional SVP

2-1 Connecting the Maintenance PC

Connect the Maintenance PC to the Additional SVP.

[Connected to]
The Additional SVP xxx.xxx.xxx.15

2-2 <Procedure of SVP switching>

(1) <Change the mode>

Change the [Modify Mode].

---

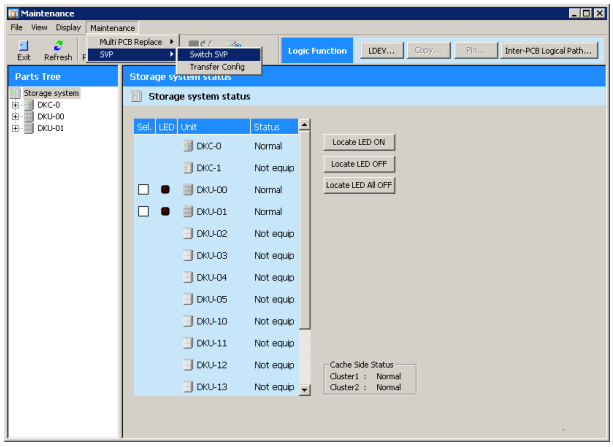
(2) <Open the [Maintenance]>

In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

---

(3)

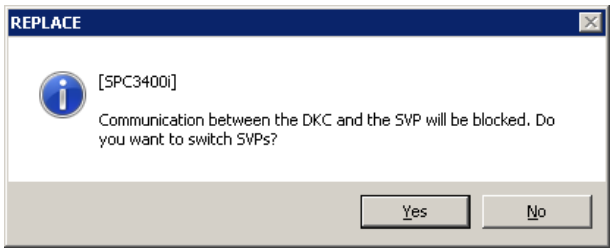
Select (CL) [Maintenance]-[SVP]-[Switch SVP] from the menu.



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(4) <Execution>
Execute switching.
Select (CL) [Yes].

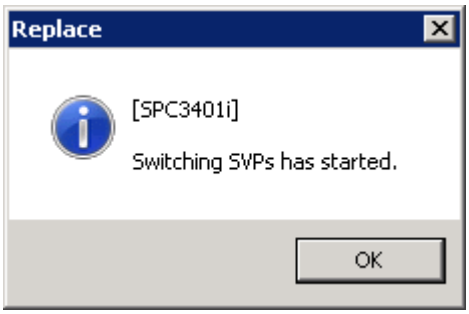
NOTE: Switching takes about 20 minutes.



(5) <Configuration Information Transfer>
The message “Transferring storage system configuration data...” is displayed.



(6) <SVP Switching Start Check>
The message “Switching SVPs has started.” is displayed.
The Additional SVP and the Maintenance PC are disconnected for the SVP switching process.
Wait for about three minutes until the switching is completed.



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(7) Verifying the LED

Make sure that statuses of the LEDs on the SVP-BASIC and SVP-OPTION are those as shown in the figure below.

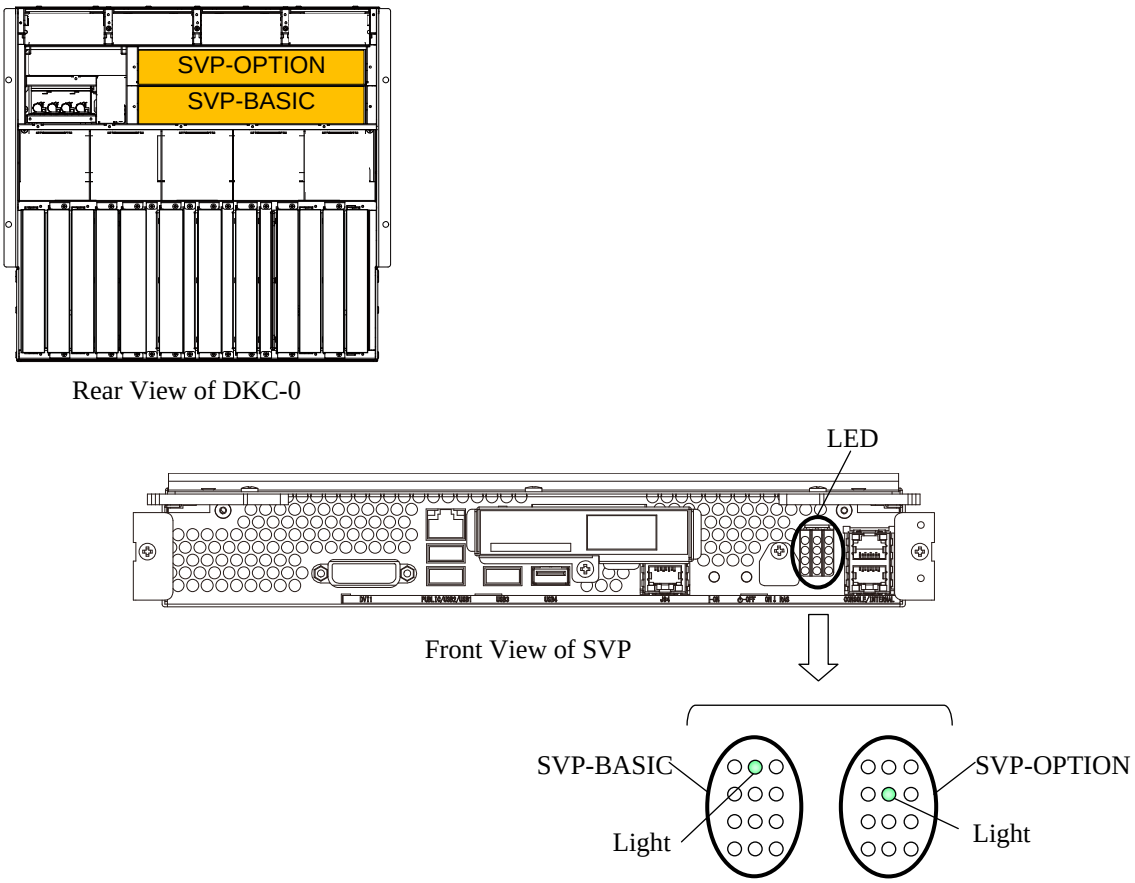


Fig. 4.8.1-2 LED Statuses on SVP

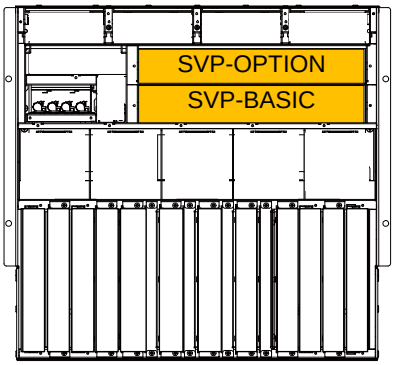
Copyright © 2014, Hitachi, Ltd.

3. De-Installation Procedure of Service Processor

3-1 <Switch setting>

(1) Loosen the screw and rotate the cover on the SVP upward. Then, tighten the screw.

(2) Set the SVP RAS Switch #1 on the SVP-BASIC and SVP-OPTION to ON (lower position).



Rear View of DKC-0

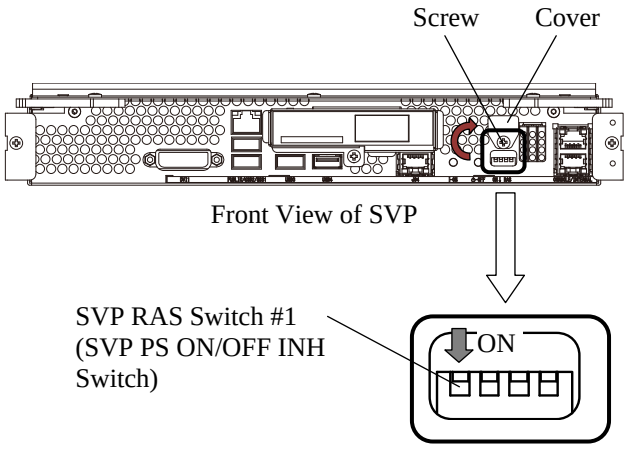


Fig. 4.8.1-3 Switch Setting

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3-2 <Performance of Shut Down>

(1) Connect the Maintenance PC to the Basic SVP.

[Connected to]
The Additional SVP xxx.xxx.xxx.15

---

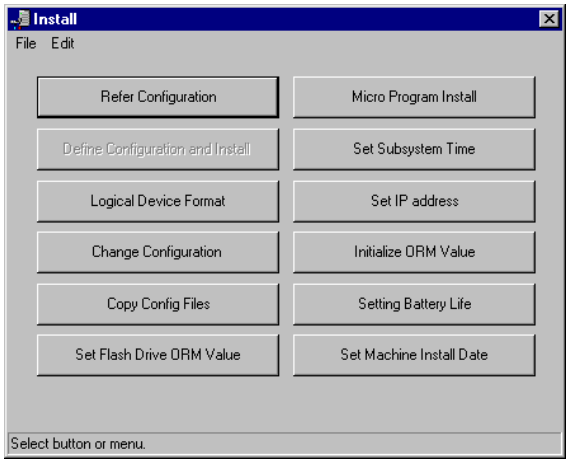
(2) <Mode change>
Change the mode to [Modify Mode].

---

(3) <Start [Install]>
Select (CL) [Install] from 'SVP'.

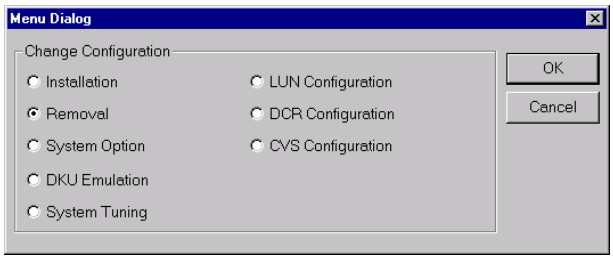
---

(4) <Select [Change Configuration]>
Select (CL) [Change Configuration] from 'Install'.



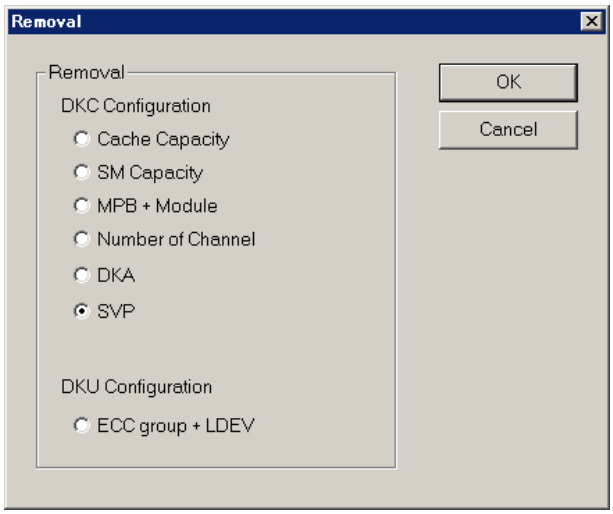
---

(5) <Select [Removal]>
Select (CL) [Removal] from 'Menu Dialog', and select (CL) [OK] button.

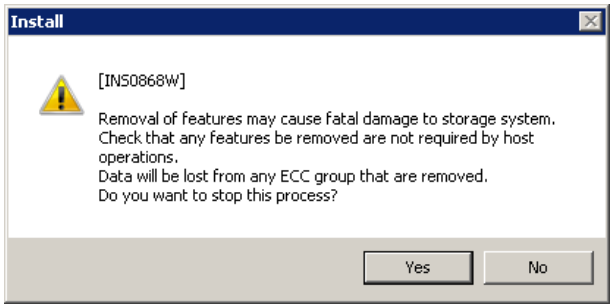


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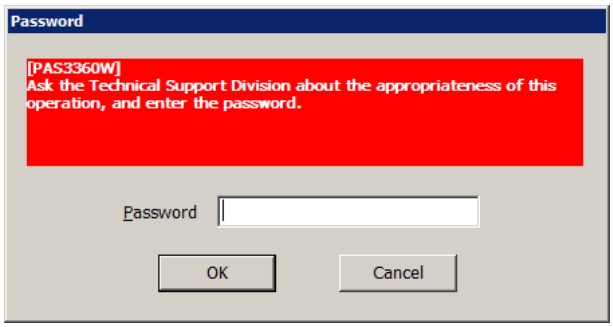
(6) <Select a part to be changed>
Select (CL) [SVP], and select (CL) [OK] button.



(7)
Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(8) <Input password>
Enter the password and select (CL) [OK].



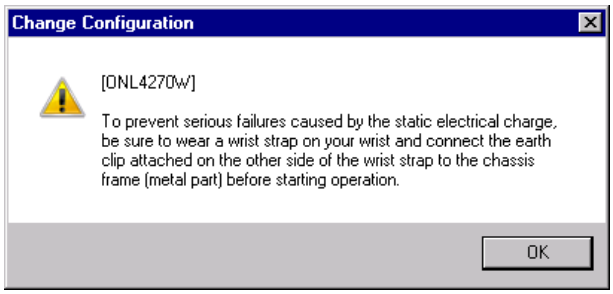
⚠ CAUTION

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

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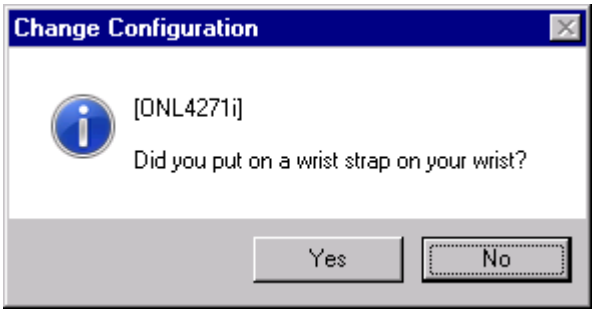
(9) <Wear a wrist strap>

Select (CL) [OK] in response to "To prevent serious failures caused by the static electrical charge, be sure to wear a wrist strap on your wrist and connect the earth clip attached on the other side of the wrist strap to the chassis frame (metal part) before starting operation.".



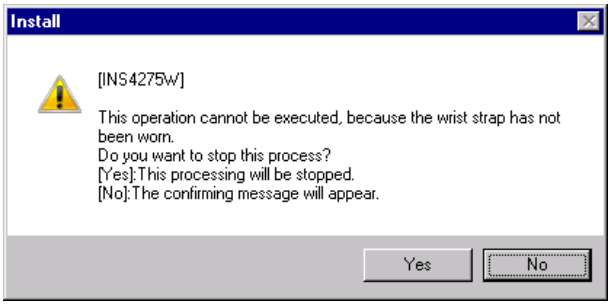
(9)-1 <Confirm wearing wrist strap>

In response to a message, "Did you put on a wrist strap on your wrist?".
Select [Yes] when wrist strap is on your wrist.
Select [No] when there is no wrist strap on your wrist.
When [No] is selected (CL), go to Step (9)-2.



(9)-2

In response to a message, "This operation cannot be excuted, because the wrist strap has not been worn. Do you want to stop this process?
[Yes]: This processing will be stopped.
[No]: This confirming message will appear."
When [Yes] is selected (CL), the routine is returned to Step (4) on page INST04-08-80.
When [No] is selected (CL), returned to Step (9).

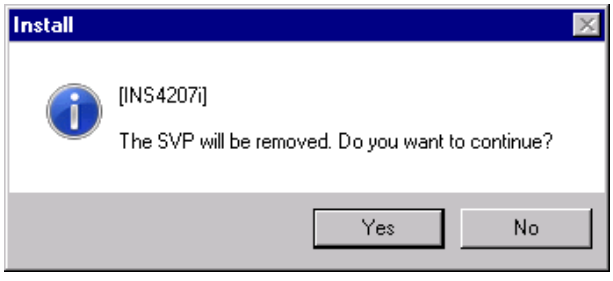


---

(10) <Start remove SVP>

Select (CL) [No] in response to "The SVP will be removed. Do you want to continue?"

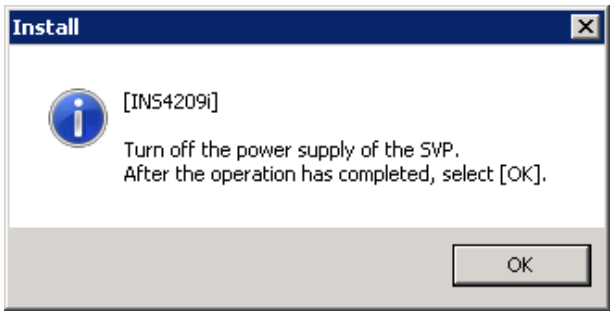
When [No] is selected (CL), the routine is returned to Step (4) on page INST04-08-80.



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(11) <The Additional SVP power off>

Select (CL) [OK] in response to "Turn off the power supply of the SVP. After the operation has completed, select [OK]."



(12) <The Additional SVP power off>

Execute the Additional SVP power off. (See section SVP01-170)
Confirm the SVP POWER LED of the SVP front is off. Select (CL) [OK] in response to Step (11) message.

(13) <Check shut down LED>

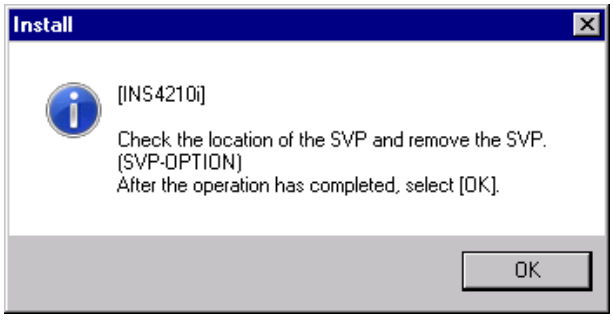
"Is the LED to be removed turned on?"message is displayed.

If the Shut down LED is on, select (CL) [Yes] button and go to Step (15).
If the Shut down LED is off, select (CL) [No] button and go to Step (14).



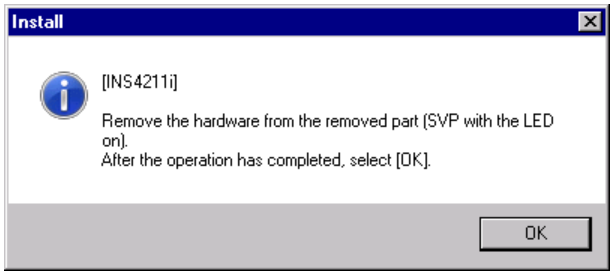
(14) <Removal of The Additional SVP>

"Check the location of the SVP and remove the SVP. (SVP-OPTION) After the operation has completed, select [OK]." message is displayed. Go to 3-3.



(15) <Removal of The Additional SVP>

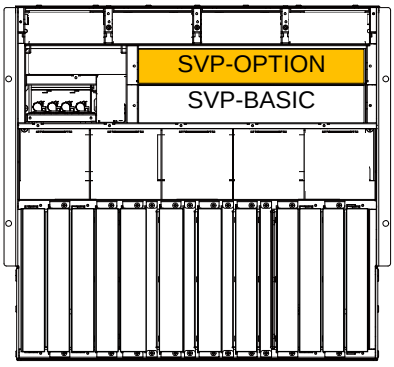
"Remove the hardware from the removed part (SVP with the LED on). After the operation has completed, select [OK]." message is displayed.



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3-3 Removal of Additional SVP

(1) Loosen the two screws and remove the SVP.



Rear View of DKC-0

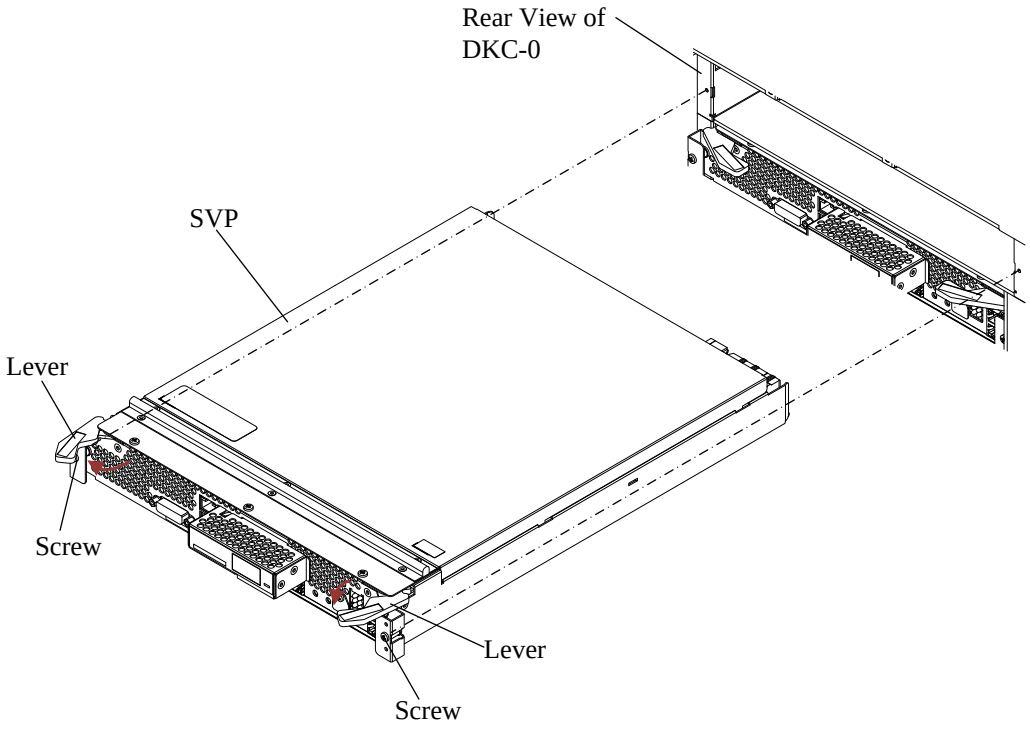
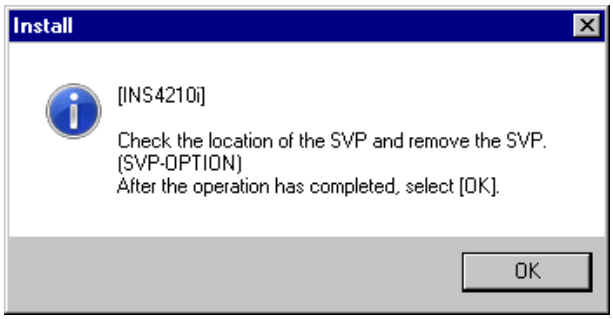
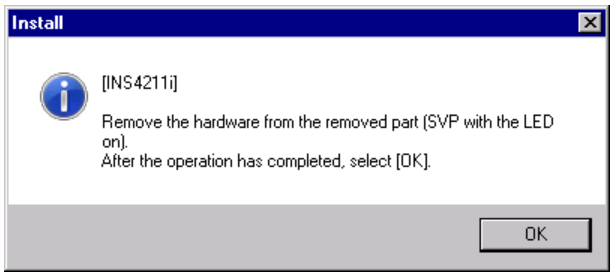


Fig. 4.8.1-4 Removal of SVP

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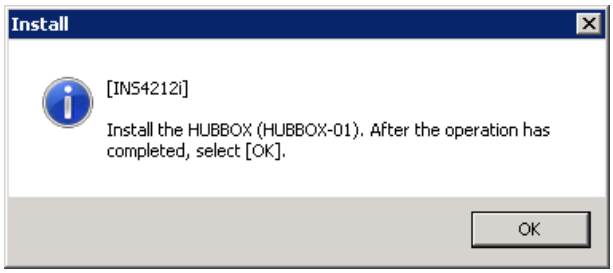
<Removal of The Additional SVP
After remove the SVP, select (CL) [OK].





(2) <Attachment of HUBBOX>
Select (CL) [OK] in response to before message.

When “Install the HUBBOX (HUBBOX-nn). After the operation has completed, select [OK].” message is displayed, go to Step (3). When message is not displayed, go to Step (5).



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(3) Install the HUBBOX and fasten the two screws.

NOTICE: Confirm the vertical direction of the HUBBOX. If the direction is wrong, the HUBBOX will not be ON.

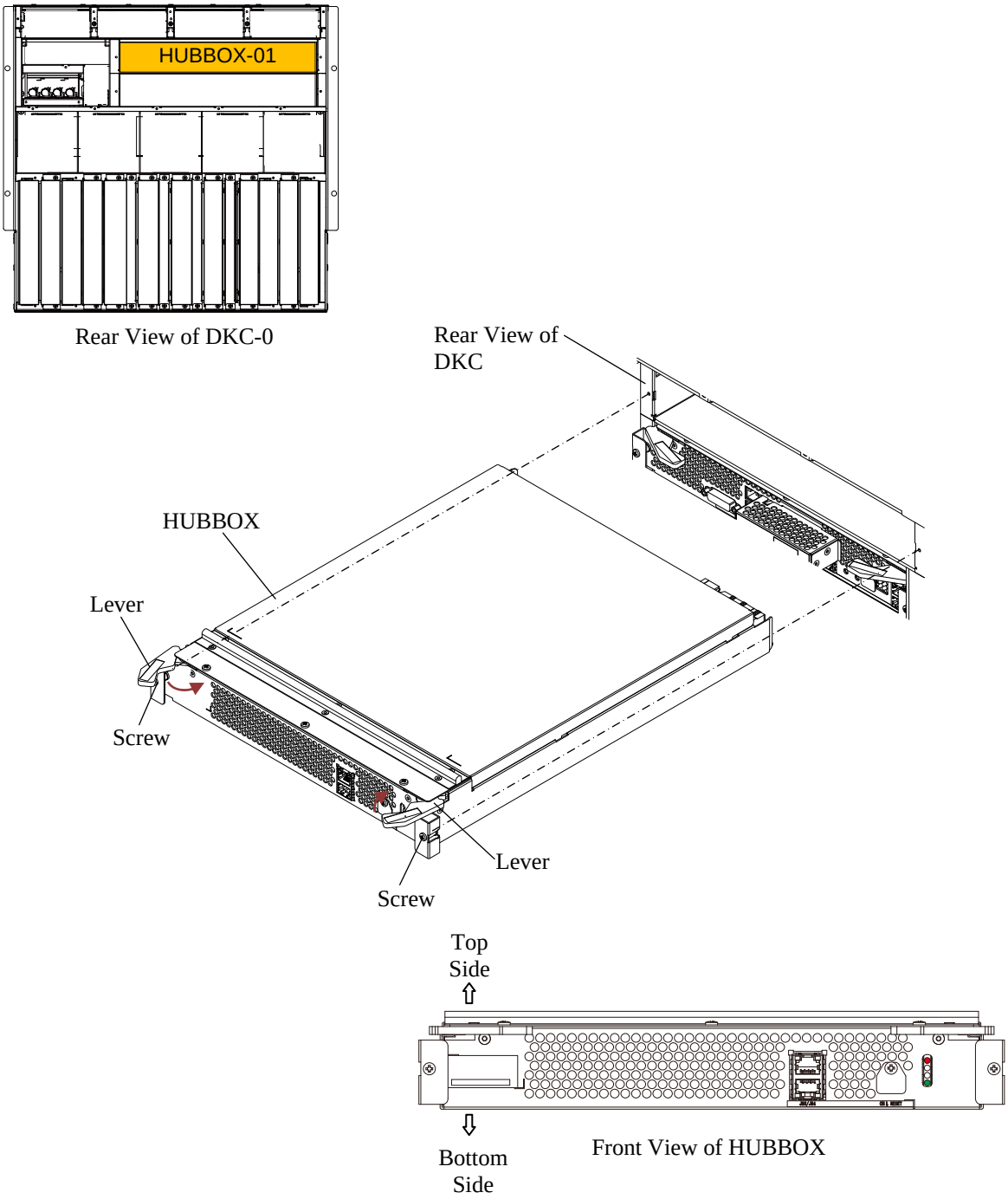
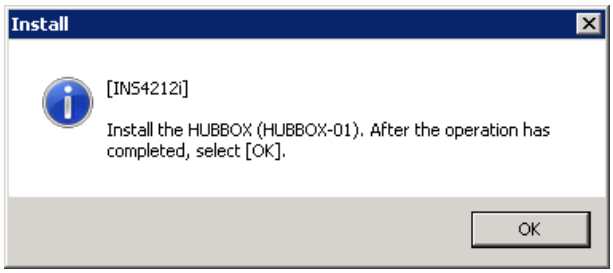


Fig. 4.8.1-5 Insertion of HUBBOX

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(4) <Attachment of HUBBOX>
Select (CL) the [OK] in response to the message “Install the HUBBOX (HUBBOX-nn). After the operation has completed, select [OK].”



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(5) When the removed slot is empty, loosen the three screws ① on the front side of the DKC and remove the cable cover.
When there is a SVP in the removed slot, go to the Step 4.
(6) Loosen the screw ② and remove the accessory box.
(7) Remove the dummy plate from the accessory box.
(8) Put the accessory box in place and fix it with the screw ②.
(9) Put the cable cover in place and fix it with the three screws ①.

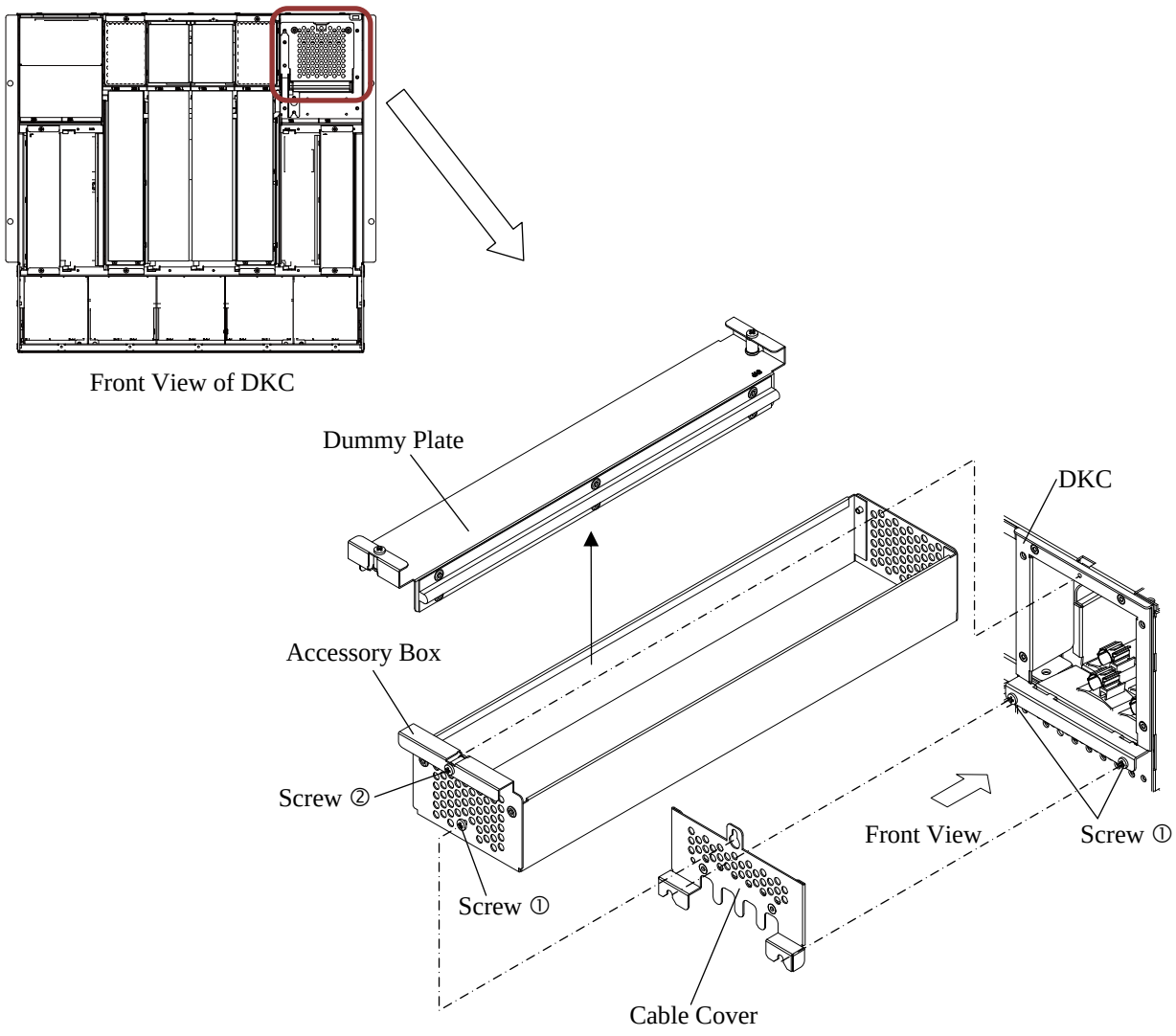


Fig. 4.8.1-6 Removal of Dummy Plate

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(10) When slot opens, attach the dummy plate and fasten the two screws.

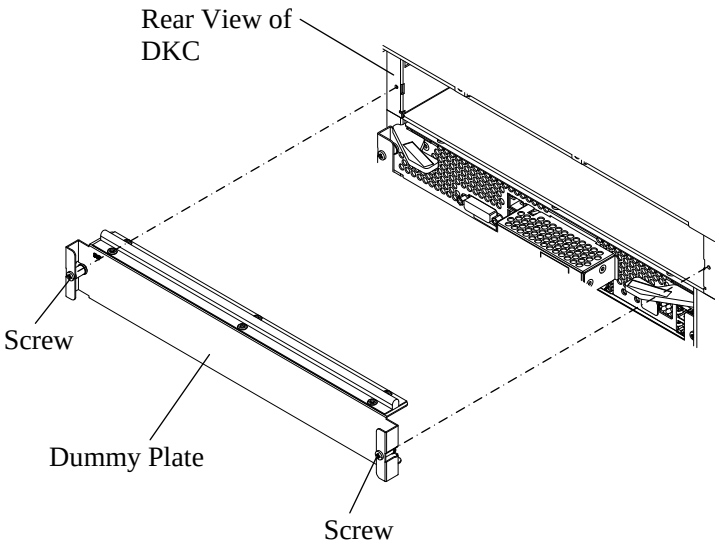


Fig. 4.8.1-7 Attachment of Dummy Plate

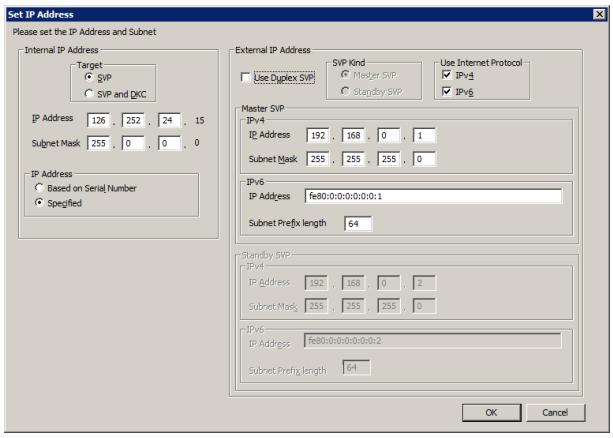
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4. Operating the Basic SVP

4-1 Canceling the setting duplication of the Basic SVP

(1) <Canceling the setting of SVP duplication>

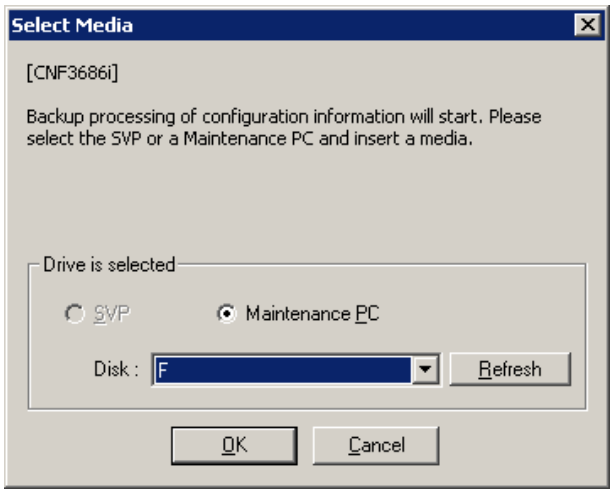
Select Cancel (CL) the selection of the [Use Duplex SVP] in the External IP Address box.
Select (CL) [OK].



(2) <Inserting the media containing the configuration information>

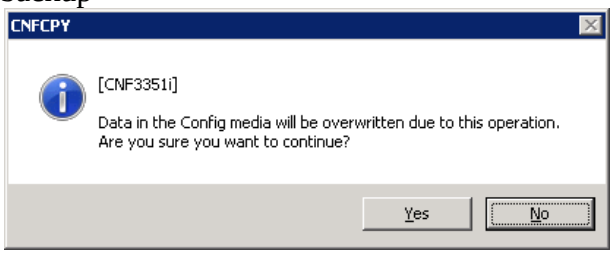
Execute an operation for backing up the configuration information.
Prepare the removable media for backup and insert the media.
Please select (CL) the [Refresh] button, and update drive information.
Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



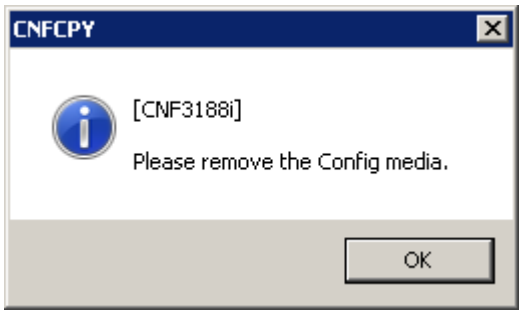
(3) <Confirming the configuration information backup>

When you want to continue the process, select (CL) the [Yes] button. When the backup to the Config media is not necessary, select (CL) the [No] button.

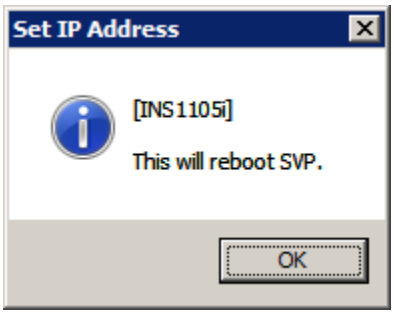


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(4) <Removing the Config media>
When this procedure is completed, the message "Please remove the Config media." is displayed. Remove the configuration information media, select (CL) [OK].



(5) <Confirming rebooting of the SVP>
Select (CL) [OK].



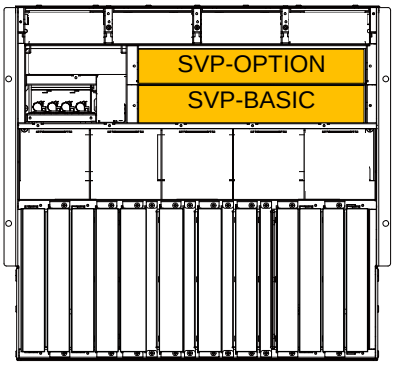
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5. Post-Procedure

5-1 Switch setting

a. Set the SVP RAS Switch #1 on the SVP-BASIC and SVP-OPTION to OFF (upper position).

b. Loosen the screw and put the cover on the SVP back in place. Then, tighten the screw.



Rear View of DKC-0

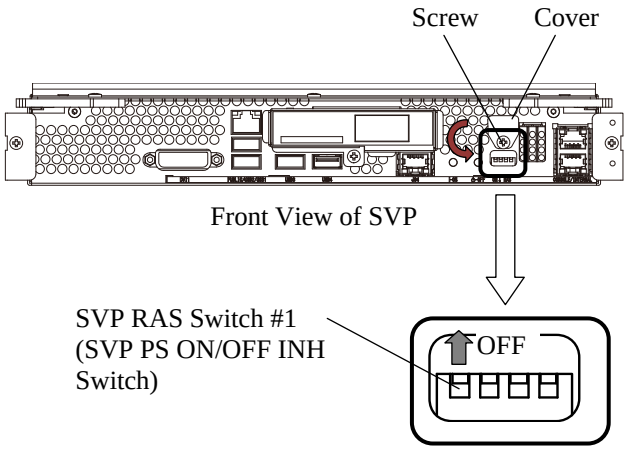


Fig. 4.8.1-8 Switch Setting

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5-2 Resetting the SSVP

a. Loosen the screw, and remove the jumper cover from the DKCPANEL.

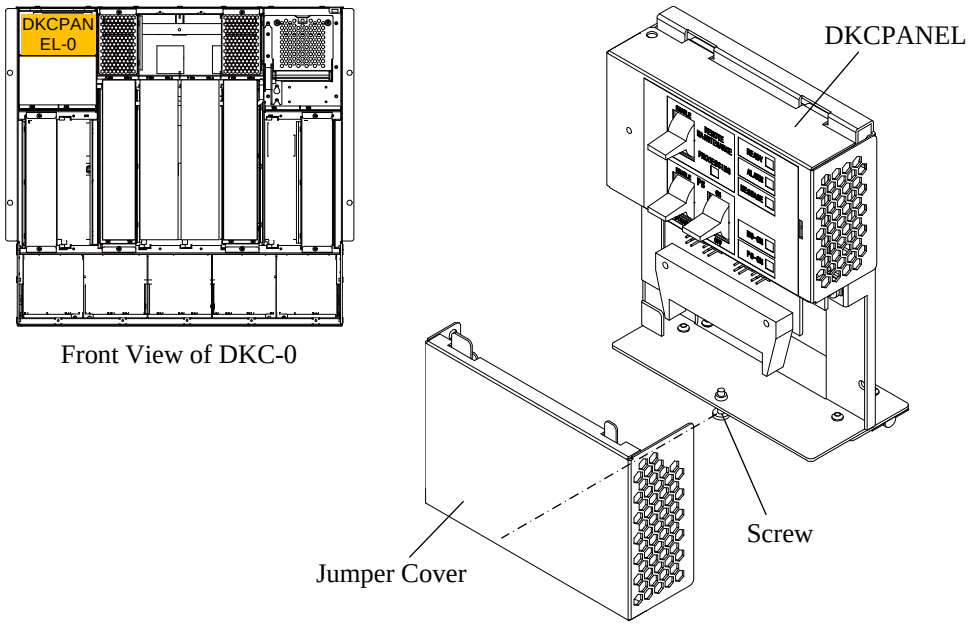


Fig. 4.8.1-9 Removal of Jumper Cover

b. Insert the maintenance jumper to the SSVP ALARM RESET jumper. And then, remove the maintenance jumper. Confirm that four SSVP STATUS LED of DKCPANEL turns on and turns off the light.

c. Attach the jumper cover to the DKCPANEL, and tighten the screw.

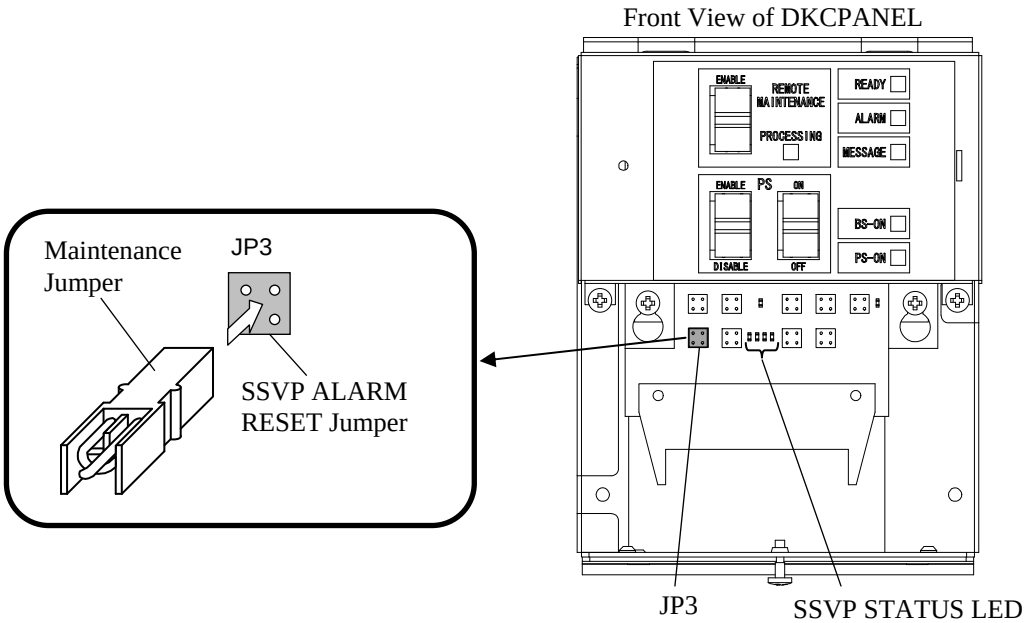


Fig. 4.8.1-10 Location of SSVP ALARM RESET Jumper

d. Return to the working table and do the rest of the work. (INST02-80)

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4.9 De-Installation of Power Cord Kit (DKC-F810I-PLUC/PHUC/PFUC/PLEC/PHEC/PFEC/ PLCC/PHCC/PFCC)

4.9.1 De-Installation of DKC Power Cord Kit (DKC-F810I-PLUC/PLEC/PLCC)

Table 4.9.1-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-PLUC	PS Cable ASSY	3287124-A	1	1,500mm White Label
		PS Cable ASSY	3287124-B	1	1,500mm Yellow Label
		PS Cable ASSY	3287124-C	1	1,500mm White Label
		PS Cable ASSY	3287124-D	1	1,500mm Yellow Label
		Clamp Tape	5544251-3	3	
		Repeat Binder	5409042-3	4	
2	DKC-F810I-PLEC	PS Cable ASSY	3287126-A	1	1,500mm White Label
		PS Cable ASSY	3287126-B	1	1,500mm Yellow Label
		PS Cable ASSY	3287126-C	1	1,500mm White Label
		PS Cable ASSY	3287126-D	1	1,500mm Yellow Label
		Clamp Tape	5544251-3	3	
		Repeat Binder	5409042-3	4	
3	DKC-F810I-PLCC	PS Cable ASSY	3287128-A	1	1,500mm White Label
		PS Cable ASSY	3287128-B	1	1,500mm Yellow Label
		PS Cable ASSY	3287128-C	1	1,500mm White Label
		PS Cable ASSY	3287128-D	1	1,500mm Yellow Label
		Clamp Tape	5544251-3	3	
		Repeat Binder	5409042-3	4	

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1. Confirmation of Removal Position
   a. Refer to following figure to confirm the connection location of DKC Power Cord Kit on DKC. Take care not to remove a wrong DKC Power Cord Kit, which will cause Power-OFF of a wrong DKC.

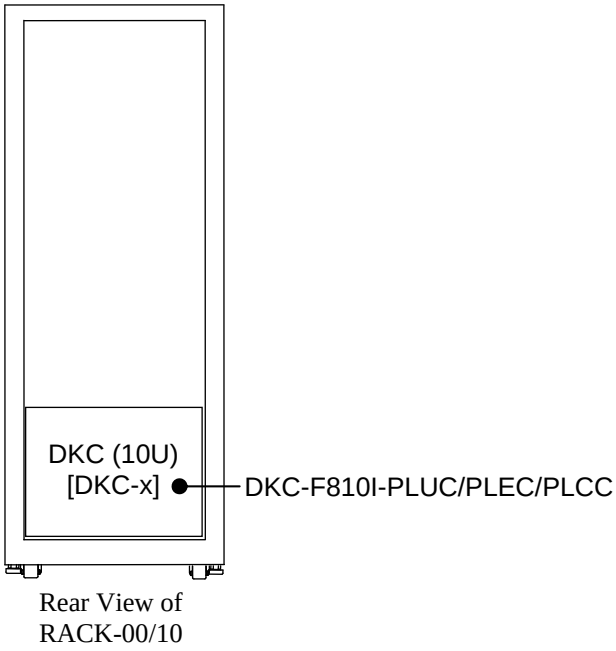


Fig. 4.9.1-1 Mounting Position of DKC Power Cord Kit

   b. Confirm the PDU patterns that are installed in the RACK.

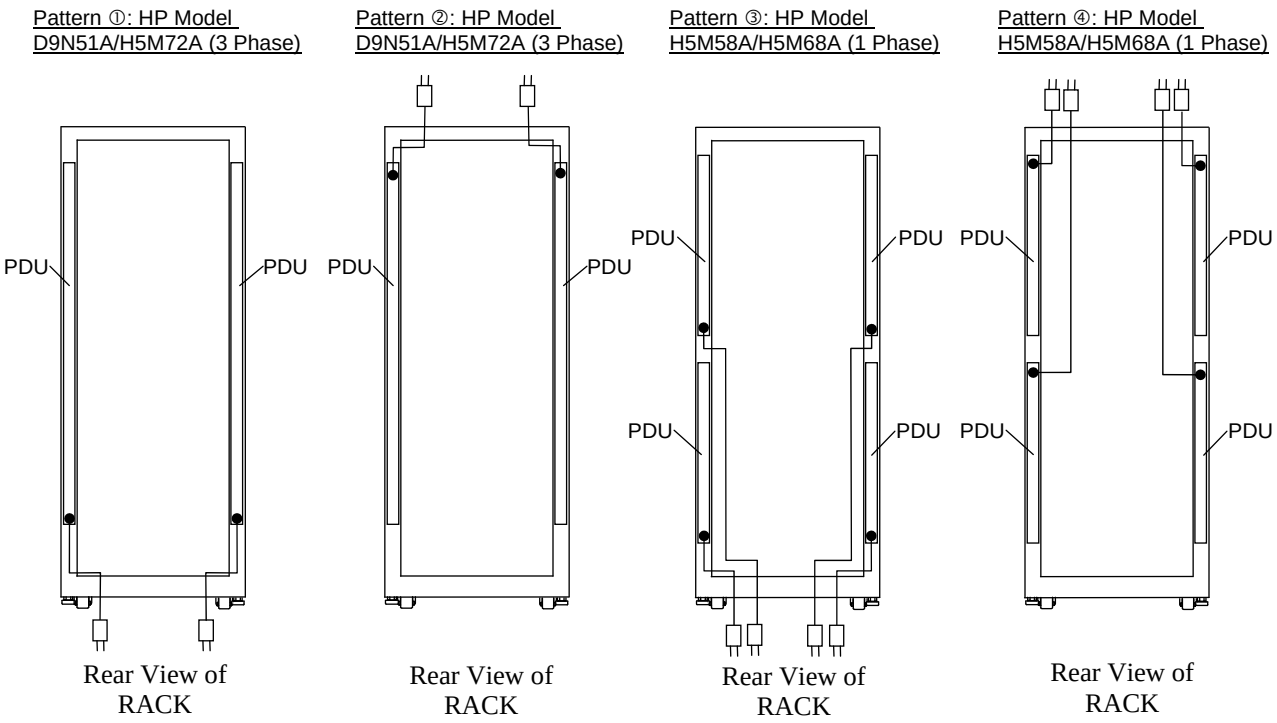


Fig. 4.9.1-2 PDU Pattern

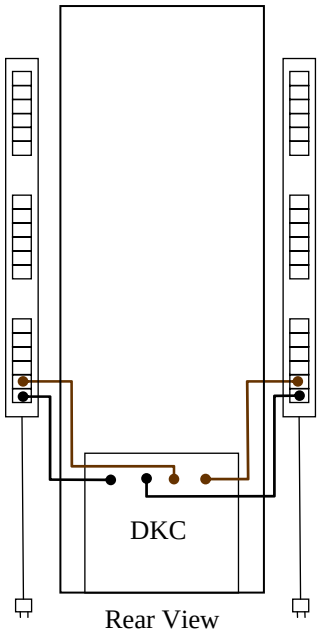
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2. Disconnection of Cables (PDU Side)
   a. Choose a rack configuration from the power cable connection diagrams in Fig. 4.9.1-3 to Fig. 4.9.1-6 and confirm the location of the power cable connection for the installed DKC.

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

[One DKC in a Rack]

Pattern ①-C1

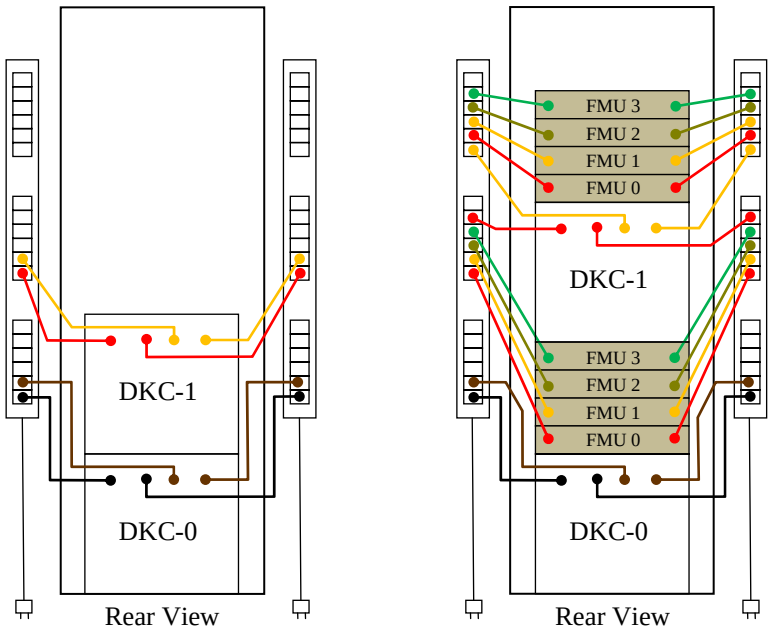


NOTE: DKC: CBXA/CBXB

[Two DKC in a Rack]

Pattern ①-C2-1

Pattern ①-C2-2



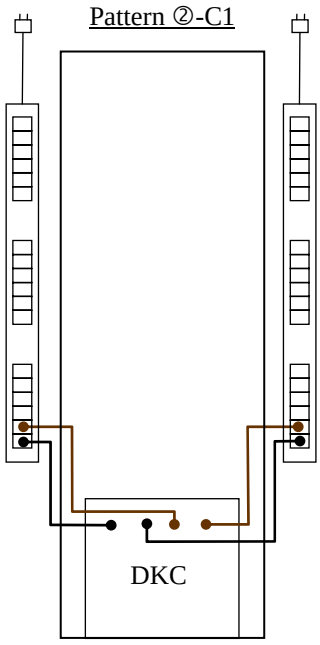
NOTE: DKC-0: CBXA
DKC-1: CBXB
FMU 0-3: FBX

Fig. 4.9.1-3 Power Cable Connection Diagram (Pattern ①)

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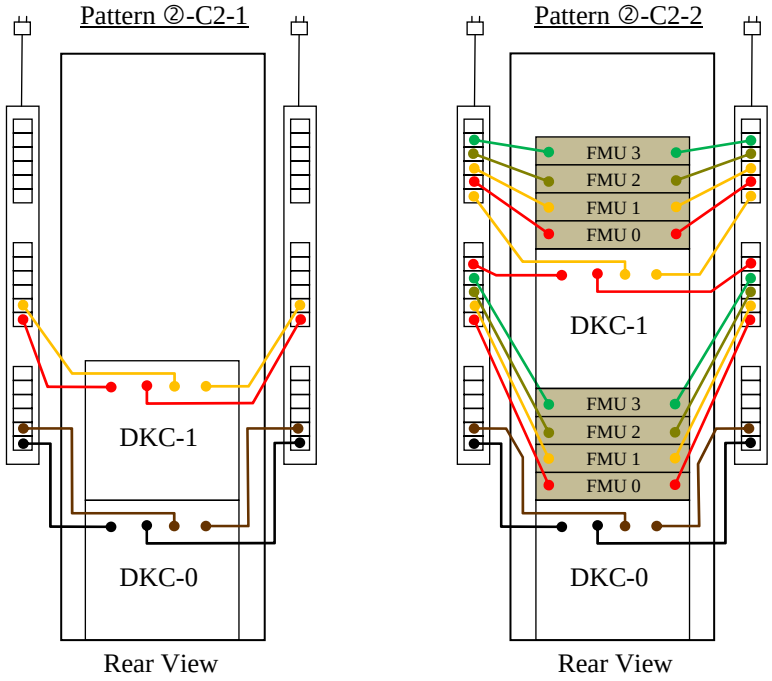
Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

[One DKC in a Rack]



NOTE: DKC: CBXA/CBXB

[Two DKC in a Rack]



NOTE: DKC-0: CBXA
DKC-1: CBXB
FMU 0-3: FBX

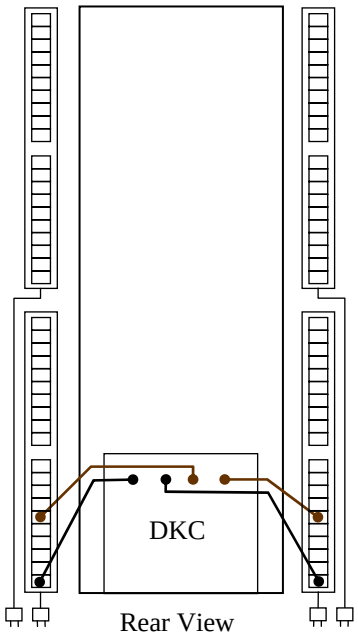
Fig. 4.9.1-4 Power Cable Connection Diagram (Pattern ②)

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Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

[One DKC in a Rack]

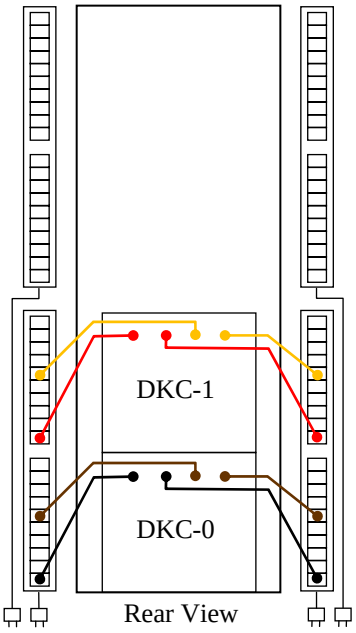
Pattern ③-C1



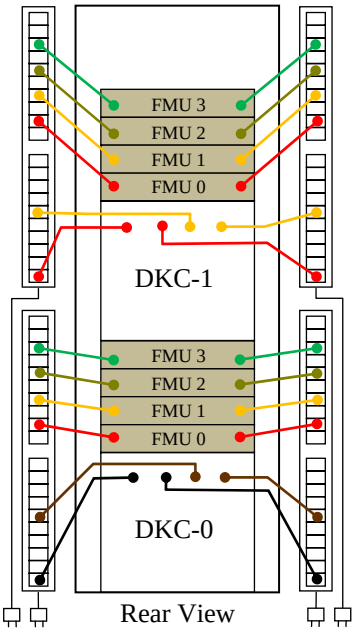
NOTE: DKC: CBXA/CBXB

[Two DKC in a Rack]

Pattern ③-C2-1



Pattern ③-C2-2



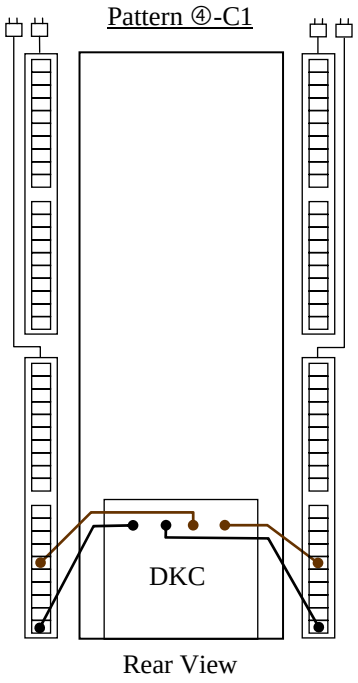
NOTE: DKC-0: CBXA
DKC-1: CBXB
FMU 0-3: FBX

Fig. 4.9.1-5 Power Cable Connection Diagram (Pattern ③)

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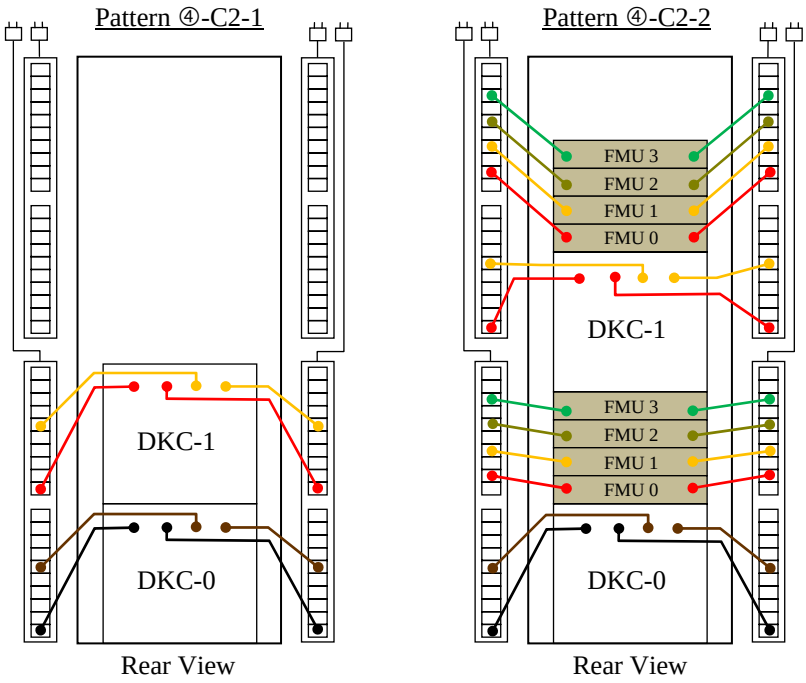
Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

[One DKC in a Rack]



NOTE: DKC: CBXA/CBXB

[Two DKC in a Rack]



NOTE: DKC-0: CBXA
DKC-1: CBXB
FMU 0-3: FBX

Fig. 4.9.1-6 Power Cable Connection Diagram (Pattern ④)

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b. Disconnect the four PS cable ASSYs from the PDUs that were confirmed in Procedure a. Cable disconnect examples are shown in Fig. 4.9.1-7 to Fig. 4.9.1-10.

[Example]

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

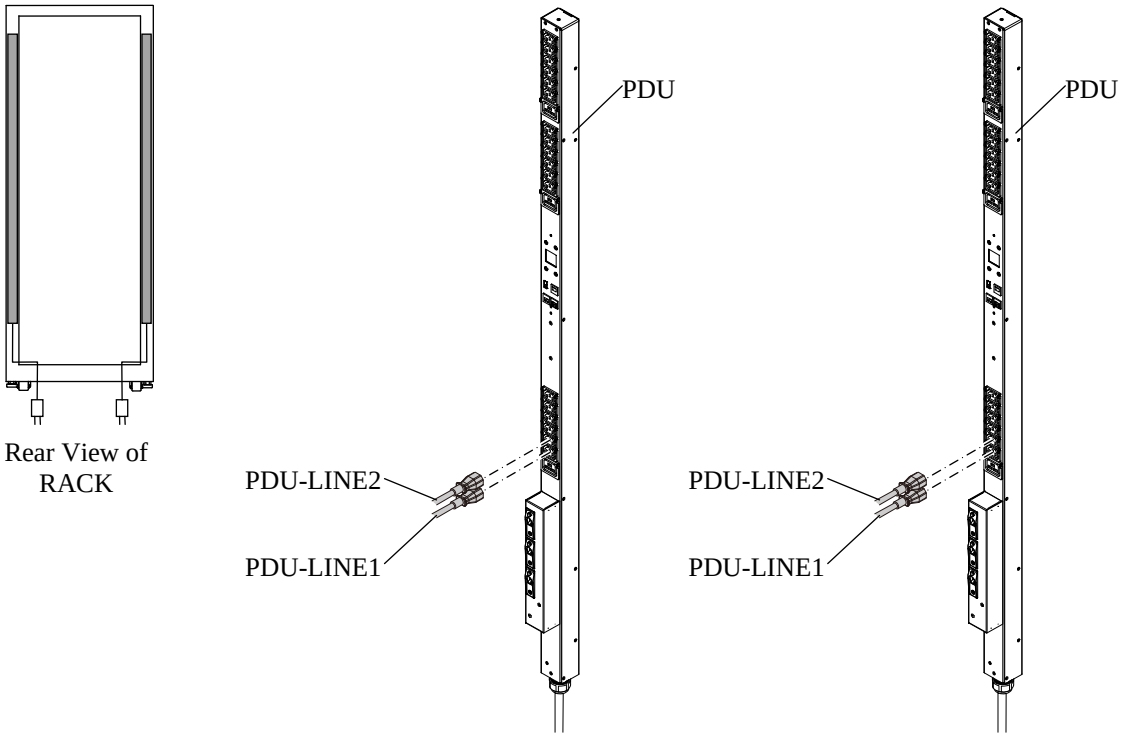


Fig. 4.9.1-7 Example of Disconnecting Cables (with PDU Cables Downside)

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[Example]

Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

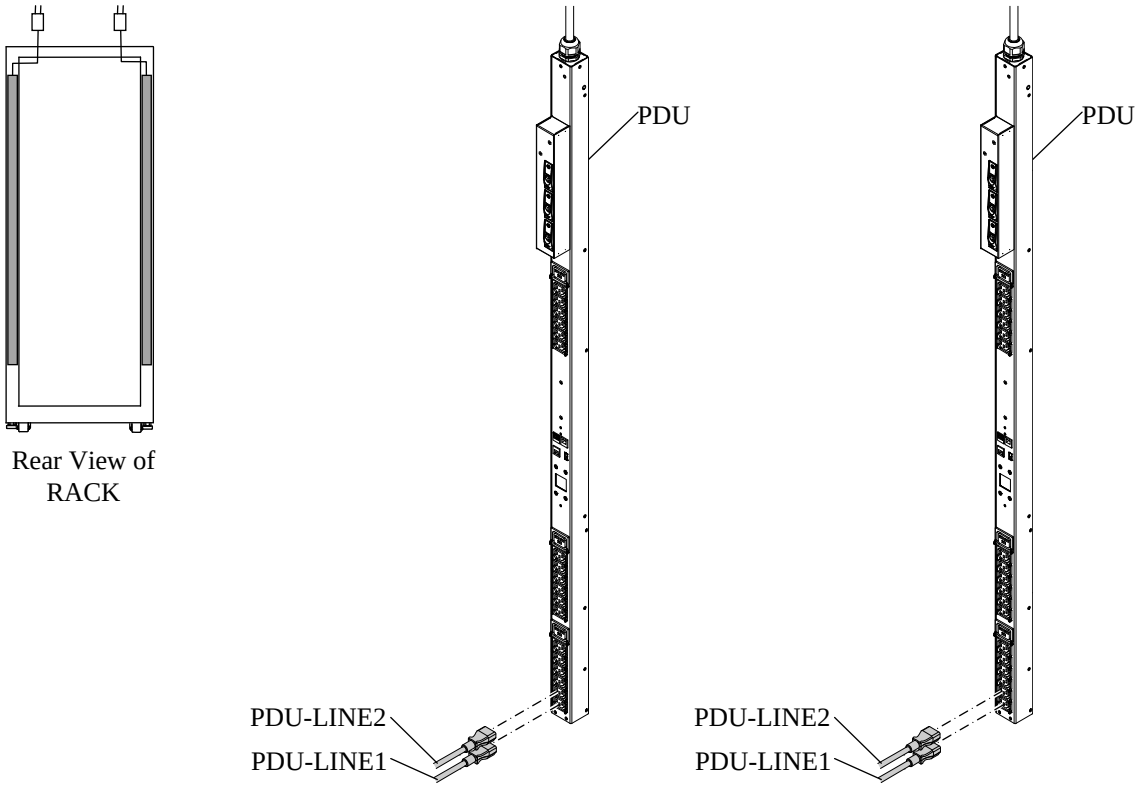


Fig. 4.9.1-8 Example of Disconnecting Cables (with PDU Cables Upside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

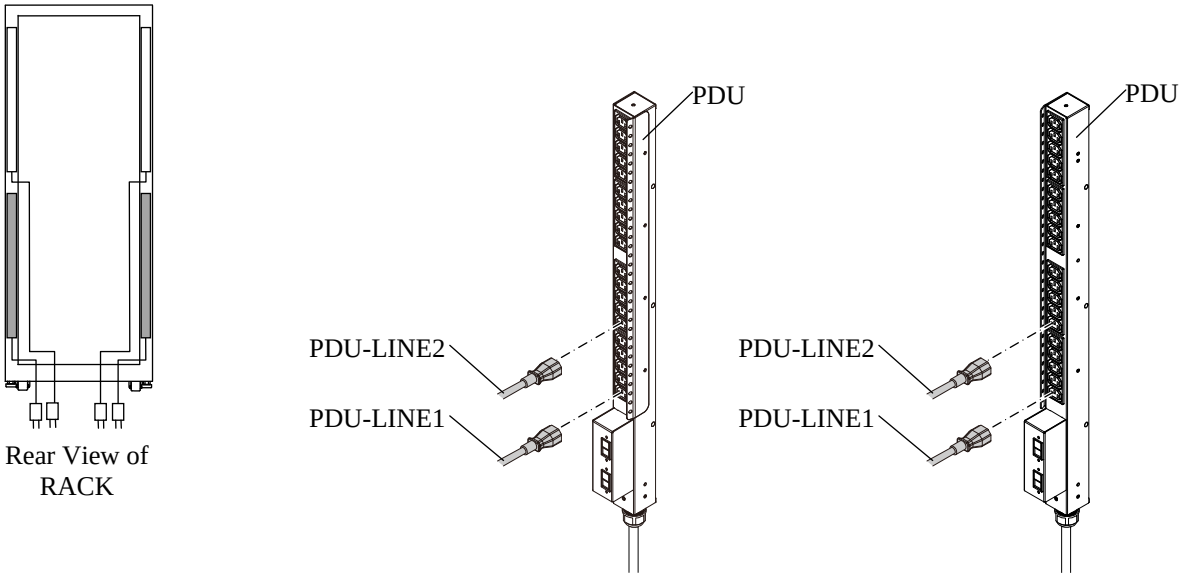


Fig. 4.9.1-9 Example of Disconnecting Cables (with PDU Cables Downside)

[Example]

Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

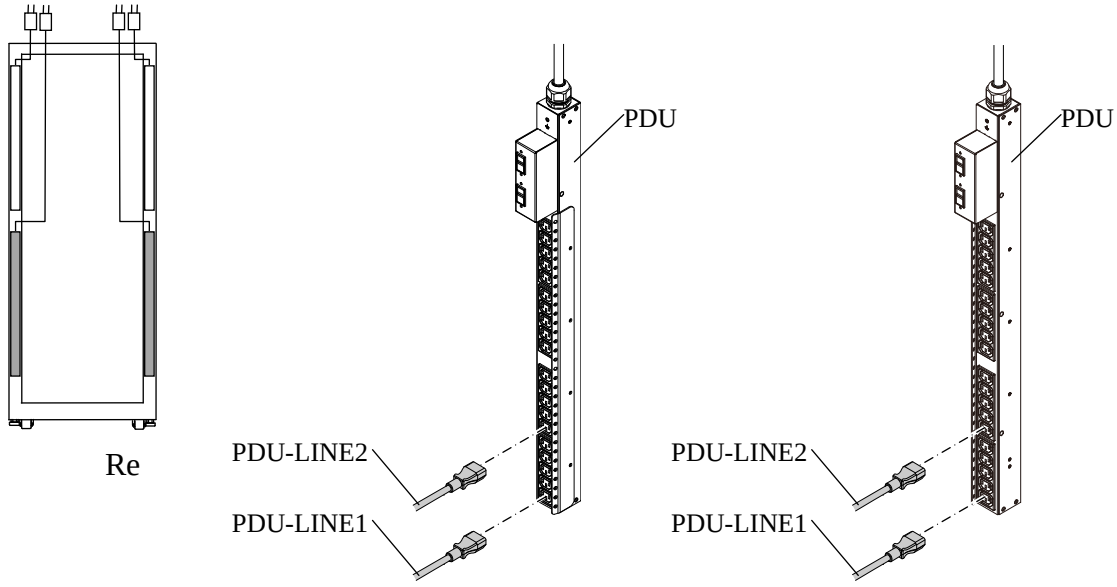


Fig. 4.9.1-10 Example of Disconnecting Cables (with PDU Cables Upside)

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c. Open the repeat binders and remove the PS cable ASSYs from the rear side of rack. Examples of removing cables are shown in Fig. 4.9.1-11 to Fig. 4.9.1-14.

[Example]

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

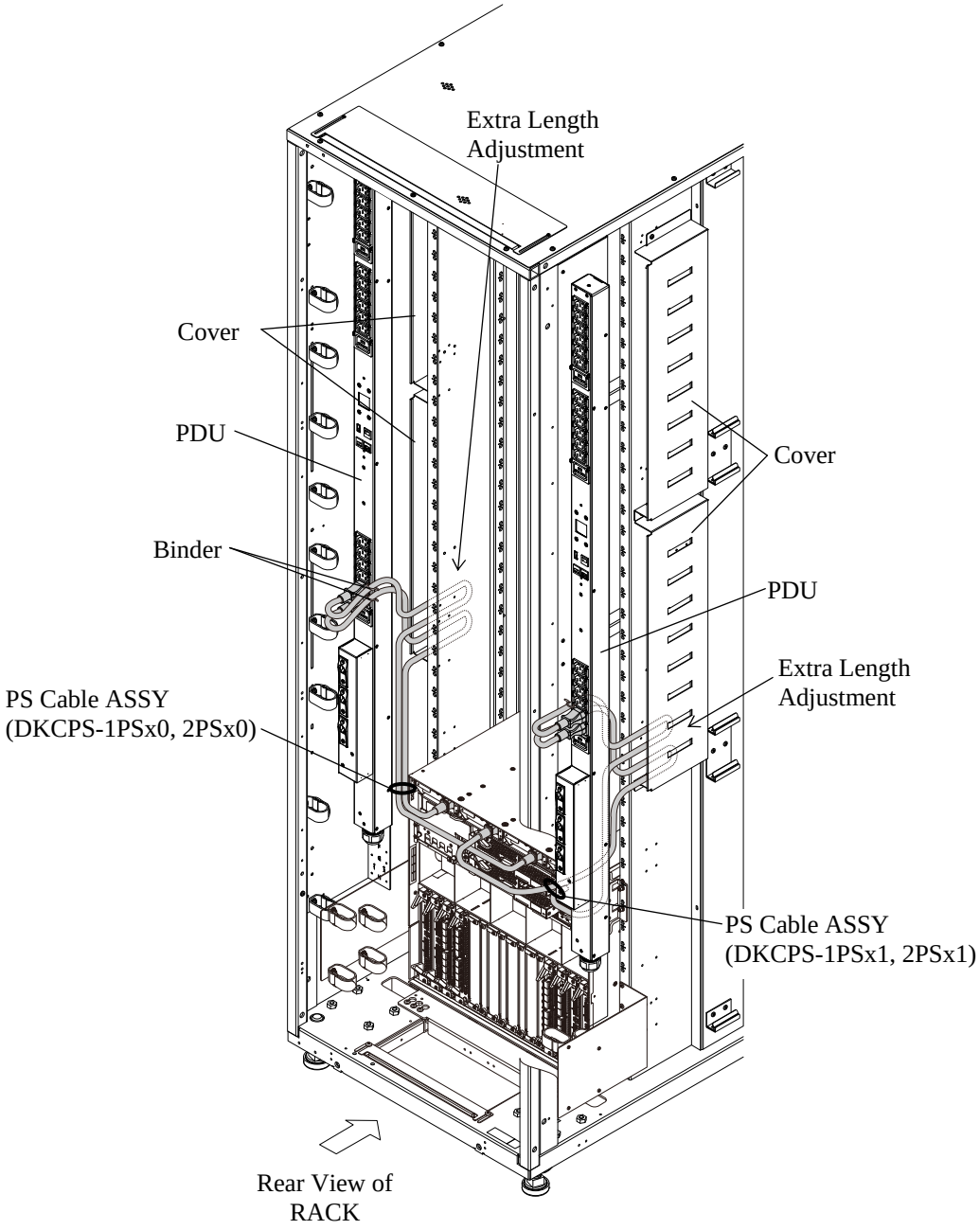


Fig. 4.9.1-11 Example of Removing Cables (with PDU Cables Downside)

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[Example]

Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

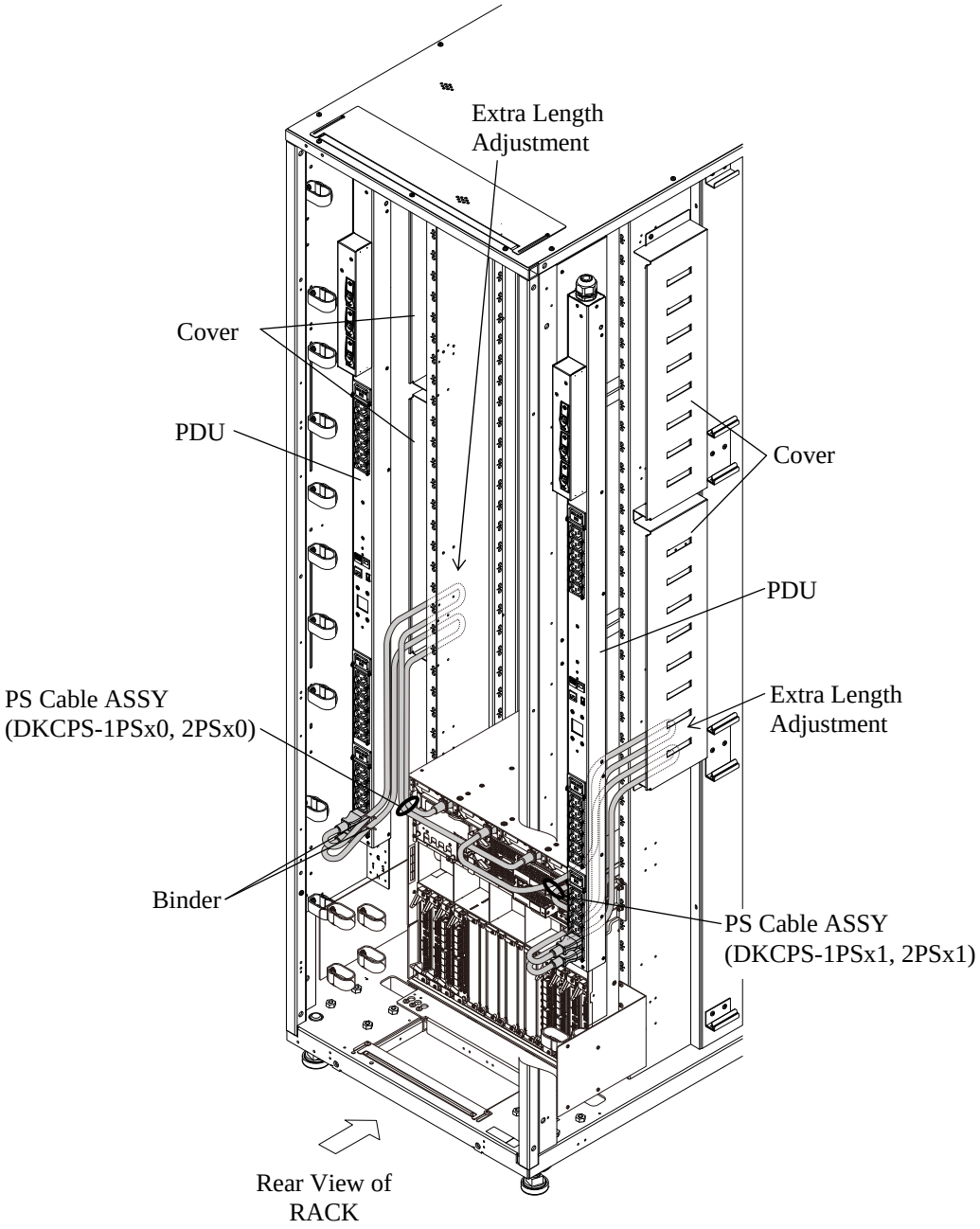


Fig. 4.9.1-12 Example of Removing Cables (with PDU Cables Upside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

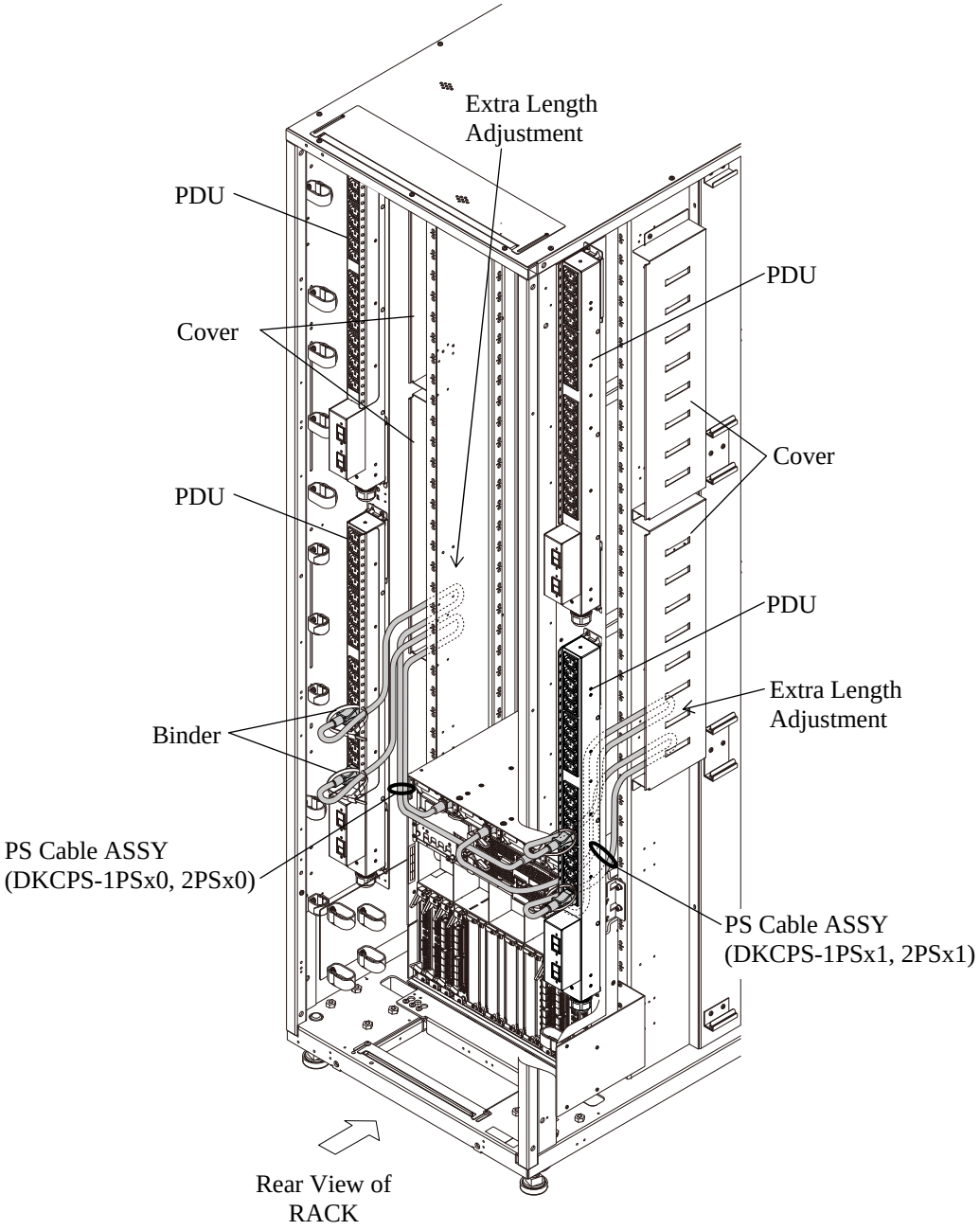


Fig. 4.9.1-13 Example of Removing Cables (with PDU Cables Downside)

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[Example]

Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

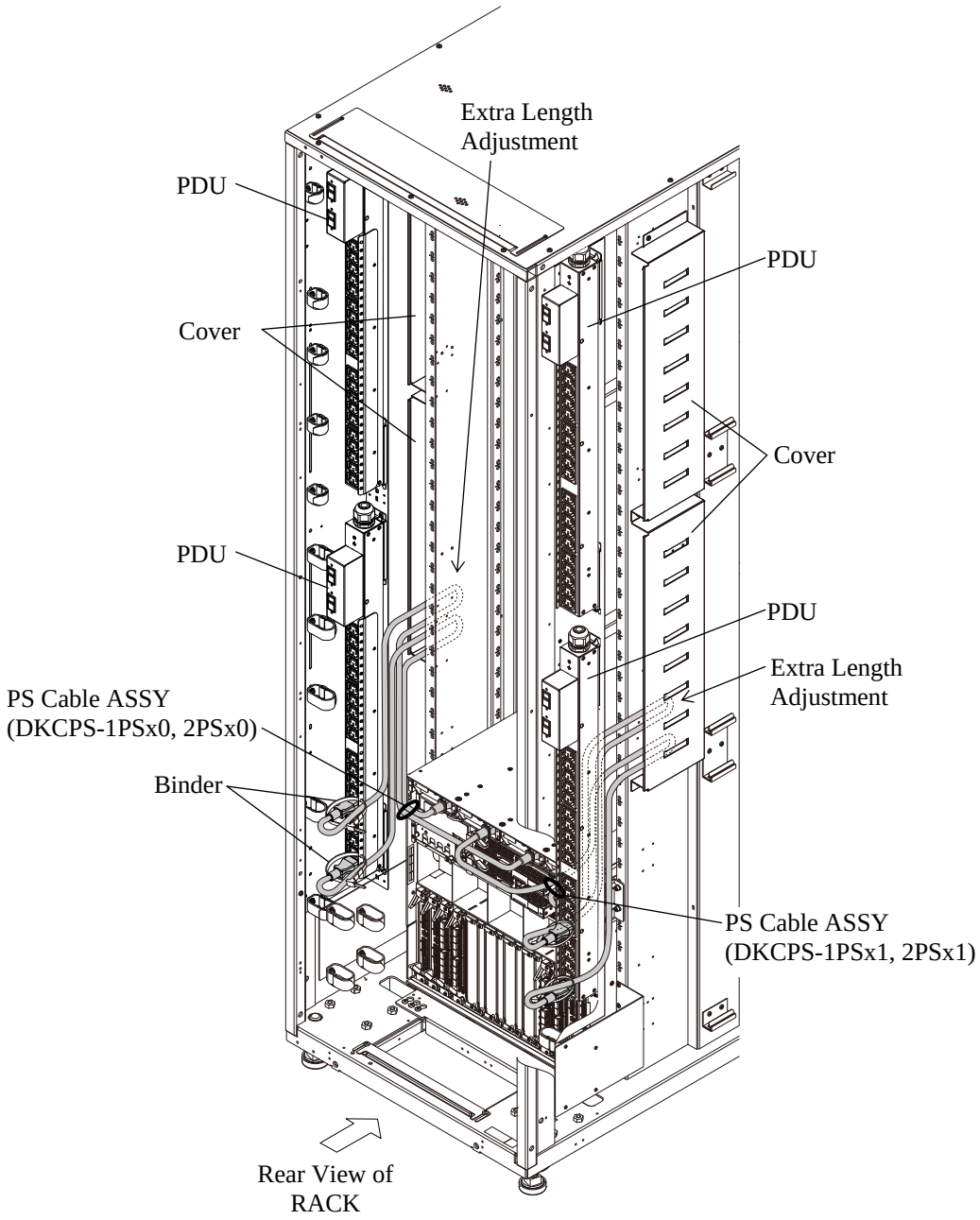


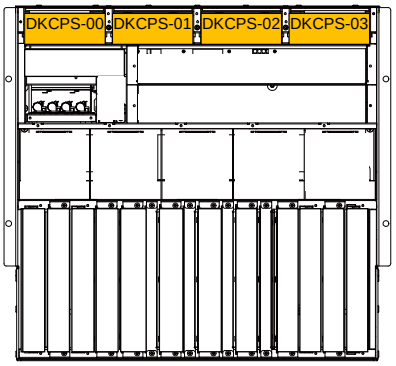
Fig. 4.9.1-14 Example of Fixing Cables (with PDU Cables Upside)

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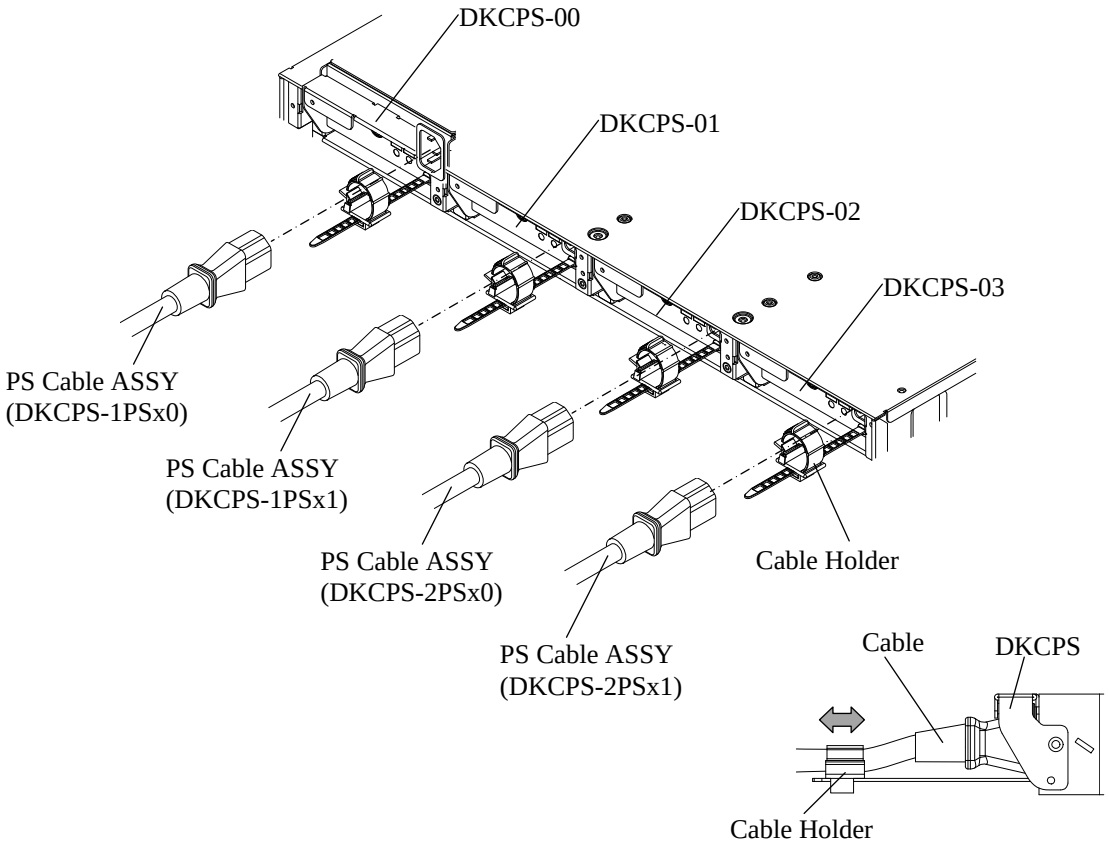
3. Disconnection of Cables (DKC Side)

For DKC-0

a. Pull and open the cable holders.
b. Disconnect the PS cable ASSYs (DKCPS-1PSx0, DKCPS-2PSx0, DKCPS-1PSx1 and DKCPS-2PSx1) from the DKCPSs.



Rear View of DKC-0



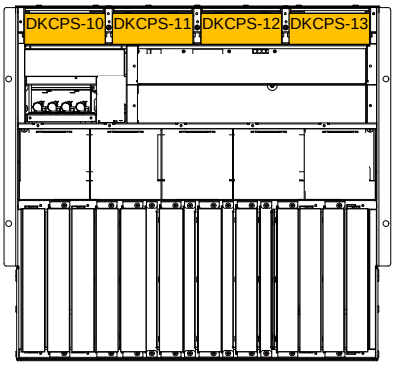
Side View of DKCPS

Fig. 4.9.1-15 Disconnection of Cables

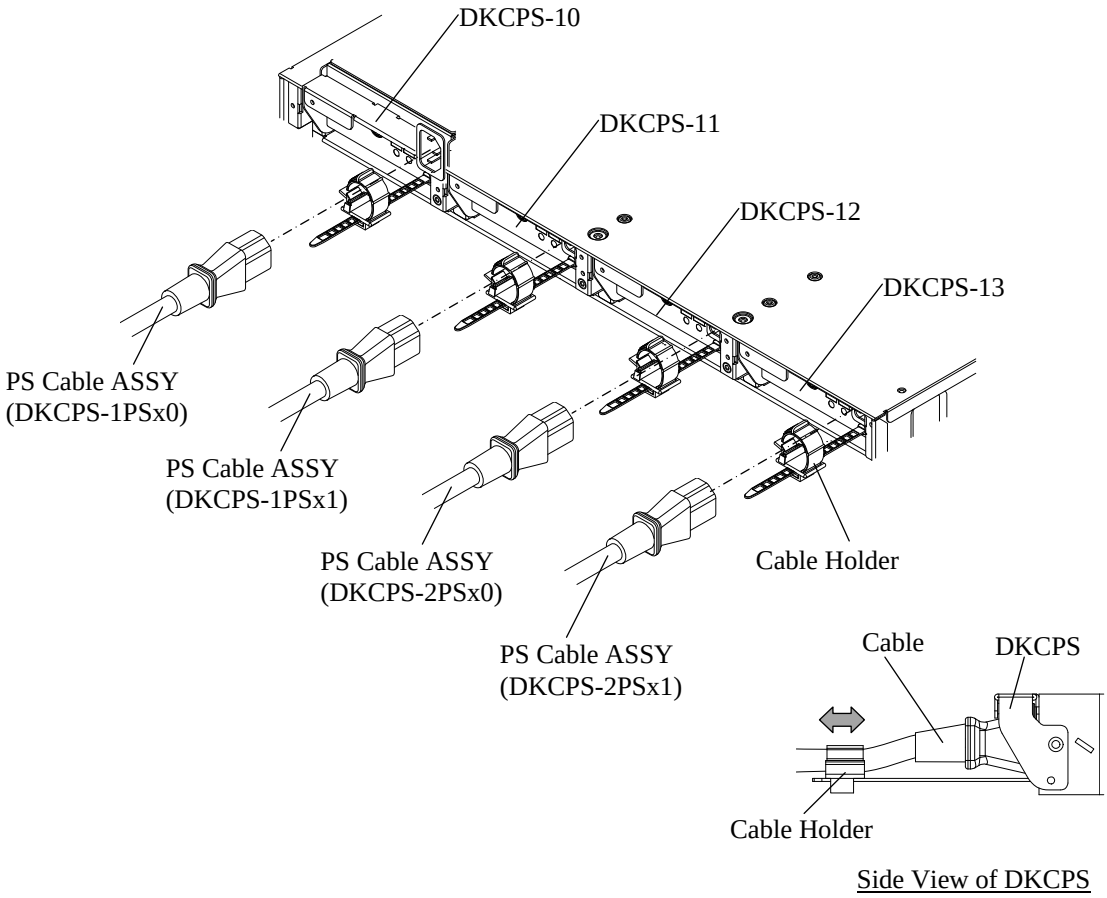
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For DKC-1

a. Pull and open the cable holders.
b. Disconnect the PS cable ASSYs (DKCPS-1PSx0, DKCPS-2PSx0, DKCPS-1PSx1 and DKCPS-2PSx1) from the DKCPSs.



Rear View of DKC-1



Side View of DKCPS

Fig. 4.9.1-16 Disconnection of Cables

4. Return to the working table and do the rest of the work.
Non-Disruptive De-Installation: INST02-80

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4.9.2 De-Installation of DKU Power Cord Kit (DKC-F810I-PHUC/PHEC/PHCC)

Table 4.9.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-PHUC	PS Cable ASSY	3287125-A	1	1,500mm White Label
		PS Cable ASSY	3287125-B	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-C	1	1,500mm White Label
		PS Cable ASSY	3287125-D	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-E	1	1,500mm White Label
		PS Cable ASSY	3287125-F	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-G	1	1,500mm White Label
		PS Cable ASSY	3287125-H	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-J	1	1,500mm White Label
		PS Cable ASSY	3287125-K	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-L	1	1,500mm White Label
		PS Cable ASSY	3287125-M	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-N	1	1,500mm White Label
		PS Cable ASSY	3287125-P	1	1,500mm Yellow Label
		PS Cable ASSY	3287125-Q	1	1,500mm White Label
		PS Cable ASSY	3287125-R	1	1,500mm Yellow Label
		Binder	5552817-1	16	
		Repeat Binder	5409042-3	8	
2	DKC-F810I-PHEC	PS Cable ASSY	3287127-A	1	1,500mm White Label
		PS Cable ASSY	3287127-B	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-C	1	1,500mm White Label
		PS Cable ASSY	3287127-D	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-E	1	1,500mm White Label
		PS Cable ASSY	3287127-F	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-G	1	1,500mm White Label
		PS Cable ASSY	3287127-H	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-J	1	1,500mm White Label
		PS Cable ASSY	3287127-K	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-L	1	1,500mm White Label
		PS Cable ASSY	3287127-M	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-N	1	1,500mm White Label
		PS Cable ASSY	3287127-P	1	1,500mm Yellow Label
		PS Cable ASSY	3287127-Q	1	1,500mm White Label
		PS Cable ASSY	3287127-R	1	1,500mm Yellow Label
		Binder	5552817-1	16	
		Repeat Binder	5409042-3	8	

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
3	DKC-F810I-PHCC	PS Cable ASSY	3287129-A	1	1,500mm White Label
		PS Cable ASSY	3287129-B	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-C	1	1,500mm White Label
		PS Cable ASSY	3287129-D	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-E	1	1,500mm White Label
		PS Cable ASSY	3287129-F	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-G	1	1,500mm White Label
		PS Cable ASSY	3287129-H	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-J	1	1,500mm White Label
		PS Cable ASSY	3287129-K	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-L	1	1,500mm White Label
		PS Cable ASSY	3287129-M	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-N	1	1,500mm White Label
		PS Cable ASSY	3287129-P	1	1,500mm Yellow Label
		PS Cable ASSY	3287129-Q	1	1,500mm White Label
		PS Cable ASSY	3287129-R	1	1,500mm Yellow Label
		Binder	5552817-1	16	
		Repeat Binder	5409042-3	8	

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1. Confirmation of Removal Position
   a. Refer to following figure to confirm the connection location of DKU Power Cord Kit on DKU. Take care not to remove a wrong DKU Power Cord Kit, which will cause Power-OFF of a wrong DKU.

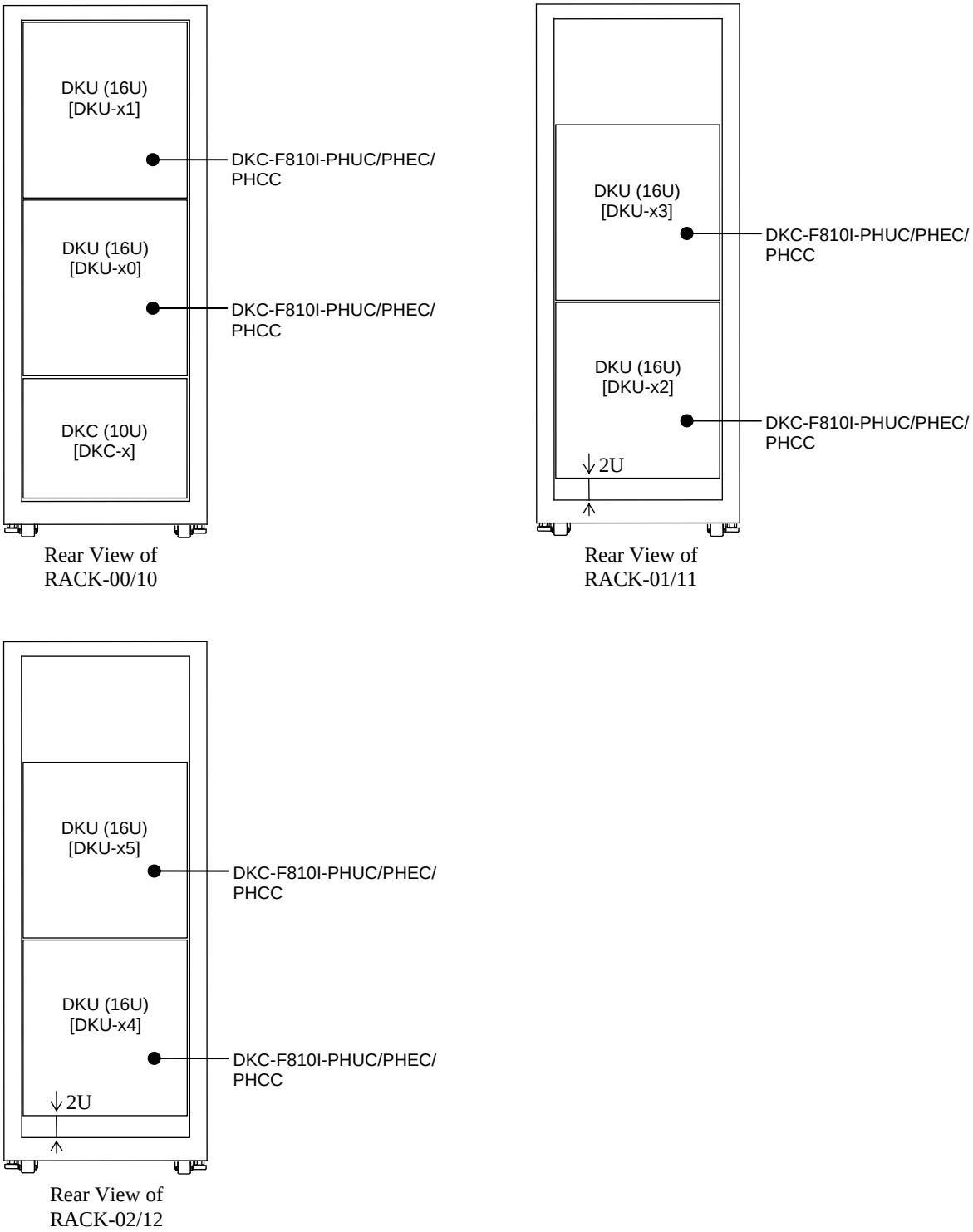


Fig. 4.9.2-1 Mounting Location of DKU Power Cord Kit

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b. Confirm the PDU patterns that are installed in the RACK.

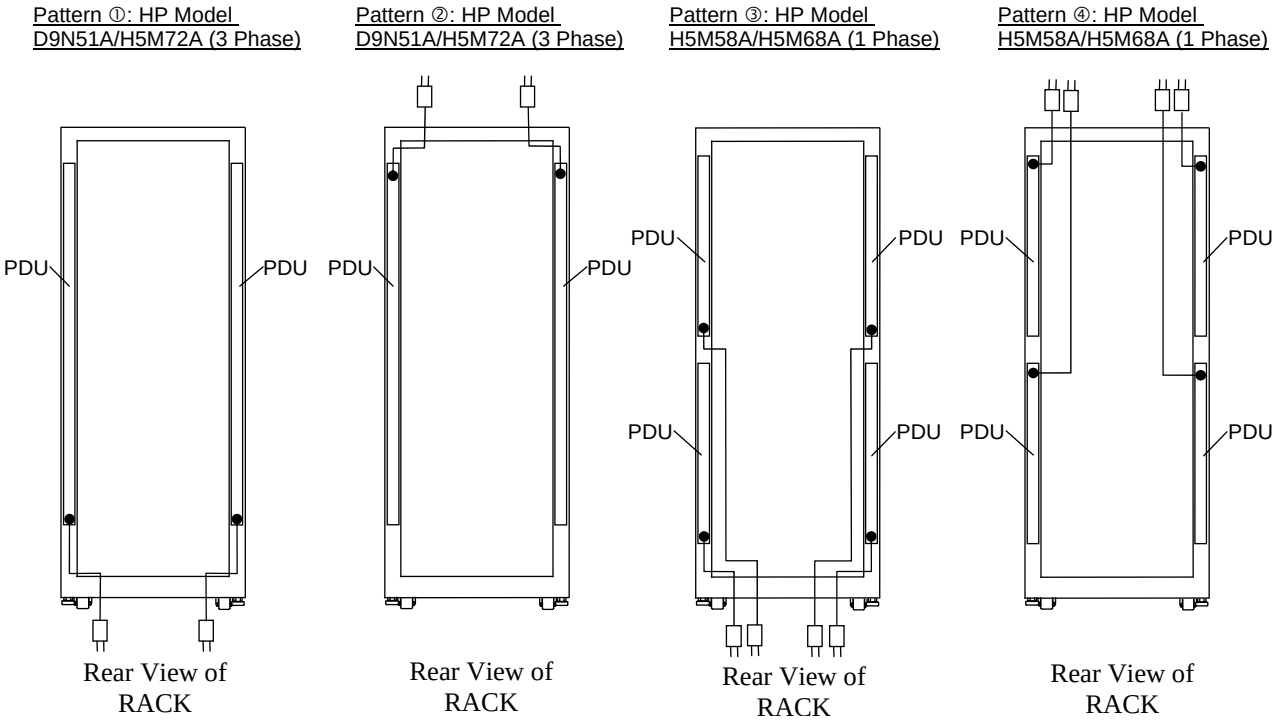


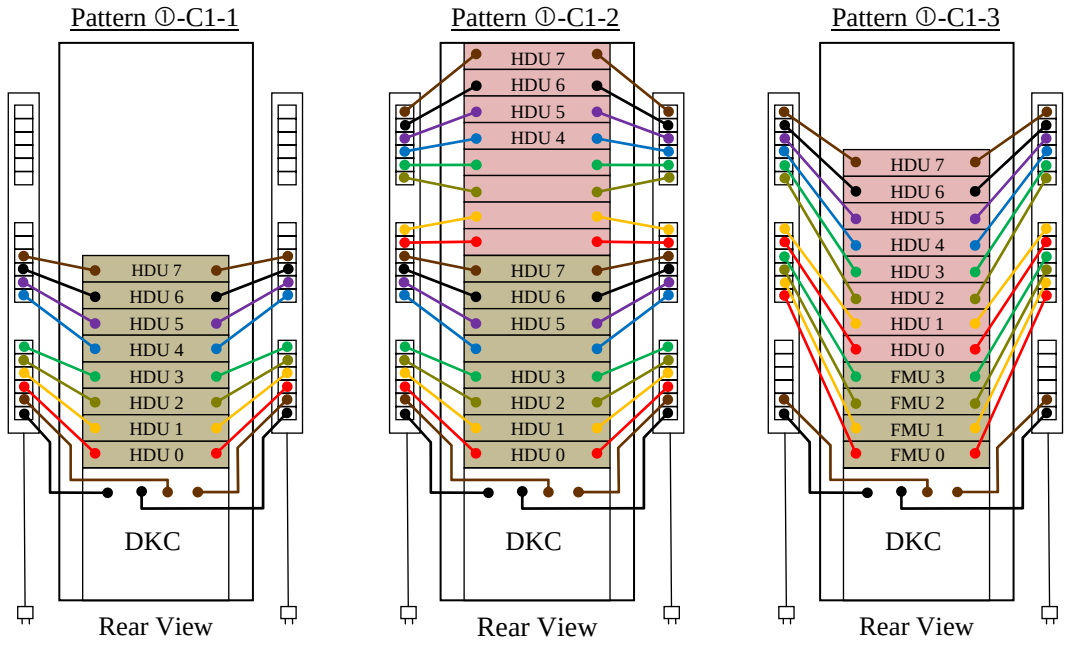
Fig. 4.9.2-2 PDU Pattern

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2. Removal of cable connected to PDU
   a. Choose a rack configuration from power cable connection diagrams in Fig. 4.9.2-3 to Fig. 4.9.2-10 and confirm the location of the power cable connection for the installed DKU.

Pattern ①:HP Model D9N51A/H5M72A (3 Phase)

[One DKC in a Rack]



[Two DKC in a Rack]

NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

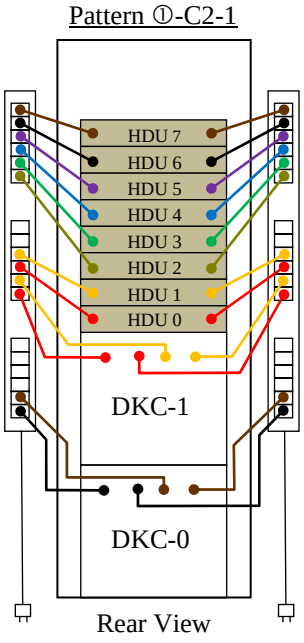


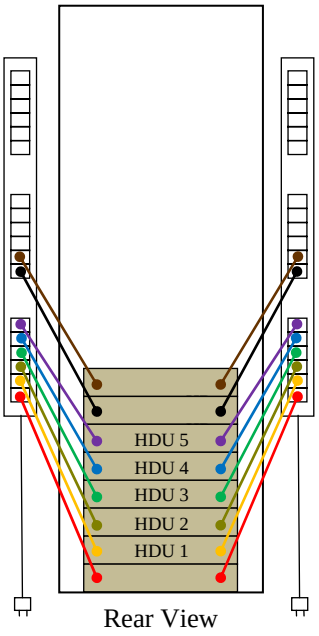
Fig. 4.9.2-3 Power Cable Connection Diagram (Pattern ① 1/2)

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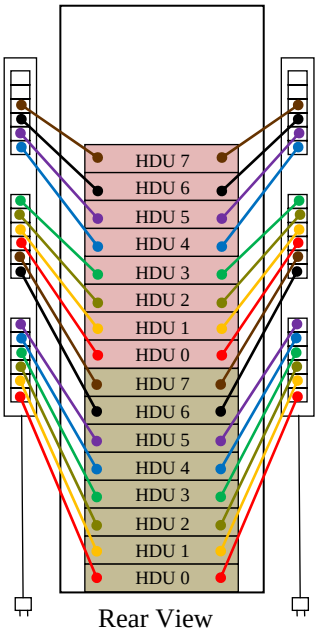
Pattern ①:HP Model D9N51A/H5M72A (3 Phase)

[Only DKU in a Rack]

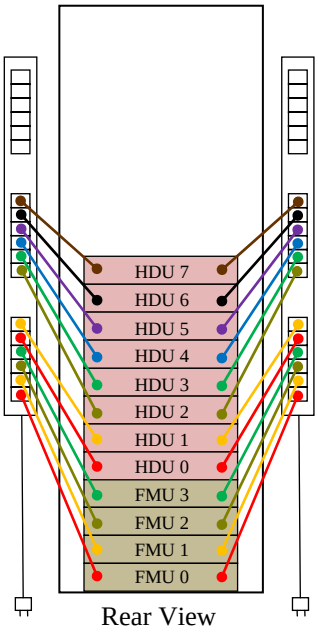
Pattern ①-U-1



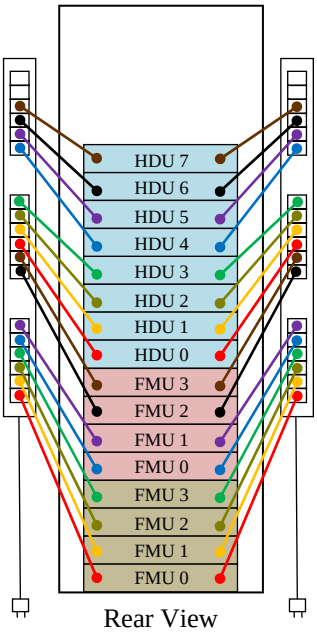
Pattern ①-U-2



Pattern ①-U-3



Pattern ①-U-4



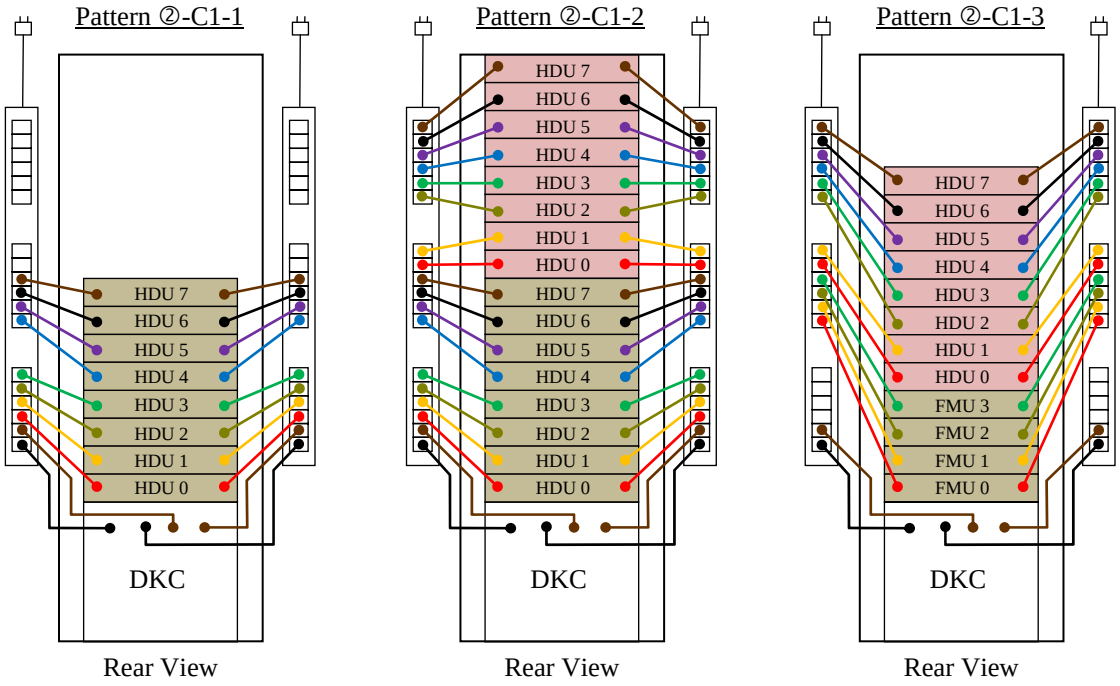
NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.2-4 Power Cable Connection Diagram (Pattern ① 2/2)

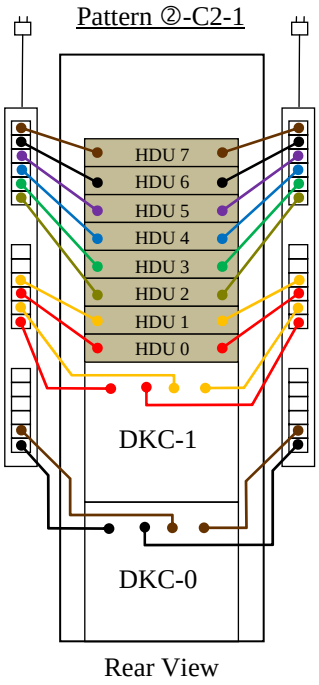
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Pattern ②:HP Model D9N51A/H5M72A (3 Phase)

[One DKC in a Rack]



[Two DKC in a Rack]



NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

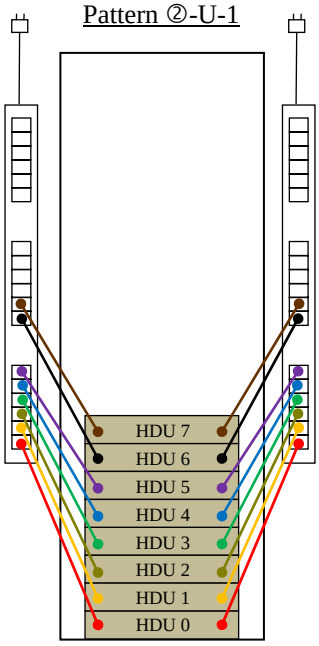
Fig. 4.9.2-5 Power Cable Connection Diagram (Pattern ② 1/2)

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Pattern ②:Model D9N51A/H5M72A (3 Phase)

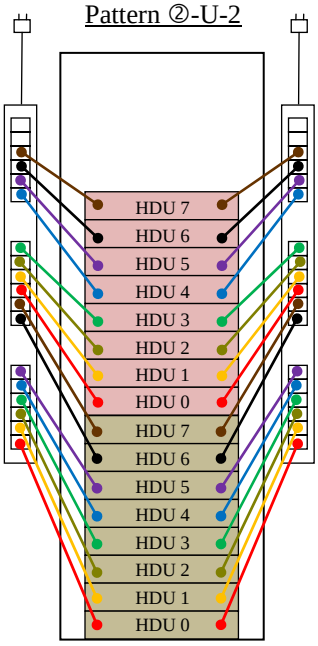
[Only DKU in a Rack]

Pattern ②-U-1



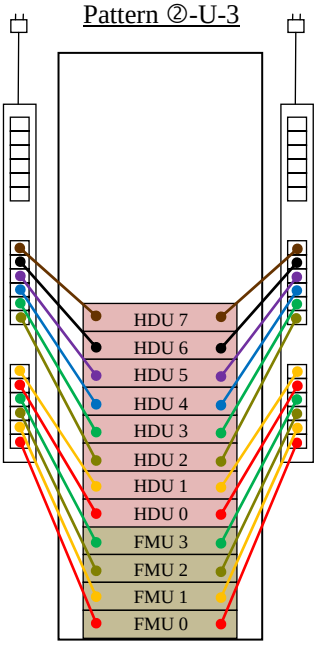
Rear View

Pattern ②-U-2



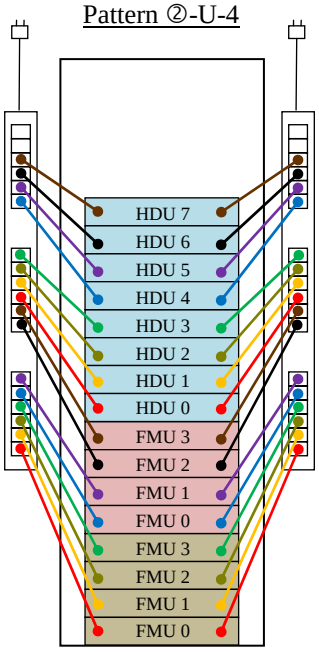
Rear View

Pattern ②-U-3



Rear View

Pattern ②-U-4



Rear View

NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

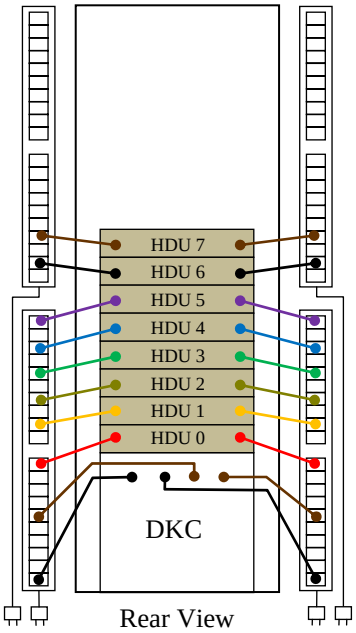
Fig. 4.9.2-6 Power Cable Connection Diagram (Pattern ② 2/2)

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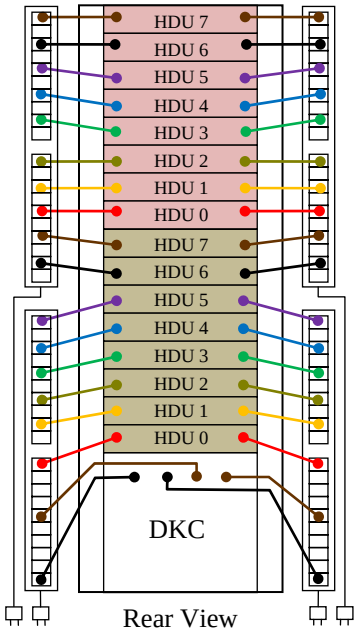
Pattern ③:HP Model H5M58A/H5M68A (1 Phase)

[One DKC in a Rack]

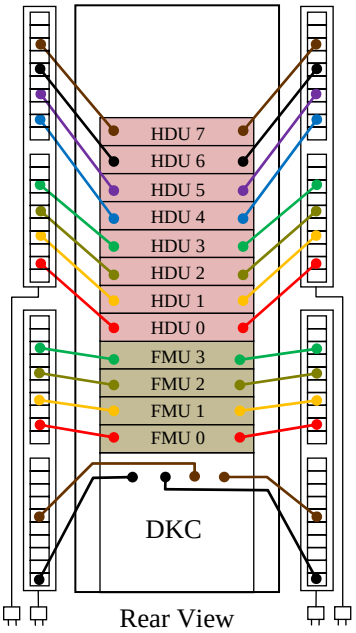
Pattern ③-C1-1



Pattern ③-C1-2

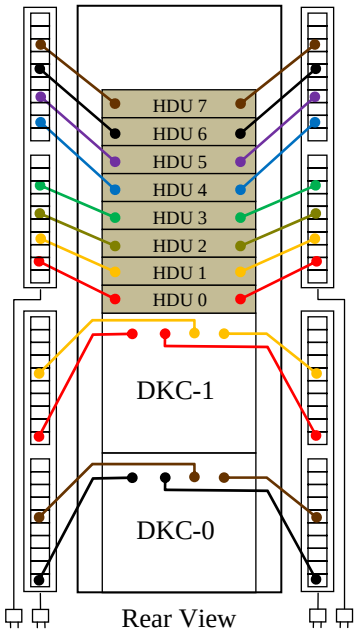


Pattern ③-C1-3



[Two DKC in a Rack]

Pattern ③-C2-1



NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

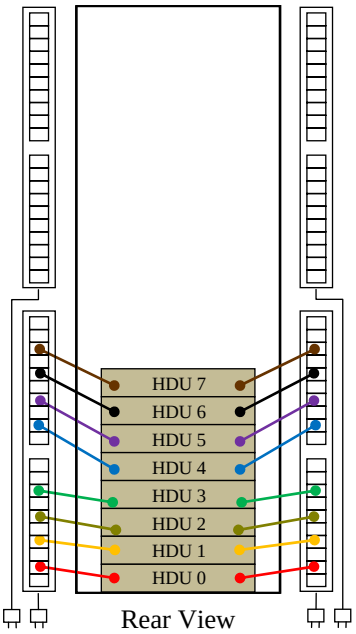
Fig. 4.9.2-7 Power Cable Connection Diagram (Pattern ③ 1/2)

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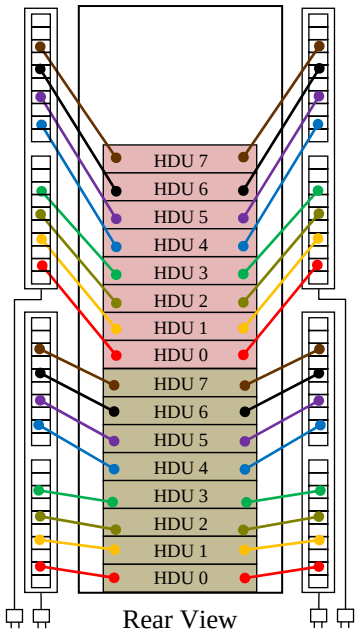
Pattern ③:HP Model H5M58A/H5M68A (1 Phase)

[Only DKU in a Rack]

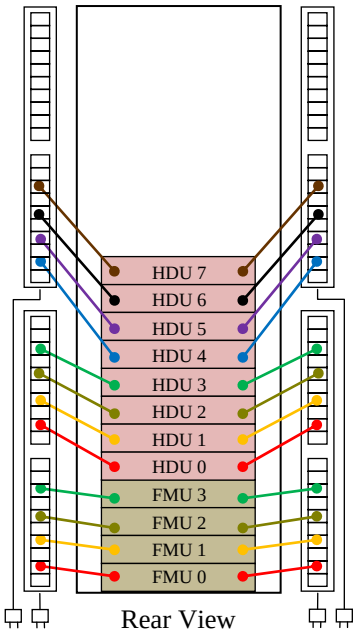
Pattern ③-U-1



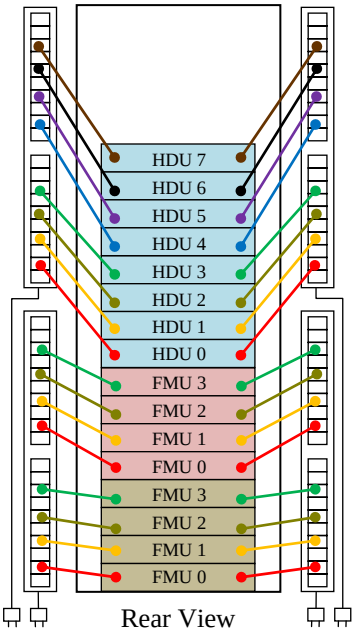
Pattern ③-U-2



Pattern ③-U-3



Pattern ③-U-4



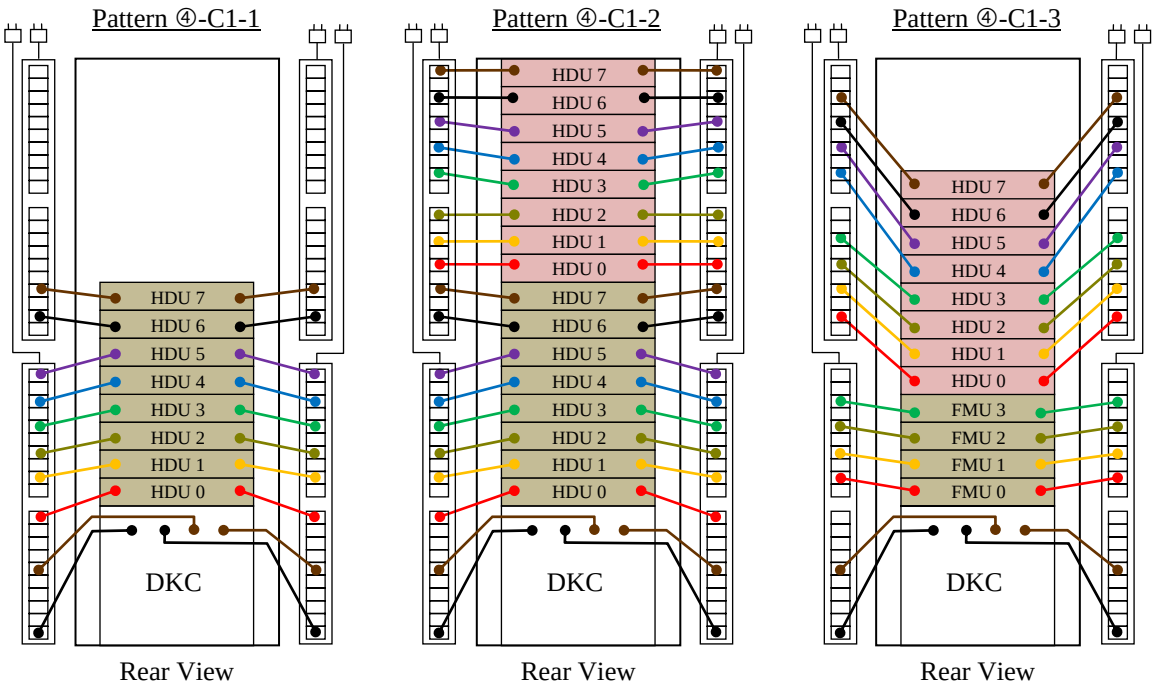
NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.2-8 Power Cable Connection Diagram (Pattern ③ 2/2)

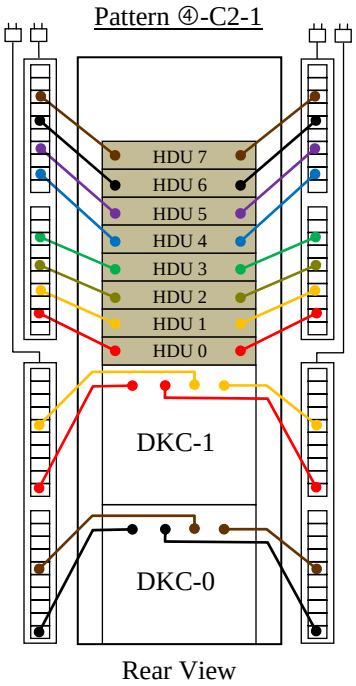
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Pattern ④:HP Model H5M58A/H5M68A (1 Phase)

[One DKC in a Rack]



[Two DKC in a Rack]



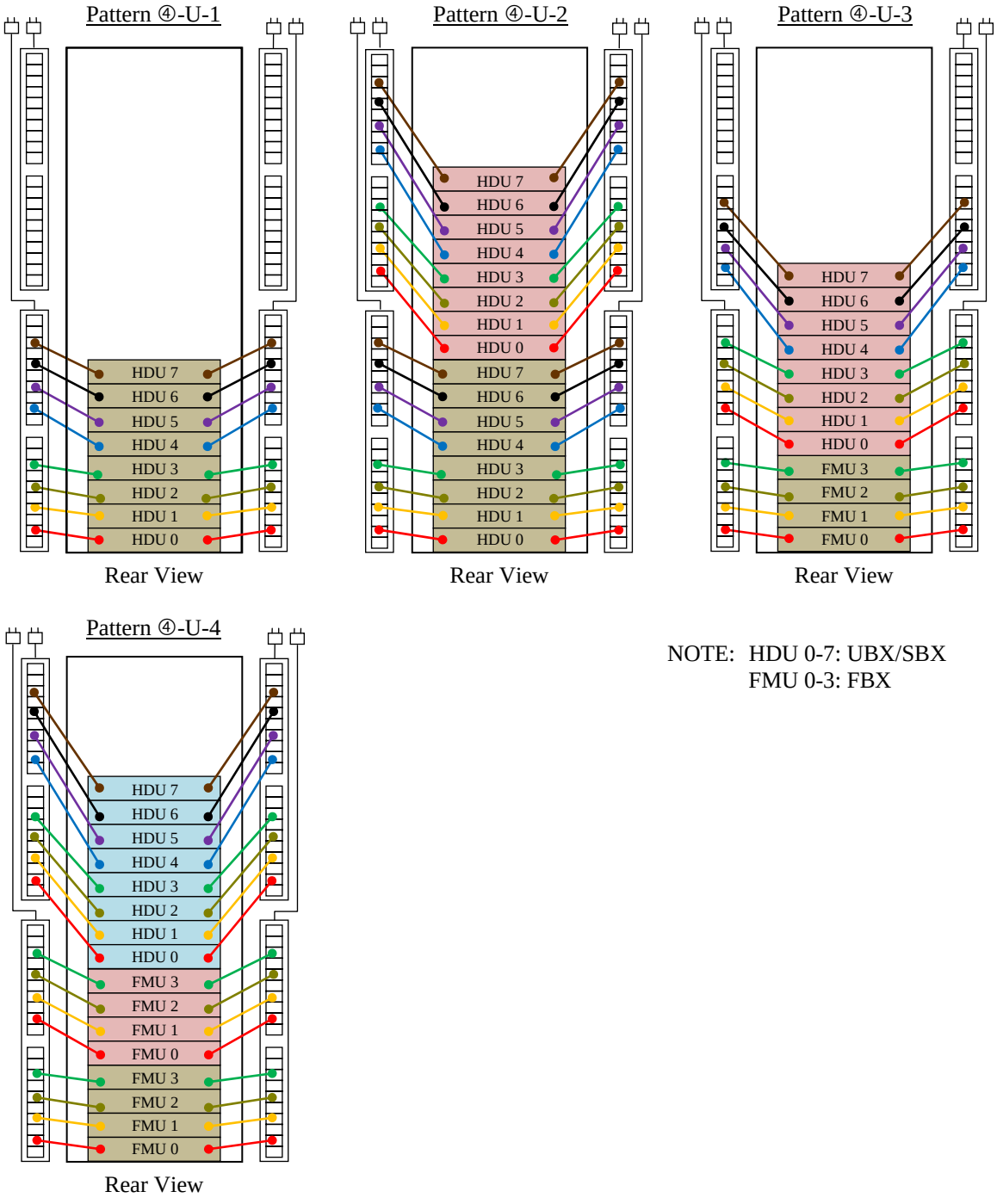
NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.2-9 Power Cable Connection Diagram (Pattern ④ 1/2)

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Pattern ④:HP Model H5M58A/H5M68A (1 Phase)

[Only DKU in a Rack]



NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.2-10 Power Cable Connection Diagram (Pattern ④ 2/2)

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b. Disconnect the 16 PS cable ASSYs from the PDUs that were confirmed in Procedure a. Cable disconnect examples are shown in Fig. 4.9.2-11 to Fig. 4.9.2-14.

[Example]

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

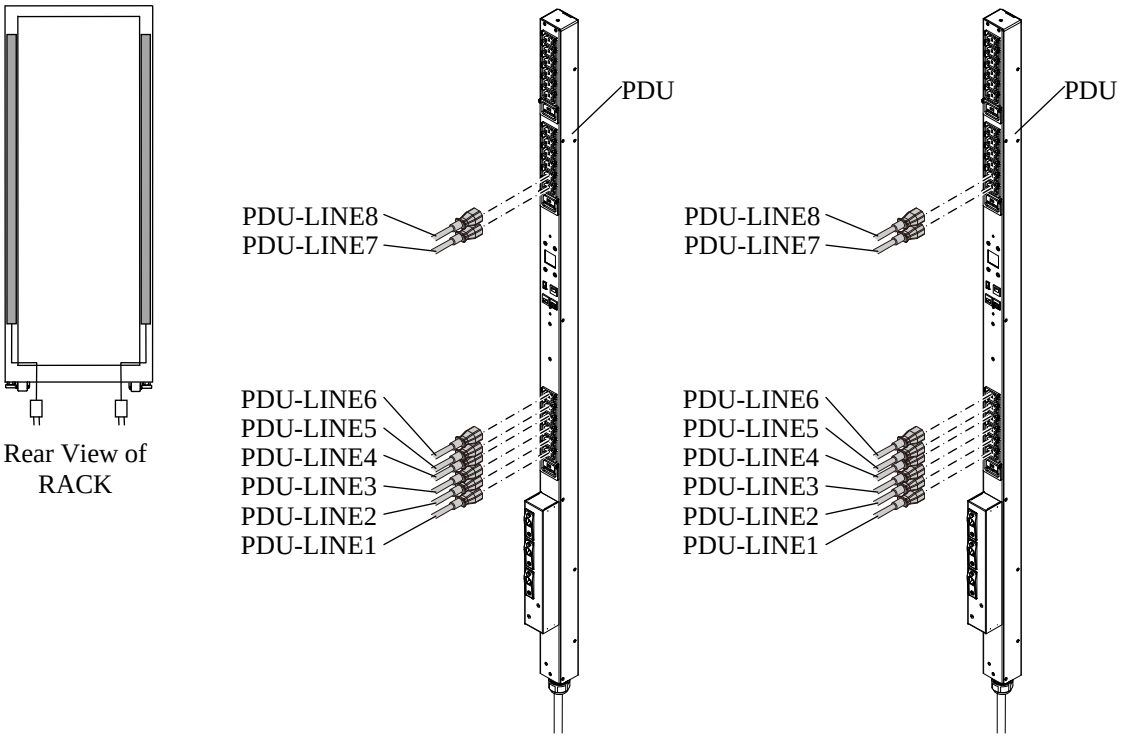


Fig. 4.9.2-11 Example of Disconnecting Cables (with PDU Cables Downside)

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[Example]

Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

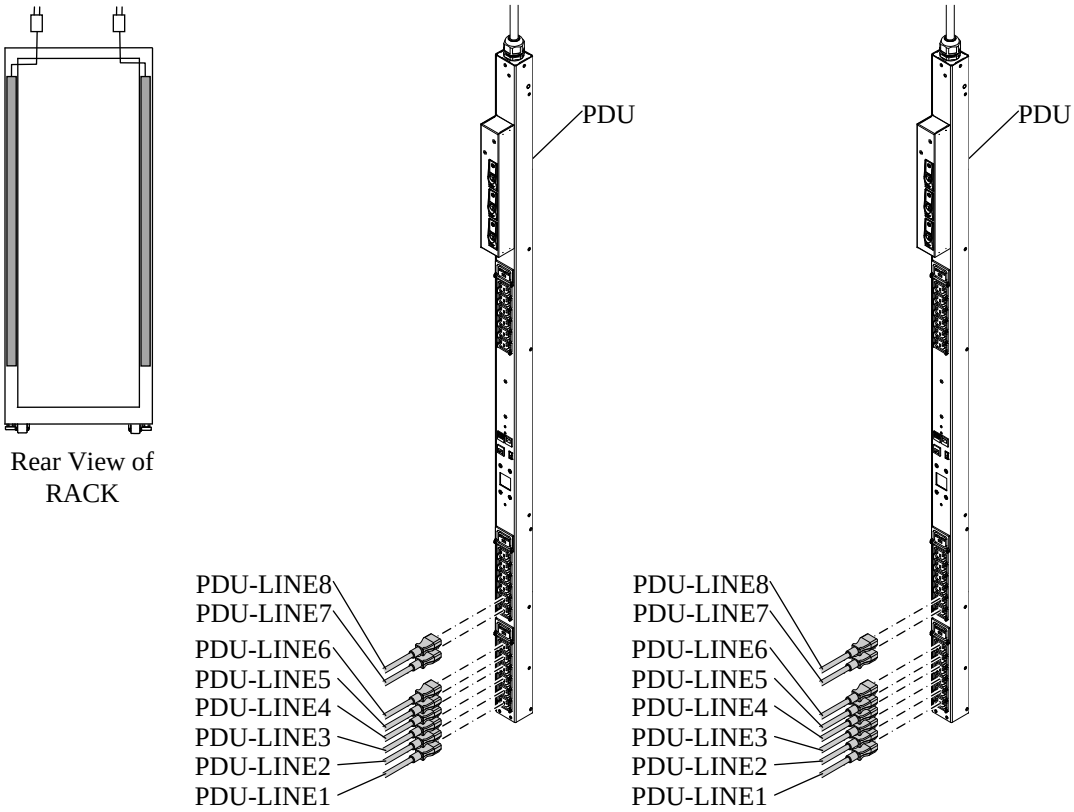


Fig. 4.9.2-12 Example of Disconnecting Cables (with PDU Cables Upside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

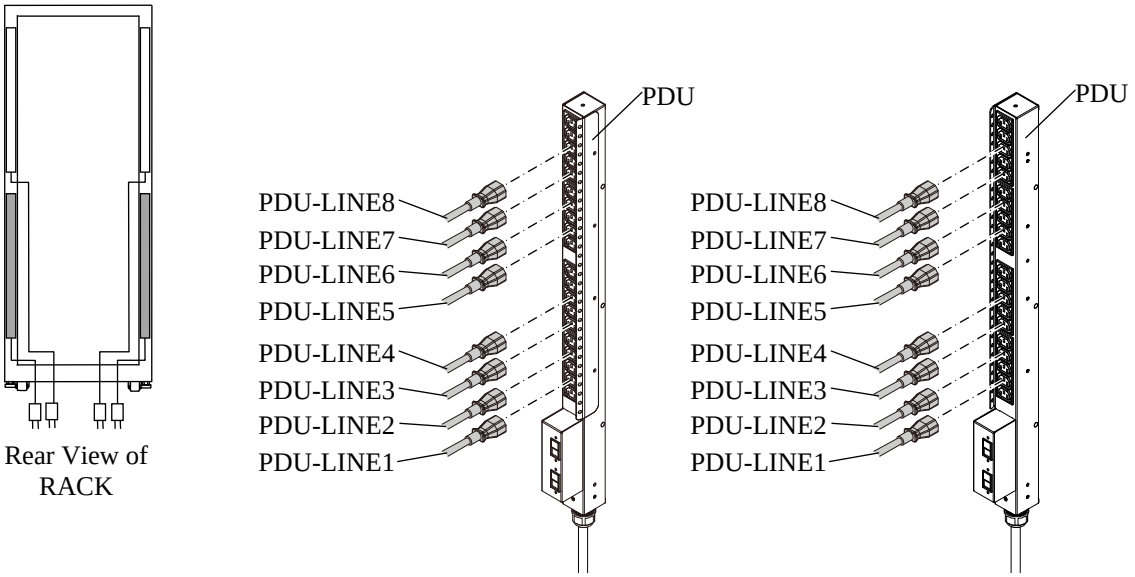


Fig. 4.9.2-13 Example of Disconnecting Cables (with PDU Cables Downside)

[Example]

Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

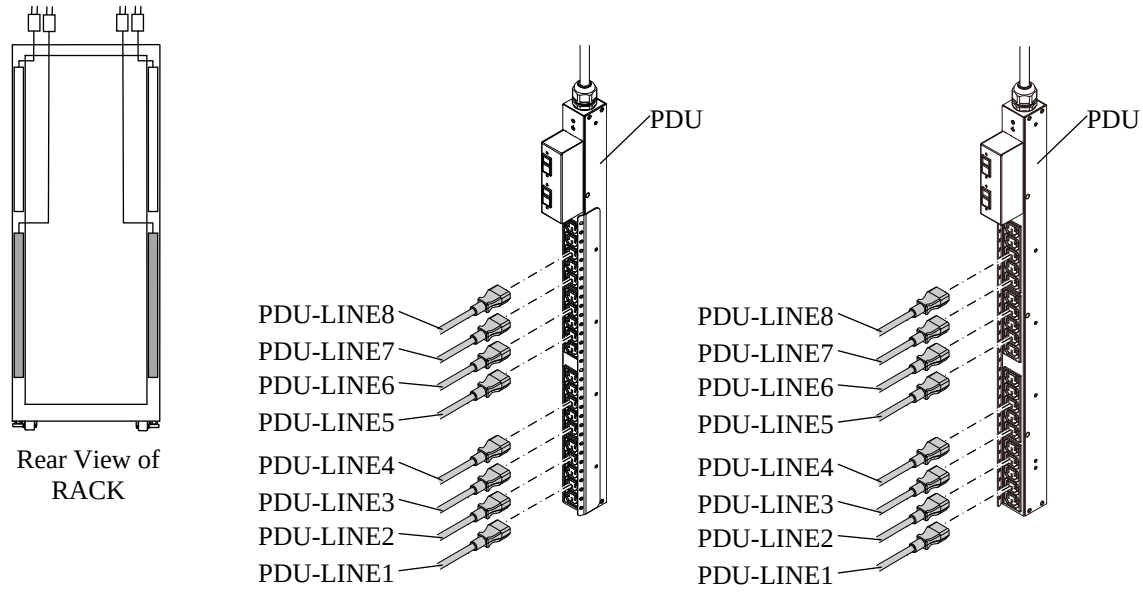


Fig. 4.9.2-14 Example of Disconnecting Cables (with PDU Cables Upside)

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c. Open the binders and remove the PS cable ASSYs from the rear side of rack. Examples of removing cables are shown in Fig. 4.9.2-15 to Fig. 4.9.2-18.

[Example]

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

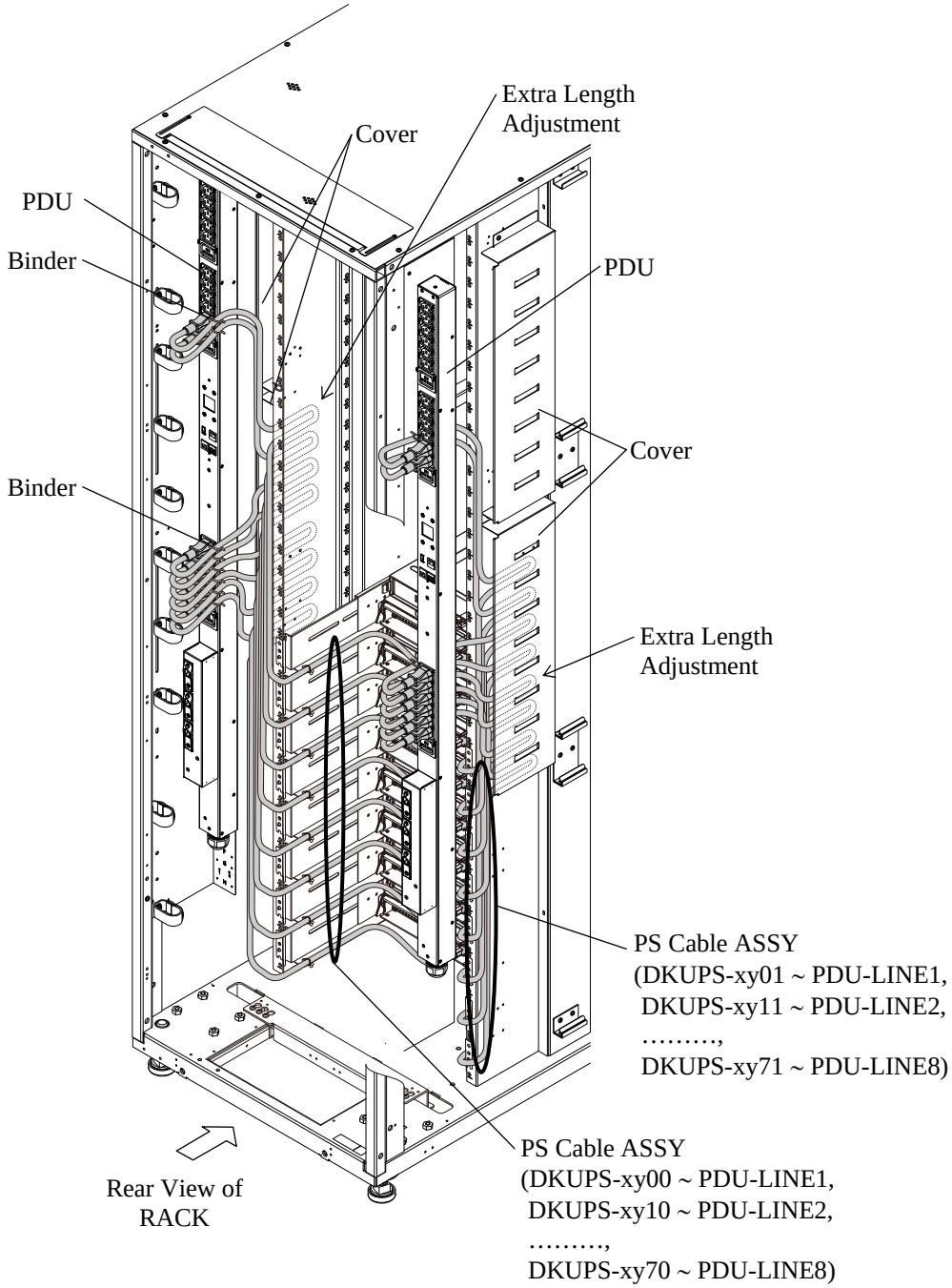


Fig. 4.9.2-15 Example of Removing Cables (with PDU Cables Downside)

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[Example]

Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

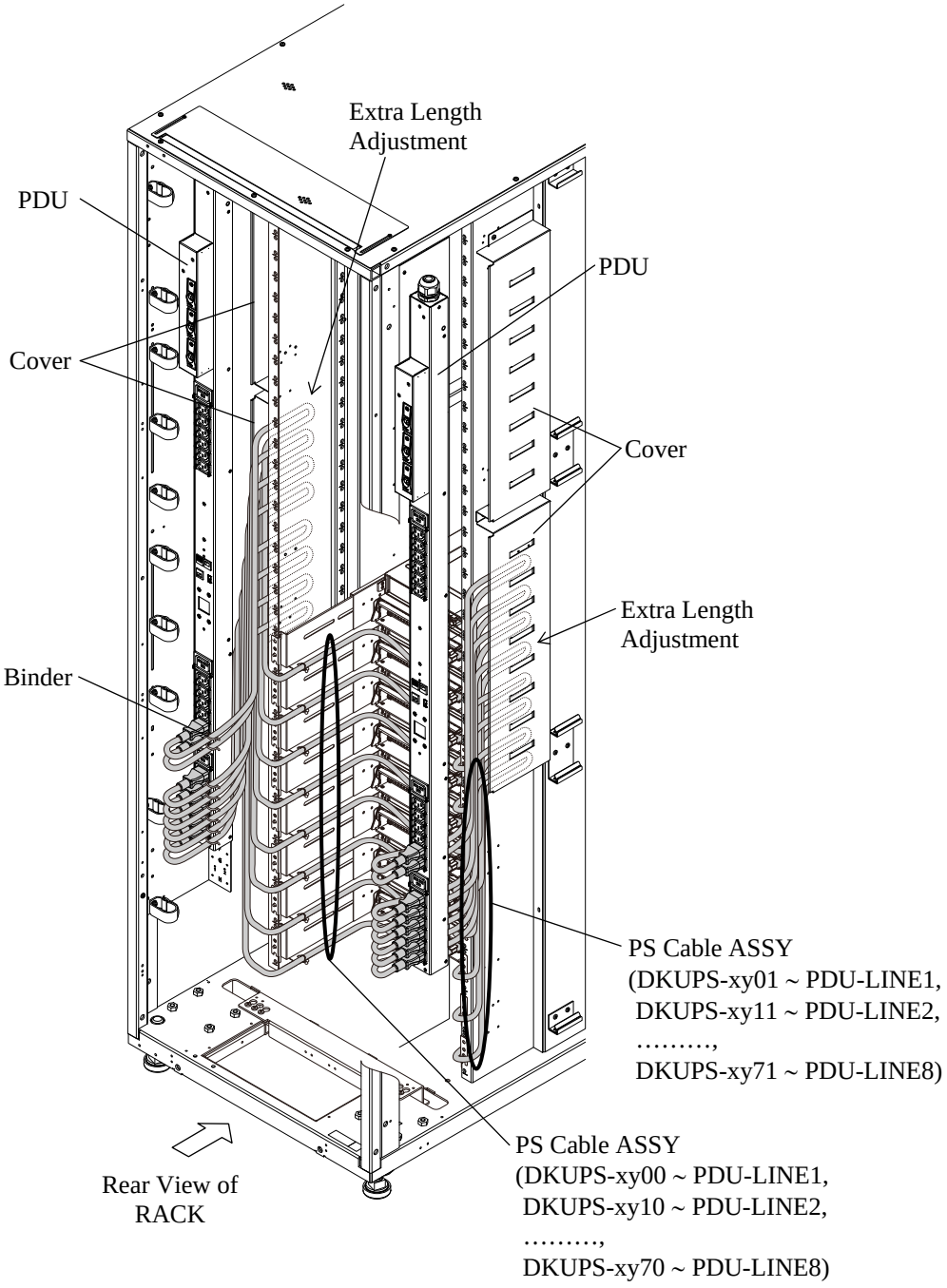


Fig. 4.9.2-16 Example of Removing Cables (with PDU Cables Upside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

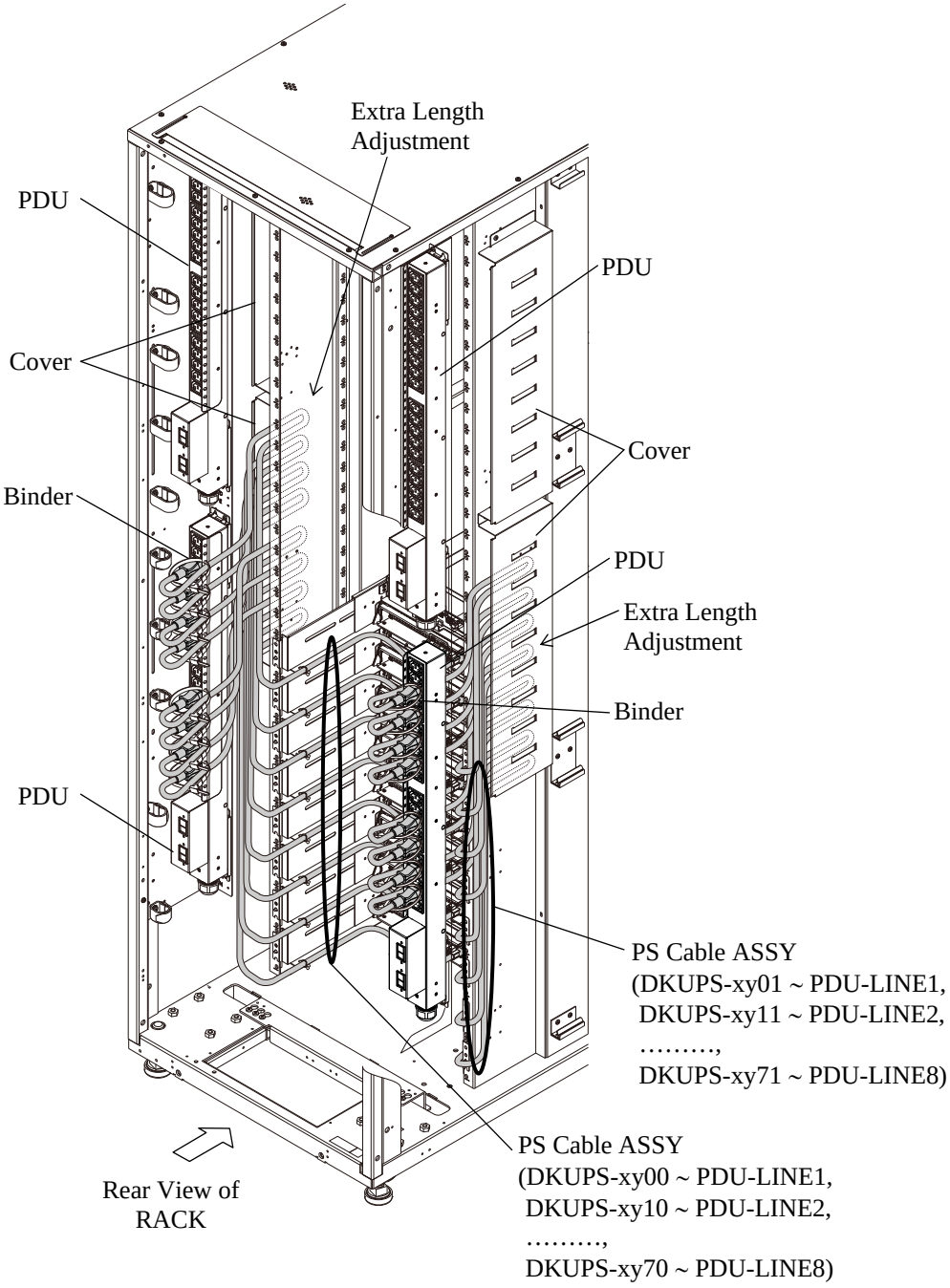


Fig. 4.9.2-17 Example of Removing Cables (with PDU Cables Downside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

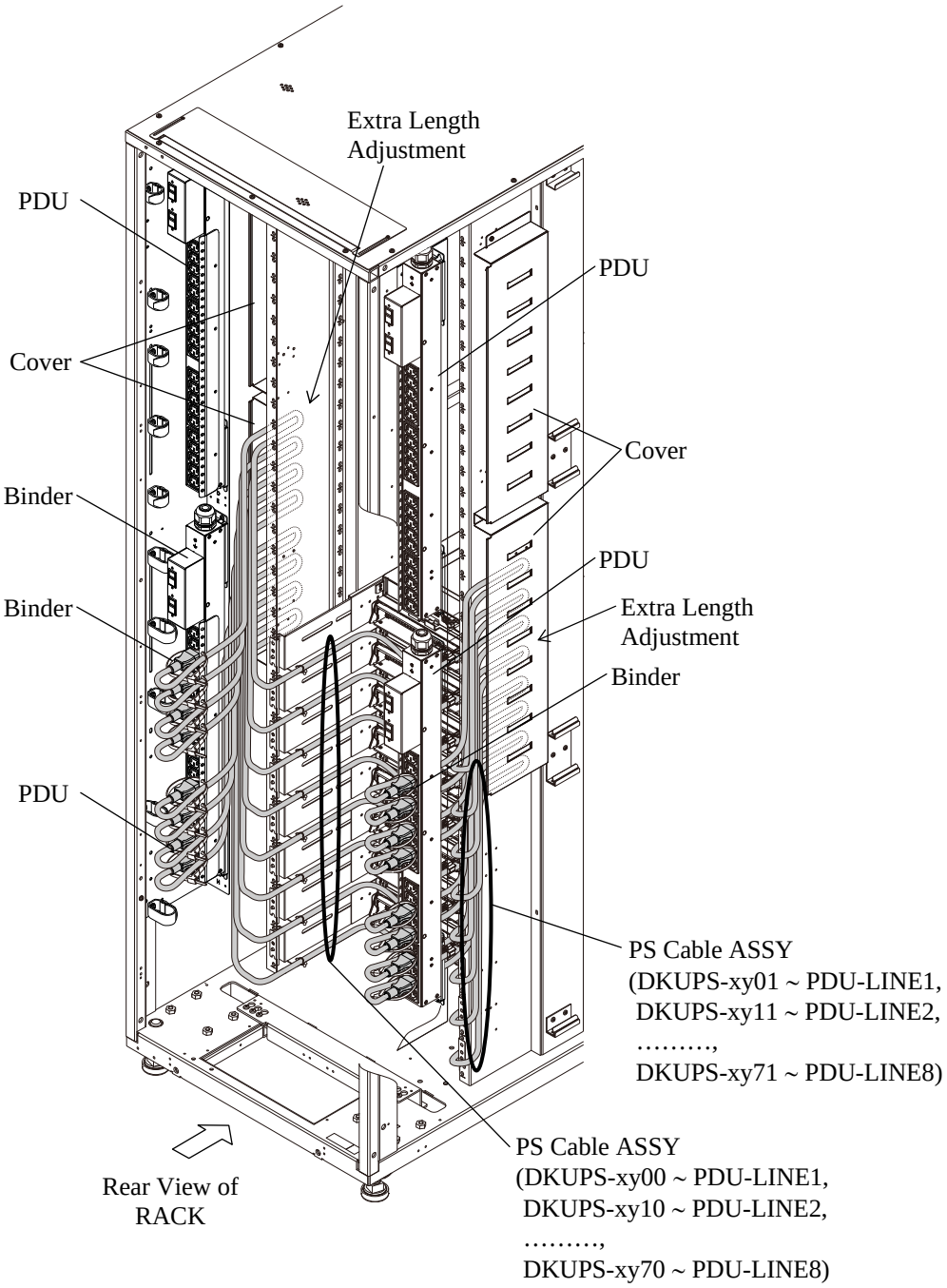


Fig. 4.9.2-18 Example of Removing Cables (with PDU Cables Upside)

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3. Removal of cables to connected DKUPS
   a. Pull and open the cable holders.
   b. Disconnect the PS cable ASSYs from the DKUPSs.

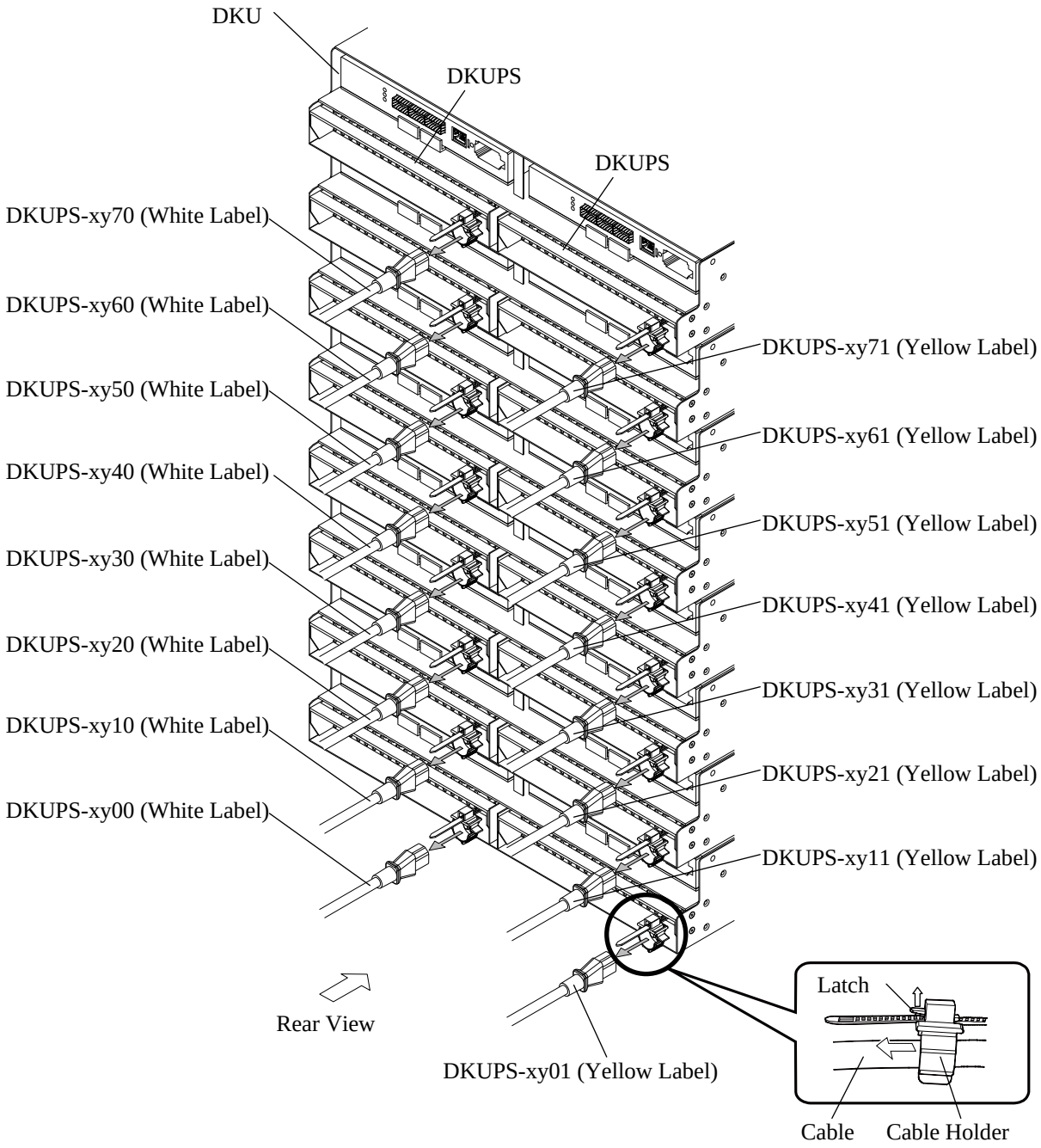


Fig. 4.9.2-19 Disconnection of Cables

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c. Remove the binders from the rails of the rear side of the rack.

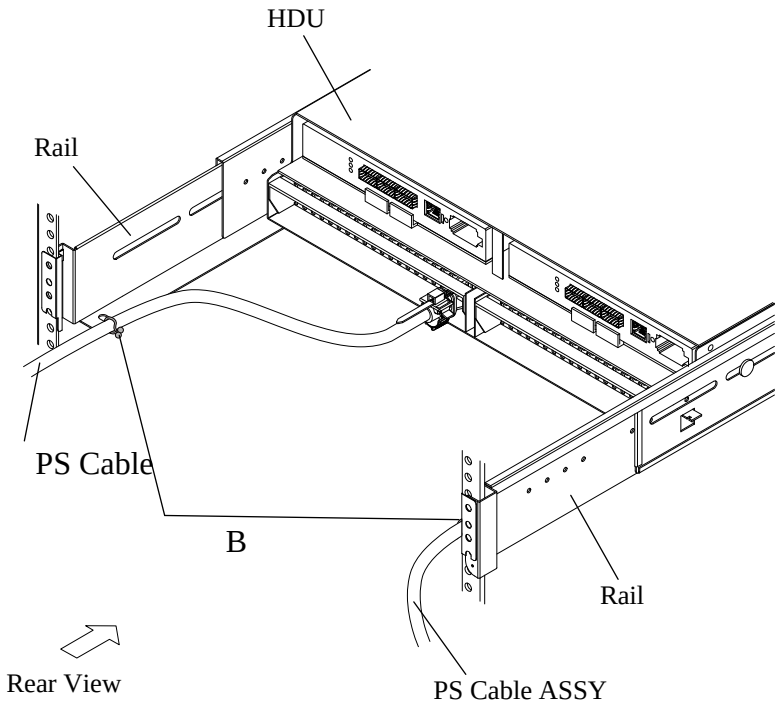


Fig. 4.9.2-20 Removal of Binders

4. Return to the working table and do the rest of the work.
Non-Disruptive De-Installation: INST02-70

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4.9.3 De-Installation of DKU (FBX) Power Cord Kit (DKC-F810I-PFUC/PFEC/PFCC)

Table 4.9.3-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-PFUC	PS Cable ASSY	3287125-A	1	1,500mm, White Label DKUPS-xy00 – PDU-LINE1
		PS Cable ASSY	3287125-B	1	1,500mm, Yellow Label DKUPS-xy01 – PDU-LINE1
		PS Cable ASSY	3287125-C	1	1,500mm, White Label DKUPS-xy10 – PDU-LINE2
		PS Cable ASSY	3287125-D	1	1,500mm, Yellow Label DKUPS-xy11 – PDU-LINE2
		PS Cable ASSY	3287125-E	1	1,500mm, White Label DKUPS-xy20 – PDU-LINE3
		PS Cable ASSY	3287125-F	1	1,500mm, Yellow Label DKUPS-xy21 – PDU-LINE3
		PS Cable ASSY	3287125-G	1	1,500mm, White Label DKUPS-xy30 – PDU-LINE4
		PS Cable ASSY	3287125-H	1	1,500mm, Yellow Label DKUPS-xy31 – PDU-LINE4
		Repeat Binder	5409042-3	4	
2	DKC-F810I-PFEC	PS Cable ASSY	3287127-A	1	1,500mm, White Label DKUPS-xy00 – PDU-LINE1
		PS Cable ASSY	3287127-B	1	1,500mm, Yellow Label DKUPS-xy01 – PDU-LINE1
		PS Cable ASSY	3287127-C	1	1,500mm, White Label DKUPS-xy10 – PDU-LINE2
		PS Cable ASSY	3287127-D	1	1,500mm, Yellow Label DKUPS-xy11 – PDU-LINE2
		PS Cable ASSY	3287127-E	1	1,500mm, White Label DKUPS-xy20 – PDU-LINE3
		PS Cable ASSY	3287127-F	1	1,500mm, Yellow Label DKUPS-xy21 – PDU-LINE3
		PS Cable ASSY	3287127-G	1	1,500mm, White Label DKUPS-xy30 – PDU-LINE4
		PS Cable ASSY	3287127-H	1	1,500mm, Yellow Label DKUPS-xy31 – PDU-LINE4
		Repeat Binder	5409042-3	4	

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
3	DKC-F810I-PFCC	PS Cable ASSY	3287129-A	1	1,500mm, White Label DKUPS-xy00 – PDU-LINE1
		PS Cable ASSY	3287129-B	1	1,500mm, Yellow Label DKUPS-xy01 – PDU-LINE1
		PS Cable ASSY	3287129-C	1	1,500mm, White Label DKUPS-xy10 – PDU-LINE2
		PS Cable ASSY	3287129-D	1	1,500mm, Yellow Label DKUPS-xy11 – PDU-LINE2
		PS Cable ASSY	3287129-E	1	1,500mm, White Label DKUPS-xy20 – PDU-LINE3
		PS Cable ASSY	3287129-F	1	1,500mm, Yellow Label DKUPS-xy21 – PDU-LINE3
		PS Cable ASSY	3287129-G	1	1,500mm, White Label DKUPS-xy30 – PDU-LINE4
		PS Cable ASSY	3287129-H	1	1,500mm, Yellow Label DKUPS-xy31 – PDU-LINE4
		Repeat Binder	5409042-3	4	

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1. Confirmation of Removal Position
   a. Refer to following figure to confirm the connection location of DKU Power cord on DKU. Take care not to remove a wrong DKU Power cord, which will cause Power-OFF of a wrong DKU.

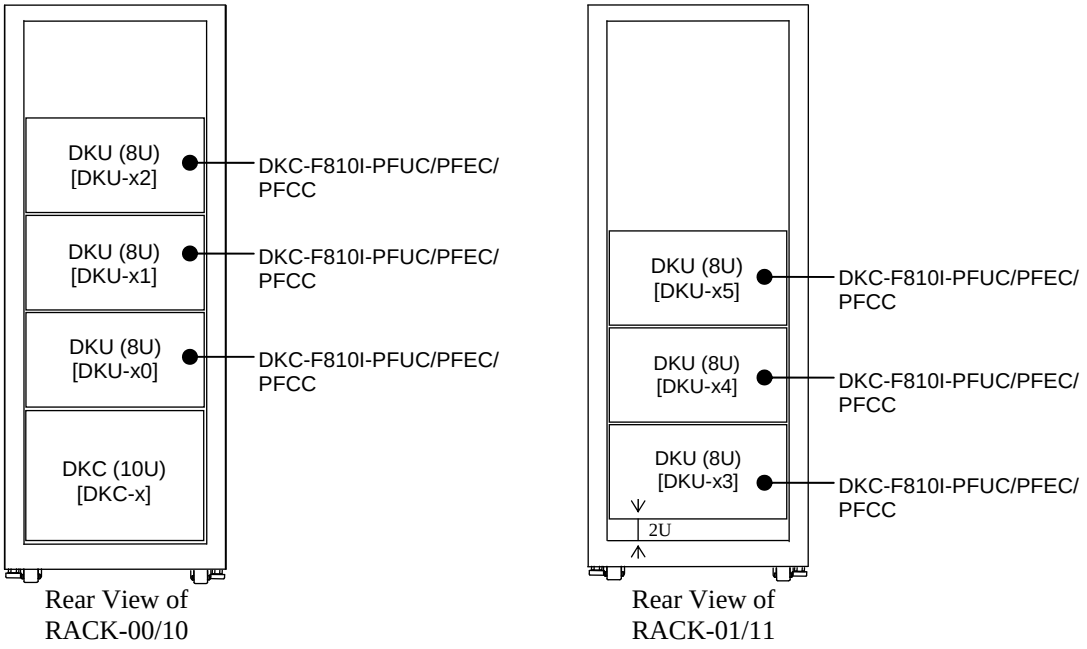


Fig. 4.9.3-1 Mounting Location of DKU Power Cord

   b. Confirm the PDU patterns that are installed in the RACK.

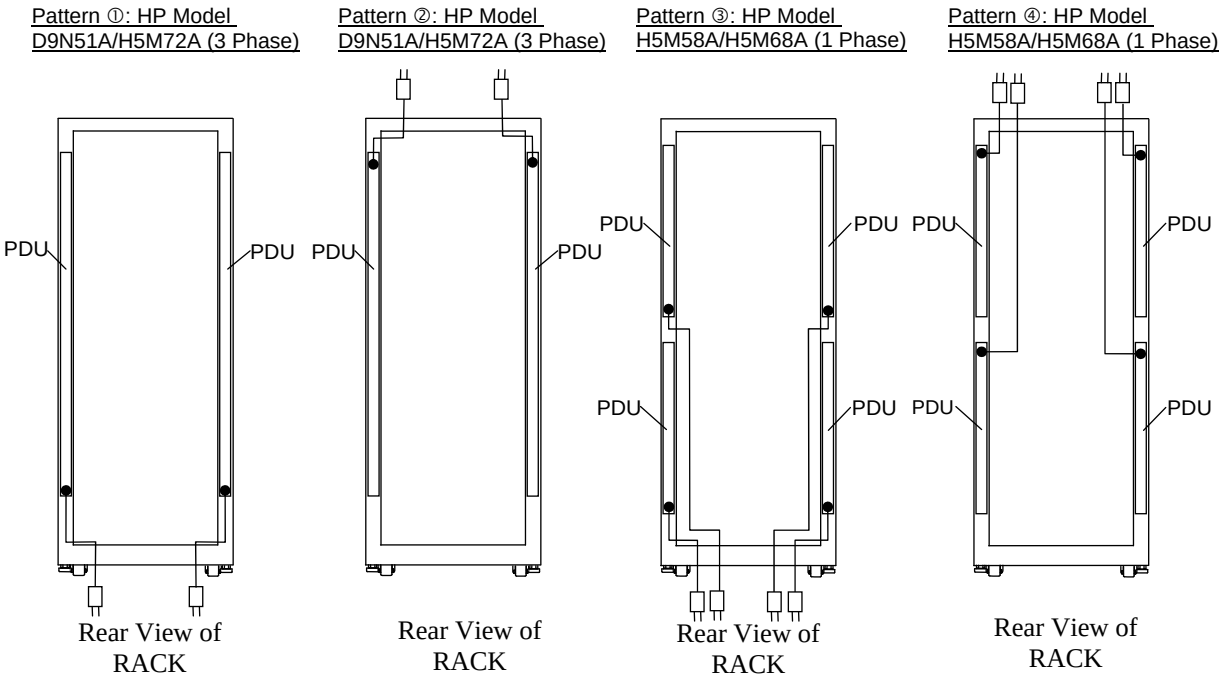


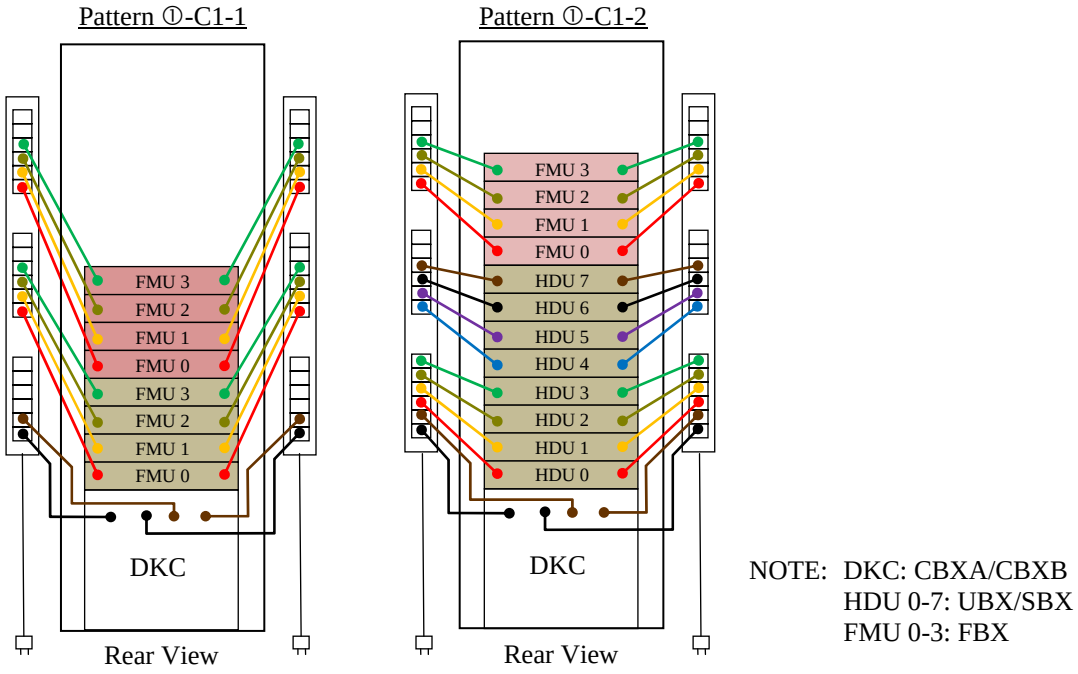
Fig. 4.9.3-2 PDU Pattern

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2. Removal of cable connected to PDU
   a. Choose a rack configuration from the Power Cable Connection Diagram in Fig. 4.9.3-3 to Fig. 4.9.3-10 and confirm the location of the power cable connection for the installed DKU.

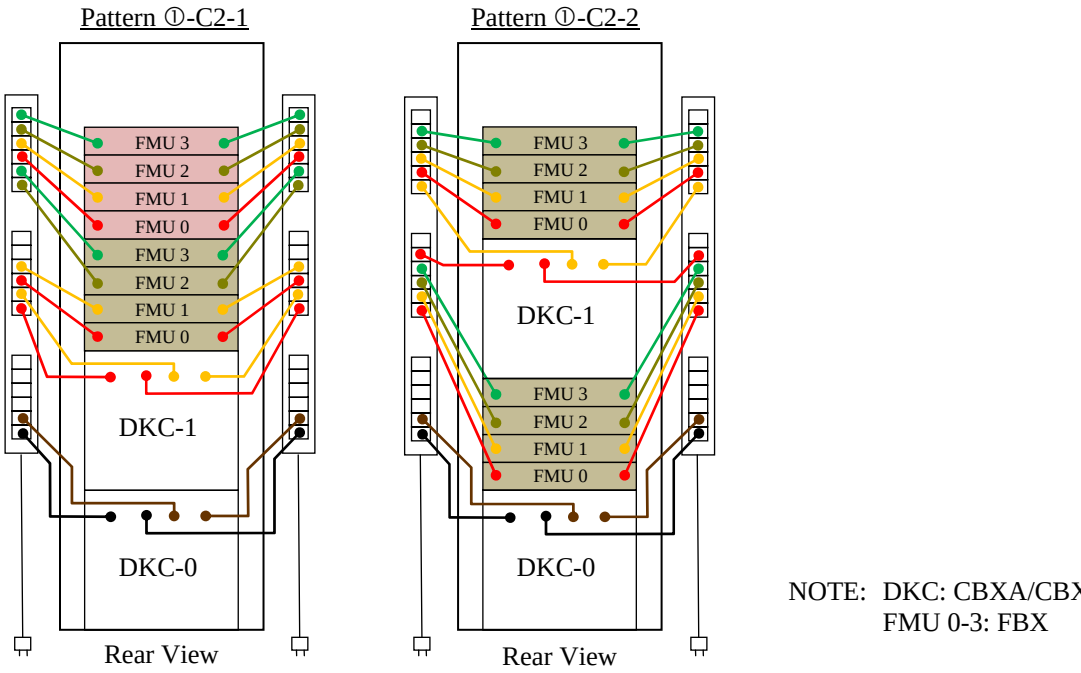
Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

[One DKC in a Rack]



NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

[Two DKC in a Rack]



NOTE: DKC: CBXA/CBXB
FMU 0-3: FBX

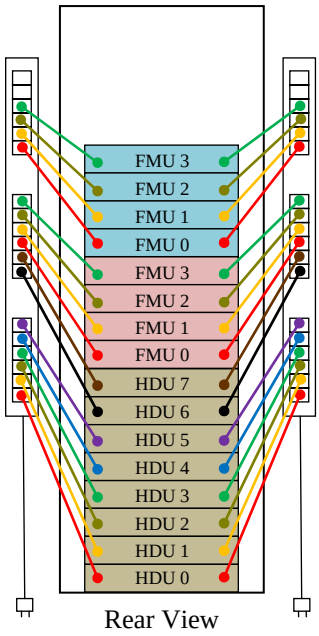
Fig. 4.9.3-3 Power Cable Connection Diagram (Pattern ① 1/2)

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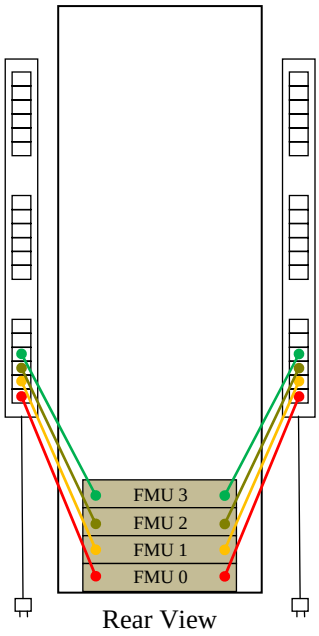
Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

[Only DKU in a Rack]

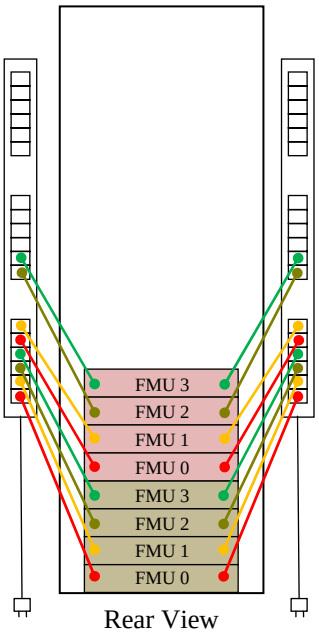
Pattern ①-U-1



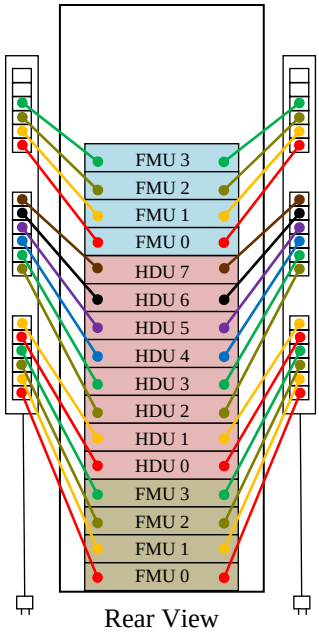
Pattern ①-U-2



Pattern ①-U-3



Pattern ①-U-4



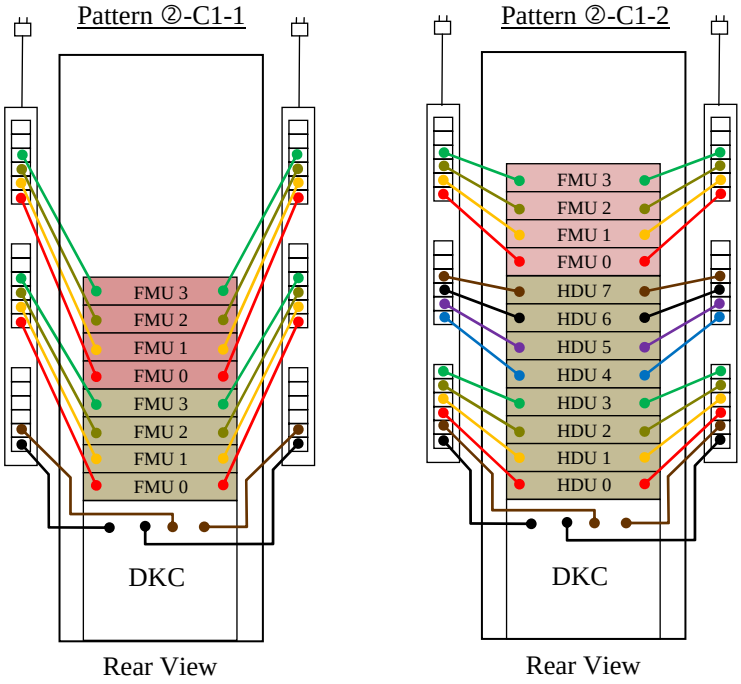
NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.3-4 Power Cable Connection Diagram (Pattern ① 2/2)

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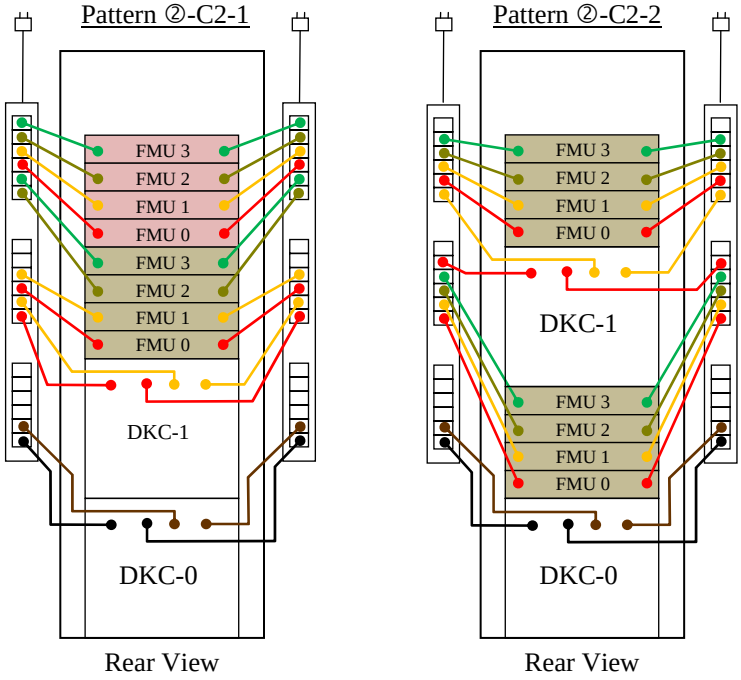
Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

[One DKC in a Rack]



NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

[Two DKC in a Rack]



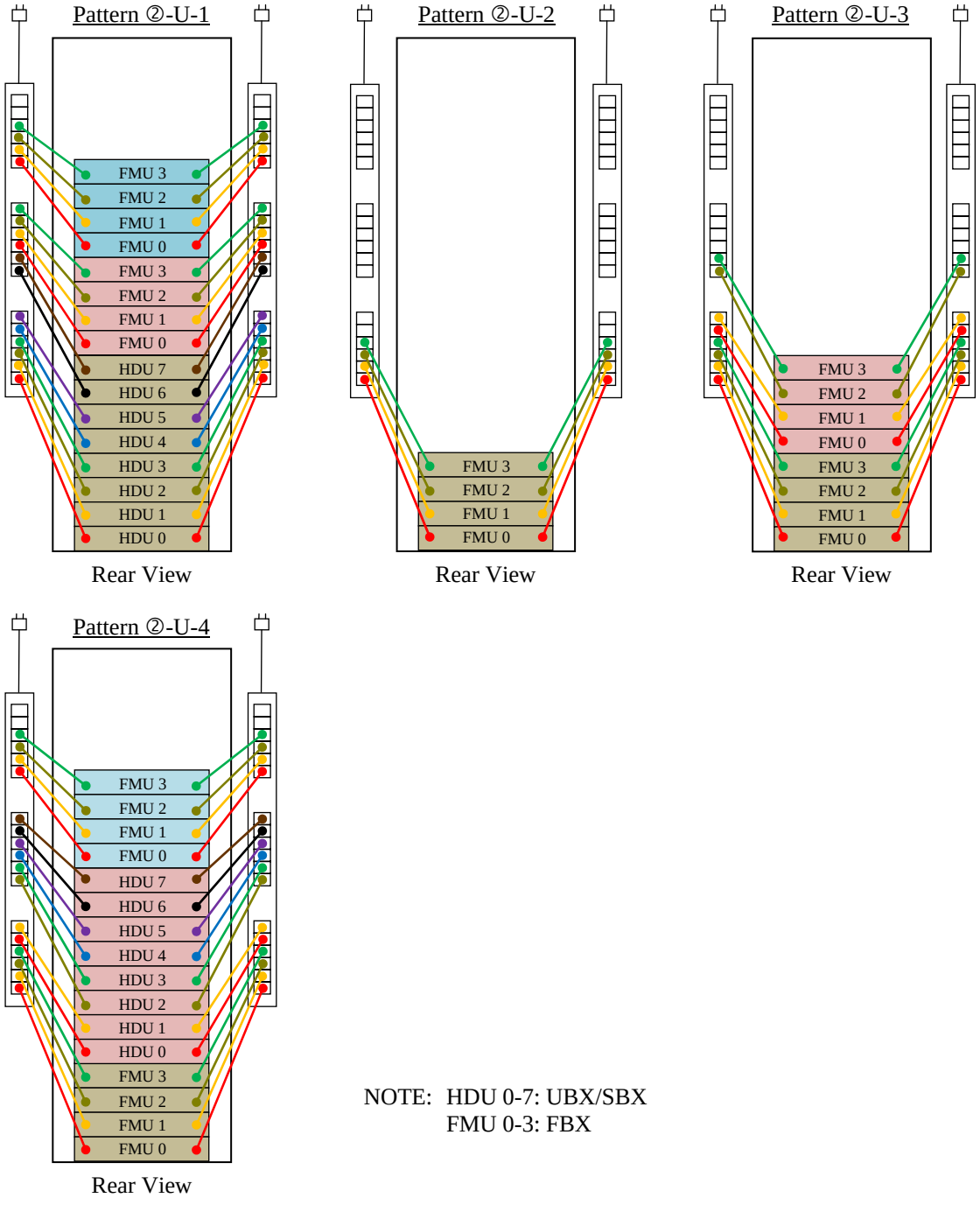
NOTE: DKC: CBXA/CBXB
FMU 0-3: FBX

Fig. 4.9.3-5 Power Cable Connection Diagram (Pattern ② 1/2)

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Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

[Only DKU in a Rack]



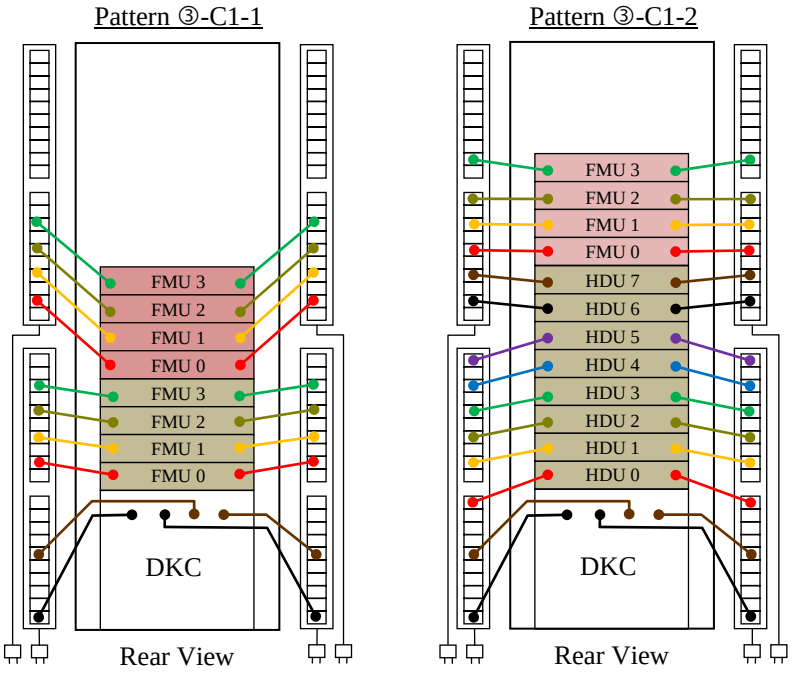
NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.3-6 Power Cable Connection Diagram (Pattern ② 2/2)

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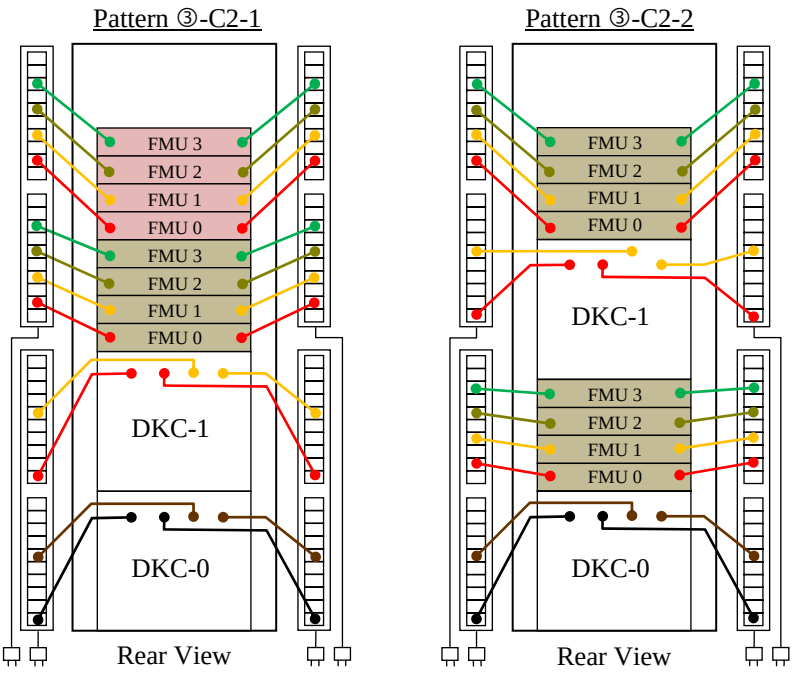
Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

[One DKC in a Rack]



NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

[Two DKC in a Rack]



NOTE: DKC: CBXA/CBXB
FMU 0-3: FBX

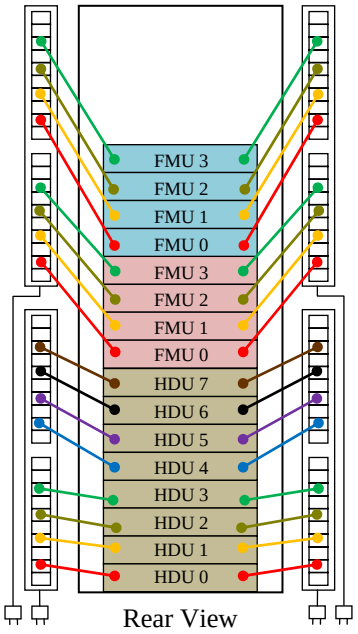
Fig. 4.9.3-7 Power Cable Connection Diagram (Pattern ③ 1/2)

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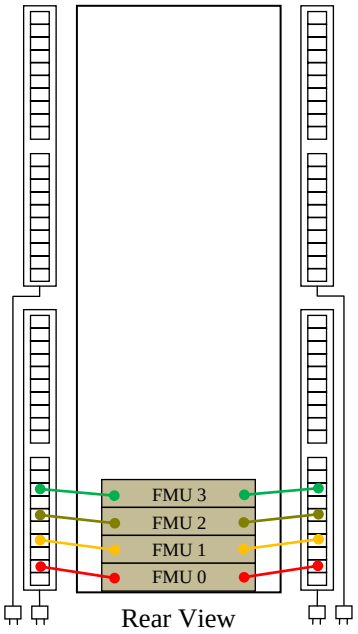
Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

[Only DKU in a Rack]

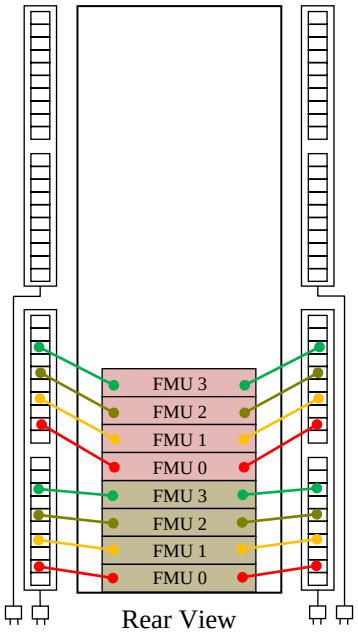
Pattern ③-U-1



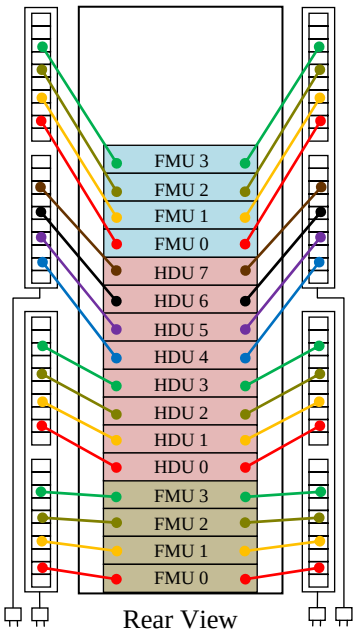
Pattern ③-U-2



Pattern ③-U-3



Pattern ③-U-4



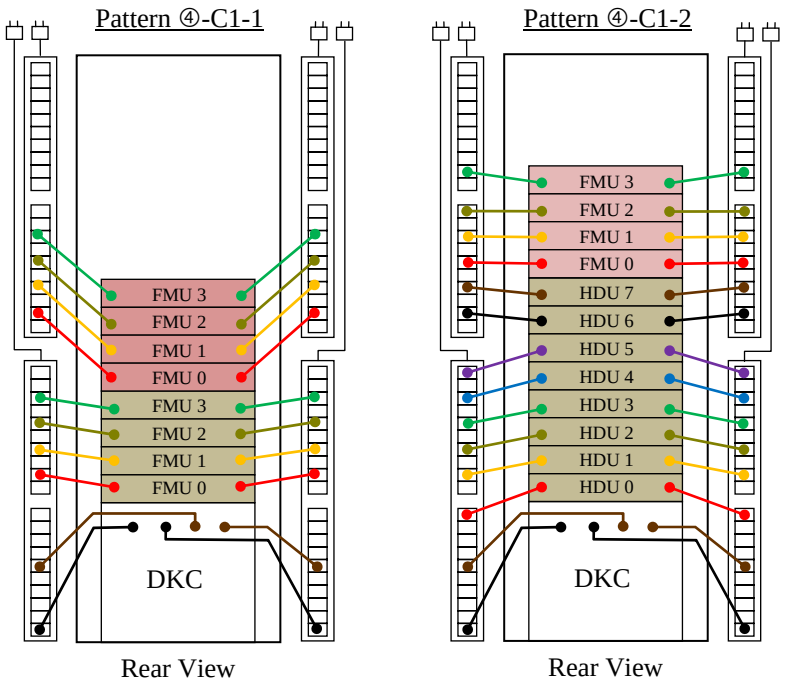
NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.3-8 Power Cable Connection Diagram (Pattern ③ 2/2)

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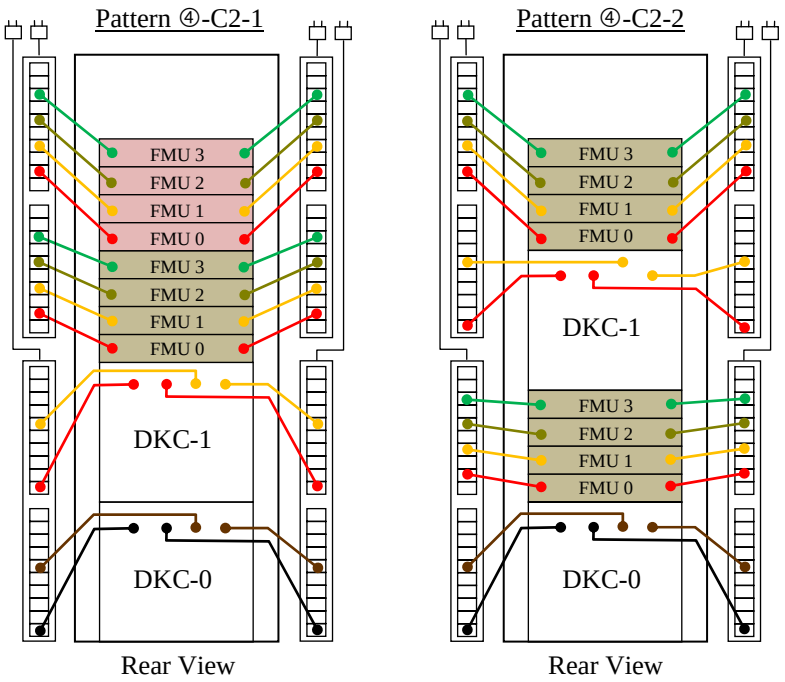
Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

[One DKC in a Rack]



NOTE: DKC: CBXA/CBXB
HDU 0-7: UBX/SBX
FMU 0-3: FBX

[Two DKC in a Rack]



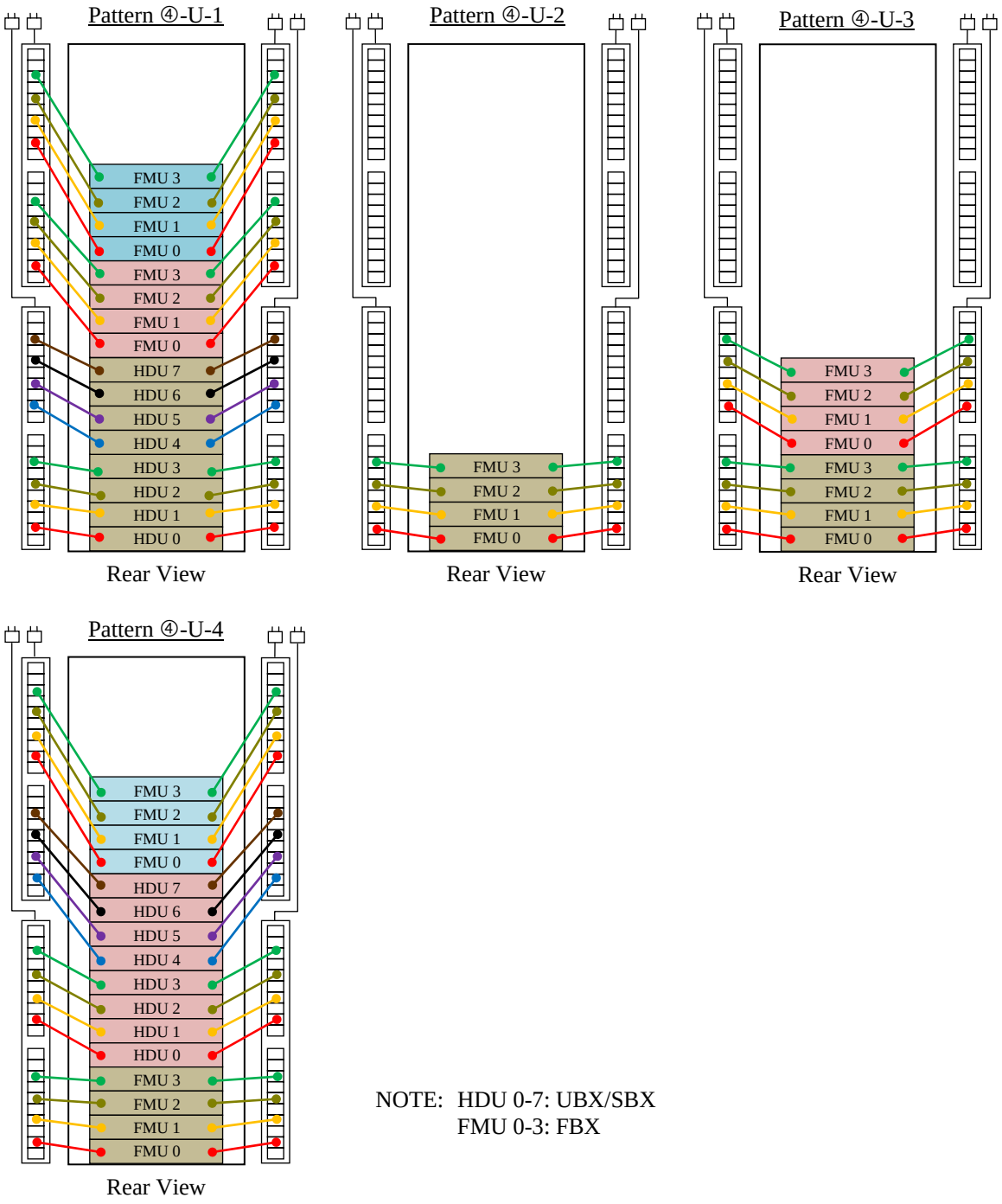
NOTE: DKC: CBXA/CBXB
FMU 0-3: FBX

Fig. 4.9.3-9 Power Cable Connection Diagram (Pattern ④ 1/2)

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Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

[Only DKU in a Rack]



NOTE: HDU 0-7: UBX/SBX
FMU 0-3: FBX

Fig. 4.9.3-10 Power Cable Connection Diagram (Pattern ④ 2/2)

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b. Disconnect the eight PS cable ASSYs from the PDUs that were confirmed in Procedure a. Cable disconnect examples are shown in Fig. 4.9.3-11 to Fig. 4.9.3-14.

[Example]

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

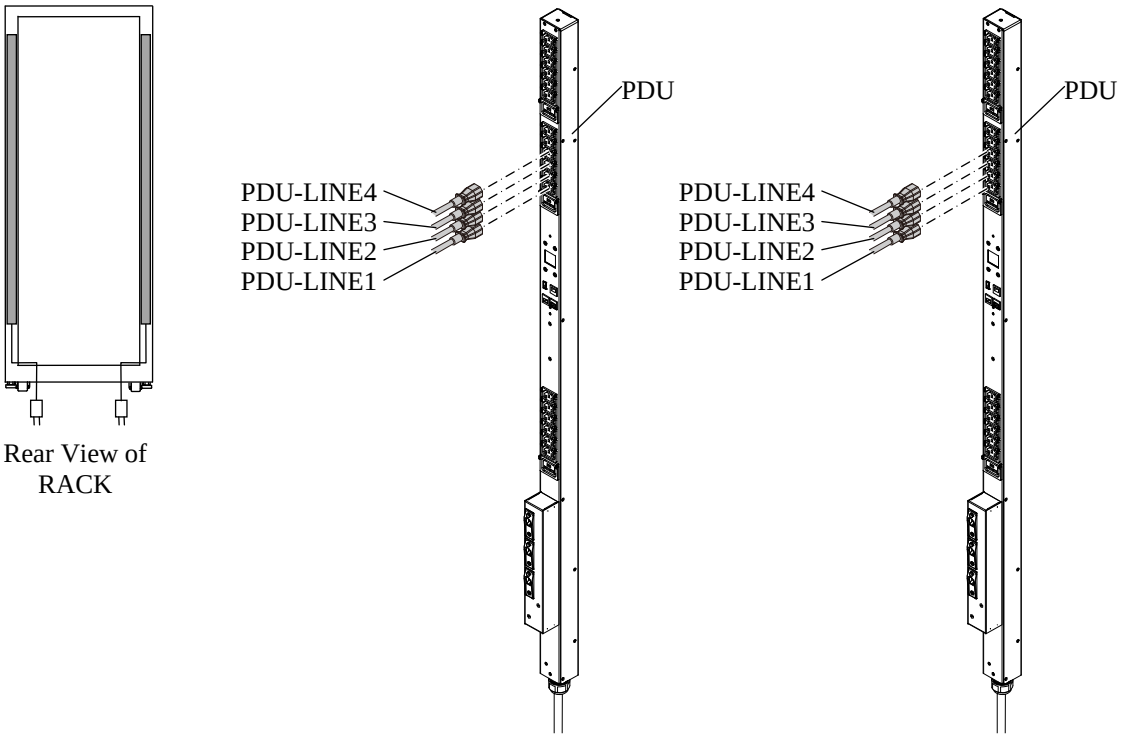


Fig. 4.9.3-11 Example of Disconnecting Cables (with PDU Cables Downside)

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[Example]

Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

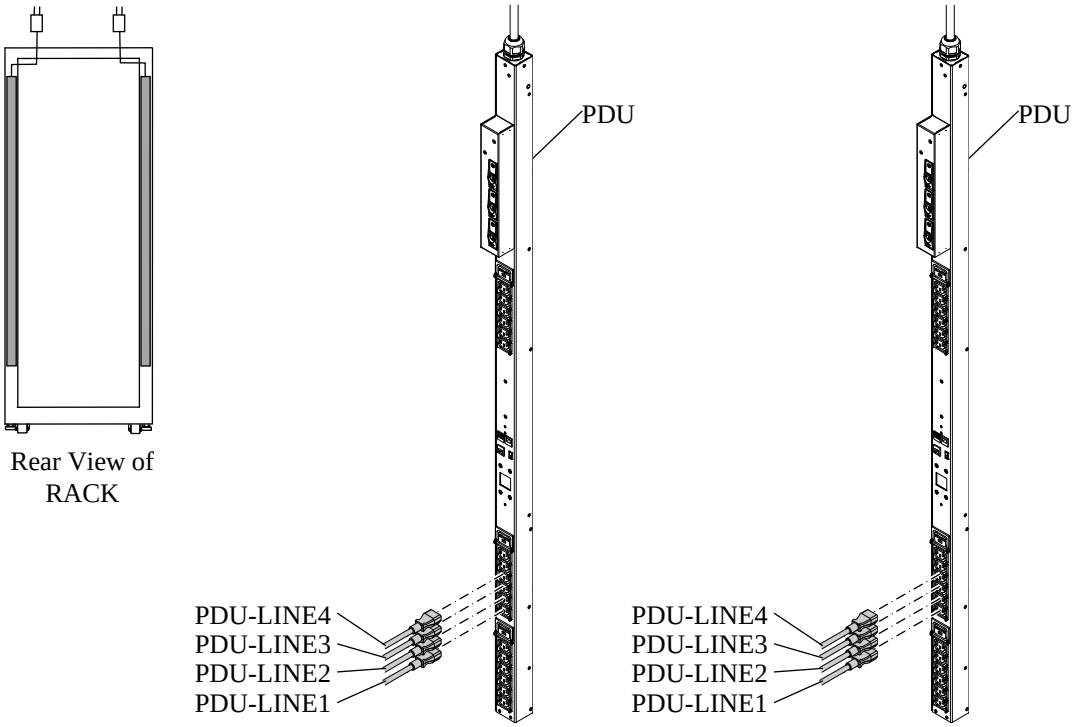


Fig. 4.9.3-12 Example of Disconnecting Cables (with PDU Cables Upside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

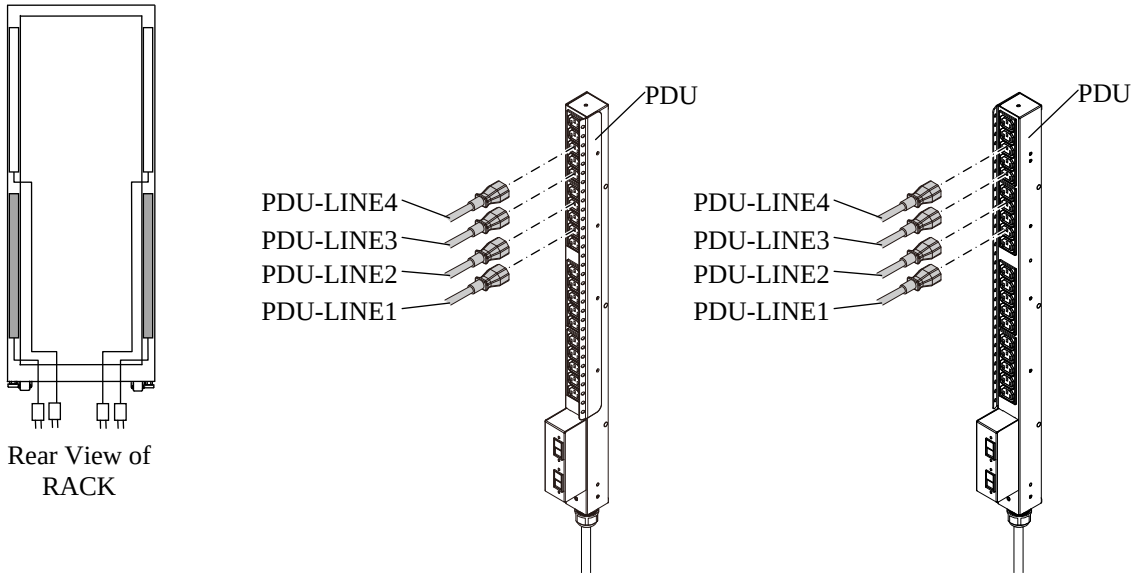


Fig. 4.9.3-13 Example of Disconnecting Cables (with PDU Cables Downside)

[Example]

Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

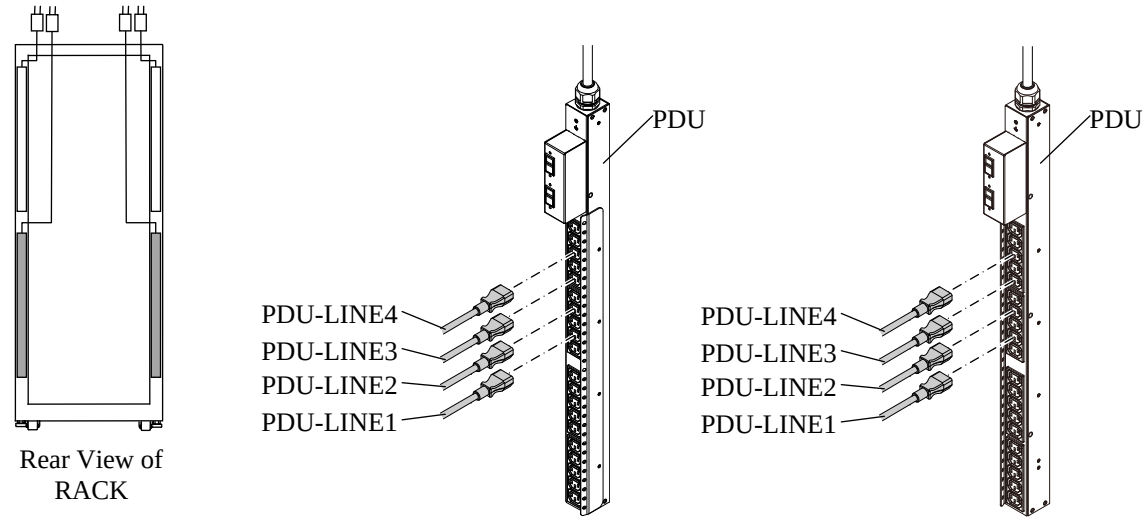


Fig. 4.9.3-14 Example of Disconnecting Cables (with PDU Cables Upside)

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c. Open the binders and remove the PS cable ASSYs from the rear side of rack. Examples of removing cables are shown in Fig. 4.9.3-15 to Fig. 4.9.3-18.

[Example]

Pattern ①: HP Model D9N51A/H5M72A (3 Phase)

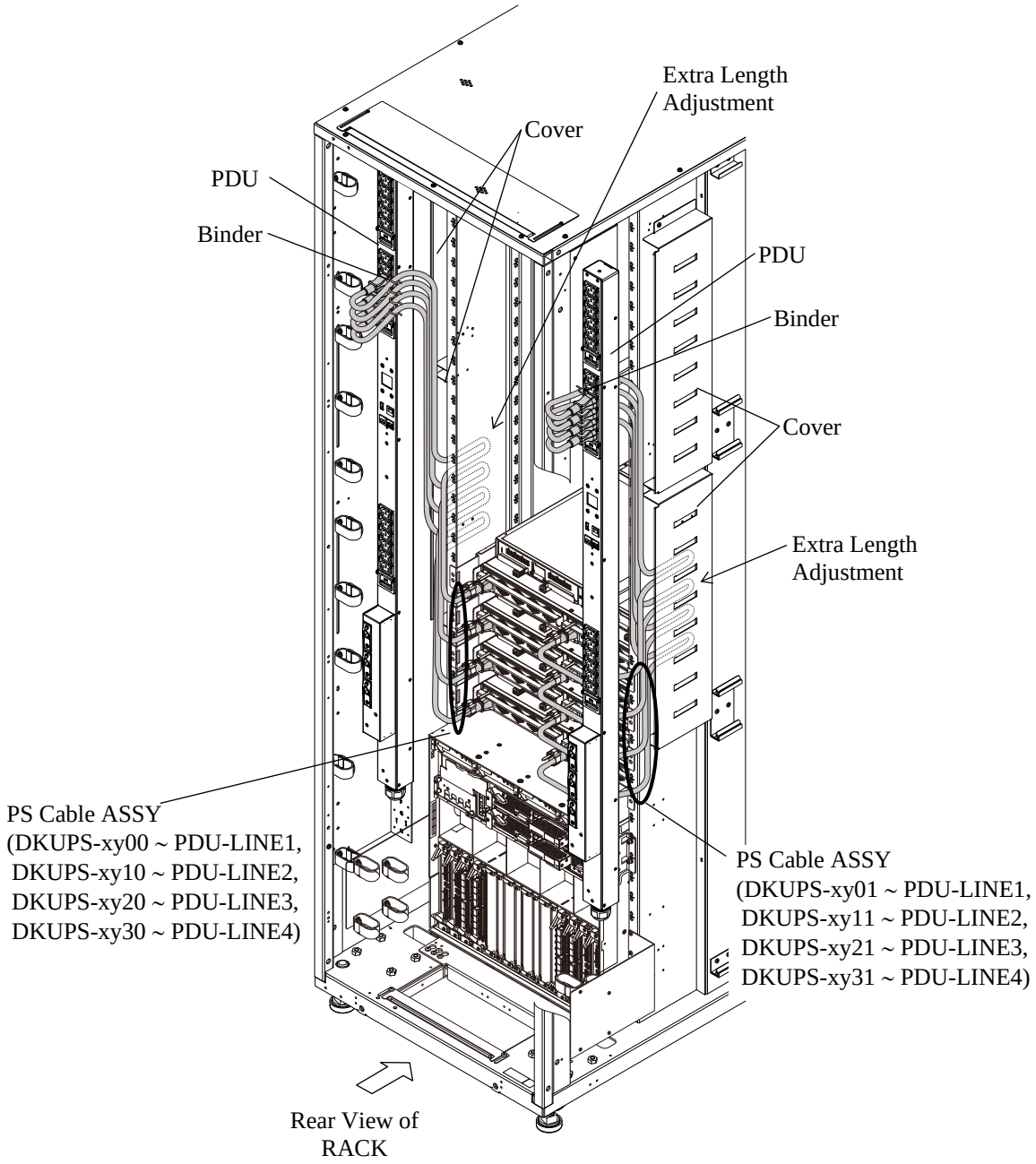


Fig. 4.9.3-15 Example of Removing Cables (with PDU Cables Downside)

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[Example]

Pattern ②: HP Model D9N51A/H5M72A (3 Phase)

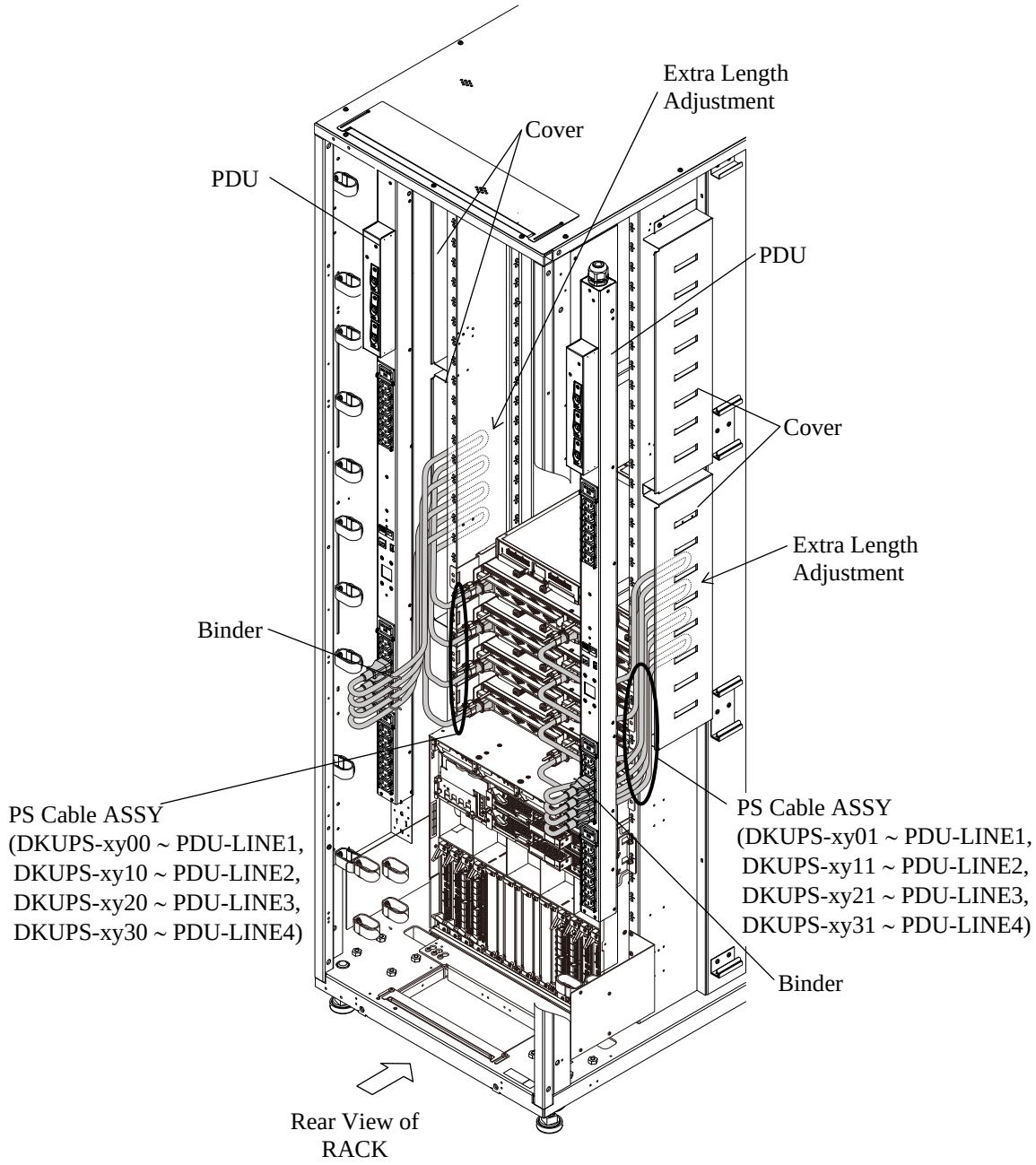


Fig. 4.9.3-16 Example of Removing Cables (with PDU Cables Upside)

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[Example]

Pattern ③: HP Model H5M58A/H5M68A (1 Phase)

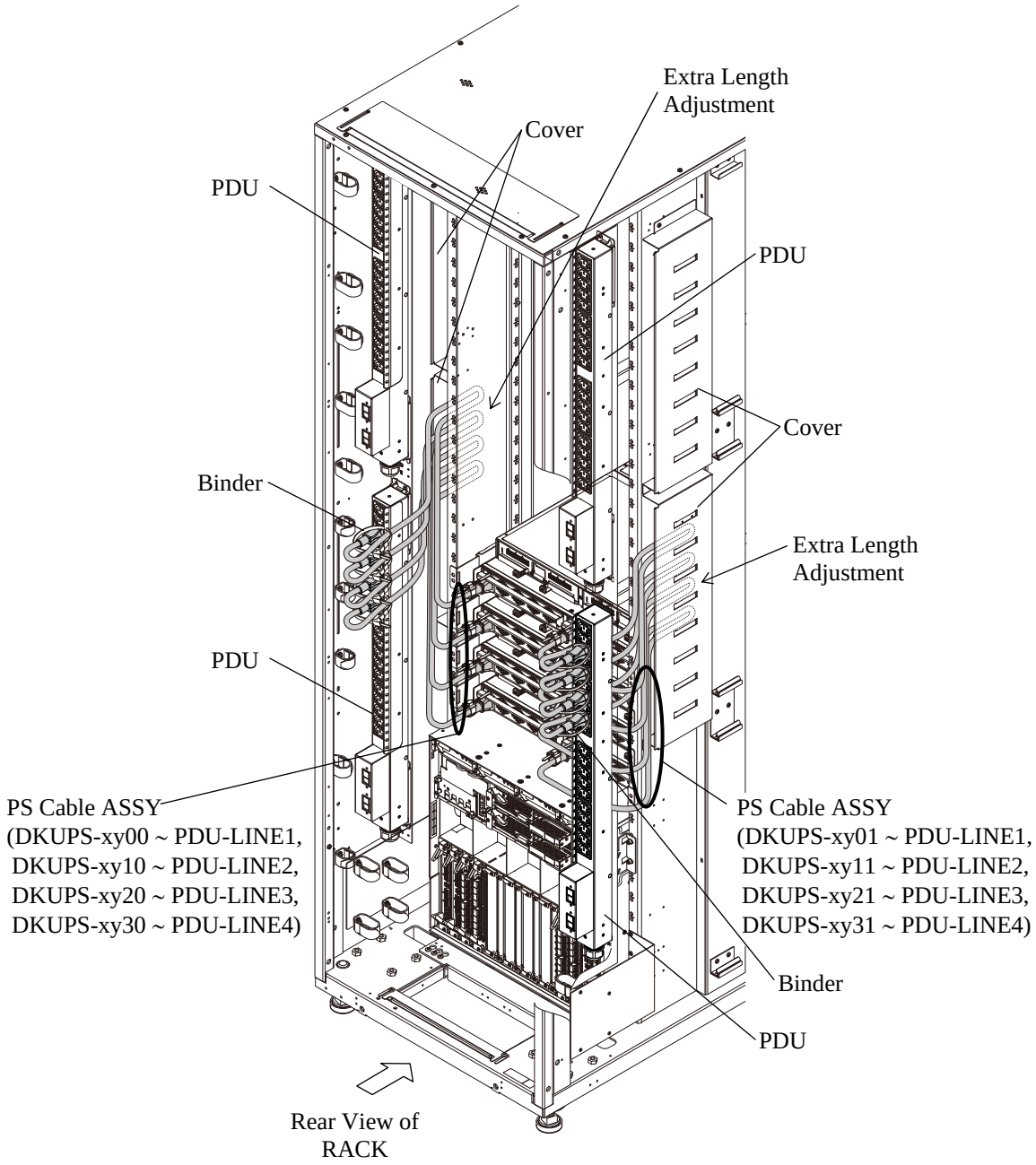


Fig. 4.9.3-17 Example of Removing Cables (with PDU Cables Downside)

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[Example]

Pattern ④: HP Model H5M58A/H5M68A (1 Phase)

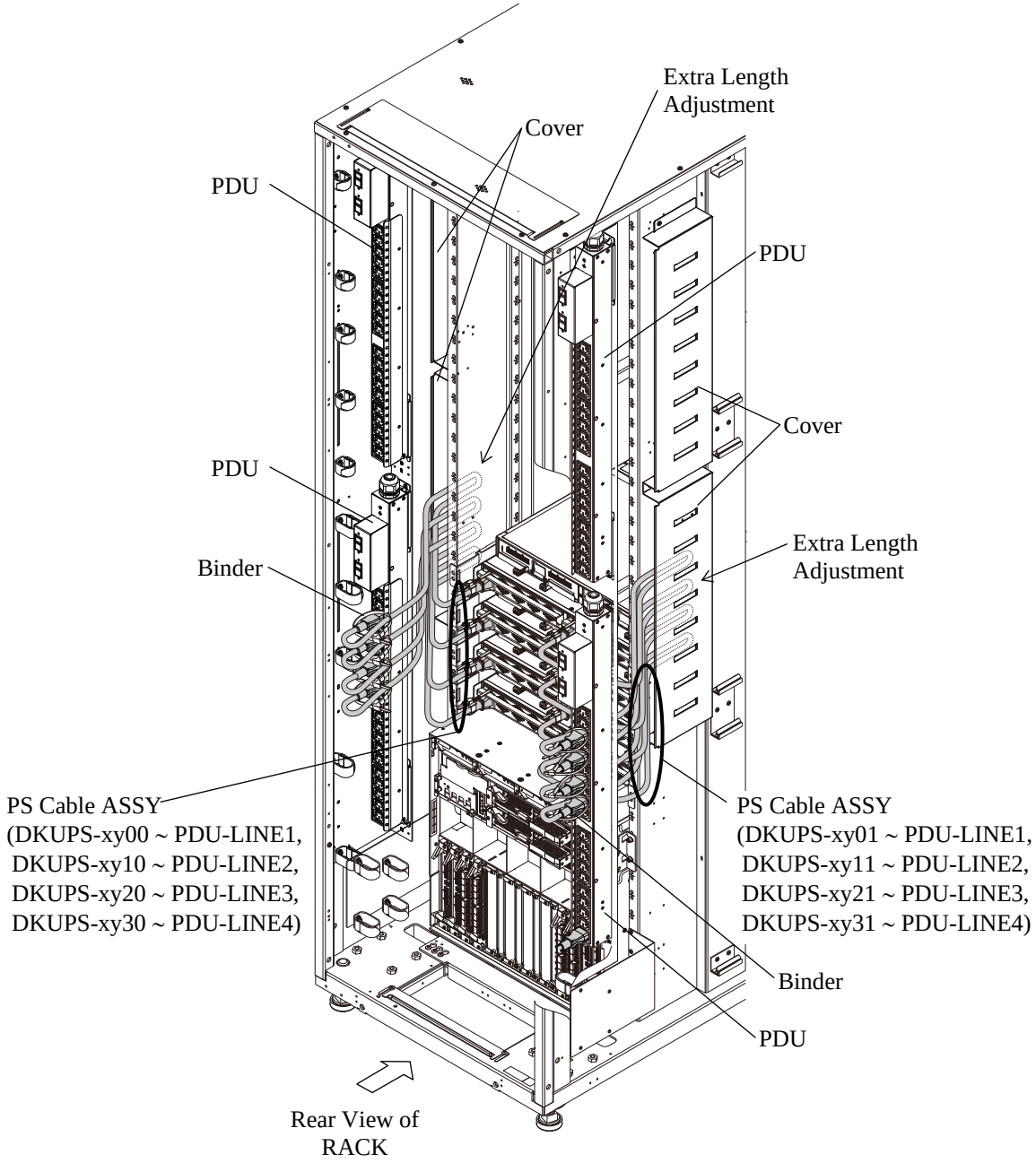


Fig. 4.9.3-18 Example of Removing Cables (with PDU Cables Upside)

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3. Disconnection of Cables (DKU Side)
   a. Hold the end of the binder and pull the PS Cable ASSY, pushing up the lock of the cable holder.
   b. Open the cable holders, and then disconnect the eight PS Cable ASSYs from the DKUPSs.

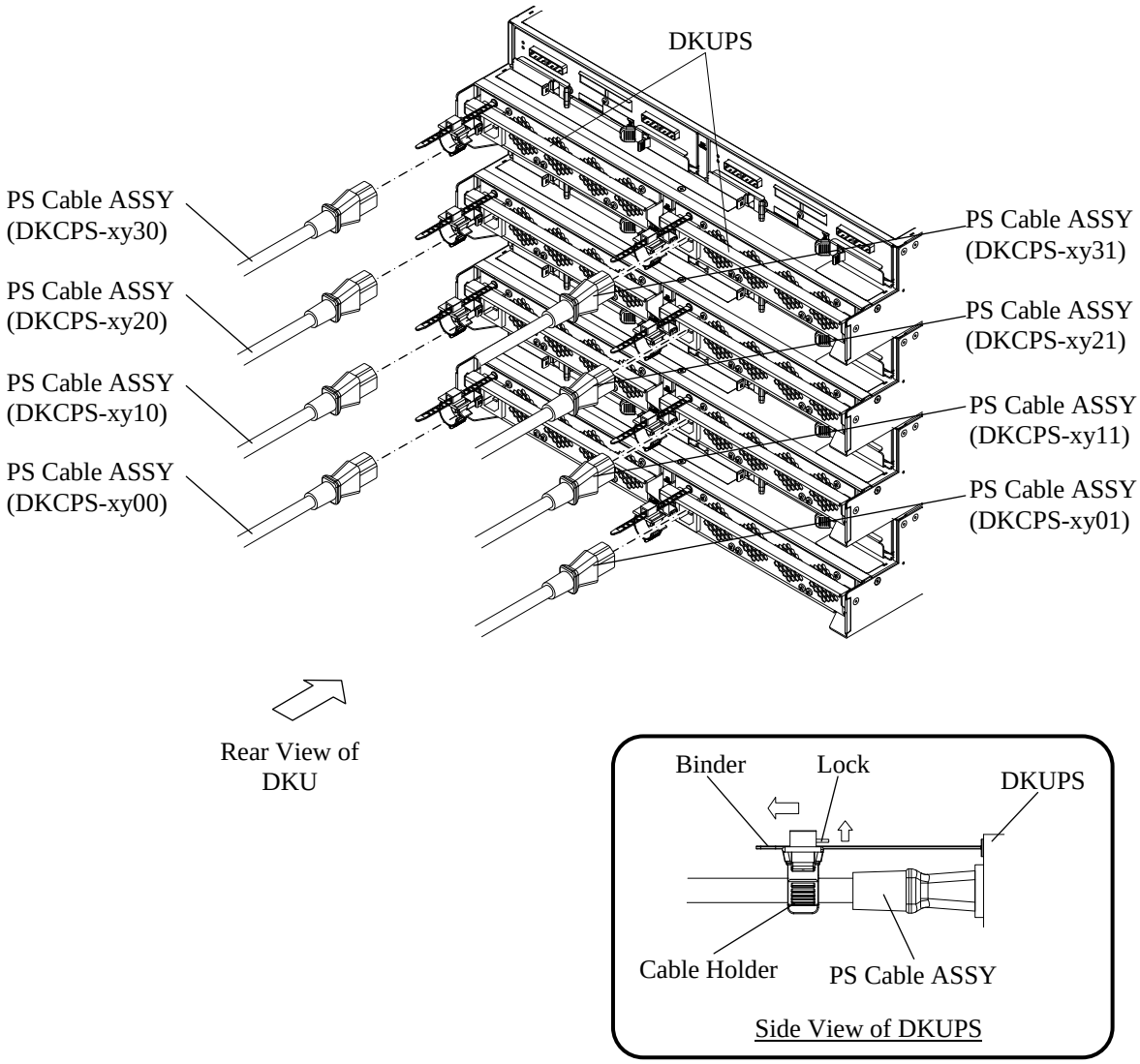


Fig. 4.9.3-19 Disconnection of PS Cable ASSY

4. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-70

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4.10 De-Installation of Filler Panel (DKC-F810I-FIHT)

Table 4.10-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-FIHT	Filler Panel	5545408-A	1	

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4.10.1 De-Installation Procedure of Filler Panel

1. Removal of filler panel
   a. Remove only the right side of the filler panel while pushing it to the left.
   b. Remove the left side of the filler panel.

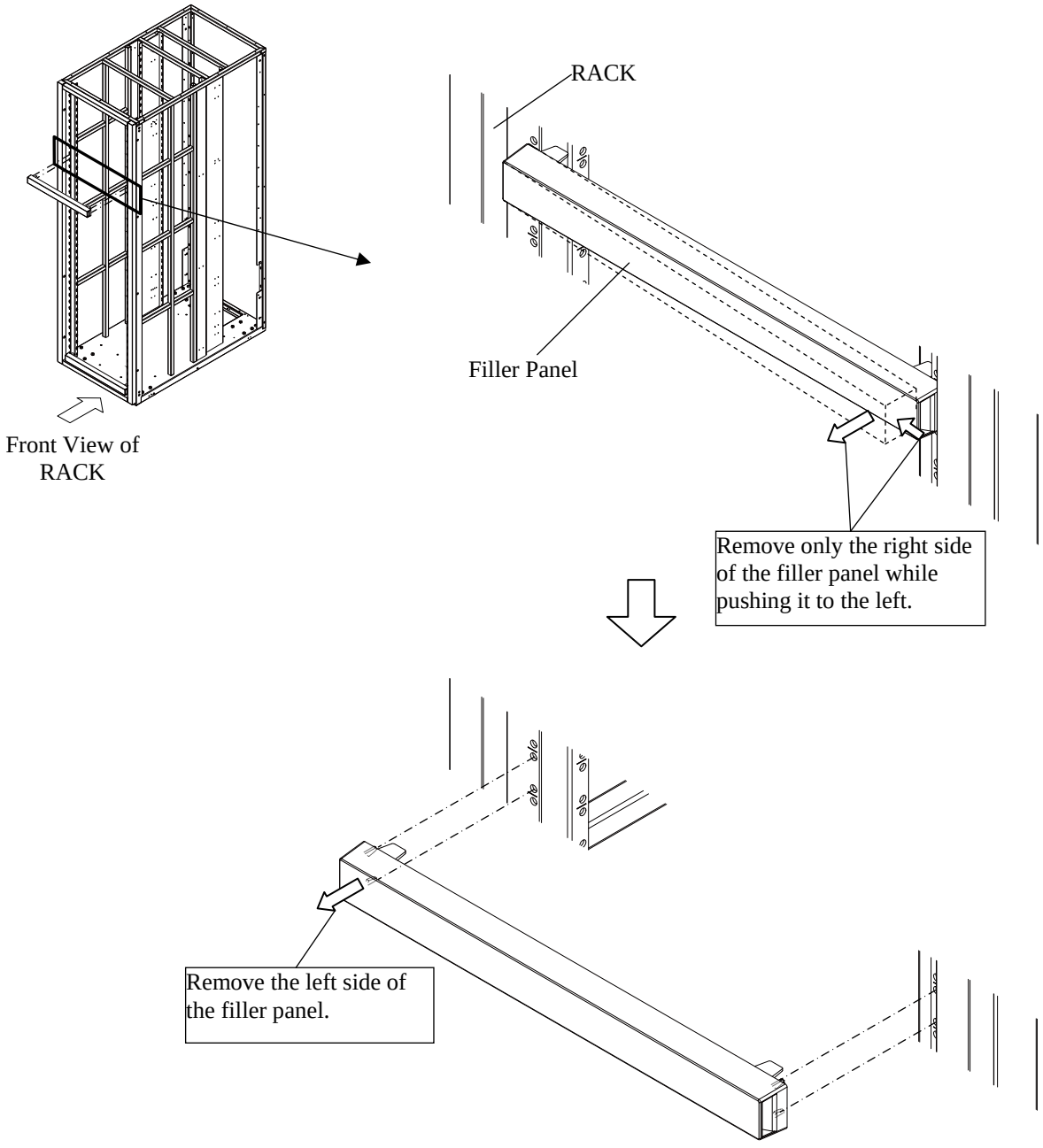


Fig. 4.10.1-1 Removal of Filler Panel

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2. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-70

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4.11 De-Installation of SM Size without removing Cache Memory

NOTICE: The CM capacity decreases if SM size is increased by this operation. Make sure there will be no performance effect and so on in the configuration to be built. For the information on cache memory capacity, please refer to INST06-10.

Rough time of SM size de-installation becomes addition of the following A, B and C.

Table 4.11-1 Rough time of de-installation

	Process	Time	Remarks
A	BASIC CM PCB blocking time	5 ~ 60min × 2 (*1)	
B	BASIC CM PCB diagnosis time	10min × 2	
C	BASIC CM PCB recovering time	5 ~ 20min × 2 (*1)	

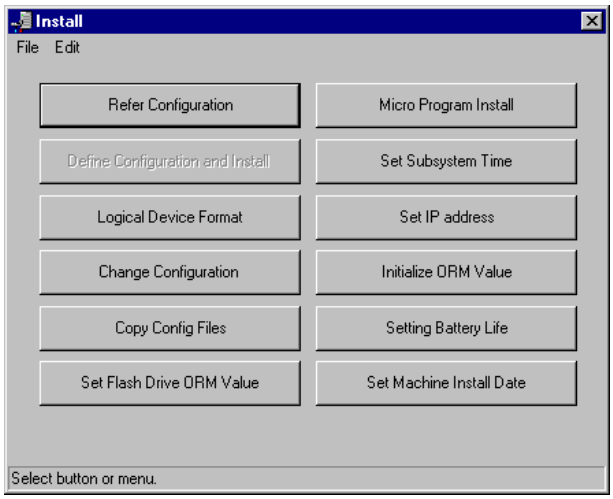
*1: Standard processing time is indicated. The processing time depends on the use situation, especially, the influence of the amount of write pending is received. When the amount of write pending is large, time more than the indication value might be required.

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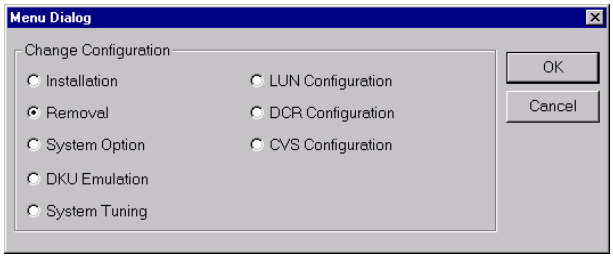
1. Setting up the New Device Structure Information

(1) <Mode Change>
Change the mode to Modify Mode.
Select (CL) [Install].

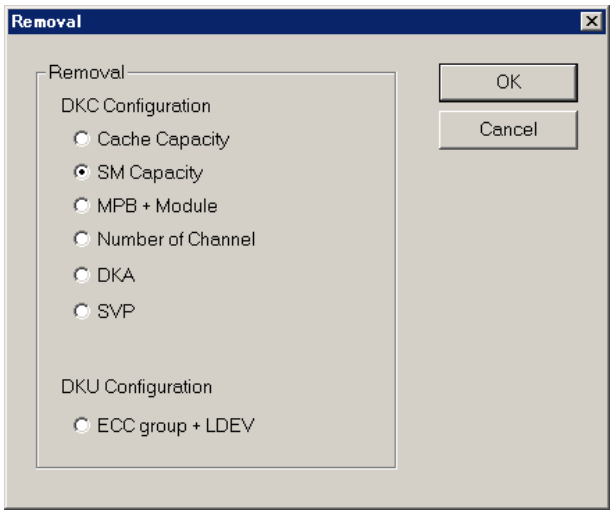
(2) <Start the 'Menu Dialog' screen>
Select (CL) [Change Configuration].



(3) <Start Device Structure Setup screen>
Select (CL) [Removal] in the 'Menu Dialog' dialog box and select (CL) [OK].



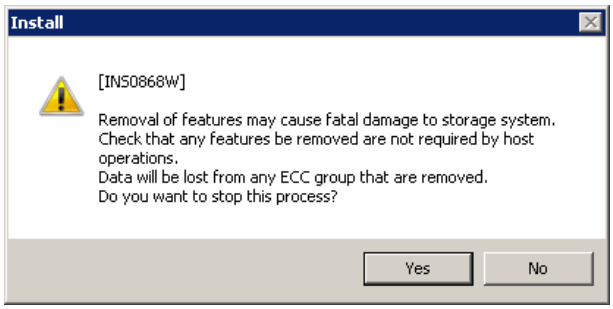
(4) <Select a part to be changed>
Select (CL) [SM Capacity], and select (CL) [OK].



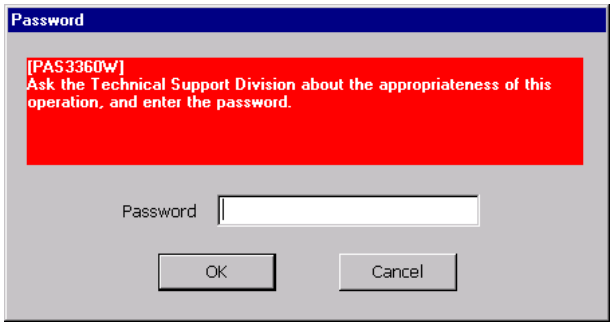
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(5)

Select (CL) [No] in response to “Removal of features may cause fatal damage to storage system. Check that any features be removed are not required by host operations. Data will be lost from any ECC group that are removed. Do you want to stop this process?”.



(6) <Input password>
Enter the password and select (CL) [OK].



⚠ CAUTION

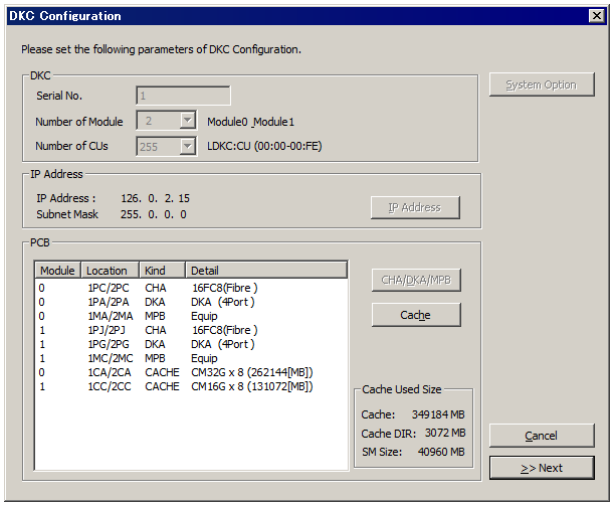
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong part to be removed is selected, and requires an input of a password. Ask the technical support division about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

(7) <Update Configuration Information>
Select (CL) [Cache Configuration] in the ‘DKC Configuration’ window.
Go to Step (7)-1.

NOTE: It is not possible to install or de-install plural parts at the same time.

Make sure that all entered items are correct and select (CL) [>>Next].

Go to Step (8).



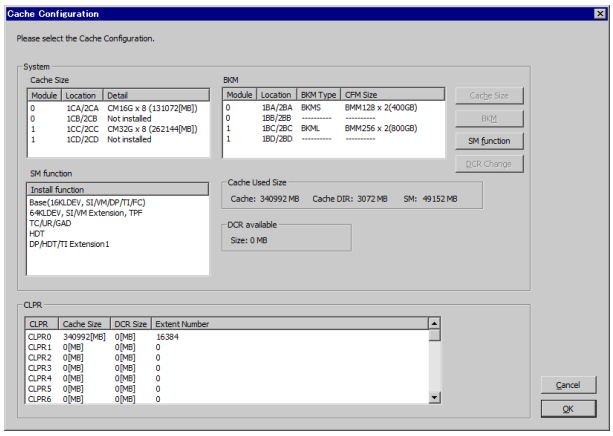
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(7)-1 <Define Cache>

Select (CL) [SM function] in the 'Cache Configuration' window.
Go to Step (7)-2.

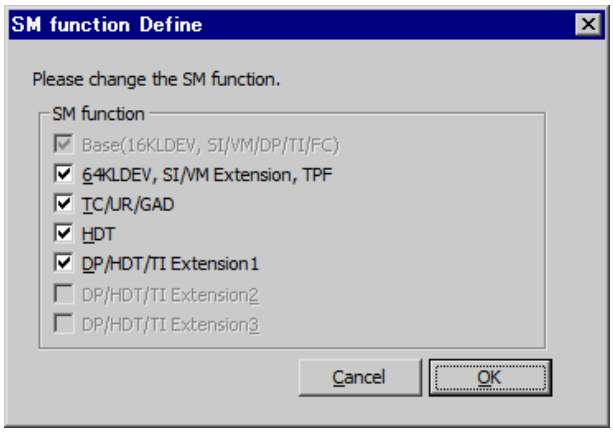
Make sure that all entered items are correct and select (CL) [OK].

Go back to Step (7).



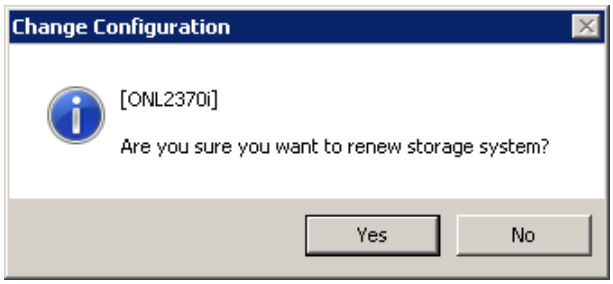
(7)-2 <SM function Define screen>

Set the SM function in the 'SM function Define' screen, select (CL) [OK].
Go back to Step (7)-1.

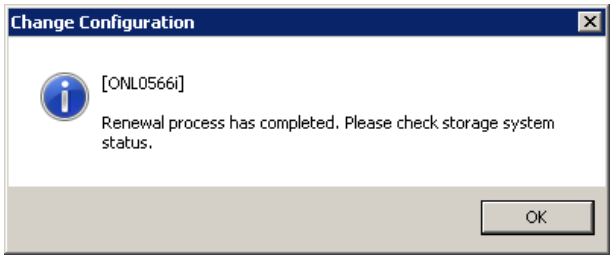


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(8) <Start removal>
Select (CL) [Yes] in response to "Are you sure you want to renew storage system?". When [No] is selected (CL), returns to INST04-11-20 Step (2).

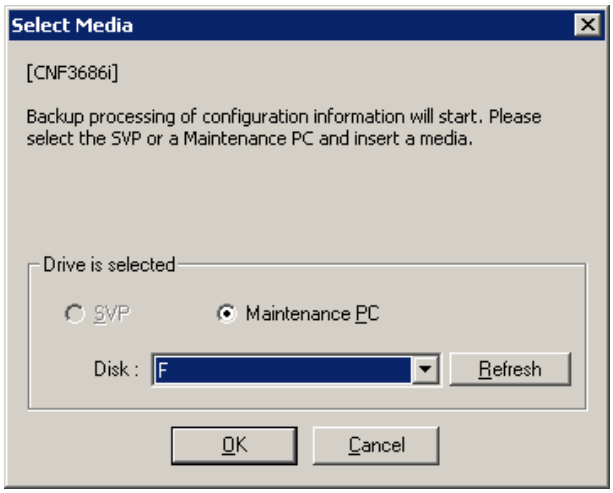


(9) <Check the end of removal procedure>
"Renewal process has completed. Please check storage system status." shown in the right figure displayed. Select (CL) [OK] in response to this message.

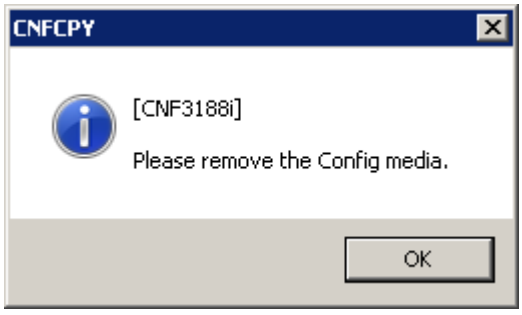


(10)
Execute an operation for backing up the configuration information. Prepare the removable media for backup and insert the media. Please select (CL) the [Refresh] button, and update drive information. Select (CL) the drive and the PC in which the media was inserted. Select (CL) the [OK] button.

NOTE: For the procedure of backing up the configuration information to a CD-R, see page MICRO07-190.



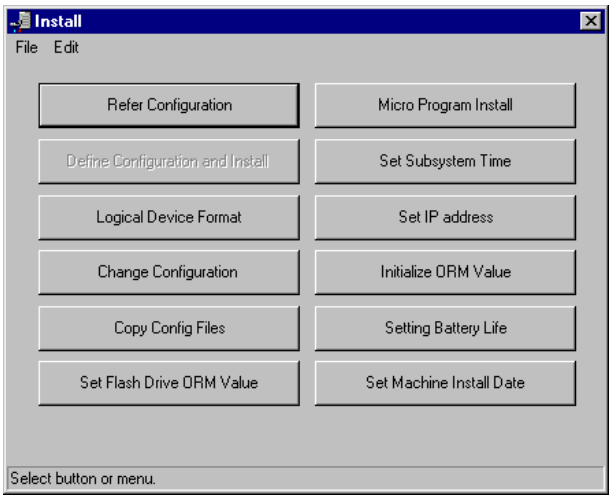
(11)
When this procedure is completed, the message "Please remove the Config media." is displayed. Remove the configuration information media, select (CL) [OK].



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(12)

After the procedure is completed, return to 'Install'.
Select (CL) [File]-[Exit].



(13) <Mode Change>
Change the mode to View Mode.

Return to the working table and do the rest of the work. (INST02-80)

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4.12 De-Installation of Decoration Panel, Key Kit, Front Door, Front Door Hinge Kit and PC Tray for RK42 (DKC-F810I-DECO/DECOP/KYH/KYP/FDR/FDH42/TR42)

Table 4.12-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F810I-DECO	Top Panel	3287238-1	1	
		Lower Panel	3287249-1	1	
		Fixing Bracket	3287239-1	4	
		Panel	2854946-1	2	
		Screw	SB406N	12	
		Screw	SB410N	2	
2	DKC-F810I-DECOP	Top Panel (HP)	3290502-A	1	
		Lower Panel	3287249-1	1	
		Fixing Bracket	3287239-1	4	
		Panel	2854946-1	2	
		Screw	SB406N	12	
		Screw	SB410N	2	
3	DKC-F810I-KYH	Handle ASSY	3283382-A	1	
		Key	—	1	
		Screw	SB306N	4	
4	DKC-F810I-KYP	Bracket (KEY)	3283278-1	1	
		Stopper Bracket	5545386-1	1	
		Screw	SB306N	4	
		Screw	SB406N	2	
5	DKC-F810I-FDR	Front Door	2855887-A	1	
6	DKC-F810I-FDH42	Hinge U	5552841-1	1	
		Hinge L	5552842-1	1	
		Stopper	5555001-1	1	
		Screw	SB410N	1	
		Screw	SB510N	2	
		Socket Bolt	BS510N	4	
		Collar	5513552-404	1	
		LL Washer	5513553-433	1	
7	DKC-F810I-TR42	PC Tray	3287327-A	1	
		Stopper	5552806-1	1	
		Door Bar	5552807-1	1	
		Stopper	5552808-1	1	
		Hinge	5552993-1	1	Hinge L
		Hinge	5552814-1	1	Hinge R
		Screw	SB408N	4	
		Screw	SB410N	4	
		Screw (Stopper)	5513661-412	1	

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4.12.1 De-Installation Procedure of Decoration Panel (DKC-F810I-DECO/DECOP)

1. Removal of Panels
   a. Remove the two screws on the lower panel, and remove the panels from the fixing brackets.

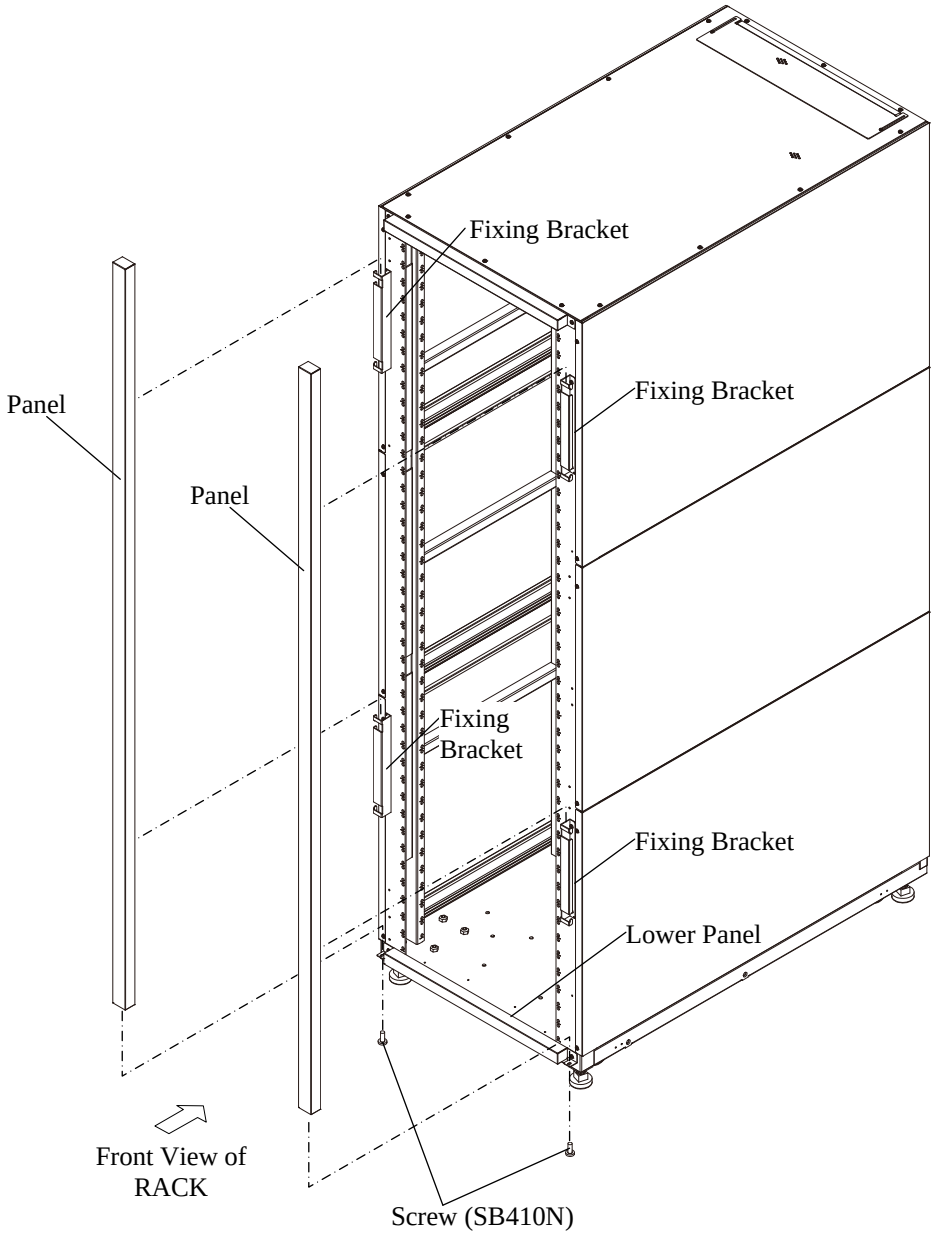


Fig. 4.12.1-1 Removal of Panels (Front)

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b. Remove the eight screws and remove the four fixing brackets from the front side of the RACK.
c. Remove the two screws and remove the top panel from the front upper part of the RACK.
d. Remove the two screws, and remove the lower panel from the front lower part of the RACK.

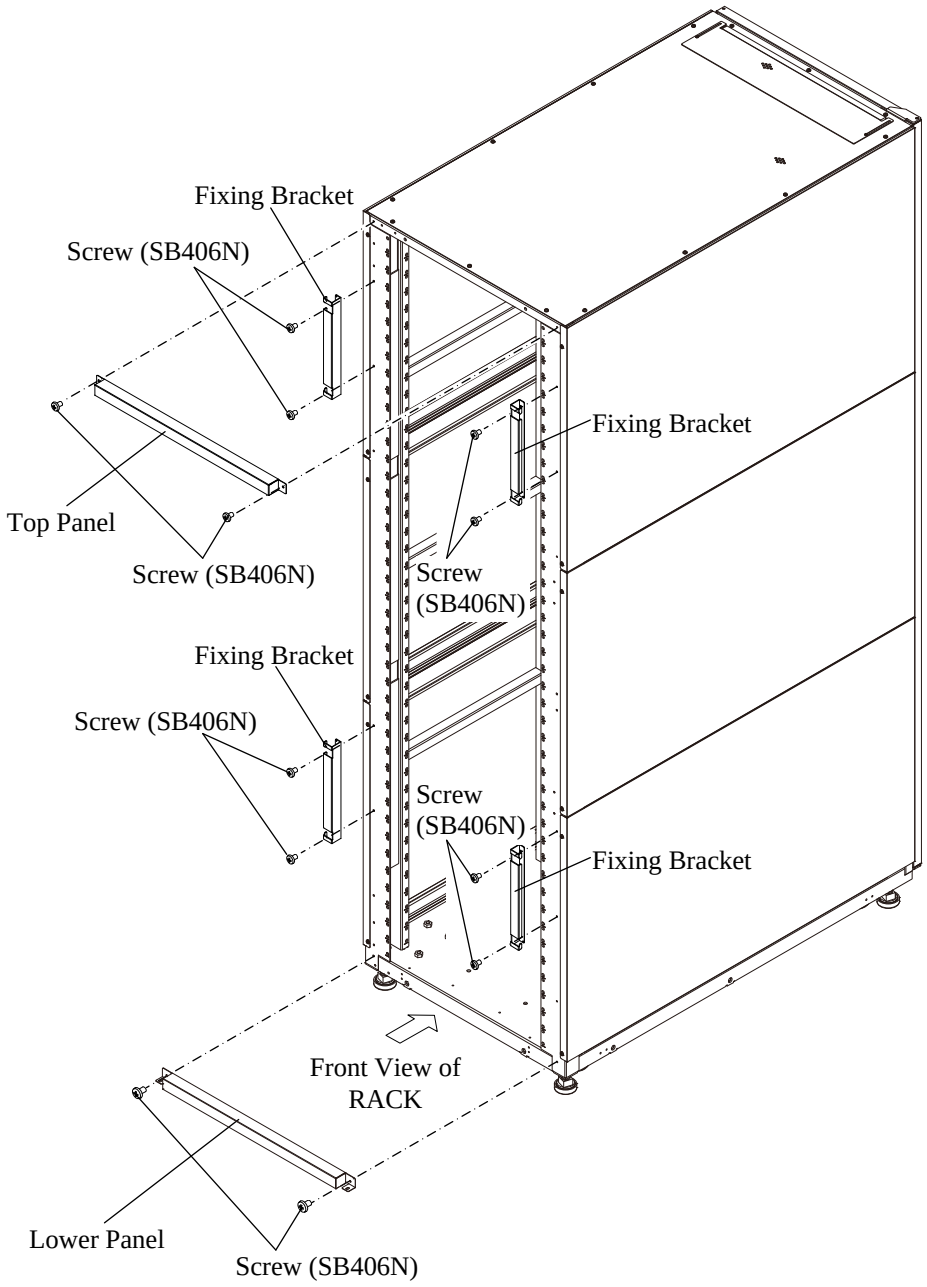


Fig. 4.12.1-2 Removal of Panels (Front)

2. Return to the working table and do the rest of the work.
Non-Disruptive De-Installation: INST02-80

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4.12.2 De-Installation Procedure of Key Kit (DKC-F810I-KYH)

1. Removal of Rear Parts
   a. Remove the four screws, and remove the Handle ASSY from the rear side of the rear door.
   b. Remove the key from the locking clamp on the rear side of the rear door.

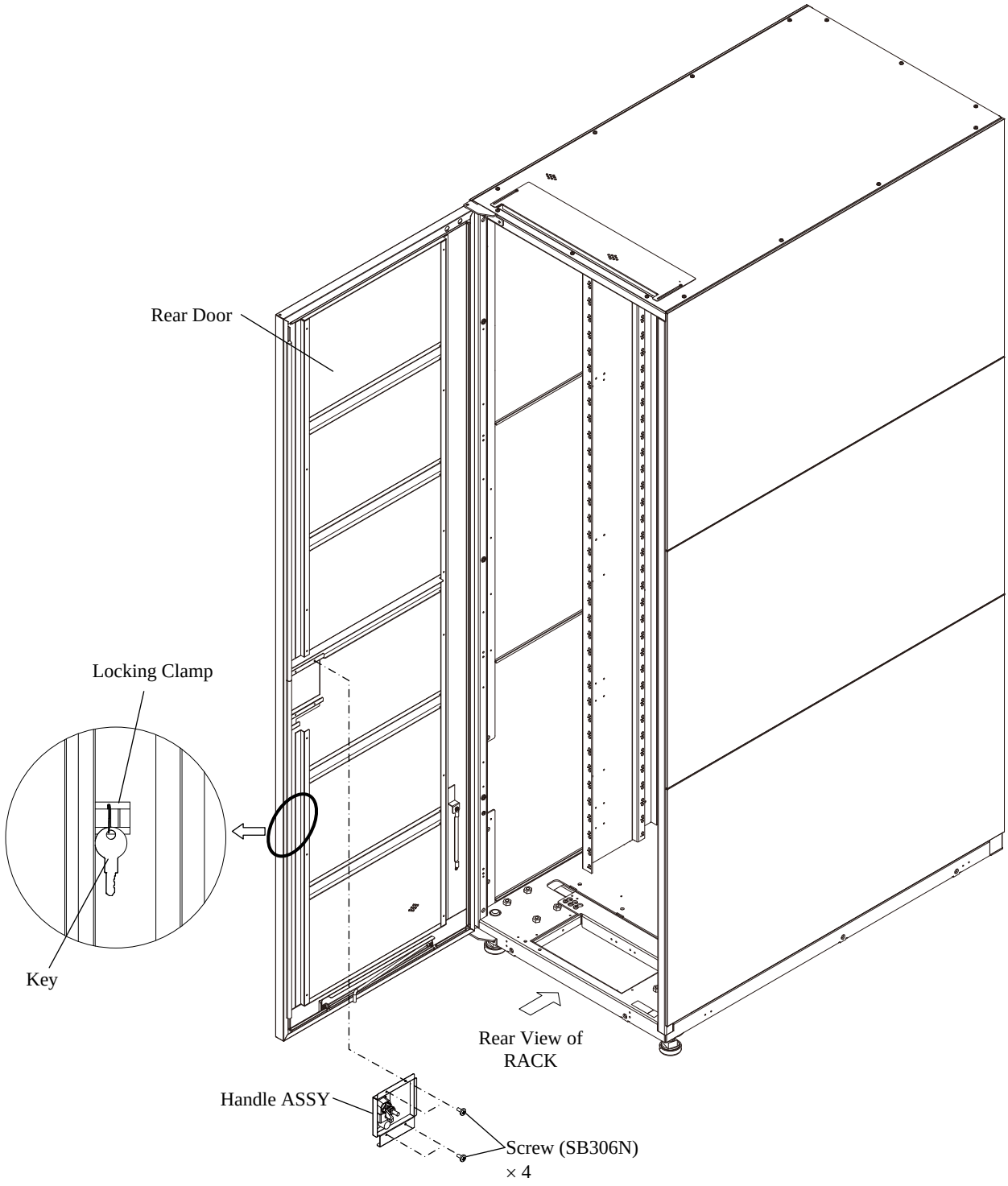


Fig. 4.12.2-1 Removal of Handle ASSY (Rear)

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2. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-80

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4.12.3 De-Installation Procedure of Key Kit (DKC-F810I-KYP)

1. Removal of Rear Parts
   a. Remove the two screws ①, and remove the stopper bracket.
   b. Remove the four screws ②, and remove the bracket (KEY).

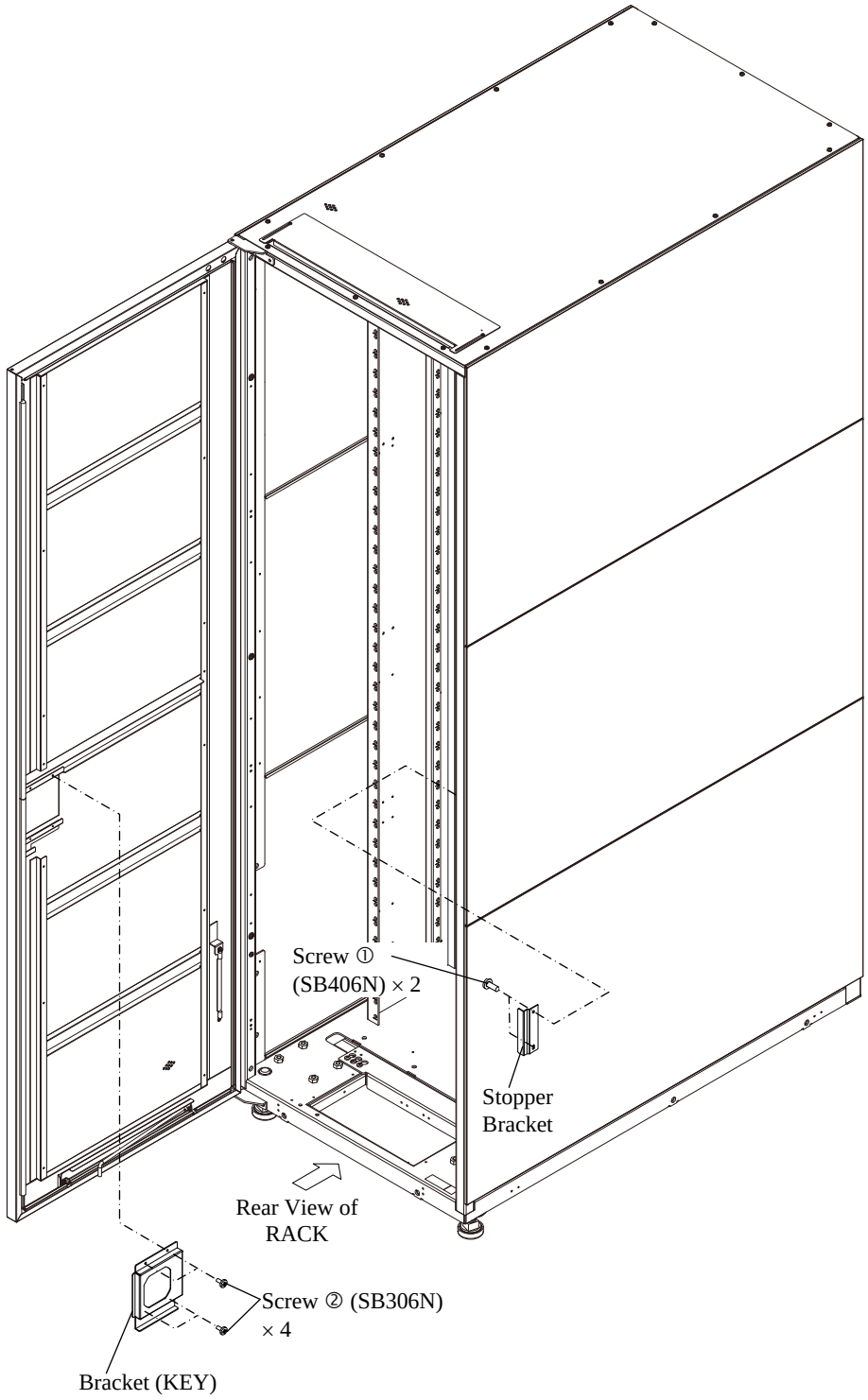


Fig. 4.12.3-1 Removal of Parts (Rear)

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2. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-80

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4.12.4 De-Installation Procedure of Front Door Hinge Kit (DKC-F810I-FDH42)

1. Removal of Front Parts
   a. Remove the screw, LL washer and collar from the hinge L on the front side of the RACK.
   b. Remove the two socket bolts and hinge L.
   c. Remove the two socket bolts and hinge U.
   d. Remove the two screws and stopper.

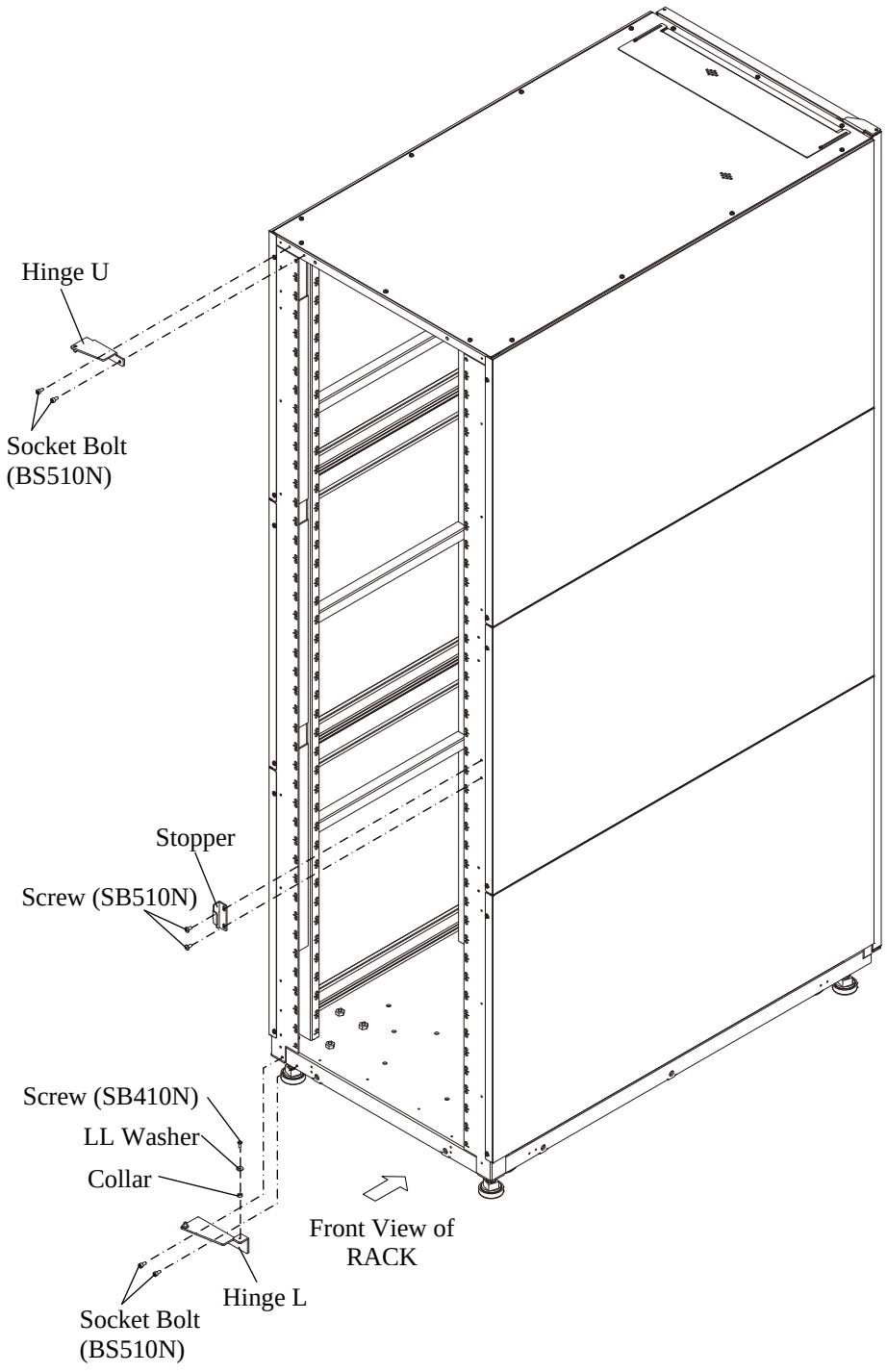


Fig. 4.12.4-1 Removal of Parts (Front)

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2. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-80

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4.12.5 De-Installation Procedure of Rack Front Door (DKC-F810I-FDR)

1. Removal of Front Door
   a. Loosen the screw on the front bottom of the rack to remove the FG cable and the washer.
   b. Remove the wire rope from the screw on the hinge L.

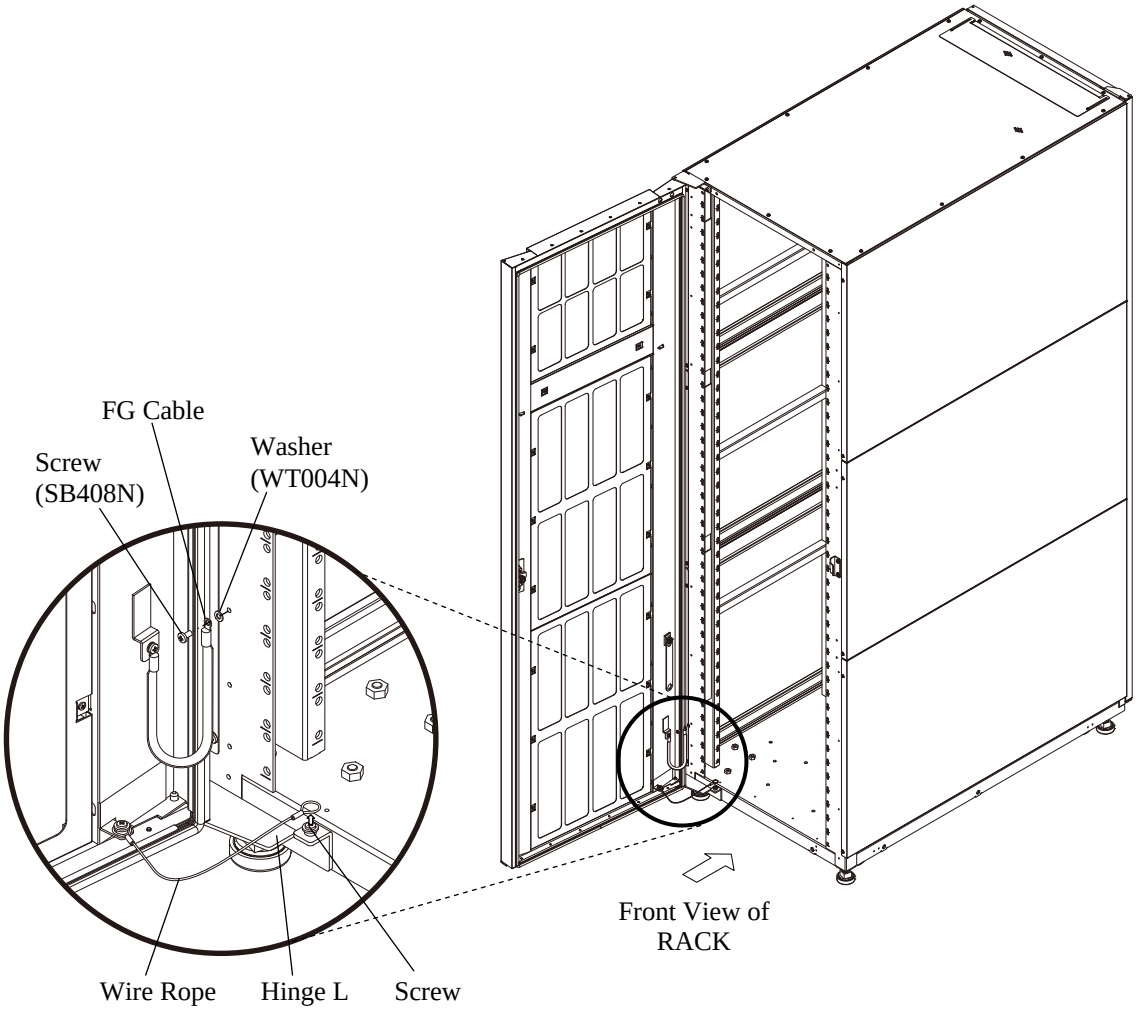


Fig. 4.12.5-1 Removal of Wire Rope and FG Cable

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c. Loosen the two socket bolts on the front top of the rack and turn the hinge U.
d. Remove the front door from the hinge L on the front bottom of the rack.
e. Turn the hinge U back and secure it with the two socket bolts.

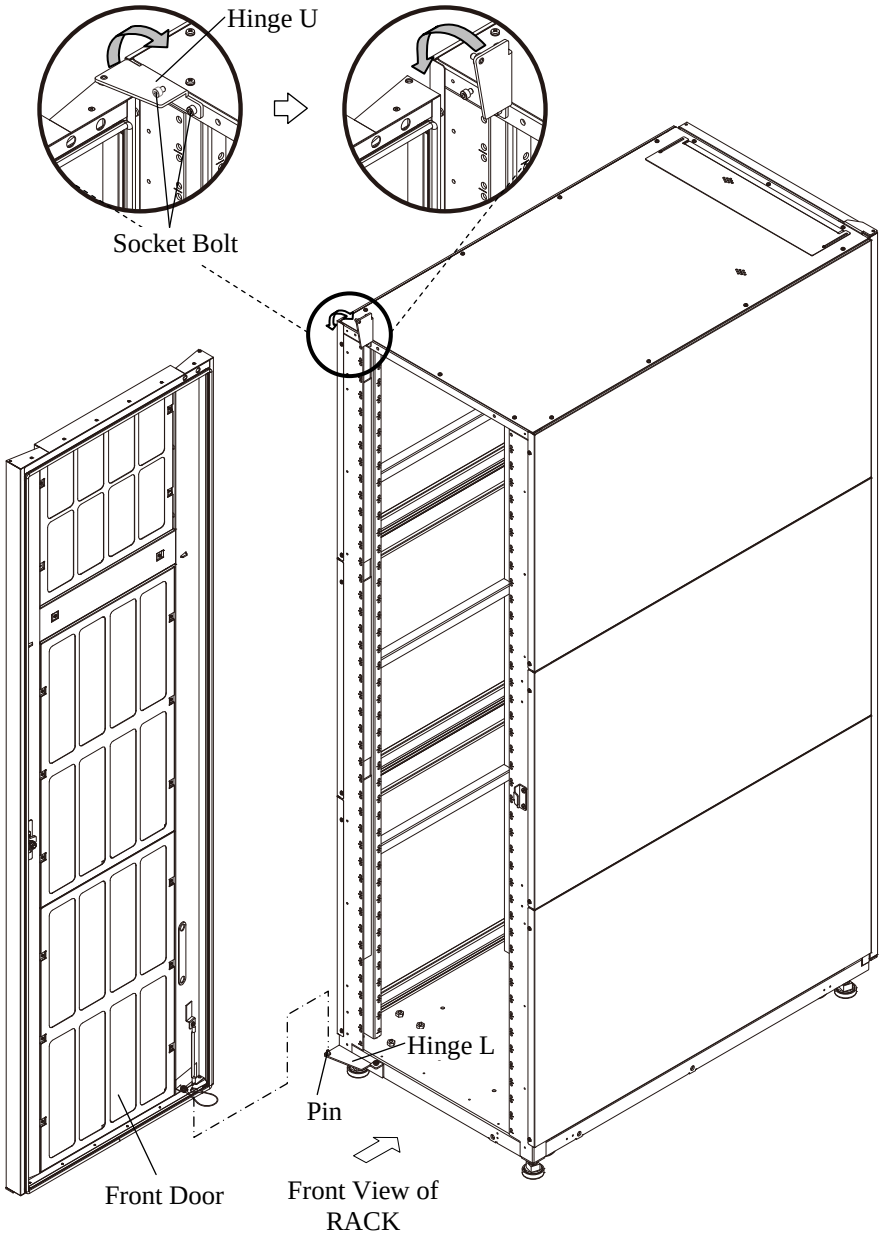


Fig. 4.12.5-2 Removal of Front Door

2. Return to the working table and do the rest of the work.
Non-Disruptive De-Installation: INST02-80

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4.12.6 De-Installation Procedure of PC Tray for RK42 (DKC-F810I-TR42)

1. De-install the PC Tray
   a. Loosen the screw and remove the Stopper.

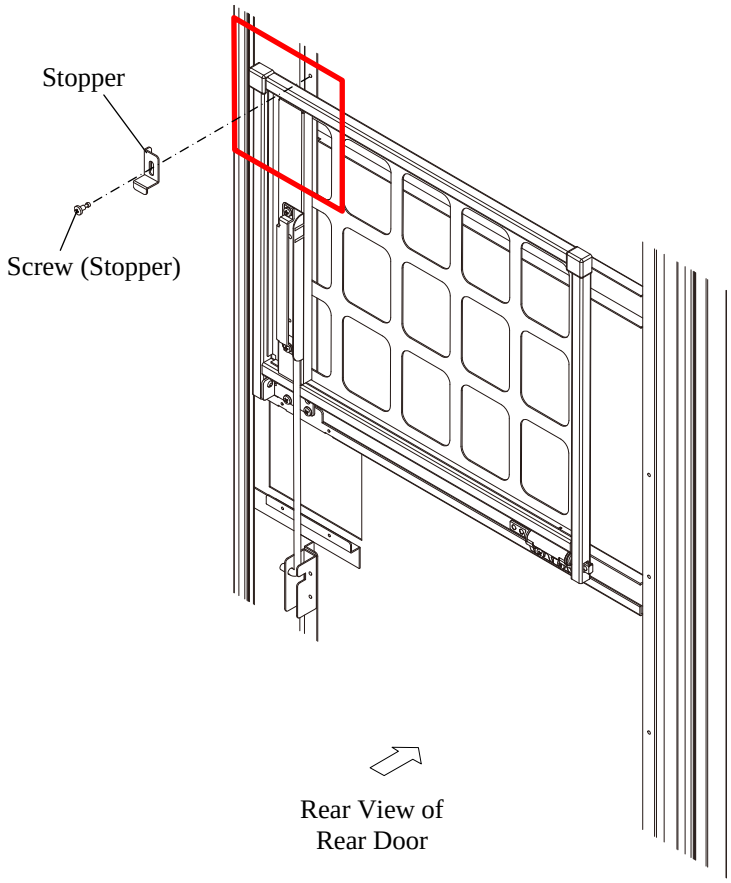


Fig. 4.12.6-1 Removal of Stopper

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b. Loosen the two screws and remove the Stopper from the rear door.
c. Turn the Stopper and remove the Stopper from the Door Bar.

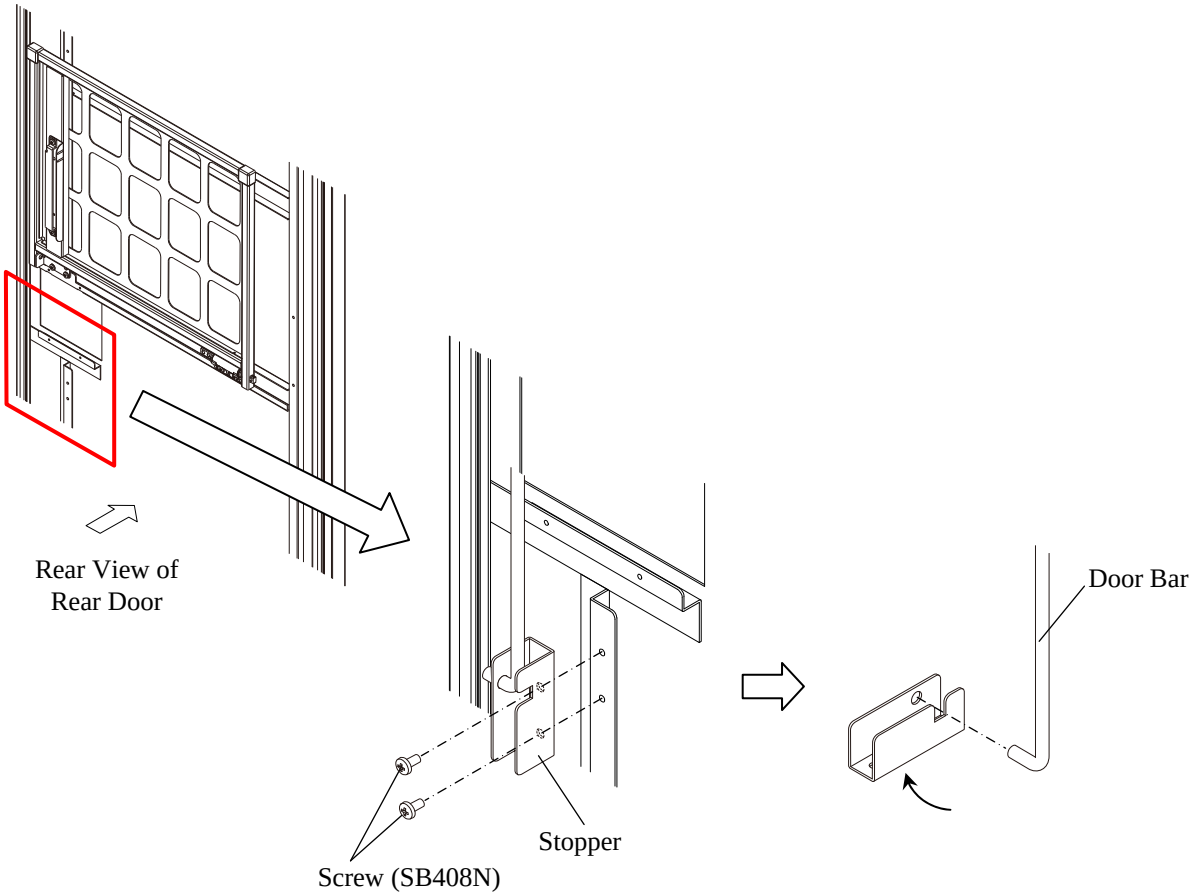


Fig. 4.12.6-2 Removal of Stopper

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d. Turn the Door Bar 90 degrees in a clockwise direction and remove the Door Bar from the PC Tray.

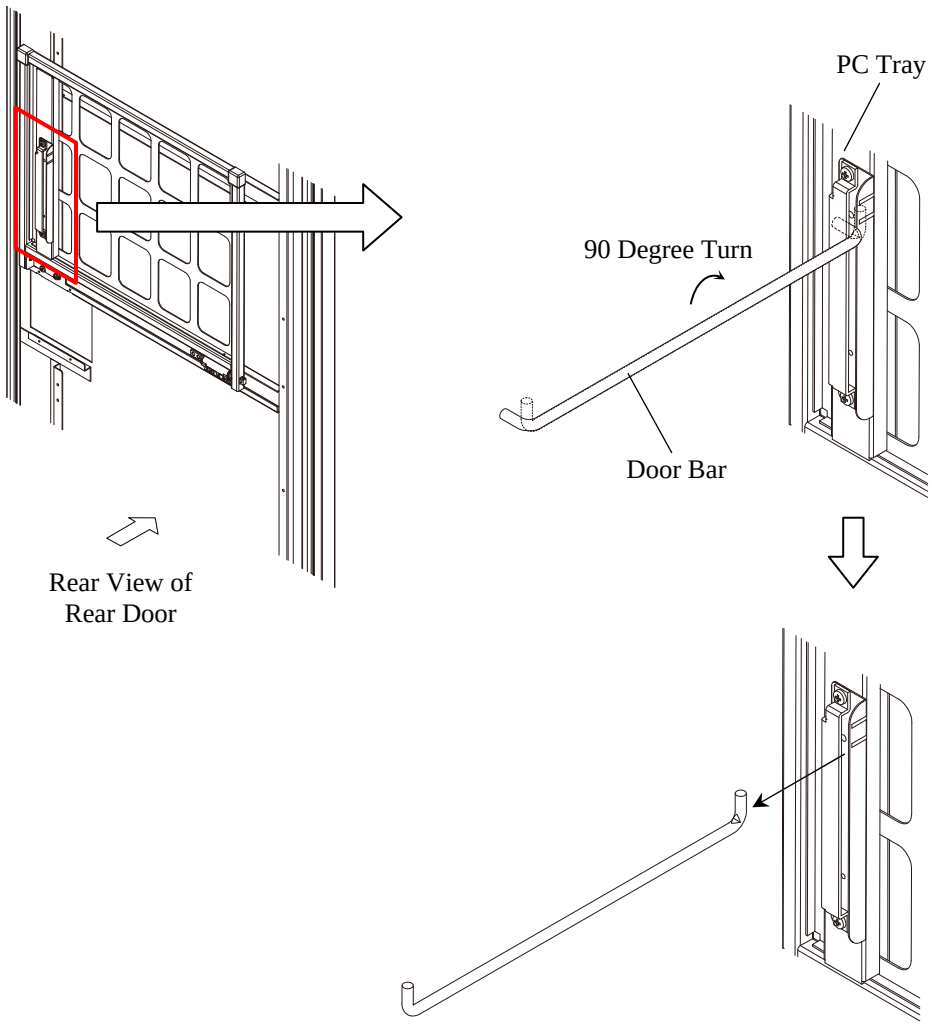


Fig. 4.12.6-3 Removal of Door Bar

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e. Loosen the two screws and remove the Hinge L form the PC Tray.

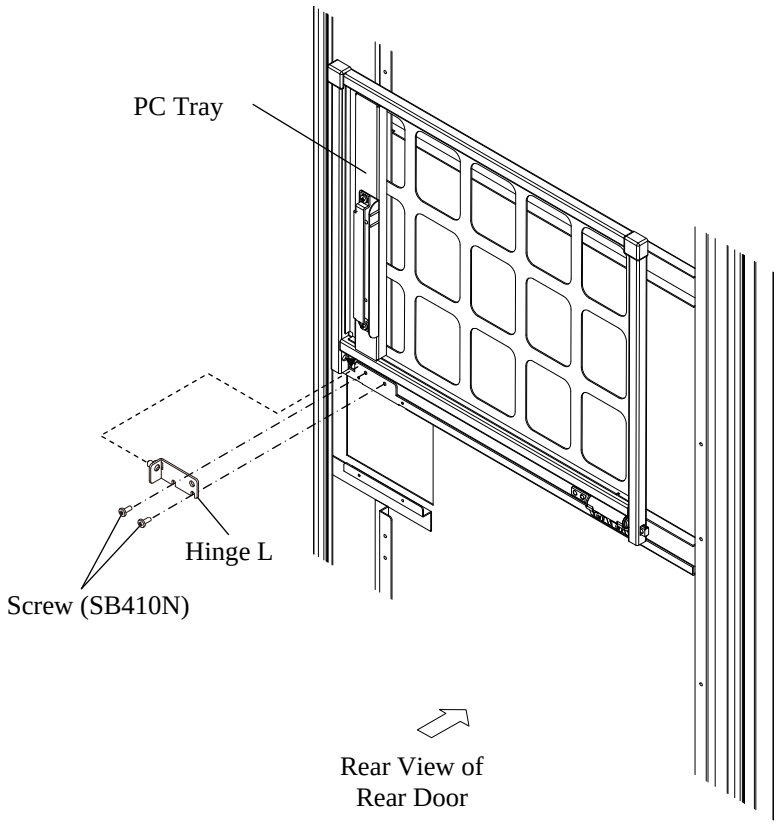


Fig. 4.12.6-4 Removal of Hinge

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f. Loosen the two screws and remove the PC Tray and the Hinge R from the rear door.
g. Remove the Hinge R from the PC Tray.

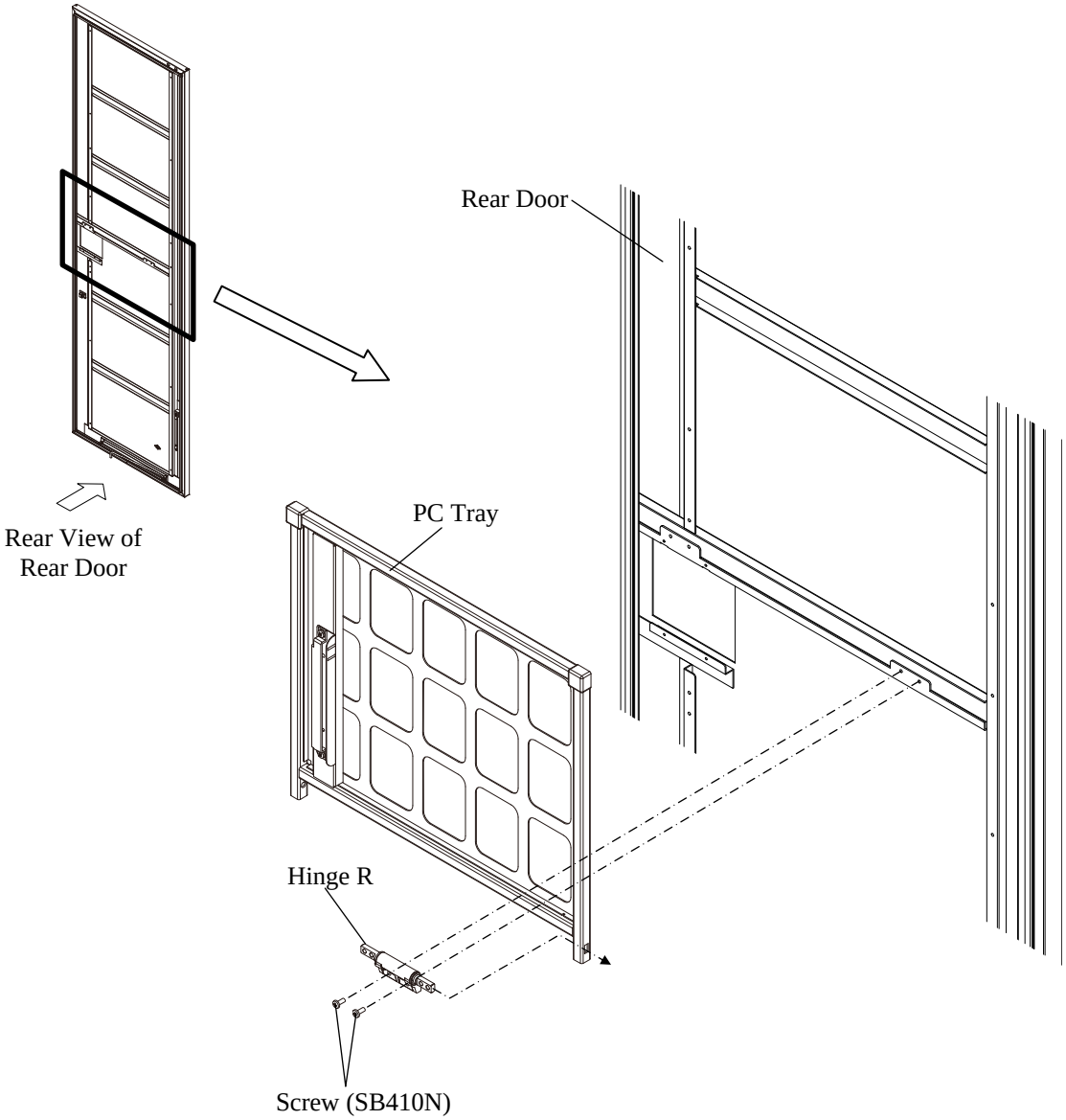


Fig. 4.12.6-5 Removal of PC Tray and Hinge

2. Return to the working table and do the rest of the work.
Non-Disruptive De-Installation: INST02-80

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4.13 De-Installation of PDU Bracket for HP (DKC-F810I-PDBP)

Table 4-13-1 Parts List

No.	Model Number	Part Name		Part No.	Quantity	Remarks
1	DKC-F810I-PDBP	Support (22U36U PDU)		2856421-1	2	Support
		Stopper (22U36U PDU)		3290542-1	4	Stopper
		Keyhole Bracket		5557415-1	8	
		Cover (INLET CABLE)		3290570-1	4	Cover
		Packing Work (OPTION)		3290551-A	1	
			Screw (Stopper)	5513661-412	8	Components of Packing Work (OPTION)
			Screw	SB406N	24	
			Screw	SB410N	19	
			P Washer	5513598-4	19	
			Screw	SB510N	1	
			LL Washer	5513553-513	1	
		Packing Work (PARTS)		3290582-A	1	
			Screw	SB406N	4	Components of Packing Work (PARTS)
			Lock Washer	WT004N	4	

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4.13.1 De-Installation Procedure of PDU Bracket for HP

1. Power Cable Removal

In the Case of 3 Phase PDU (D9N51A/H5M72A) with Power Cables Drawn from Bottom Surface

a. Loosen the six screws and remove the Plate.
b. Pull up the two power cables of the PDUs from an opening on the bottom of the rack.
c. Put the Plate back in place and fix it with the six screws.

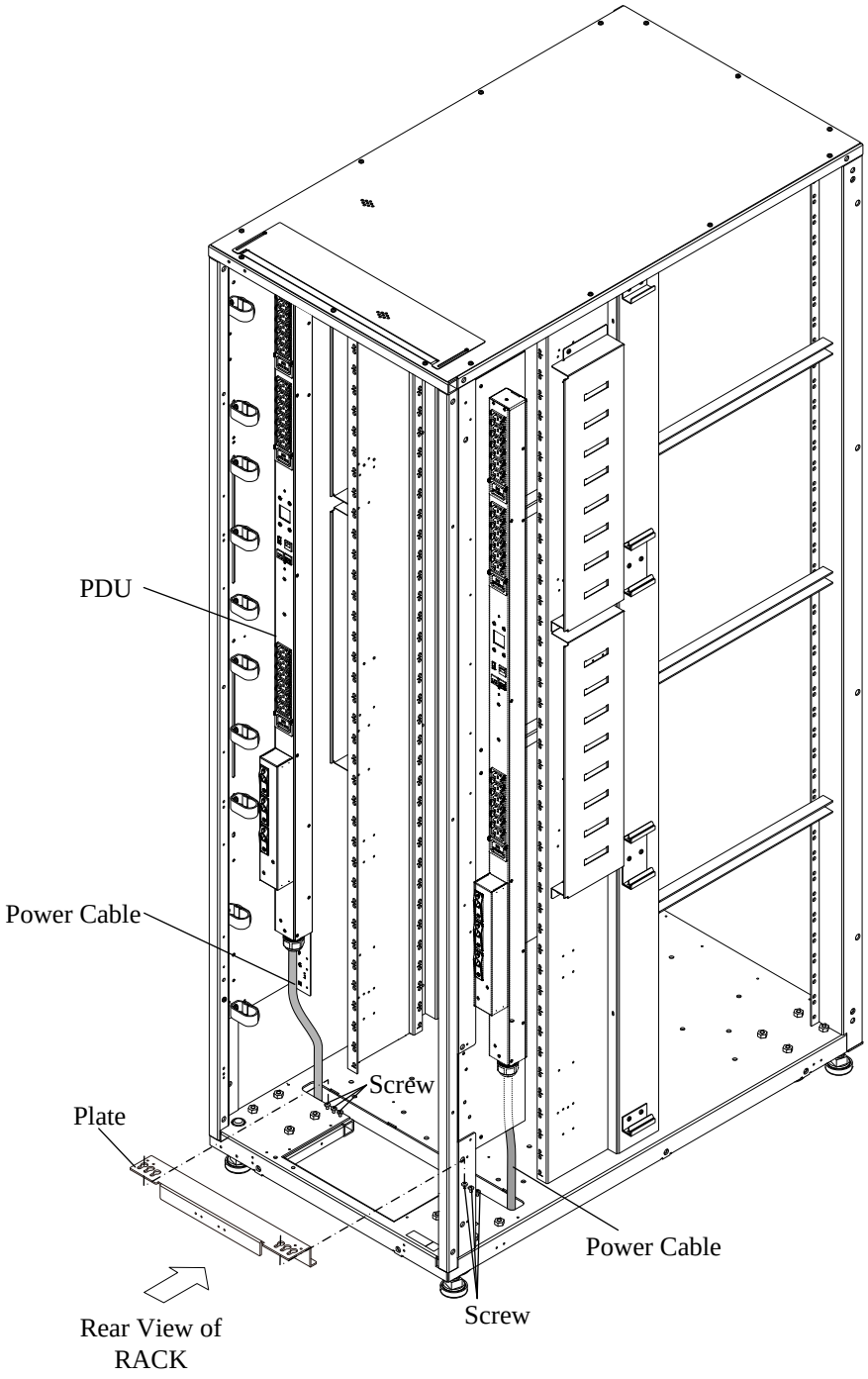


Fig. 4.13.1-1 Removal of Panels (Front)

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In the Case of 3 Phase PDU (D9N51A/H5M72A) with Power Cables Drawn from Top Cover

a. Loosen the two screws of the top cover, and slide the window opening toward the front side.
b. Pull down the two power cables of the PDUs from the window opening on the top cover.
c. Slide the window to close the opening, and retighten it with the two screws.

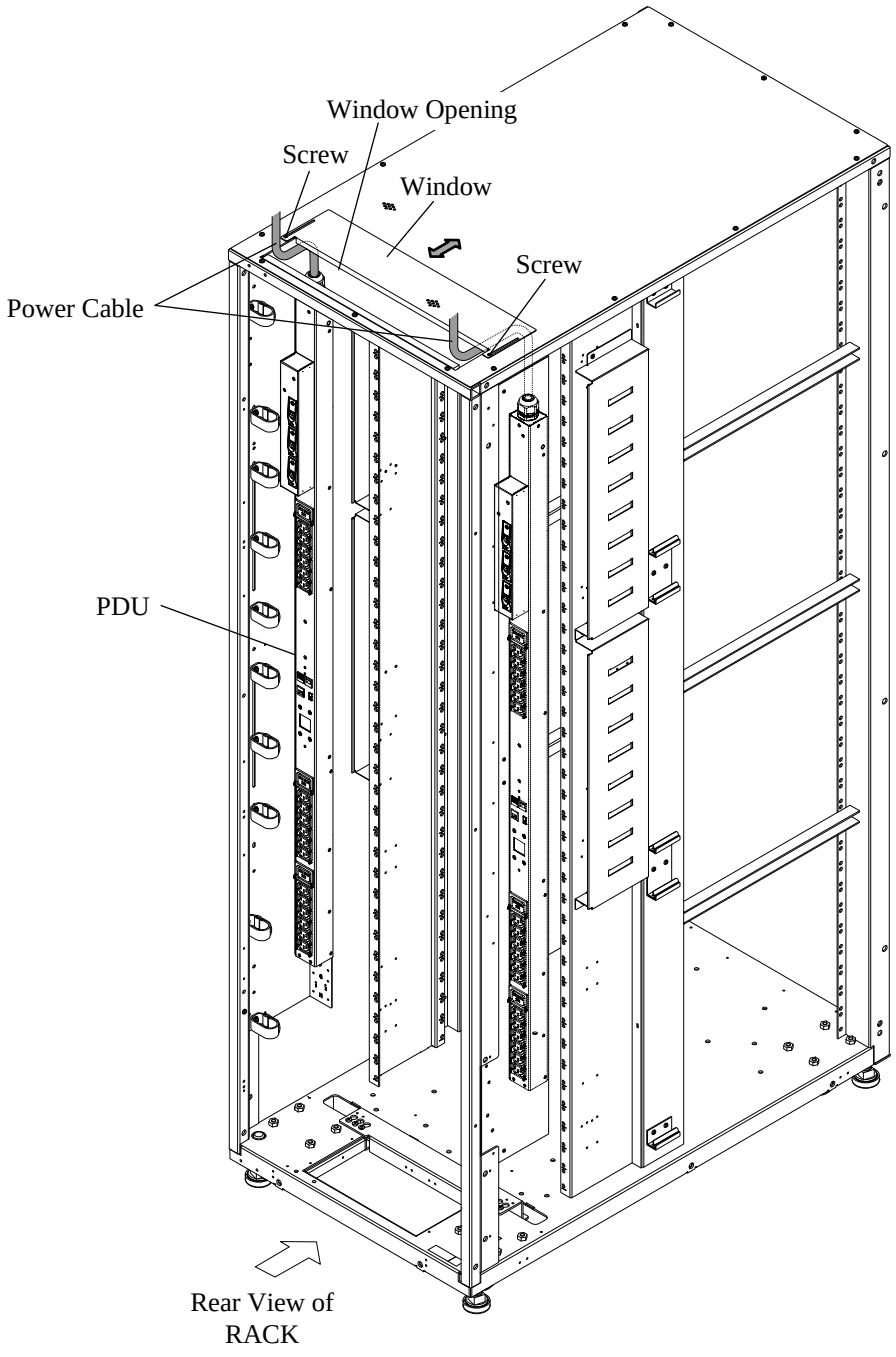


Fig. 4.13.1-2 Power Cable Removal (Window Opening)

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In the Case of 1 Phase PDU (H5M58A/H5M68A) with Power Cables Drawn from Bottom Surface

a. Loosen the six screws and remove the Plate.
b. Open the Clamp Tapes and pull up the four power cables of the PDUs from an opening on the bottom of the rack.
c. Put the Plate back in place and fix it with the six screws.

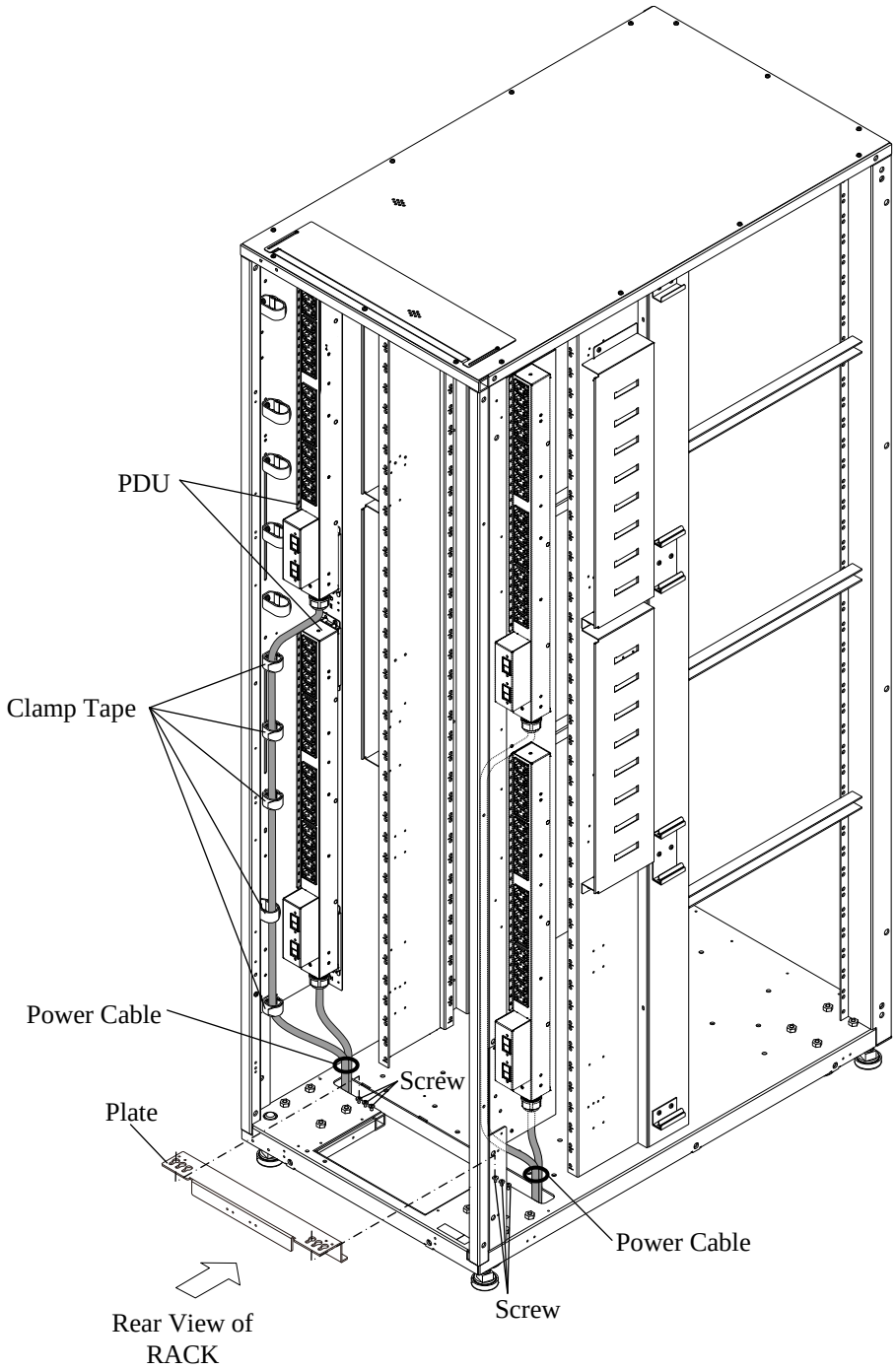


Fig. 4.13.1-3 Power Cable Removal

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In the Case of 1 Phase PDU (H5M58A/H5M68A) with Power Cables Drawn from Top Cover

a. Loosen the two screws of the top cover, and slide the window opening toward the front side.
b. Open the Clamp Tapes and pull down the four power cables of the PDUs from the window opening on the top cover.
c. Slide the window to close the opening, and retighten it with the two screws.

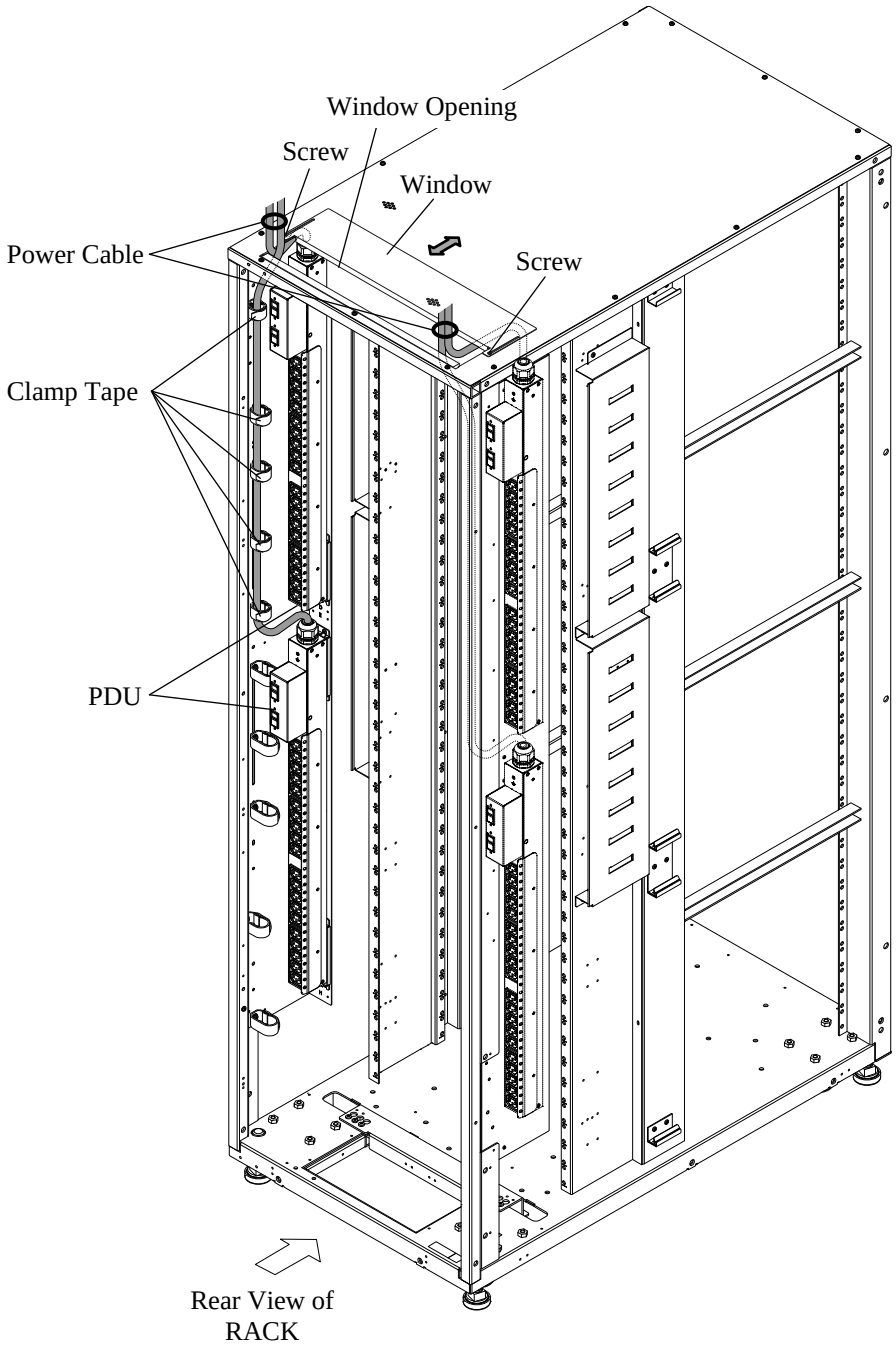


Fig. 4.13.1-4 Power Cable Removal (Window Opening)

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2. PDU Removal

In the Case of 3 Phase PDU (D9N51A/H5M72A) with Power Cables Drawn from Bottom Surface

a. Loosen the four screws, bring up the two Stoppers, and retighten the screws.
b. Slide the two PDUs upward and dismount them from the Keyhole Brackets.

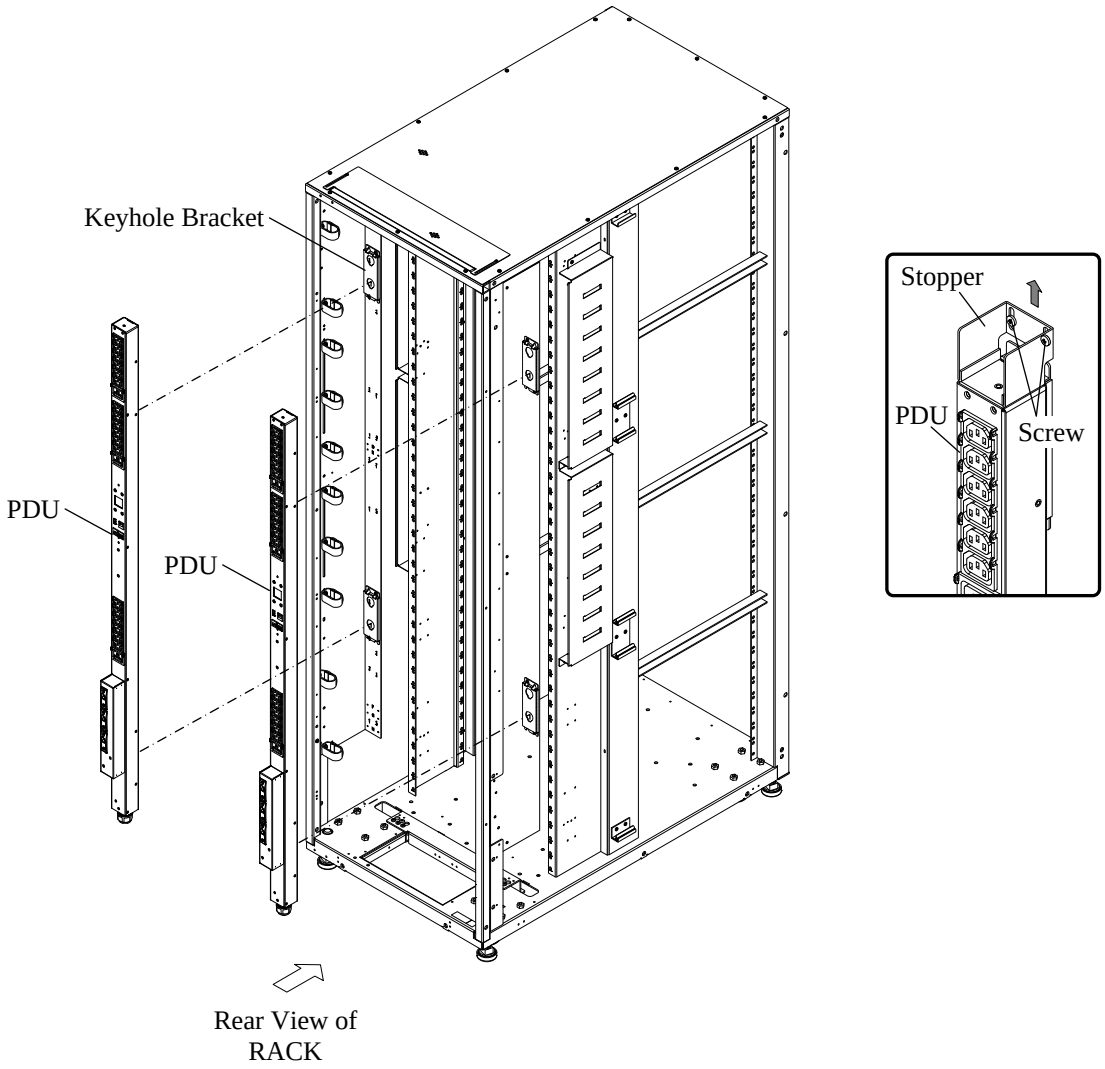


Fig. 4.13.1-5 PDU Removal

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In the Case of 3 Phase PDU (D9N51A/H5M72A) with Power Cables Drawn from Top Cover

a. Loosen the four screws, bring up the two Stoppers, and retighten the screws.
b. Slide the two PDUs upward and dismount them from the Keyhole Brackets.

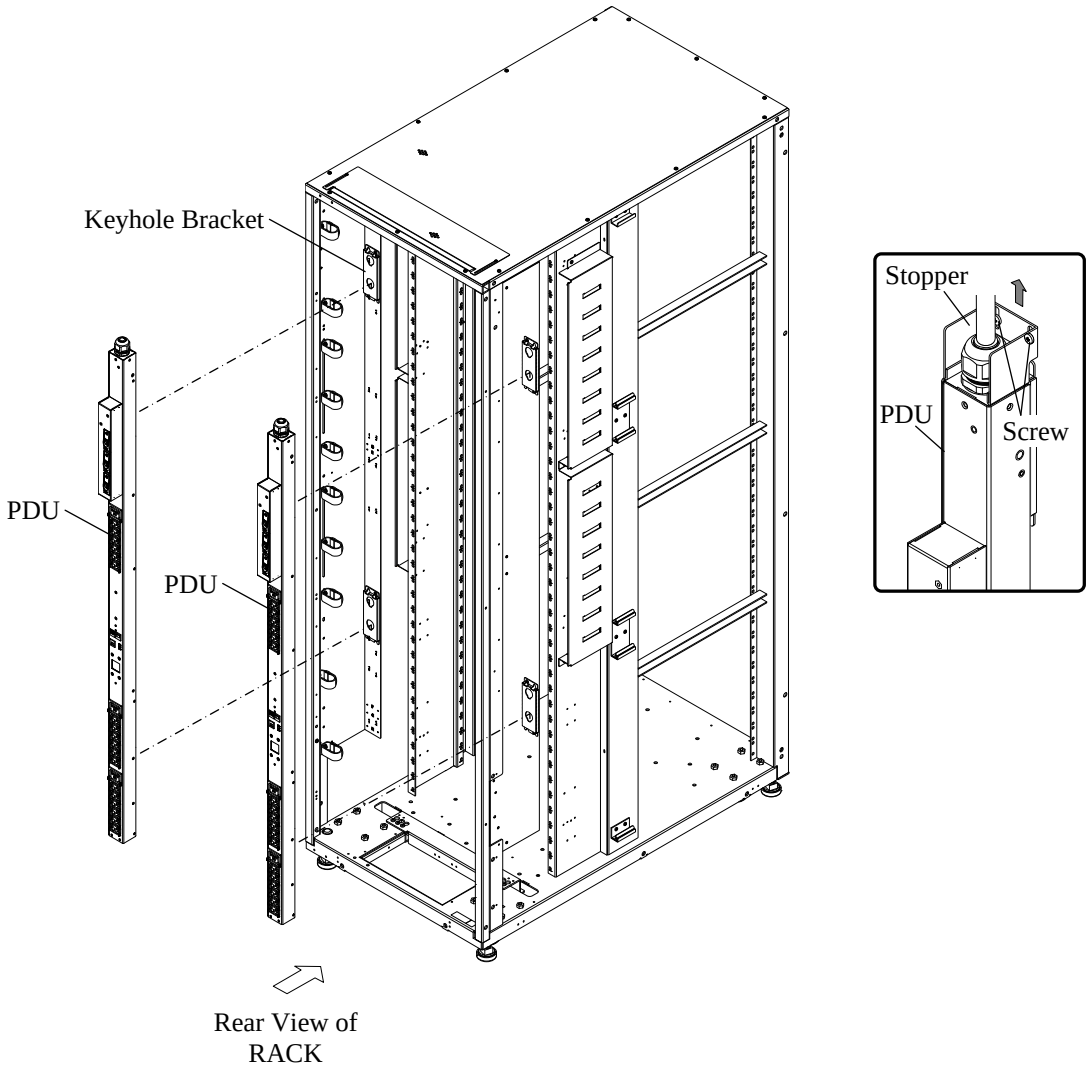


Fig. 4.13.1-6 PDU Removal (Upside Down)

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In the Case of 1 Phase PDU (H5M58A/H5M68A) with Power Cables Drawn from Bottom Surface

a. Loosen the eight screws, bring up the four Stoppers, and retighten the screws.
b. Slide the four PDUs upward and dismount them from the Keyhole Brackets.

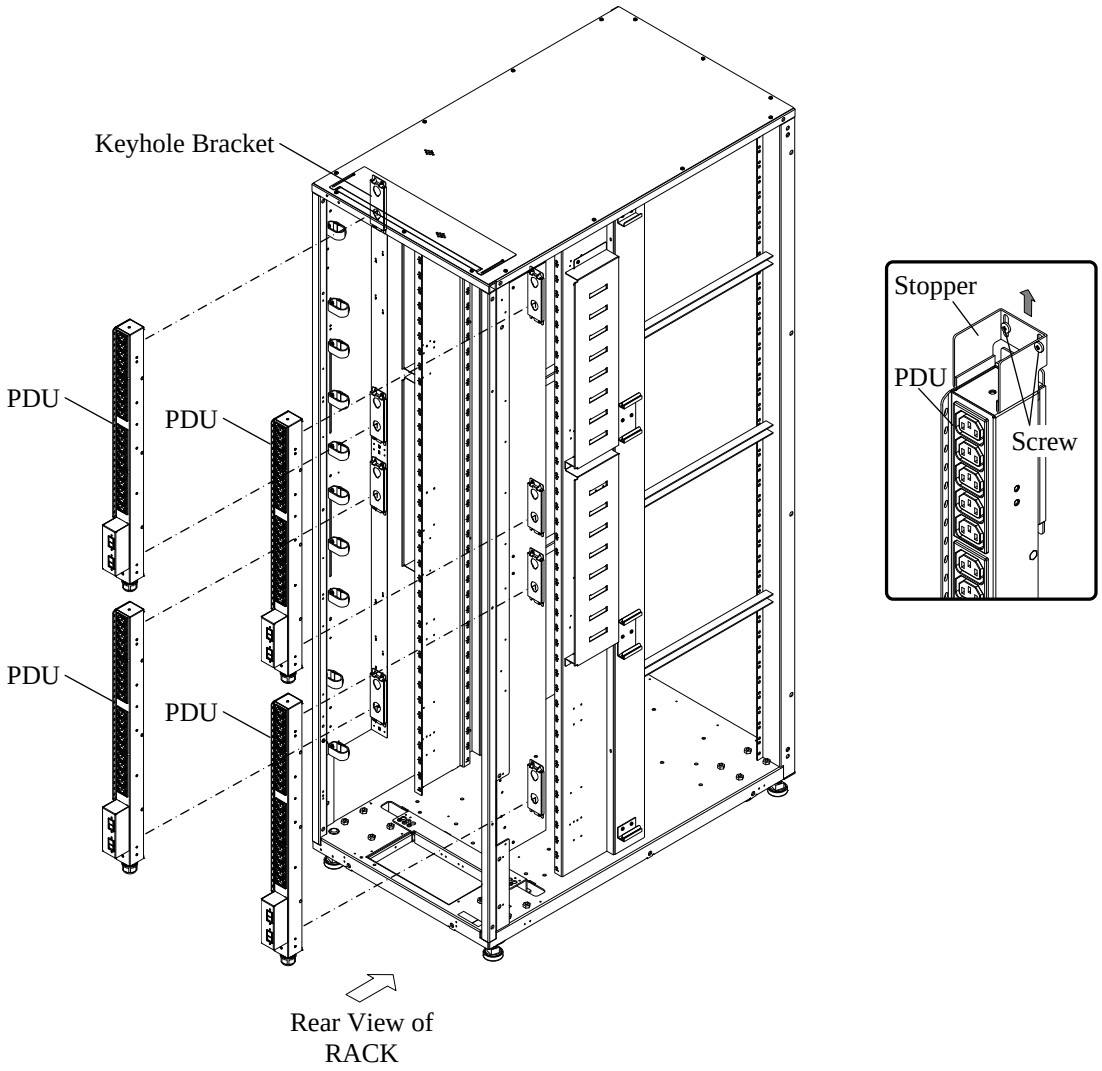


Fig. 4.13.1-7 PDU Removal

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In the Case of 1 Phase PDU (H5M58A/H5M68A) with Power Cables Drawn from Top Cover

a. Loosen the eight screws, bring up the four Stoppers, and retighten the screws.
b. Slide the four PDUs upward and dismount them from the Keyhole Brackets.

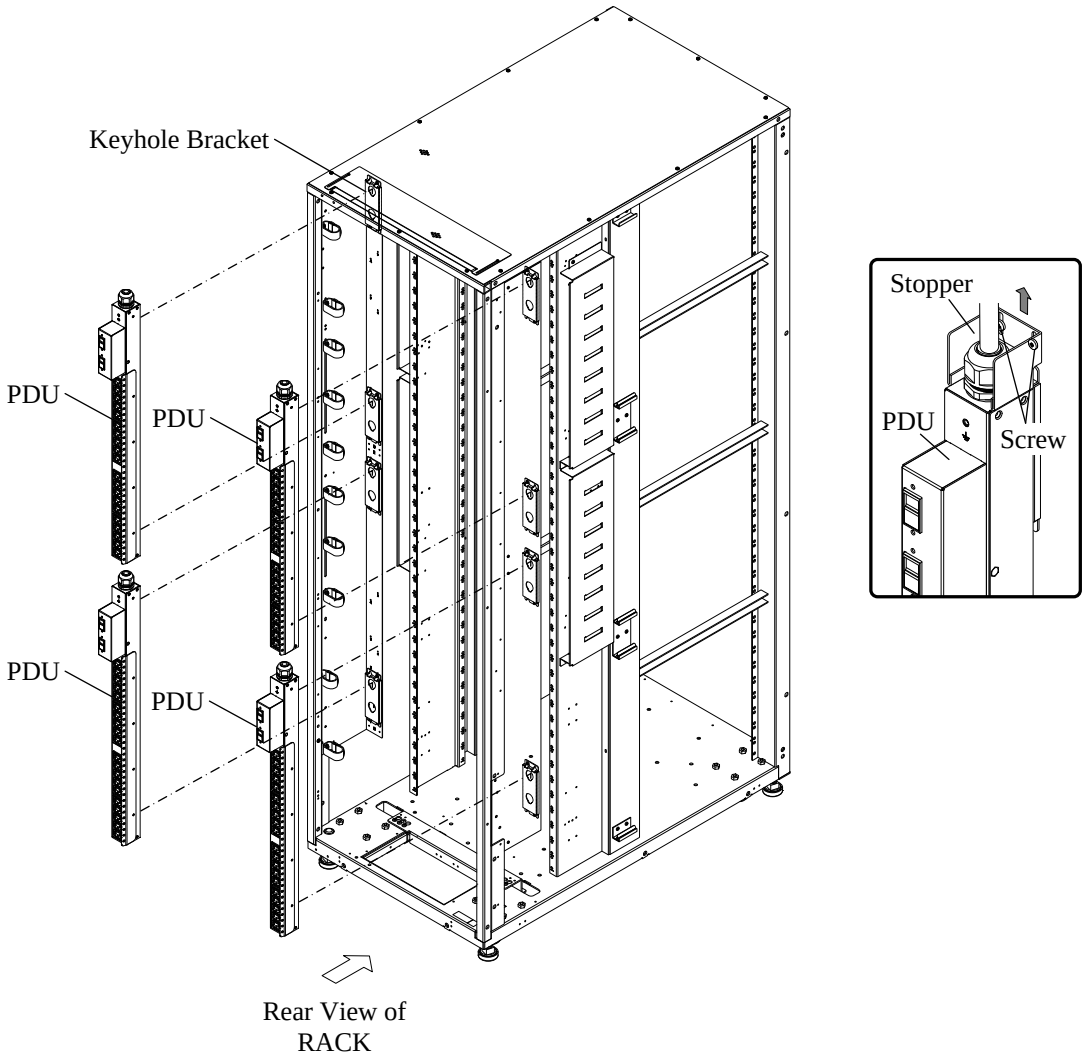


Fig. 4.13.1-8 PDU Removal (Upside Down)

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3. PDU Bracket Removal

In the Case of 3 Phase PDU (D9N51A/H5M72A)

a. Remove the eight screws from the Supports on the rear side of the rack and remove the four Keyhole Brackets.
b. Remove the four Screws (Stoppers) from the Supports and remove the two Stoppers.
c. Remove the screw ①, the 19 screws ②, the LL washer and the 19 P washers from the rack and remove the two Supports and the 20 Loop Cable Ties.

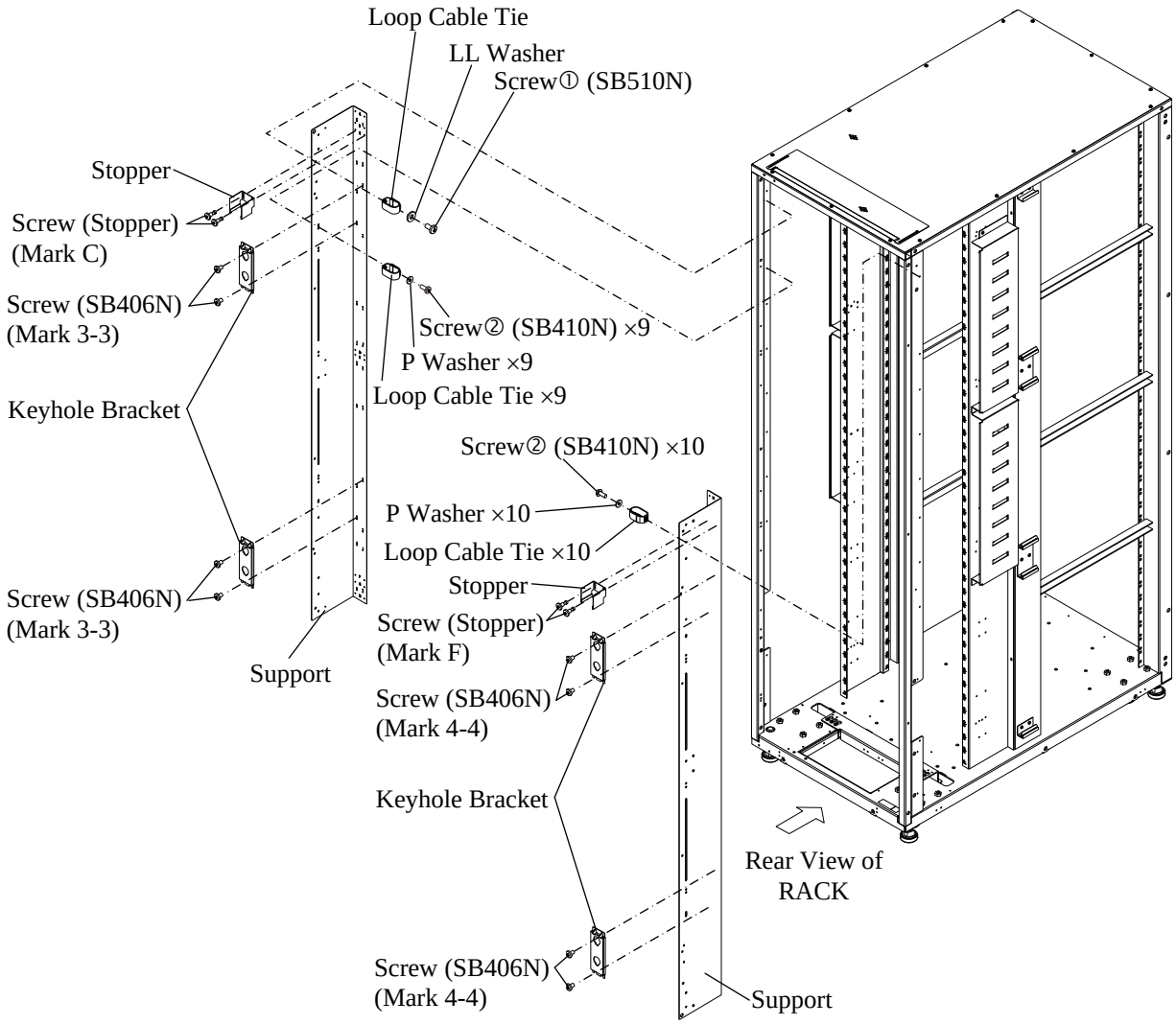


Fig. 4.13.1-9 Parts Removal

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In the Case of 1 Phase PDU (H5M58A/H5M68A)

a. Remove the 16 screws from the Supports on the rear side of the rack and remove the eight Keyhole Brackets.
b. Remove the eight Screws (Stoppers) from the Supports and remove the four Stoppers.
c. Remove the screw ①, the 19 screws ②, the LL washer and the 19 P washers from the rack and remove the two Supports and the 20 Loop Cable Ties.

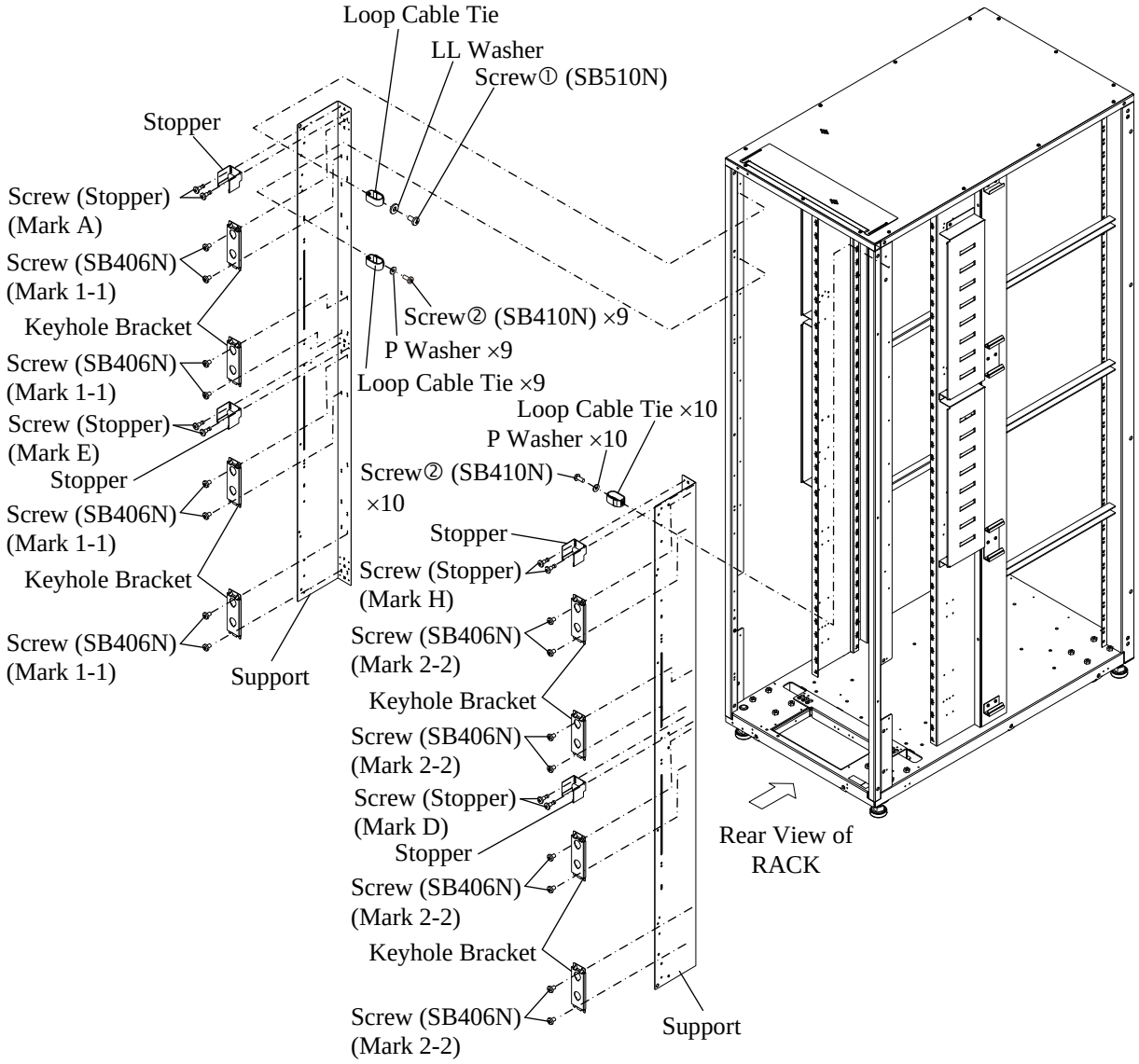


Fig. 4.13.1-10 Parts Removal

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d. Remove the eight screws from the rear side of the rack and remove the four Covers.
e. Attach the 20 Loop Cable Ties to the rear side of the rack and fix them with the 20 washers and 20 screws.

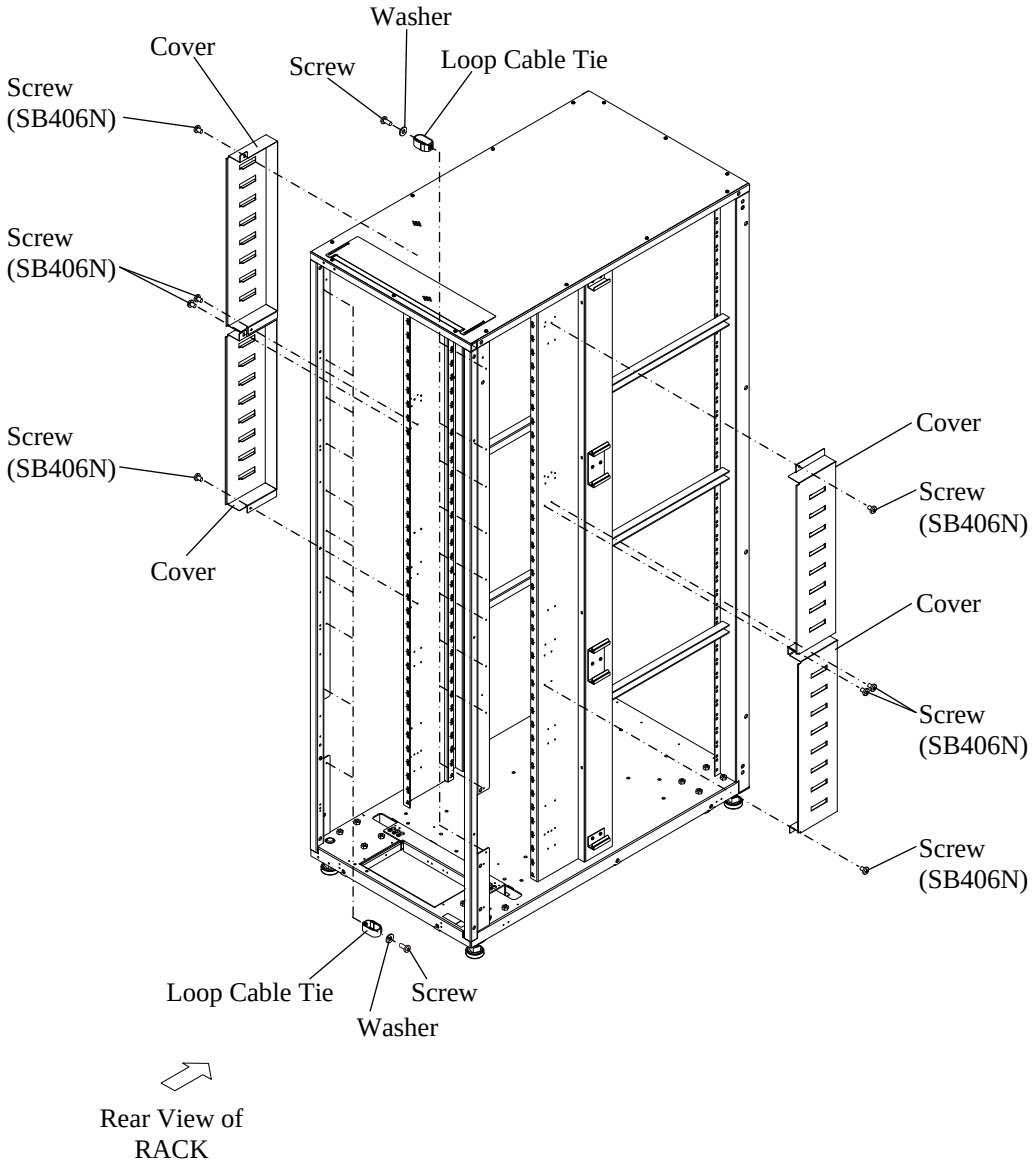


Fig. 4.13.1-11 Cover Removal

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4. Return to the working table and do the rest of the work.
   Non-Disruptive De-Installation: INST02-70