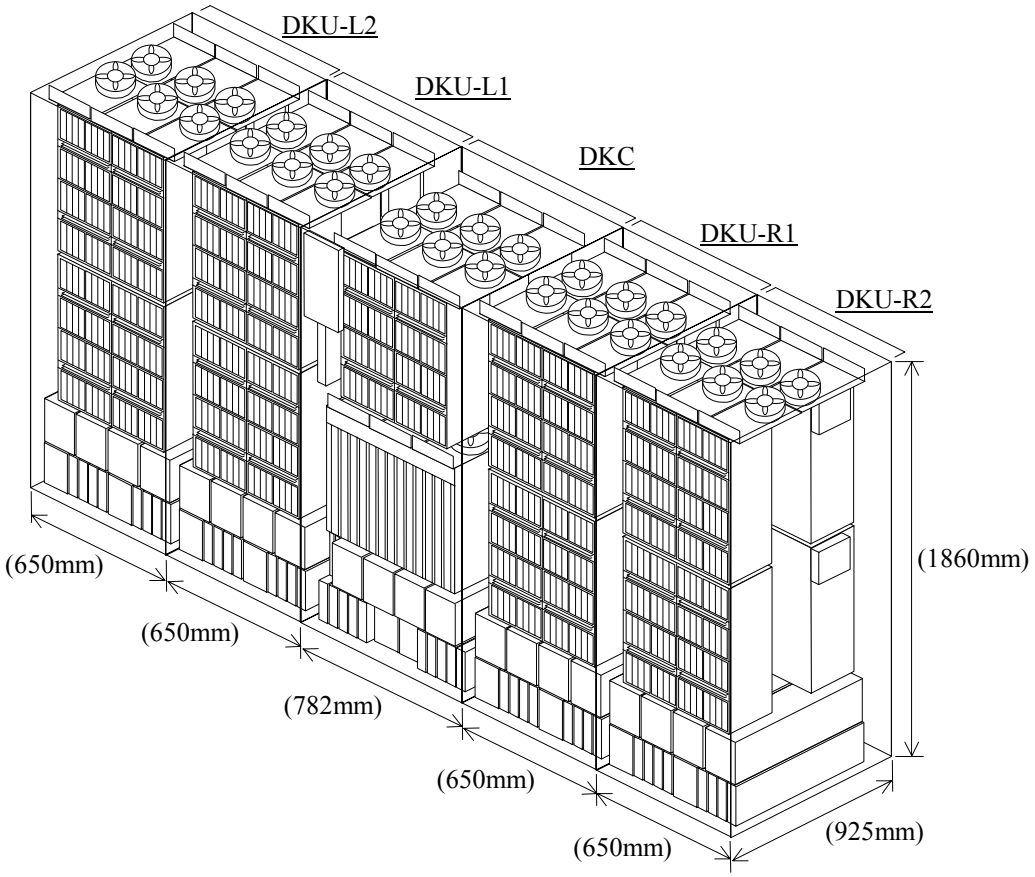
LOCATION SECTION

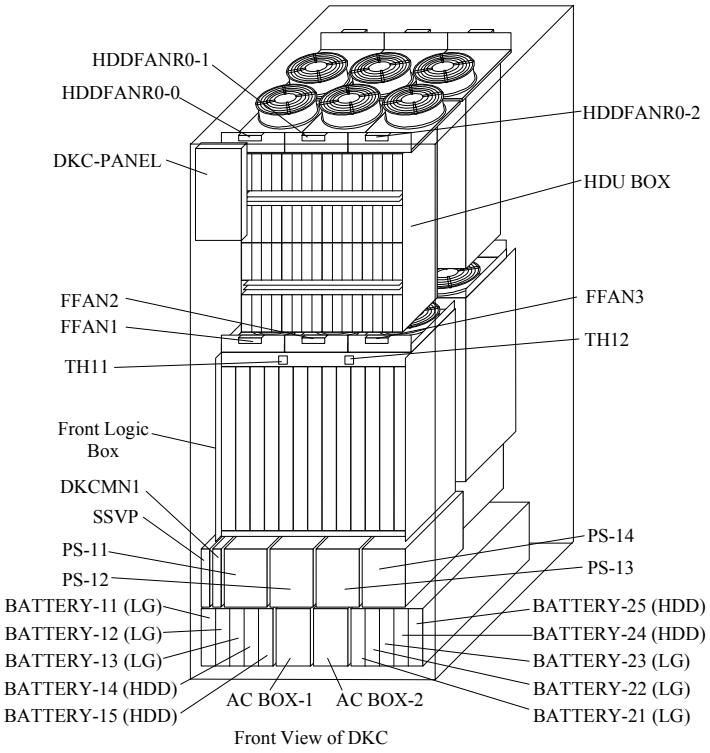
Contents

1. Overview of Disk Subsystem

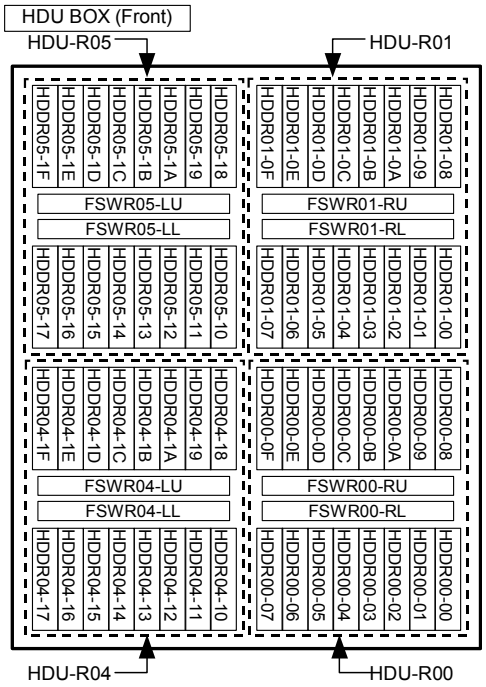


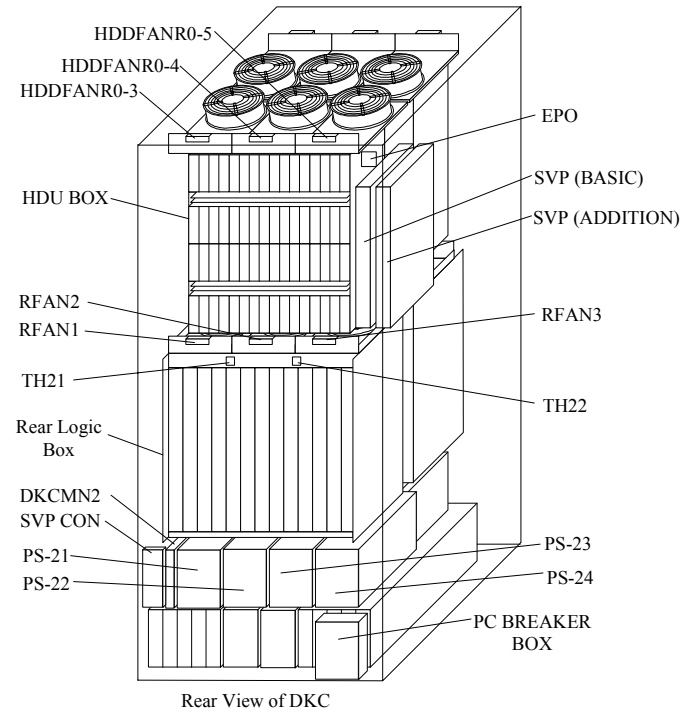
2. Parts Location

2.1 Disk Controller Unit

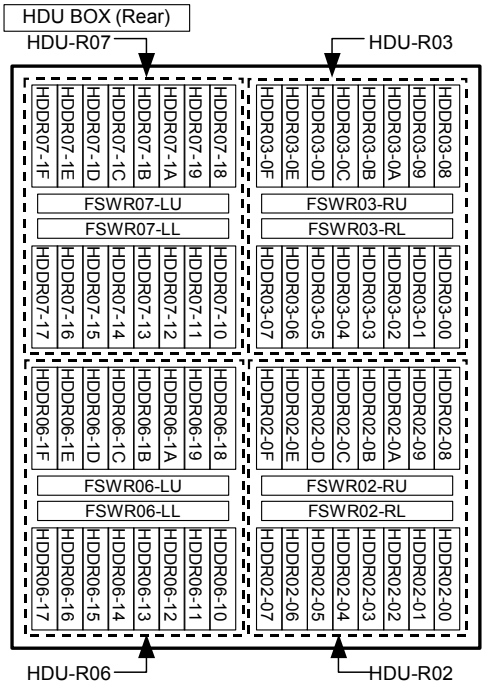


Front View of DKC

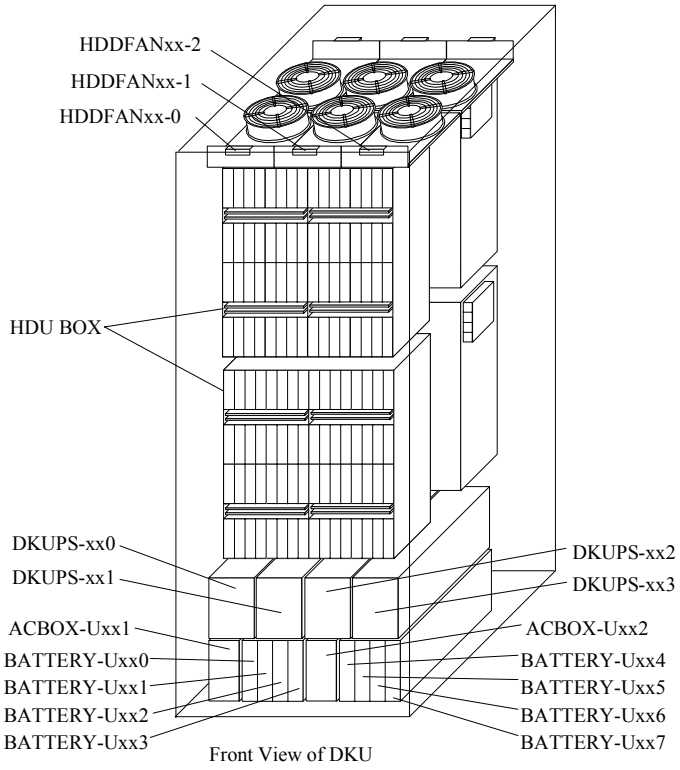




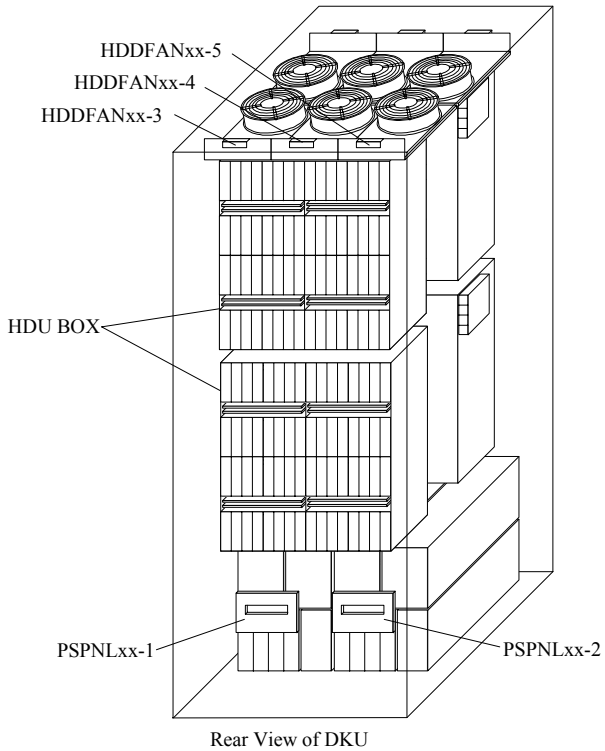
Rear View of DKC



2.2 Disk Unit

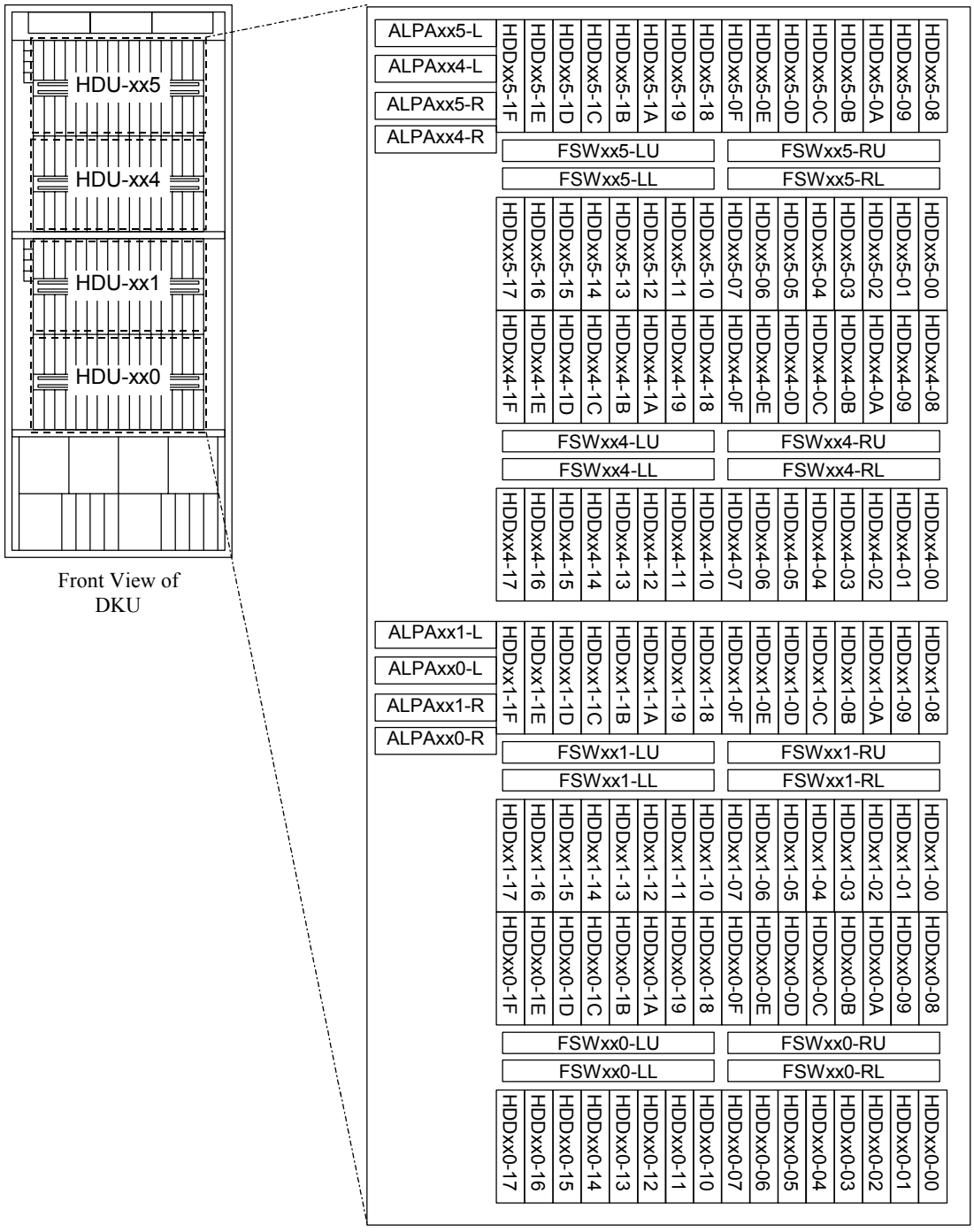


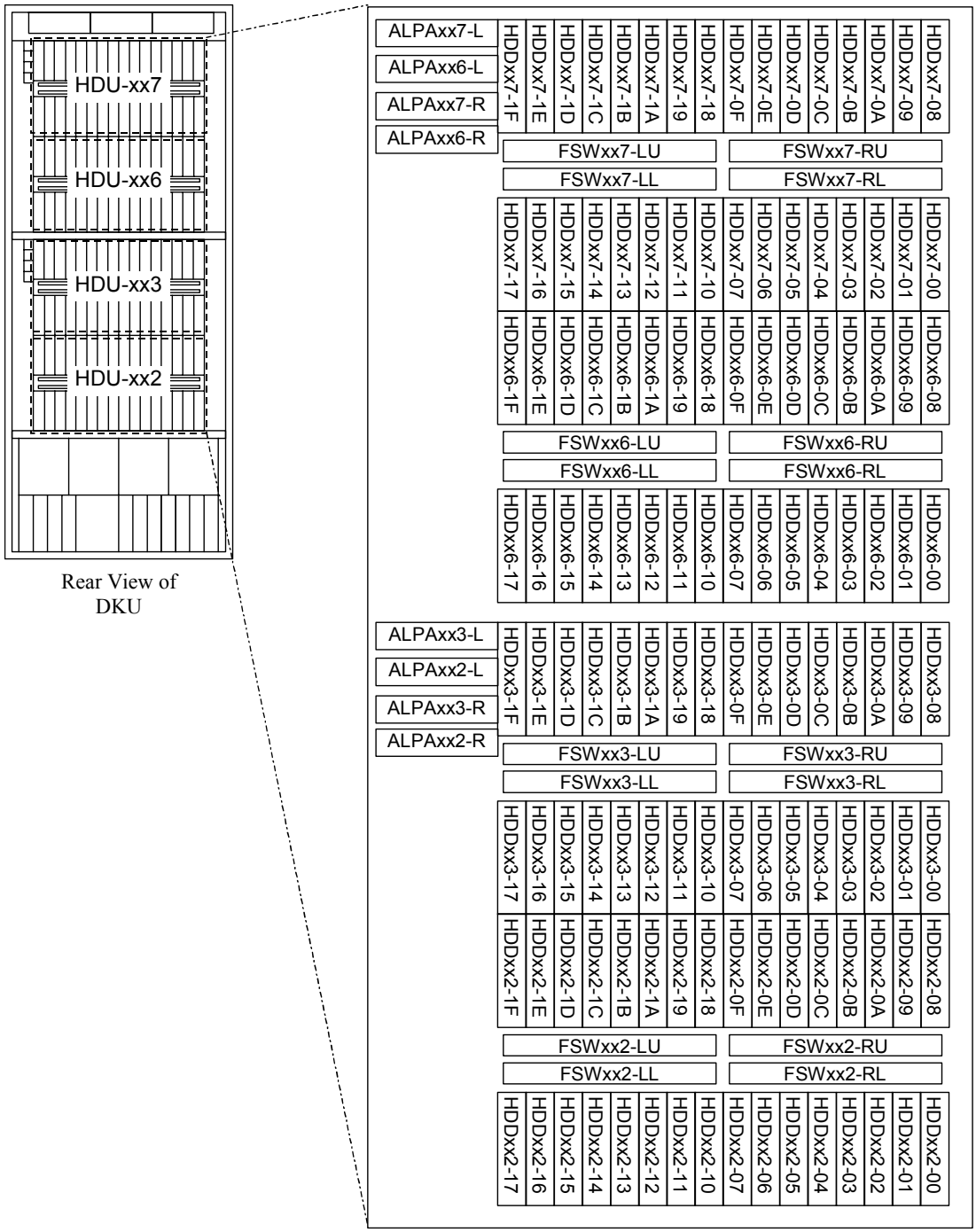
Front View of DKU



Rear View of DKU

[1] HDU Box Location





2.3 PCB and Power Supply Location

2.3.1 RoHS not Applied

FRONT LOGIC BOX PCB LOCATION (RoHS not applied)

CL1																							
1L		1K		1J		1H	1G	1CC (Note 1)			1SA		1CA (Note 1)			1F	1E	1D		1B		1A	
3rd DKA	6th CHA	4th DKA	5th CHA	WP530|A	WP530|B	4th CHA	3rd CHA	WP5441|A	WP5441|B ①	WP5441|B ②	WP5511|A *a	WP5511|B *b, *J	WP5441|A	WP5441|B ①	WP5441|B ②	2nd CHA	1st CHA	WP5330|A	WP5330|B	2nd DKA	7th CHA	1st DKA	8th CHA
											SM-1SA												
											1SC												
											WP5522|A	WP5522|B *A, *F, *J											
*E	*D	*E	*D	*C	*C, *H	*D	*D	*B	*B, *G	*K	*A		*a	*b	*b, *K	*D	*D	*a	*b	*E	*D	*E	*D
DKA -1L	CHA -1L	DKA -1K	CHA -1K	CSW -1J		CHA -1H	CHA -1G	CACHE -1CC			SM-1SC		CACHE -1CA			CHA -1F	CHA -1E	CSW -1D		DKA -1B	CHA -1B	DKA -1A	CHA -1A
Option2	Add.5	Option3	Add.4	Add.		Add.3	Add.2	Add.			Basic / Add.		Basic			Add.1	Basic	Basic		Option1	Add.6	Option B	Add.7

*A: DKC-F510I-SX *F: DKC-F510I-SXR *J: DKC-F510I-SX1GR *a: Basic PCB (RoHS not applied)
*B: DKC-F510I-CX *G: DKC-F510I-CXR *K: DKC-F510I-CX1GR *b: Basic PCB (RoHS applied)
*C: DKC-F510I-CSW *H: DKC-F510I-CSWR

(Note 1) WP541-B①: Part No. 5524251-C
WP541-B②: Part No. 5524246-C

*D: Description of CHA PCBs

CL1 (1E, 1F, 1G, 1H, 1K, 1L, 1B or 1A)																								
WP512|A ×1	SH343|A ×4	WP514|D ×1	SH343|B ×4	WP514|C ×1	SH343|B ×4	WP515|B ×1	SH343|A ×4	WP515|A ×1	SH343|A ×4	WP517|A ×1	SH343|A ×1	WP516|B ×1	SH343|B ×2	WP513|B ×1	SH343|A ×4	WP513|A ×1	SH343|A ×2	WP512|B ×1	SH343|B ×4	WP515|D ×1	SH343|B ×4	WP515|C ×1	SH343|B ×4	WP517|C ×1	SH343|B ×1	WP513|D ×1	SH343|B ×4	WP513|C ×1	SH343|B ×2	WP518|D ×1	SH343|B ×4	WP513|E ×1	SH343|B ×2	WP518|G ×1	SH343|B ×2	WP518|E ×1	SH343|B ×2	WP518|F ×1	SH343|B ×4	WP514|F ×1	SH343|B ×4	WP514|E ×1	SH343|B ×4	WP514|H ×1	SH343|B ×4
*1		*2		*3		*4		*5		*6		*7		*8		*9		*1,*10		*4,*11		*5,*12		*6,*13		*8,*14		*9,*15		*16		*17		*18		*19		*20		*21		*22		*23	

*1: DKC-F510I-16S
*2: DKC-F510I-16MLR
*3: DKC-F510I-16MSR
*4: DKC-F510I-8ML
*5: DKC-F510I-8MS
*6: DKC-F510I-8NS (Note 2)
*7: DKC-F510I-8ISR
*8: DKC-F510I-32HS
*9: DKC-F510I-16HS
*10: DKC-F510I-16SR
*11: DKC-F510I-8MLR
*12: DKC-F510I-8MSR
*13: DKC-F510I-8NSR (Note 2)
*14: DKC-F510I-32HSR
*15: DKC-F510I-16HSR
*16: DKC-F510I-32FSR
*17: DKC-F510I-8HSR
*18: DKC-F510I-8FS2R
*19: DKC-F510I-16FS2R
*20: DKC-F510I-32FS2R
*21: DKC-F510I-16MFLR
*22: DKC-F510I-16MFSR
*23: DKC-F510I-16MFL4R

(Note 2) The NAS8 port adapter (DKC-F510I-8NS/8NSR) cannot be added to the following slots.
Slot No. 1A, 1B, 1K and 1L (addition 4, addition 5, addition 6 and addition 7)

*E: Description of DKA PCBs

CL1 (1A, 1B, 1L or 1K)			
WP5203|A ×1	SH343|A ×4	WP5203|C ×1	SH343|B ×4
*1		*1, *2	

*1: DKC-F510I-400
*2: DKC-F510I-400R

REAR LOGIC BOX PCB LOCATION (RoHS not applied)

CL2																							
2M		2N		2P		2Q	2R	2CD (Note 1)			2SD		2CB (Note 1)			2T	2U	2V		2W		2X	
1st DKA	8th CHA	2nd DKA	7th CHA	WP530|A	WP530|B	1st CHA	2nd CHA	WP541|A	WP541|B ①	WP541|B ②	WP551|A *A	WP551|B *A, *F, *J	WP541|A	WP541|B ①	WP541|B ②	3rd CHA	4th CHA	WP530|A	WP530|B	4th DKA	5th CHA	3rd DKA	6th CHA
*E	*D	*E	*D	*a	*b	*D	*D	*B	*B, *G	*K	*a	*b, *J	*a	*b	*b, *K	*D	*D	*C	*C, *H	*E	*D	*E	*D
DKA -2M	CHA -2M	DKA -2N	CHA -2N	CSW -2P		CHA -2Q	CHA -2R	CACHE -2CD			SM-2SD / 2SB		CACHE -2CB			CHA -2T	CHA -2U	CSW -2V		DKA -2W	CHA -2W	DKA -2X	CHA -2X
Option B	Add.7	Option1	Add.6	Basic		Basic	Add.1	Add.			Add. / Basic		Basic			Add.2	Add.3	Add.		Option3	Add.4	Option2	Add.5

*A: DKC-F510I-SX *F: DKC-F510I-SXR *J: DKC-F510I-SX1GR *a: Basic PCB (RoHS not applied)
*B: DKC-F510I-CX *G: DKC-F510I-CXR *K: DKC-F510I-CX1GR *b: Basic PCB (RoHS applied)
*C: DKC-F510I-CSW *H: DKC-F510I-CSWR

(Note 1) WP541-B①: Part No. 5524251-C
WP541-B②: Part No. 5524246-C

*D: Description of CHA PCBs

CL2 (2Q 2R, 2T, 2U, 2W, 2X, 2N or 2M)																								
WP512|A ×1	SH343|A ×4	WP514|D ×1	SH343|B ×4	WP514|C ×1	SH343|B ×4	WP515|B ×1	SH343|A ×4	WP515|A ×1	SH343|A ×4	WP517|A ×1	SH343|A ×1	WP516|B ×1	SH343|B ×2	WP513|B ×1	SH343|A ×4	WP513|A ×1	SH343|A ×2	WP512|B ×1	SH343|B ×4	WP515|D ×1	SH343|B ×4	WP515|C ×1	SH343|B ×4	WP517|C ×1	SH343|B ×1	WP513|D ×1	SH343|B ×4	WP513|C ×1	SH343|B ×2	WP518|D ×1	SH343|B ×4	WP513|E ×1	SH343|B ×2	WP518|G ×1	SH343|B ×2	WP518|E ×1	SH343|B ×2	WP518|F ×1	SH343|B ×4	WP514|F ×1	SH343|B ×4	WP514|E ×1	SH343|B ×4	WP514|H ×1	SH343|B ×4
*1	*2	*3	*4	*5	*6	*7	*8	*9	*1,*10	*4,*11	*5,*12	*6,*13	*8,*14	*9,*15	*16	*17	*18	*19	*20	*21	*22	*23																												

*1: DKC-F510I-16S
*2: DKC-F510I-16MLR
*3: DKC-F510I-16MSR
*4: DKC-F510I-8ML
*5: DKC-F510I-8MS
*6: DKC-F510I-8NS (Note 2)
*7: DKC-F510I-8ISR
*8: DKC-F510I-32HS
*9: DKC-F510I-16HS
*10: DKC-F510I-16SR
*11: DKC-F510I-8MLR
*12: DKC-F510I-8MSR
*13: DKC-F510I-8NSR (Note 2)
*14: DKC-F510I-32HSR
*15: DKC-F510I-16HSR
*16: DKC-F510I-32FSR
*17: DKC-F510I-8HSR
*18: DKC-F510I-8FS2R
*19: DKC-F510I-16FS2R
*20: DKC-F510I-32FS2R
*21: DKC-F510I-16MFLR
*22: DKC-F510I-16MFSR
*23: DKC-F510I-16MFL4R

(Note 2) The NAS8 port adapter (DKC-F510I-8NS/8NSR) cannot be added to the following slots.
Slot No. 2M, 2N, 2W and 2X (addition 4, addition 5, addition 6 and addition 7)

*E: Description of DKA PCBs

CL2 (2M, 2N, 2X or 2W)			
WP520|A ×1	SH343|A ×4	WP520|C ×1	SH343|B ×4
*1		*1, *2	

*1: DKC-F510I-400
*2: DKC-F510I-400R

FRONT PS AND BATTERY LOCATION (RoHS not applied)

CL1/CL2		CL1									
SSVP		DKCMN1		PS-11		PS-12		PS-13		PS-14	
SH351-A *a	SH351-B *b	SH353-A *a	SH353-B *b	PS11		PS12		PS13 *A		PS14 *A	
BATTERY-11	BATTERY-12	BATTERY-13 *B	BATTERY-14	BATTERY-15 *C	AC BOX-1	AC BOX-2	BATTERY-21	BATTERY-22	BATTERY-23 *B	BATTERY-24	BATTERY-25 *C
LG	LG	LG	HDD	HDD	—	—	LG	LG	LG	HDD	HDD
CL1							CL2				

REAR PS LOCATION (RoHS not applied)

CL1/CL2		CL1					
SVP CON		DKCMN2		PS-21	PS-22	PS-23	PS-24
SH357-A *a	SH357-B *b	SH353-A *a	SH353-B *b	PS21	PS22	PS23 *A	PS24 *A

*A: DKC-F510I-AP/APR
*B: DKC-F510I-AB/ABR 1set
*C: DKC-F510I-AB/ABR 2sets

*a: RoHS not applied
*b: RoHS applied

2.3.2 RoHS Applied

FRONT LOGIC BOX PCB LOCATION (RoHS applied)

CL1																			
1L		1K		1J	1H	1G	1CC (Note 1)		1SA	1CA (Note 1)	1F	1E	1D	1B		1A	
3rd DKA	6th CHA	4th DKA	5th CHA	WP5301|B	4th CHA	3rd CHA	WP5411|B①	WP5411|B②	WP5511|B	WP5411|B②	2nd CHA	1st CHA	WP5301|B	2nd DKA	7th CHA	1st DKA	8th CHA
									SM-1SA								
									1SC								
									WP5522|B								
									*A, *G								
*E	*D	*E	*D	*C	*D	*D	*B	*H			*D	*D		*E	*D	*E	*D
DKA -1L	CHA -1L	DKA -1K	CHA -1K	CSW -1J	CHA -1H	CHA -1G	CACHE -1CC		SM-1SC	CACHE -1CA	CHA -1F	CHA -1E	CSW -1D	DKA -1B	CHA -1B	DKA -1A	CHA -1A
Option2	Add.5	Option3	Add.4	Add.	Add.3	Add.2	Add.		Basic / Add.	Basic	Add.1	Basic	Basic	Option1	Add.6	Option B	Add.7

*A: DKC-F510I-SXR *G: DKC-F510I-SX1GR (Note 1) WP541-B①: Part No. 5524251-C
*B: DKC-F510I-CXR *H: DKC-F510I-CX1GR WP541-B②: Part No. 5524246-C
*C: DKC-F510I-CSWR

*D: Description of CHA PCBs

CL1 (1E, 1F, 1G, 1H, 1K, 1L, 1B or 1A)																	
WP5112|B×1	SH3443|B×4	WP5115|D×1	SH3443|B×4	WP5115|C×1	SH3443|B×4	WP5117|C×1	SH3443|B×1	WP5113|D×1	SH3443|B×4	WP5113|C×1	SH3443|B×2	WP5114|D×1	SH3443|B×4	WP5114|C×1	SH3443|B×4	WP5118|D×1	SH3443|B×4
*1		*2		*3		*4		*5		*6		*7		*8		*9	

WP5116|B×1	SH3443|B×2	WP5113|E×1	SH3443|B×2	WP5118|G×1	SH3443|B×2	WP5118|E×1	SH3443|B×2	WP5118|F×1	SH3443|B×4	WP5114|F×1	SH3443|B×4	WP5114|E×1	SH3443|B×4	WP5114|H×1	SH3443|B×4
*10		*11		*12		*13		*14		*15		*16		*17	

*1: DKC-F510I-16SR *6: DKC-F510I-16HSR *11: DKC-F510I-8HSR *15: DKC-F510I-16MFLR
*2: DKC-F510I-8MLR *7: DKC-F510I-16MLR *12: DKC-F510I-8FS2R *16: DKC-F510I-16MFSR
*3: DKC-F510I-8MSR *8: DKC-F510I-16MSR *13: DKC-F510I-16FS2R *17: DKC-F510I-16MFL4R
*4: DKC-F510I-8NSR (Note 2) *9: DKC-F510I-32FSR *14: DKC-F510I-32FS2R
*5: DKC-F510I-32HSR *10: DKC-F510I-8ISR

(Note 2) The NAS8 port adapter (DKC-F510I-8NSR) cannot be added to the following slots.
Slot No. 1A, 1B, 1K and 1L (addition 4, addition 5, addition 6 and addition 7)

*E: Description of DKA PCBs

CL1 (1A, 1B, 1L or 1K)	
WP5203|C×1	SH3443|B×4
*1	

*1: DKC-F510I-400R

REAR LOGIC BOX PCB LOCATION (RoHS applied)

CL2																
2M		2N		2P	2Q	2R	2CD (Note 1)		2SD	2CB (Note 1)	2T	2U	2V	2W		2X	
1st DKA	8th CHA	2nd DKA	7th CHA	WP530|B	1st CHA	2nd CHA	WP541|B①	WP541|B②	WP551|B *A *G SM-2SD 2SB WP5522|B	WP541|B②	3rd CHA	4th CHA	WP530|B	4th DKA	5th CHA	3rd DKA	6th CHA
*E	*D	*E	*D		*D	*D	*B	*H			*D	*D	*C	*E	*D	*E	*D
DKA-2M	CHA-2M	DKA-2N	CHA-2N	CSW-2P	CHA-2Q	CHA-2R	CACHE-2CD		SM-2SB	CACHE-2CB	CHA-2T	CHA-2U	CSW-2V	DKA-2W	CHA-2W	DKA-2X	CHA-2X
Option B	Add.7	Option1	Add.6	Basic	Basic	Add.1	Add.		Add. / Basic	Basic	Add.2	Add.3	Add.	Option3	Add.4	Option2	Add.5

*A: DKC-F510I-SXR *G: DKC-F510I-SX1GR (Note 1) WP541-B①: Part No. 5524251-C
*B: DKC-F510I-CXR *H: DKC-F510I-CX1GR WP541-B②: Part No. 5524246-C
*C: DKC-F510I-CSWR

*D: Description of CHA PCBs

CL2 (2Q 2R, 2T, 2U, 2W, 2X, 2N or 2M)																																	
WP512|B×1	SH4343|B×4	WP5115|D×1	SH4343|B×4	WP5115|C×1	SH4343|B×4	WP5117|C×1	SH4343|B×1	WP5113|D×1	SH4343|B×4	WP5113|C×1	SH4343|B×2	WP5114|D×1	SH4343|B×4	WP5114|C×1	SH4343|B×4	WP5118|D×1	SH4343|B×4	WP5116|B×1	SH4343|B×2	WP5113|E×1	SH4343|B×2	WP5118|G×1	SH4343|B×2	WP5118|E×1	SH4343|B×2	WP5118|F×1	SH4343|B×4	WP5114|F×1	SH4343|B×4	WP5114|E×1	SH4343|B×4	WP5114|H×1	SH4343|B×4
*1		*2		*3		*4		*5		*6		*7		*8		*9		*10		*11		*12		*13		*14		*15		*16		*17	

*1: DKC-F510I-16SR *6: DKC-F510I-16HSR *11: DKC-F510I-8HSR *15: DKC-F510I-16MFLR
*2: DKC-F510I-8MLR *7: DKC-F510I-16MLR *12: DKC-F510I-8FS2R *16: DKC-F510I-16MFSR
*3: DKC-F510I-8MSR *8: DKC-F510I-16MSR *13: DKC-F510I-16FS2R *17: DKC-F510I-16MFL4R
*4: DKC-F510I-8NSR (Note 2) *9: DKC-F510I-32FSR *14: DKC-F510I-32FS2R
*5: DKC-F510I-32HSR *10: DKC-F510I-8ISR

(Note 2) The NAS8 port adapter (DKC-F510I-8NSR) cannot be added to the following slots.
Slot No. 2M, 2N, 2W and 2X (addition 4, addition 5, addition 6 and addition 7)

*E: Description of DKA PCBs

CL2 (2M, 2N, 2X or 2W)	
WP5320|C×1	SH4343|B×4
*1	

*1: DKC-F510I-400R

FRONT PS AND BATTERY LOCATION (RoHS applied)

CL1/CL2		CL1									
SSVP		DKCMN1		PS-11		PS-12		PS-13		PS-14	
SH351-B		SH353-B		PS11		PS12		PS13 *A		PS14 *A	
BATTERY-11	BATTERY-12	BATTERY-13 *B	BATTERY-14	BATTERY-15 *C	AC BOX-1	AC BOX-2	BATTERY-21	BATTERY-22	BATTERY-23 *B	BATTERY-24	BATTERY-25 *C
LG	LG	LG	HDD	HDD	—	—	LG	LG	LG	HDD	HDD
CL1							CL2				

REAR PS LOCATION (RoHS applied)

CL1/CL2	CL1				
SVP CON	DKCMN2	PS-21	PS-22	PS-23	PS-24
SH357-B	SH353-B	PS21	PS22	PS23 *A	PS24 *A

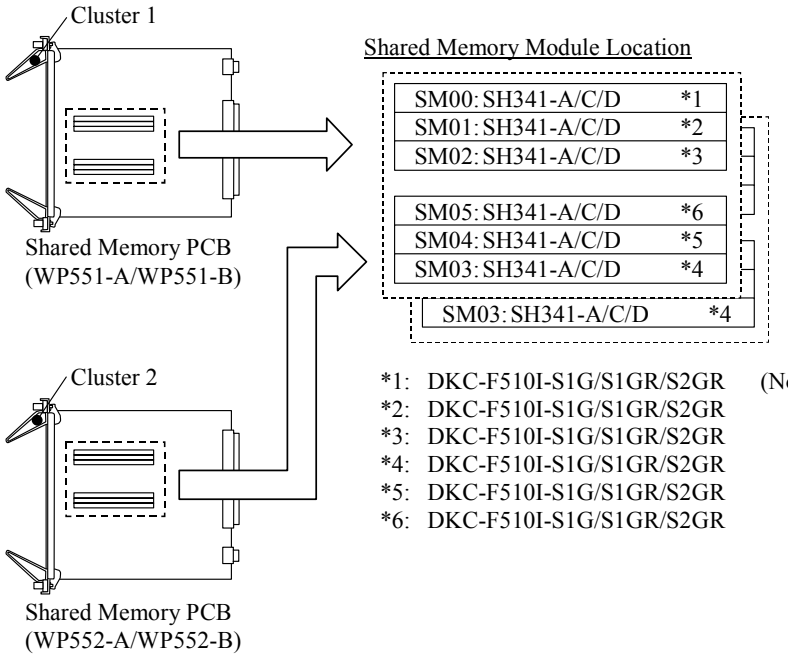
*A: DKC-F510I-APR
*B: DKC-F510I-ABR 1set
*C: DKC-F510I-ABR 2sets

2.4 Shared Memory Module Location

2.4.1 RoHS not Applied

Note: DKC-F510I-S2GR can be installed on the Shared Memory PCB of DKC-F510I-SX1GR. It cannot be installed on the Shared Memory PCB of Basic PCB and DKC-F510I-SX/SXR.

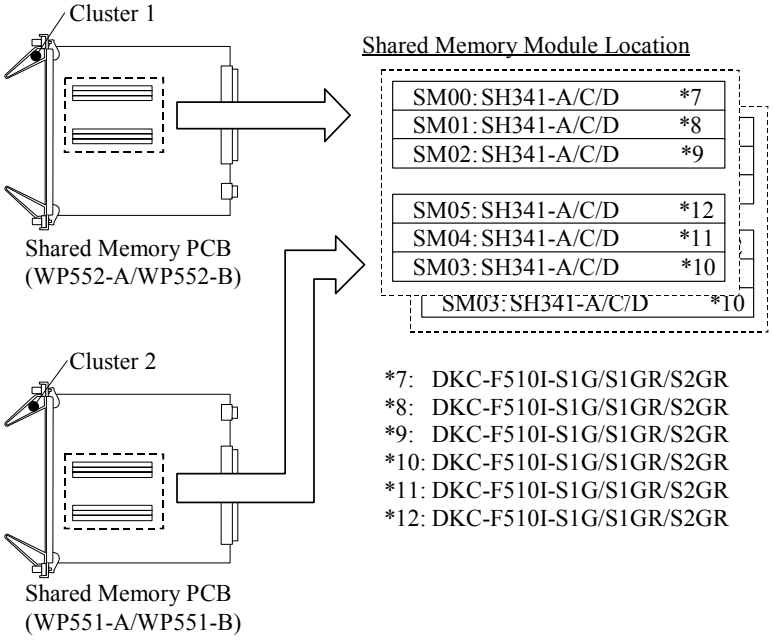
1. Standard Shared Memory PCB (Basic PCB or DKC-F510I-SX1GR)



*1: DKC-F510I-S1G/S1GR/S2GR
*2: DKC-F510I-S1G/S1GR/S2GR
*3: DKC-F510I-S1G/S1GR/S2GR
*4: DKC-F510I-S1G/S1GR/S2GR
*5: DKC-F510I-S1G/S1GR/S2GR
*6: DKC-F510I-S1G/S1GR/S2GR

(Note) DKC-F510I-S1G: SH341-A/C
DKC-F510I-S1GR: SH341-C
DKC-F510I-S2GR: SH341-D
Basic PCB: WP551-A, WP552-A, WP551-B, WP552-B
DKC-F510I-SX1GR: WP551-B, WP552-B

2. Additional Shared Memory PCB (DKC-F510I-SX/SXR/SX1GR)



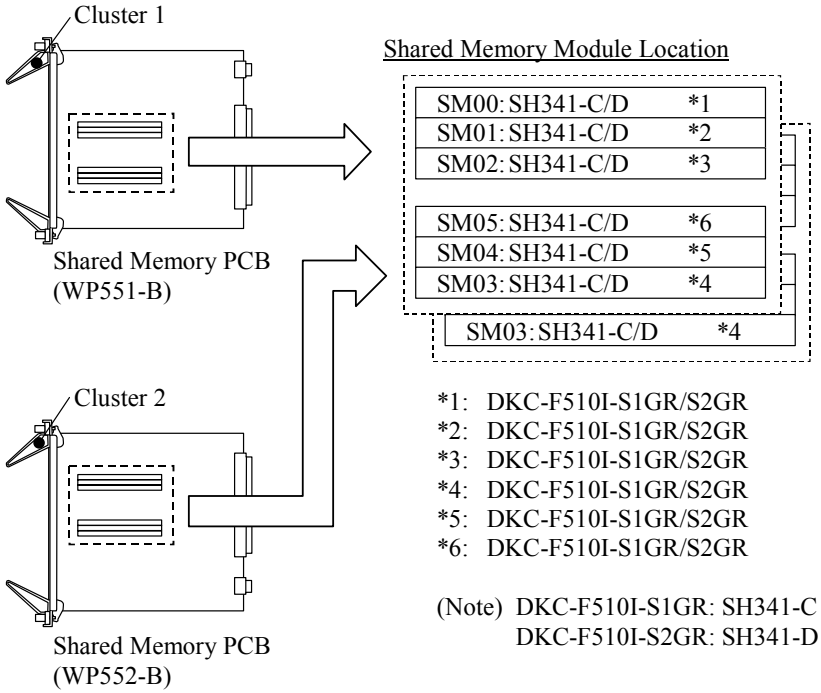
*7: DKC-F510I-S1G/S1GR/S2GR
*8: DKC-F510I-S1G/S1GR/S2GR
*9: DKC-F510I-S1G/S1GR/S2GR
*10: DKC-F510I-S1G/S1GR/S2GR
*11: DKC-F510I-S1G/S1GR/S2GR
*12: DKC-F510I-S1G/S1GR/S2GR

(Note) DKC-F510I-S1G: SH341-A/C
DKC-F510I-S1GR: SH341-C
DKC-F510I-S2GR: SH341-D
DKC-F510I-SX: WP551-A, WP552-A, WP551-B, WP552-B
DKC-F510I-SXR: WP551-B, WP552-B
DKC-F510I-SX1GR: WP551-B, WP552-B

2.4.2 RoHS Applied

Note: DKC-F510I-S2GR can be installed on the Shared Memory PCB of Basic PCB and DKC-F510I-SX1GR. It cannot be installed on the Shared Memory PCB of DKC-F510I-SXR.

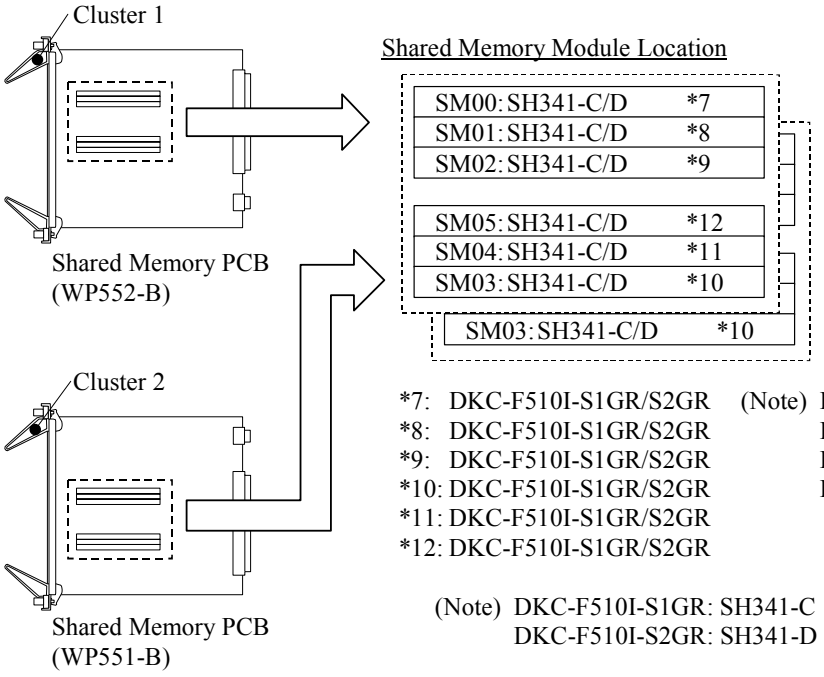
1. Standard Shared Memory PCB (Basic PCB)



*1: DKC-F510I-S1GR/S2GR
*2: DKC-F510I-S1GR/S2GR
*3: DKC-F510I-S1GR/S2GR
*4: DKC-F510I-S1GR/S2GR
*5: DKC-F510I-S1GR/S2GR
*6: DKC-F510I-S1GR/S2GR

(Note) DKC-F510I-S1GR: SH341-C
DKC-F510I-S2GR: SH341-D

2. Additional Shared Memory PCB (DKC-F510I-SXR/SX1GR)



*7: DKC-F510I-S1GR/S2GR
*8: DKC-F510I-S1GR/S2GR
*9: DKC-F510I-S1GR/S2GR
*10: DKC-F510I-S1GR/S2GR
*11: DKC-F510I-S1GR/S2GR
*12: DKC-F510I-S1GR/S2GR

(Note) DKC-F510I-S1GR: SH341-C
DKC-F510I-S2GR: SH341-D

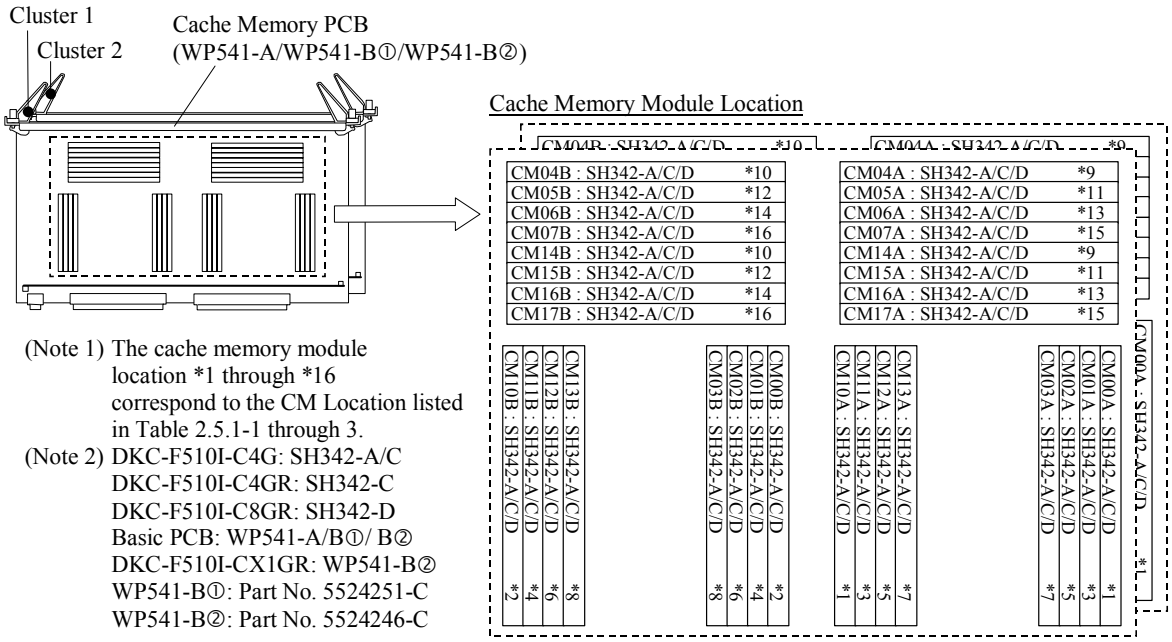
(Note) DKC-F510I-S1GR: SH341-C
DKC-F510I-S2GR: SH341-D
DKC-F510I-SXR: WP551-B, WP552-B
DKC-F510I-SX1GR: WP551-B, WP552-B

2.5 Cache Memory Module Location

2.5.1 RoHS not Applied

Note: DKC-F510I-C8GR can be installed on the Cache Memory PCB of DKC-F510I-CX1GR. It cannot be installed on the Cache Memory PCB of Basic PCB and DKC-F510I-CX/CXR.

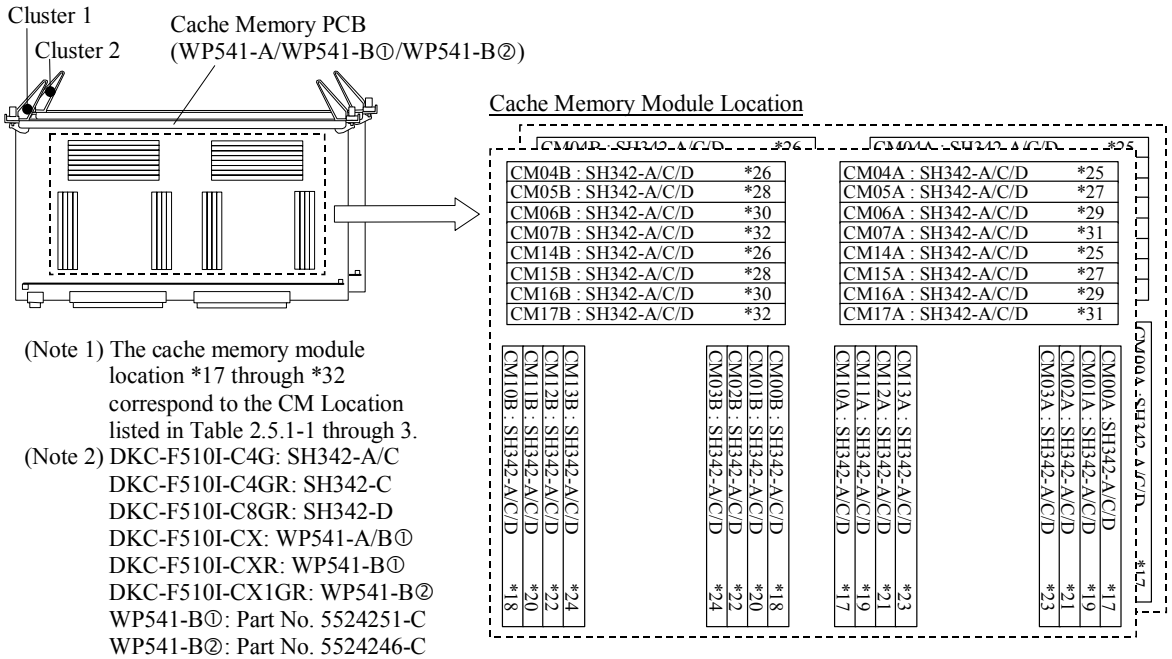
1. Standard Cache Memory PCB (Basic PCB or DKC-F510I-CX1GR)



(Note 1) The cache memory module location *1 through *16 correspond to the CM Location listed in Table 2.5.1-1 through 3.
(Note 2) DKC-F510I-C4G: SH342-A/C
DKC-F510I-C4GR: SH342-C
DKC-F510I-C8GR: SH342-D
Basic PCB: WP541-A/B①/ B②
DKC-F510I-CX1GR: WP541-B②
WP541-B①: Part No. 5524251-C
WP541-B②: Part No. 5524246-C

Fig. 2.5.1-1 Cache Memory Module Location

2. Additional Cache Memory PCB (DKC-F510I-CX/CXR/CX1GR)



(Note 1) The cache memory module location *17 through *32 correspond to the CM Location listed in Table 2.5.1-1 through 3.
(Note 2) DKC-F510I-C4G: SH342-A/C
DKC-F510I-C4GR: SH342-C
DKC-F510I-C8GR: SH342-D
DKC-F510I-CX: WP541-A/B①
DKC-F510I-CXR: WP541-B①
DKC-F510I-CX1GR: WP541-B②
WP541-B①: Part No. 5524251-C
WP541-B②: Part No. 5524246-C

Fig. 2.5.1-2 Cache Memory Module Location (RoHS not applied)

Table 2.5.1-1 Cache memory capacity and number of necessary options
(RoHS not applied, Standard Cache Access Model ①)

Cache Memory Capacity	Number of options (Standard Cache Access Model)										
	Using DKC-F510I-C4G/C4GR					Using DKC-F510I-C8GR					
	Cache PCB		CM Location (Note 1)	DKC-F510I-C4G/C4GR	DKC-F510I-AB/ABR	Cache PCB		CM Location (Note 1)	DKC-F510I-C8GR	DKC-F510I-AB/ABR	DKC-F510I-AP/APR
	Basic Slot	Add. Slot				Basic Slot	Add. Slot				
	Basic PCB	CX/CXR/CX1GR				CX1GR	CX1GR				
4GB	(Note 2)	—	*1	1	0	—	—	—	—	—	0
8GB	(Note 2)	—	*2	2	0	1	—	*1	1	0	0
12GB	(Note 2)	—	*3	3	0	—	—	—	—	—	0
16GB	(Note 2)	—	*4	4	0	1	—	*2	2	0	0
20GB	(Note 2)	—	*5	5	0	—	—	—	—	—	0
24GB	(Note 2)	—	*6	6	0	1	—	*3	3	0	0
28GB	(Note 2)	—	*7	7	0	—	—	—	—	—	0
32GB	(Note 2)	—	*8	8	0	1	—	*4	4	0	0
36GB	(Note 2)	—	*9	9	0	—	—	—	—	—	0
40GB	(Note 2)	—	*10	10	0	1	—	*5	5	0	0
44GB	(Note 2)	—	*11	11	0	—	—	—	—	—	0
48GB	(Note 2)	—	*12	12	0	1	—	*6	6	0	0
52GB	(Note 2)	—	*13	13	0	—	—	—	—	—	0
56GB	(Note 2)	—	*14	14	0	1	—	*7	7	0	0
60GB	(Note 2)	—	*15	15	0	—	—	—	—	—	0
64GB	(Note 2)	—	*16	16	0	1	—	*8	8	0	0
68GB	(Note 2)	1	*17	17	2	—	—	—	—	—	1
72GB	(Note 2)	1	*18	18	2	1	—	*9	9	1	1
76GB	(Note 2)	1	*19	19	2	—	—	—	—	—	1
80GB	(Note 2)	1	*20	20	2	1	—	*10	10	1	1
84GB	(Note 2)	1	*21	21	2	—	—	—	—	—	1
88GB	(Note 2)	1	*22	22	2	1	—	*11	11	1	1
92GB	(Note 2)	1	*23	23	2	—	—	—	—	—	1
96GB	(Note 2)	1	*24	24	2	1	—	*12	12	1	1
100GB	(Note 2)	1	*25	25	2	—	—	—	—	—	1
104GB	(Note 2)	1	*26	26	2	1	—	*13	13	1	1
108GB	(Note 2)	1	*27	27	2	—	—	—	—	—	1
112GB	(Note 2)	1	*28	28	2	1	—	*14	14	1	1
116GB	(Note 2)	1	*29	29	2	—	—	—	—	—	1
120GB	(Note 2)	1	*30	30	2	1	—	*15	15	1	1
124GB	(Note 2)	1	*31	31	2	—	—	—	—	—	1
128GB	(Note 2)	1	*32	32	2	1	—	*16	16	1	1
136GB	—	—	—	—	—	1	1	*17	17	2	1
144GB	—	—	—	—	—	1	1	*18	18	2	1
152GB	—	—	—	—	—	1	1	*19	19	2	1
160GB	—	—	—	—	—	1	1	*20	20	2	1

(To be continued)

(Continued from the preceding page)

Cache Memory Capacity	Number of options (Standard Cache Access Model)										
	Using DKC-F510I-C4G/C4GR					Using DKC-F510I-C8GR					
	Cache PCB		CM Location (Note 1)	DKC-F510I-C4G/C4GR	DKC-F510I-AB/ABR	Cache PCB		CM Location (Note 1)	DKC-F510I-C8GR	DKC-F510I-AB/ABR	DKC-F510I-AP/APR
	Basic Slot	Add. Slot				Basic Slot	Add. Slot				
	Basic PCB	CX/CXR/CX1GR				CX1GR	CX1GR				
168GB	—	—	—	—	—	1	1	*21	21	2	1
176GB	—	—	—	—	—	1	1	*22	22	2	1
184GB	—	—	—	—	—	1	1	*23	23	2	1
192GB	—	—	—	—	—	1	1	*24	24	2	1
200GB	—	—	—	—	—	1	1	*25	25	2	1
208GB	—	—	—	—	—	1	1	*26	26	2	1
216GB	—	—	—	—	—	1	1	*27	27	2	1
224GB	—	—	—	—	—	1	1	*28	28	2	1
232GB	—	—	—	—	—	1	1	*29	29	2	1
240GB	—	—	—	—	—	1	1	*30	30	2	1
248GB	—	—	—	—	—	1	1	*31	31	2	1
256GB	—	—	—	—	—	1	1	*32	32	2	1

Note 1: The above numbers (*1 through *32) represent the Cache Memory Module locations shown in Fig 2.5.1-1 and Fig 2.5.1-2.

Note 2: The WP541-A, WP541-B (Part No. 5524251-C) or WP541-B (Part No. 5524246-C) is installed in the basic slot.

Note 3: A cache memory can’t be set up in the ‘ - ’ mark.

Table 2.5.1-2 Cache memory capacity and number of necessary options (RoHS not applied, Standard Cache Access Model ②)

Cache Memory Capacity	Number of options (Standard Cache Access Model)						
	DKC-F510I-C4G/C4GR and DKC-F510I-C8GR intermix						DKC-F510I -AP/APR
	Cache PCB				CM Location (Note 1)	DKC-F510I -AB/ABR	
	Basic Slot		Add. Slot				
	Basic PCB	C4G/C4GR	CX1GR	C8GR			
4GB	(Note 2)	1	—	0	*1	0	0
8GB	(Note 2)	2	—	0	*2	0	0
12GB	(Note 2)	3	—	0	*3	0	0
16GB	(Note 2)	4	—	0	*4	0	0
20GB	(Note 2)	5	—	0	*5	0	0
24GB	(Note 2)	6	—	0	*6	0	0
28GB	(Note 2)	7	—	0	*7	0	0
32GB	(Note 2)	8	—	0	*8	0	0
36GB	(Note 2)	9	—	0	*9	0	0
40GB	(Note 2)	10	—	0	*10	0	0
44GB	(Note 2)	11	—	0	*11	0	0
48GB	(Note 2)	12	—	0	*12	0	0
52GB	(Note 2)	13	—	0	*13	0	0
56GB	(Note 2)	14	—	0	*14	0	0
60GB	(Note 2)	15	—	0	*15	0	0
64GB	(Note 2)	16	—	0	*16	0	0
72GB	(Note 2)	16	1	1	*17	2	1
80GB	(Note 2)	16	1	2	*18	2	1
88GB	(Note 2)	16	1	3	*19	2	1
96GB	(Note 2)	16	1	4	*20	2	1
104GB	(Note 2)	16	1	5	*21	2	1
112GB	(Note 2)	16	1	6	*22	2	1
120GB	(Note 2)	16	1	7	*23	2	1
128GB	(Note 2)	16	1	8	*24	2	1
136GB	(Note 2)	16	1	9	*25	2	1
144GB	(Note 2)	16	1	10	*26	2	1
152GB	(Note 2)	16	1	11	*27	2	1
160GB	(Note 2)	16	1	12	*28	2	1
168GB	(Note 2)	16	1	13	*29	2	1
176GB	(Note 2)	16	1	14	*30	2	1
184GB	(Note 2)	16	1	15	*31	2	1
192GB	(Note 2)	16	1	16	*32	2	1

Note 1: The above numbers (*1 through *32) represent the Cache Memory Module locations shown in Fig 2.5.1-1 and Fig 2.5.1-2.

Note 2: The WP541-A, WP541-B (Part No. 5524251-C) or WP541-B (Part No. 5524246-C) is installed in the basic slot.

Note 3: A cache memory can't be set up in the ' - ' mark.

Table 2.5.1-3 Cache memory capacity and number of necessary options (RoHS not applied, High Performance Cache Access Model)

Cache Memory Capacity	Number of options (High Performance Cache Access Model)										
	Using DKC-F510I-C4G/C4GR					Using DKC-F510I-C8GR					
	Cache PCB		CM Location (Note 1)	DKC-F510I-C4G/C4GR	DKC-F510I-AB/ABR	Cache PCB		CM Location (Note 1)	DKC-F510I-C8GR	DKC-F510I-AB/ABR	DKC-F510I-AP/APR
	Basic Slot	Add. Slot				Basic Slot	Add. Slot				
	Basic PCB	CX/CXR/CX1GR				CX1GR	CX1GR				
8GB	(Note 2)	1	*1, *17	2	1	—	—	—	—	—	0
16GB	(Note 2)	1	*2, *18	4	1	1	1	*1, *17	2	1	0
24GB	(Note 2)	1	*3, *19	6	1	—	—	—	—	—	0
32GB	(Note 2)	1	*4, *20	8	1	1	1	*2, *18	4	1	0
40GB	(Note 2)	1	*5, *21	10	1	—	—	—	—	—	0
48GB	(Note 2)	1	*6, *22	12	1	1	1	*3, *19	6	1	0
56GB	(Note 2)	1	*7, *23	14	1	—	—	—	—	—	0
64GB	(Note 2)	1	*8, *24	16	1	1	1	*4, *20	8	1	0
72GB	(Note 2)	1	*9, *25	18	2	—	—	—	—	—	1
80GB	(Note 2)	1	*10, *26	20	2	1	1	*5, *21	10	2	1
88GB	(Note 2)	1	*11, *27	22	2	—	—	—	—	—	1
96GB	(Note 2)	1	*12, *28	24	2	1	1	*6, *22	12	2	1
104GB	(Note 2)	1	*13, *29	26	2	—	—	—	—	—	1
112GB	(Note 2)	1	*14, *30	28	2	1	1	*7, *23	14	2	1
120GB	(Note 2)	1	*15, *31	30	2	—	—	—	—	—	1
128GB	(Note 2)	1	*16, *32	32	2	1	1	*8, *24	16	2	1
144GB	—	—	—	—	—	1	1	*9, *25	18	2	1
160GB	—	—	—	—	—	1	1	*10, *26	20	2	1
176GB	—	—	—	—	—	1	1	*11, *27	22	2	1
192GB	—	—	—	—	—	1	1	*12, *28	24	2	1
208GB	—	—	—	—	—	1	1	*13, *29	26	2	1
224GB	—	—	—	—	—	1	1	*14, *30	28	2	1
240GB	—	—	—	—	—	1	1	*15, *31	30	2	1
256GB	—	—	—	—	—	1	1	*16, *32	32	2	1

Note 1: The above numbers (*1 through *32) represent the Cache Memory Module locations shown in Fig 2.5.1-1 and Fig 2.5.1-2.

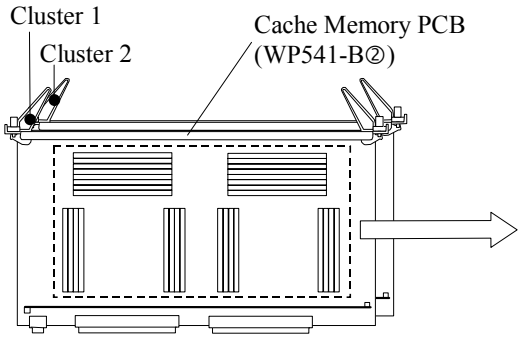
Note 2: The WP541-A, WP541-B (Part No. 5524251-C) or WP541-B (Part No. 5524246-C) is installed in the basic slot.

Note 3: A cache memory can’t be set up in the ‘ - ’ mark.
High performance model is effective when the cache memory is installed 16GB or more, and recommend the addition of 16GB.

2.5.2 RoHS Applied

Note: DKC-F510I-C8GR can be installed on the Cache Memory PCB of Basic PCB and DKC-F510I-CX1GR. It cannot be installed on the Cache Memory PCB of DKC-F510I-CXR.

1. Standard Cache Memory PCB (Basic PCB)



Cache Memory Module Location

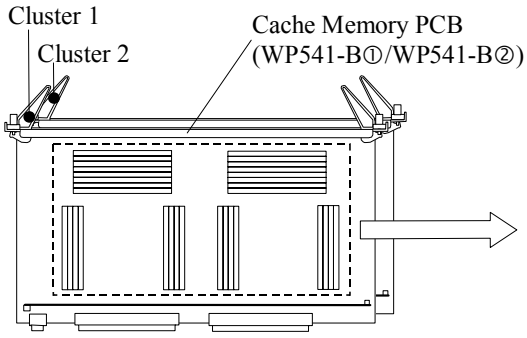
CM04B : SH342-C/D	*10	CM04A : SH342-C/D	*9
CM05B : SH342-C/D	*12	CM05A : SH342-C/D	*11
CM06B : SH342-C/D	*14	CM06A : SH342-C/D	*13
CM07B : SH342-C/D	*16	CM07A : SH342-C/D	*15
CM14B : SH342-C/D	*10	CM14A : SH342-C/D	*9
CM15B : SH342-C/D	*12	CM15A : SH342-C/D	*11
CM16B : SH342-C/D	*14	CM16A : SH342-C/D	*13
CM17B : SH342-C/D	*16	CM17A : SH342-C/D	*15

CM10B : SH342-C/D	*2	CM13B : SH342-C/D	*8
CM11B : SH342-C/D	*4	CM12B : SH342-C/D	*6
CM03B : SH342-C/D	*8	CM00B : SH342-C/D	*2
CM02B : SH342-C/D	*6	CM01B : SH342-C/D	*4
CM10A : SH342-C/D	*1	CM13A : SH342-C/D	*7
CM11A : SH342-C/D	*3	CM12A : SH342-C/D	*5
CM03A : SH342-C/D	*7	CM00A : SH342-C/D	*1
CM02A : SH342-C/D	*5	CM01A : SH342-C/D	*3

(Note 1) The cache memory module location *1 through *16 correspond to the CM Location listed in Table 2.5.2-1 through 3.
(Note 2) DKC-F510I-C4GR: SH342-C
DKC-F510I-C8GR: SH342-D
WP541-B②: Part No. 5524246-C

Fig. 2.5.2-1 Cache Memory Module Location (RoHS applied)

2. Additional Cache Memory PCB (DKC-F510I-CXR/CX1GR)



Cache Memory Module Location

CM04B : SH342-C/D	*26	CM04A : SH342-C/D	*25
CM05B : SH342-C/D	*28	CM05A : SH342-C/D	*27
CM06B : SH342-C/D	*30	CM06A : SH342-C/D	*29
CM07B : SH342-C/D	*32	CM07A : SH342-C/D	*31
CM14B : SH342-C/D	*26	CM14A : SH342-C/D	*25
CM15B : SH342-C/D	*28	CM15A : SH342-C/D	*27
CM16B : SH342-C/D	*30	CM16A : SH342-C/D	*29
CM17B : SH342-C/D	*32	CM17A : SH342-C/D	*31

CM10B : SH342-C/D	*18	CM13B : SH342-C/D	*24
CM11B : SH342-C/D	*20	CM12B : SH342-C/D	*22
CM03B : SH342-C/D	*24	CM00B : SH342-C/D	*18
CM02B : SH342-C/D	*22	CM01B : SH342-C/D	*20
CM10A : SH342-C/D	*17	CM13A : SH342-C/D	*23
CM11A : SH342-C/D	*19	CM12A : SH342-C/D	*21
CM03A : SH342-C/D	*23	CM00A : SH342-C/D	*17
CM02A : SH342-C/D	*21	CM01A : SH342-C/D	*19

(Note 1) The cache memory module location *17 through *32 correspond to the CM Location listed in Table 2.5.2-1 through 3.
(Note 2) DKC-F510I-C4GR: SH342-C
DKC-F510I-C8GR: SH342-D
DKC-F510I-CXR: WP541-B①
DKC-F510I-CX1GR: WP541-B②
WP541-B①: Part No. 5524251-C
WP541-B②: Part No. 5524246-C

Fig. 2.5.2-2 Cache Memory Module Location (RoHS applied)

Table 2.5.2-1 Cache memory capacity and number of necessary options
(RoHS applied, Standard Cache Access Model ①)

Cache Memory Capacity	Number of options										
	Using DKC-F510I-C4GR					Using DKC-F510I-C8GR					DKC-F510I-APR
	Cache PCB		CM Location (Note 1)	DKC-F510I-C4GR	DKC-F510I-ABR	Cache PCB		CM Location (Note 1)	DKC-F510I-C8GR	DKC-F510I-ABR	
	Basic Slot	Add. Slot				Basic Slot	Add. Slot				
	Basic PCB	CXR/ CX1GR				Basic PCB	CX1GR				
4GB	(Note 2)	—	*1	1	0	—	—	—	—	—	0
8GB	(Note 2)	—	*2	2	0	(Note 2)	—	*1	1	0	0
12GB	(Note 2)	—	*3	3	0	—	—	—	—	—	0
16GB	(Note 2)	—	*4	4	0	(Note 2)	—	*2	2	0	0
20GB	(Note 2)	—	*5	5	0	—	—	—	—	—	0
24GB	(Note 2)	—	*6	6	0	(Note 2)	—	*3	3	0	0
28GB	(Note 2)	—	*7	7	0	—	—	—	—	—	0
32GB	(Note 2)	—	*8	8	0	(Note 2)	—	*4	4	0	0
36GB	(Note 2)	—	*9	9	0	—	—	—	—	—	0
40GB	(Note 2)	—	*10	10	0	(Note 2)	—	*5	5	0	0
44GB	(Note 2)	—	*11	11	0	—	—	—	—	—	0
48GB	(Note 2)	—	*12	12	0	(Note 2)	—	*6	6	0	0
52GB	(Note 2)	—	*13	13	0	—	—	—	—	—	0
56GB	(Note 2)	—	*14	14	0	(Note 2)	—	*7	7	0	0
60GB	(Note 2)	—	*15	15	0	—	—	—	—	—	0
64GB	(Note 2)	—	*16	16	0	(Note 2)	—	*8	8	0	0
68GB	(Note 2)	1	*17	17	2	—	—	—	—	—	1
72GB	(Note 2)	1	*18	18	2	(Note 2)	—	*9	9	1	1
76GB	(Note 2)	1	*19	19	2	—	—	—	—	—	1
80GB	(Note 2)	1	*20	20	2	(Note 2)	—	*10	10	1	1
84GB	(Note 2)	1	*21	21	2	—	—	—	—	—	1
88GB	(Note 2)	1	*22	22	2	(Note 2)	—	*11	11	1	1
92GB	(Note 2)	1	*23	23	2	—	—	—	—	—	1
96GB	(Note 2)	1	*24	24	2	(Note 2)	—	*12	12	1	1
100GB	(Note 2)	1	*25	25	2	—	—	—	—	—	1
104GB	(Note 2)	1	*26	26	2	(Note 2)	—	*13	13	1	1
108GB	(Note 2)	1	*27	27	2	—	—	—	—	—	1
112GB	(Note 2)	1	*28	28	2	(Note 2)	—	*14	14	1	1
116GB	(Note 2)	1	*29	29	2	—	—	—	—	—	1
120GB	(Note 2)	1	*30	30	2	(Note 2)	—	*15	15	1	1
124GB	(Note 2)	1	*31	31	2	—	—	—	—	—	1
128GB	(Note 2)	1	*32	32	2	(Note 2)	—	*16	16	1	1
136GB	—	—	—	—	—	(Note 2)	1	*17	17	2	1
144GB	—	—	—	—	—	(Note 2)	1	*18	18	2	1
152GB	—	—	—	—	—	(Note 2)	1	*19	19	2	1
160GB	—	—	—	—	—	(Note 2)	1	*20	20	2	1

(To be continued)

(Continued from the preceding page)

Cache Memory Capacity	Number of options Number of options (Standard Cache Access Model)										
	Using DKC-F510I-C4GR					Using DKC-F510I-C8GR					DKC-F510I-APR
	Cache PCB		CM Location (Note 1)	DKC-F510I-C4GR	DKC-F510I-ABR	Cache PCB		CM Location (Note 1)	DKC-F510I-C8GR	DKC-F510I-ABR	
	Basic Slot	Add. Slot				Basic Slot	Add. Slot				
	Basic PCB	CXR/ CX1GR				Basic PCB	CX1GR				
168GB	—	—	—	—	—	(Note 2)	1	*21	21	2	1
176GB	—	—	—	—	—	(Note 2)	1	*22	22	2	1
184GB	—	—	—	—	—	(Note 2)	1	*23	23	2	1
192GB	—	—	—	—	—	(Note 2)	1	*24	24	2	1
200GB	—	—	—	—	—	(Note 2)	1	*25	25	2	1
208GB	—	—	—	—	—	(Note 2)	1	*26	26	2	1
216GB	—	—	—	—	—	(Note 2)	1	*27	27	2	1
224GB	—	—	—	—	—	(Note 2)	1	*28	28	2	1
232GB	—	—	—	—	—	(Note 2)	1	*29	29	2	1
240GB	—	—	—	—	—	(Note 2)	1	*30	30	2	1
248GB	—	—	—	—	—	(Note 2)	1	*31	31	2	1
256GB	—	—	—	—	—	(Note 2)	1	*32	32	2	1

Note 1: The above numbers (*1 through *32) represent the Cache Memory Module locations shown in Fig 2.5.2-1 and Fig 2.5.2-2.

Note 2: The WP541-B (Part No. 5524246-C) is installed in the basic slot.

Note 3: A cache memory can’t be set up in the ‘ - ’ mark.

Table 2.5.2-2 Cache memory capacity and number of necessary options (RoHS applied, Standard Cache Access Model ②)

Cache Memory Capacity	Number of options Number of options (Standard Cache Access Model)						
	DKC-F510I-C4GR and DKC-F510I-C8GR intermix						
	Cache PCB				CM Location (Note 1)	DKC-F510I -ABR	DKC-F510I -APR
	Basic Slot		Add. Slot				
	Basic PCB	C8GR	CXR/ CX1GR	C4GR			
8GB	(Note 2)	1	—	0	*1	0	0
16GB	(Note 2)	2	—	0	*2	0	0
24GB	(Note 2)	3	—	0	*3	0	0
32GB	(Note 2)	4	—	0	*4	0	0
40GB	(Note 2)	5	—	0	*5	0	0
48GB	(Note 2)	6	—	0	*6	0	0
56GB	(Note 2)	7	—	0	*7	0	0
64GB	(Note 2)	8	—	0	*8	0	0
72GB	(Note 2)	9	—	0	*9	1	1
80GB	(Note 2)	10	—	0	*10	1	1
88GB	(Note 2)	11	—	0	*11	1	1
96GB	(Note 2)	12	—	0	*12	1	1
104GB	(Note 2)	13	—	0	*13	1	1
112GB	(Note 2)	14	—	0	*14	1	1
120GB	(Note 2)	15	—	0	*15	1	1
128GB	(Note 2)	16	—	0	*16	1	1
132GB	(Note 2)	16	1	1	*17	2	1
136GB	(Note 2)	16	1	2	*18	2	1
140GB	(Note 2)	16	1	3	*19	2	1
144GB	(Note 2)	16	1	4	*20	2	1
148GB	(Note 2)	16	1	5	*21	2	1
152GB	(Note 2)	16	1	6	*22	2	1
156GB	(Note 2)	16	1	7	*23	2	1
160GB	(Note 2)	16	1	8	*24	2	1
164GB	(Note 2)	16	1	9	*25	2	1
168GB	(Note 2)	16	1	10	*26	2	1
172GB	(Note 2)	16	1	11	*27	2	1
176GB	(Note 2)	16	1	12	*28	2	1
180GB	(Note 2)	16	1	13	*29	2	1
184GB	(Note 2)	16	1	14	*30	2	1
188GB	(Note 2)	16	1	15	*31	2	1
192GB	(Note 2)	16	1	16	*32	2	1

Note 1: The above numbers (*1 through *32) represent the Cache Memory Module locations shown in Fig 2.5.2-1 and Fig 2.5.2-2.

Note 2: The WP541-B (Part No. 5524246-C) is installed in the basic slot.

Note 3: A cache memory can’t be set up in the ‘ - ’ mark.

Table 2.5.2-3 Cache memory capacity and number of necessary options (RoHS applied, High Performance Cache Access Model)

Cache Memory Capacity	Number of options Number of options (High Performance Cache Access Model)										
	Using DKC-F510I-C4GR					Using DKC-F510I-C8GR					
	Cache PCB		CM Location (Note 1)	DKC-F510I -C4GR	DKC-F510I -ABR	Cache PCB		CM Location (Note 1)	DKC-F510I -C8GR	DKC-F510I -ABR	DKC-F510I -APR
	Basic Slot	Add. Slot				Basic Slot	Add. Slot				
	Basic PCB	CXR/ CX1GR				Basic PCB	CX1GR				
8GB	(Note 2)	1	*1, *17	2	1	—	—	—	—	—	0
16GB	(Note 2)	1	*2, *18	4	1	(Note 2)	1	*1, *17	2	1	0
24GB	(Note 2)	1	*3, *19	6	1	—	—	—	—	—	0
32GB	(Note 2)	1	*4, *20	8	1	(Note 2)	1	*2, *18	4	1	0
40GB	(Note 2)	1	*5, *21	10	1	—	—	—	—	—	0
48GB	(Note 2)	1	*6, *22	12	1	(Note 2)	1	*3, *19	6	1	0
56GB	(Note 2)	1	*7, *23	14	1	—	—	—	—	—	0
64GB	(Note 2)	1	*8, *24	16	1	(Note 2)	1	*4, *20	8	1	0
72GB	(Note 2)	1	*9, *25	18	2	—	—	—	—	—	1
80GB	(Note 2)	1	*10, *26	20	2	(Note 2)	1	*5, *21	10	2	1
88GB	(Note 2)	1	*11, *27	22	2	—	—	—	—	—	1
96GB	(Note 2)	1	*12, *28	24	2	(Note 2)	1	*6, *22	12	2	1
104GB	(Note 2)	1	*13, *29	26	2	—	—	—	—	—	1
112GB	(Note 2)	1	*14, *30	28	2	(Note 2)	1	*7, *23	14	2	1
120GB	(Note 2)	1	*15, *31	30	2	—	—	—	—	—	1
128GB	(Note 2)	1	*16, *32	32	2	(Note 2)	1	*8, *24	16	2	1
144GB	—	—	—	—	—	(Note 2)	1	*9, *25	18	2	1
160GB	—	—	—	—	—	(Note 2)	1	*10, *26	20	2	1
176GB	—	—	—	—	—	(Note 2)	1	*11, *27	22	2	1
192GB	—	—	—	—	—	(Note 2)	1	*12, *28	24	2	1
208GB	—	—	—	—	—	(Note 2)	1	*13, *29	26	2	1
224GB	—	—	—	—	—	(Note 2)	1	*14, *30	28	2	1
240GB	—	—	—	—	—	(Note 2)	1	*15, *31	30	2	1
256GB	—	—	—	—	—	(Note 2)	1	*16, *32	32	2	1

Note 1: The above numbers (*1 through *32) represent the Cache Memory Module locations shown in Fig 2.5.2-1 and Fig 2.5.2-2.

Note 2: The WP541-B (Part No. 5524246-C) is installed in the basic slot.

Note 3: A cache memory can’t be set up in the ‘ - ’ mark.
High performance model is effective when the cache memory is installed 16GB or more, and recommend the addition of 16GB.

3. Panel

3.1 Operator Panel

[1] Operator Panel

Fig. 3.1-1 and Table 3.1-1 show the Operator Panel and its functions respectively. Circled numbers in Fig. 3.1-1 correspond to the numbers in Table 3.1-1.

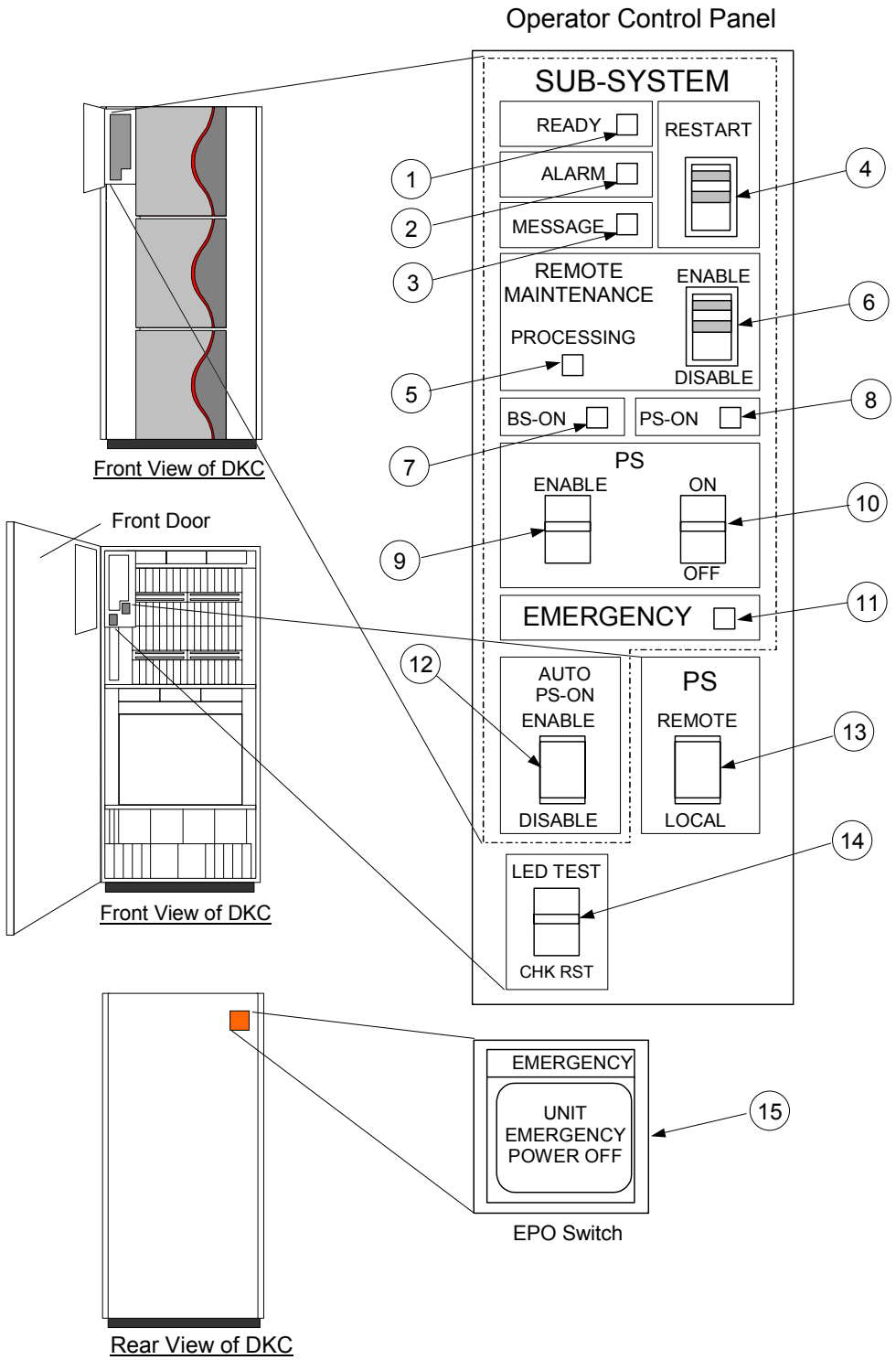


Fig. 3.1-1 Operator Panel

Table 3.1-1 Part Function on Operator Panel

No.	Parts Name	Class	Function
①	SUBSYSTEM READY	LED (Green)	Indicates that input/output operation on the channel interface is enabled.
②	SUBSYSTEM ALARM	LED (Red)	ON: Indicates DC under voltage of DKC part, DC over current, abnormally high temperature, or an unrecoverable failure occurred. Blinking: Indicates DC under voltage of DKU part.
③	SUBSYSTEM MESSAGE	LED (Amber)	ON: Indicates that a SIM (Message) was generated from either of the clusters. Applied to both storage clusters. Blinking: Indicates that the SVP failure has occurred.
④	SUBSYSTEM RESTART	Switch	Used to recover a FICON/ESCON port failure. (See "19. Mainframe Port Error Recovery")
⑤	REMOTE MAINTENANCE PROCESSING	LED (Amber)	Indicates that remote maintenance is being processed.
⑥	REMOTE MAINTENANCE ENABLE/DISABLE	Switch	Used to permit remote maintenance.
⑦	BS ON	LED (Amber)	Indicates that the Sub-PS is on. (CL 1 or CL 2)
⑧	PS ON	LED (Green)	Indicates that the subsystem is powered on.
⑨	PS SW ENABLE	Switch	Used to enable the PS ON/PS OFF switch. To enable the PS ON/PS OFF switch, turn the PS SW ENABLE switch to the ENABLE position.
⑩	PS ON/PS OFF	Switch	To switch on/off the subsystem, use this switch while turning the PS SW ENABLE switch to the ENABLE position. This switch is valid when the PS REMOTE/LOCAL switch is set to the LOCAL position.
⑪	EMERGENCY	LED (Red)	This LED shows status of EPO switch on the rear door. OFF: Indicates that the EPO switch is off. ON: Indicates that the EPO switch is on.
⑫	AUTO PS-ON ENABLE/DISABLE	Switch	This switch specifies the subsystem powering on operation to be done after the AC power is turned on. ENABLE: The subsystem is powered on automatically after the AC power is turned on. DISABLE: The subsystem is powered on through on operation of the PS ON/PS OFF switch or the PCI control after the AC power is turned on.

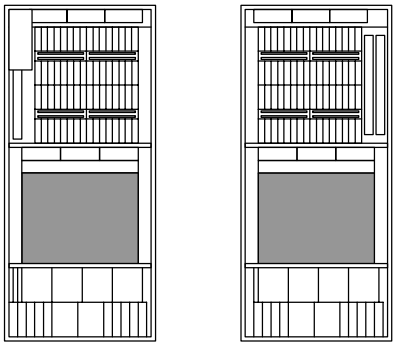
(To be continued)

(Continued from preceding page)

No.	Parts	Class	Function
⑬	PS REMOTE/LOCAL	Switch	REMOTE position: Subsystem is powered on/off by the instructions from the CPU. LOCAL position: Subsystem is powered on/off by PS ON/PS OFF switch.
⑭	LED TEST/CHK RESET	Switch	LED TEST position: The LEDs on DKC panel go on. CHK RESET position: The PS ALARM and TH ALARM is reset.
⑮	EMERGENCY POWER OFF	Switch	Used to power off the storage subsystem in an emergency situation.

3.2 Other Switches and LEDs

Fig. 3.2-1 and Table 3.2-1 show the other switches and LEDs and their functions respectively. Circled numbers in Fig. 3.2-1 correspond to the numbers in Table 3.2-1.



Front View of DKC

Rear View of DKC

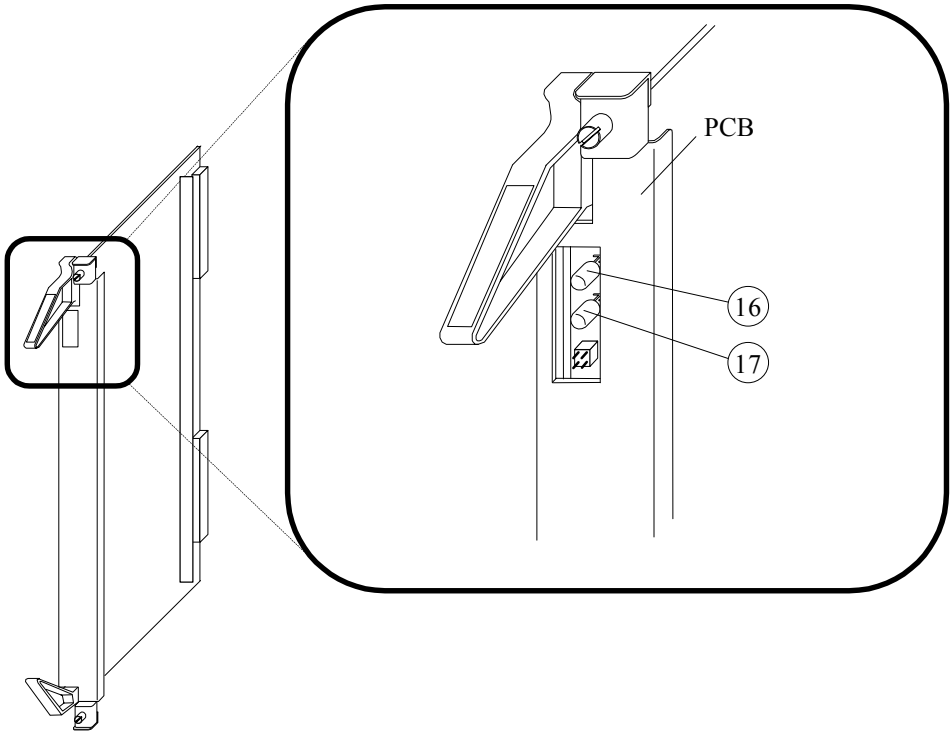
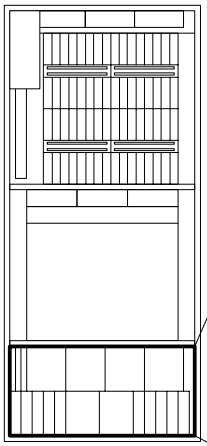
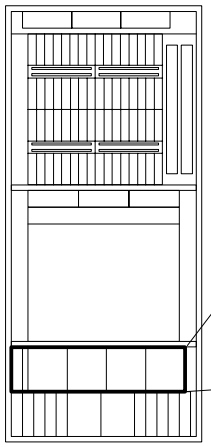


Fig 3.2-1 Other Switches and LEDs (1/5)



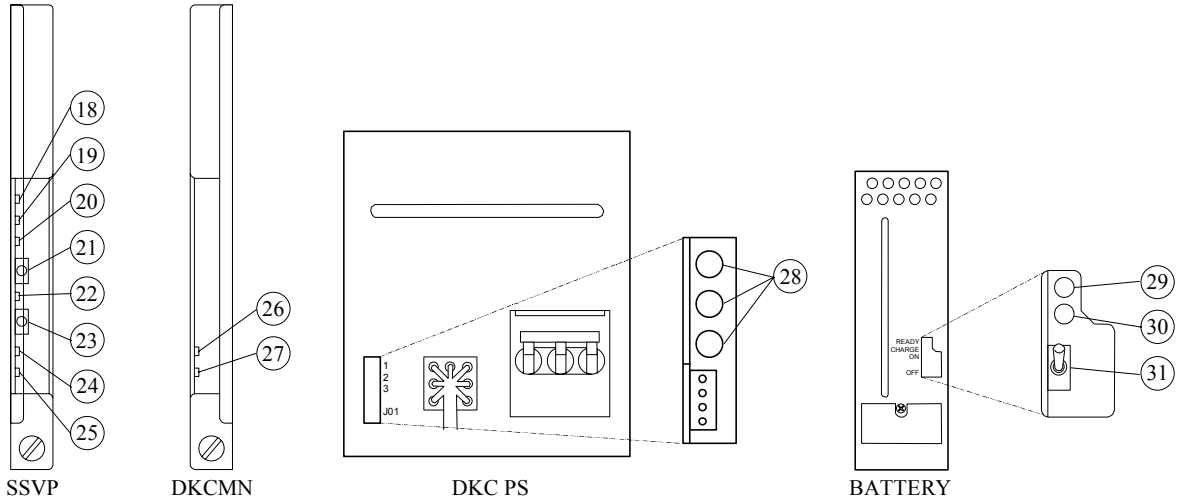
Front View of DKC

CL1/CL2		CL1									
SSVP		DKCMN1		PS-11		PS-12		PS-13		PS-14	
SH351-A	SH351-B	SH353-A	SH353-B	DKCPS		DKCPS		DKCPS		DKCPS	
BATTERY-11	BATTERY-12	BATTERY-13	BATTERY-14	BATTERY-15	AC BOX-1	AC BOX-2	BATTERY-21	BATTERY-22	BATTERY-23	BATTERY-24	BATTERY-25
LG	LG	LG	HDD	HDD	—	—	LG	LG	LG	HDD	HDD
CK1					CL1/CL2		CL2				



Rear View of DKC

CL1/CL2		CL2					
SVP CON		DKCMN2		PS-21	PS-22	PS-23	PS-24
SH357-A	SH357-B	SH353-A	SH353-B	DKCPS	DKCPS	DKCPS	DKCPS



SSVP DKCMN DKC PS BATTERY

Fig 3.2-1 Other Switches and LEDs (2/5)

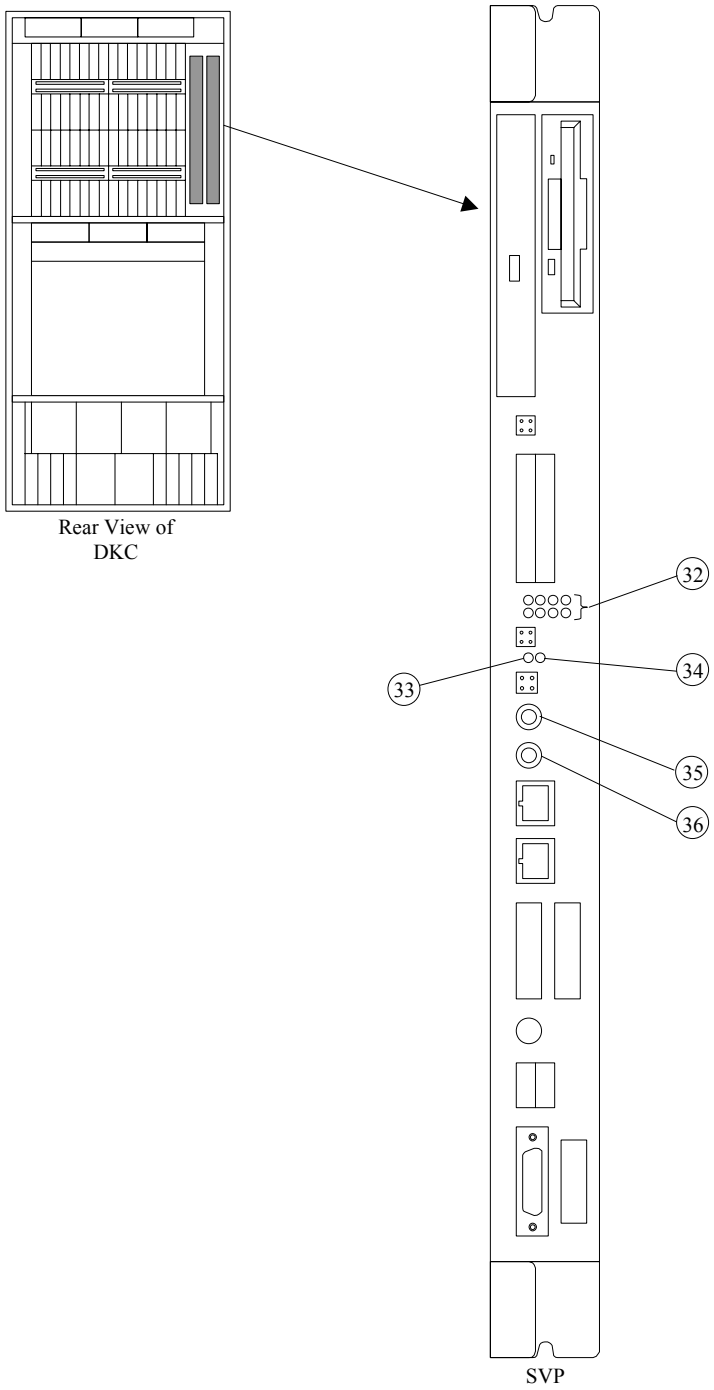


Fig 3.2-1 Other Switches and LEDs (3/5)

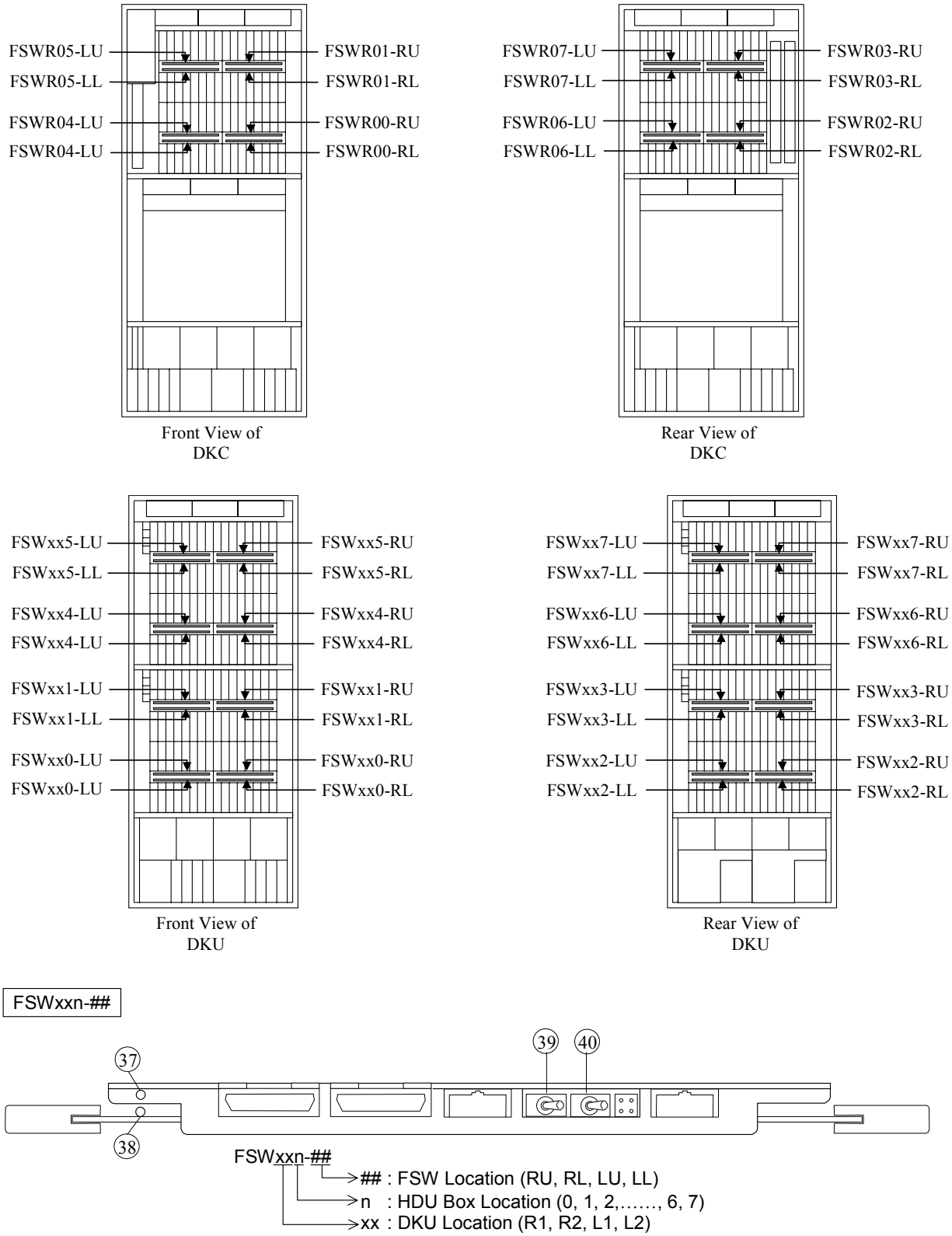
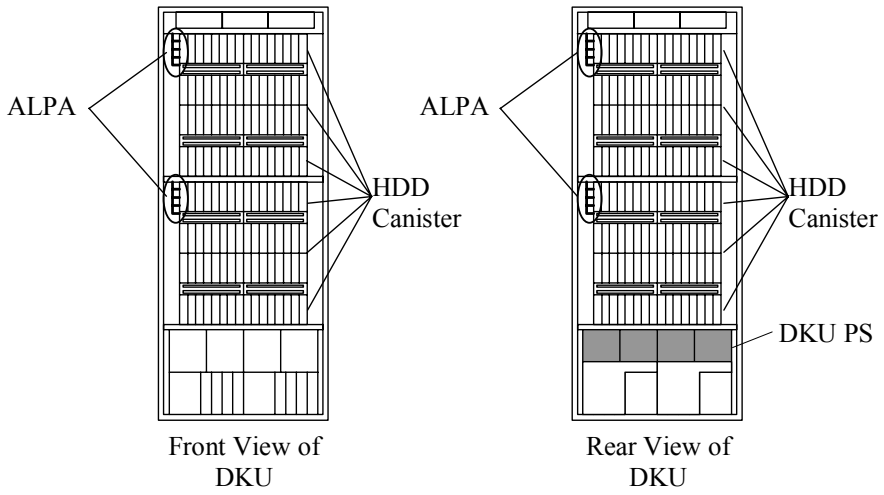
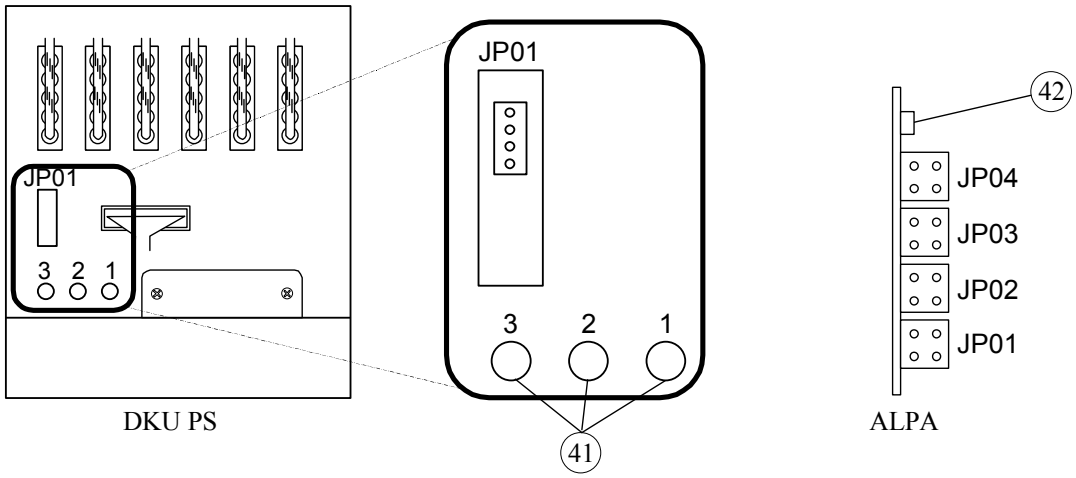


Fig 3.2-1 Other Switches and LEDs (4/5)





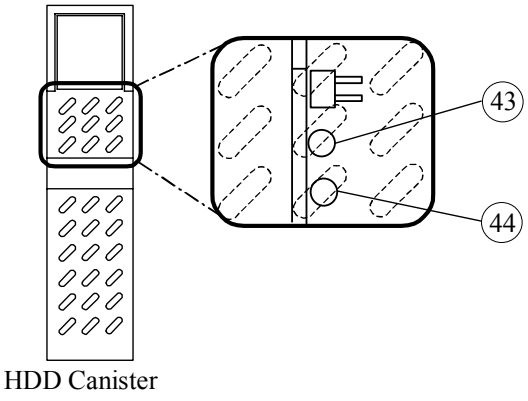


Fig 3.2-1 Other Switches and LEDs (5/5)

Table 3.2-1 Function of Other Switches and LEDs

No.	Parts Name	Class	Function
⑯	Shut Down LED	LED (Red)	Indicates that the removal of the PCB is possible when the subsystem is powered on.
⑰	PS Failure LED	LED (Amber)	Indicates that the voltage in the PCB is abnormal.
⑱	SSVP LED	LED (Red)	LED that shows the state of SSVP by combining ⑱⑲⑳㉒ shows the following states. ○: Turning off ●: Lighting ⊙: Blinking ⑱ ⑲ ⑳ ㉒ ○ ○ ○ ○ Normal state ○ ○ ○ ● SSVP micro-contradiction or hard abnormality is detected. ● ● ● ○ The memory is being tested. ● ● ● ● Hard memory system error. ○ ● ● ○ DUMP is being gathered. ○ ● ● ● Abnormal termination of DUMP. ○ ○ ○ ⊙ DUMP collection end. ○ ○ ● ○ The micro exchange is being executed. ○ ○ ● ● Micro exchange error.
⑲	SSVP LED		
⑳	SSVP LED		
㉒	SSVP ALARM		
㉑	SSVP ALARM RESET	Switch	The SSVP detection alarm is reset. Then IMPL of the SVP is executed.
㉓	SSVP DUMP	Switch	The data in SVP memory is written to the HDD.
㉔	SSVP Shut Down LED	LED (Red)	Indicates that the removal of the SSVP is possible when the subsystem is powered on.
㉕	SSVP ENABLE	LED (Green)	Indicates that the SSVP is powered on.
㉖	DKCMN Shut Down LED	LED (Red)	Indicates that the removal of the DKCMN is possible when the subsystem is powered on.
㉗	DKCMN ENABLE	LED (Green)	Indicates that the DKCMN is powered on.
㉘	PS Enable	LED (Green)	Indicates that the PS is providing output voltage.
㉙	BATTERY READY LED	LED (Green)	Indicates that the BATTERY is powered on.
㉚	BATTERY CHARGE LED	LED (Amber)	This LED shows the state of BATTERY. Lighting ---------- The battery charge is completed. Blinking ---------- The battery is charging. After the power is turned on, the Battery Box is started to be charged and the LED blinks. Though the LED becomes kept on after the charge is completed, it repeats the operation that indicates the refilling charge (blink) and completion of the refilling charge (being kept on) after that.
㉛	BATTERY ON/OFF	Switch	Used to power on/off the BATTERY.

(To be continued)

(Continued from preceding page)

No.	Parts Name	Class	Function
㉜	SVP STATUS	LED (Green)	Indicates a status of the SVP using the SVP microprogram.
㉝	SVP DCIN	LED (Green)	Indicates that the DC power is supplied to the SVP. • Power of the built-in Hub in the SVP is turned on. • Power of the PC in the SVP is kept off.
㉞	SVP POWER	LED (Green)	Indicates that the power of the SVP is has been turned on. • Power of the built-in Hub in the SVP has been turned on. • Power of the PC in the SVP is turned on.
㉟	SVP PS ON	Switch	A pressing of this switch turns on the power of the PC in the SVP.
㊱	SVP PS OFF	Switch	A pressing of this switch quits Windows and then turns off the power of the PC in the SVP. When this switch is pressed with the SVP PS ON switch (No. 35) at the same time, Windows is quit forcibly and then the power of the PC in the SVP is turned off.
㊲	FSW Shut Down LED	LED (Red)	Indicates that the removal of the FSW is possible when the subsystem is powered on.
㊳	FSW ENABLE	LED (Green)	Indicates that the FSW is powered on.
㊴	FSW Address (SW2)	Switch	Set this switch according to the position in which the FSW PCB is set. FSWR0n-## ------ SW1 : OFF, SW2 : OFF FSWx1n-R# ------ SW1 : OFF, SW2 : ON FSWx1n-L#------- SW1 : ON, SW2 : ON FSWx2n-R# ------ SW1 : ON, SW2 : OFF FSWx2n-L#------- SW1 : OFF, SW2 : OFF ON: Set the switch to the right side position. OFF: Set the switch to the left side position.
㊵	FSW Address (SW1)	Switch	
㊶	PS Enable	LED (Green)	Indicates that the PS is providing output voltage.
㊷	ALPA Shut Down LED	LED (Red)	Indicates that the removal of the ALPA is possible when the subsystem is powered on.
㊸	HDD ENABLE	LED (Green)	Indicates that the HDD is active.
㊹	HDD Shut Down LED	LED (Red)	Indicates that the removal of the HDD is possible when the subsystem is powered on.

3.3 Circuit Breakers

3.3.1 3 Phase/30A Model

Fig. 3.3.1-1 show the locations of Circuit Breakers.

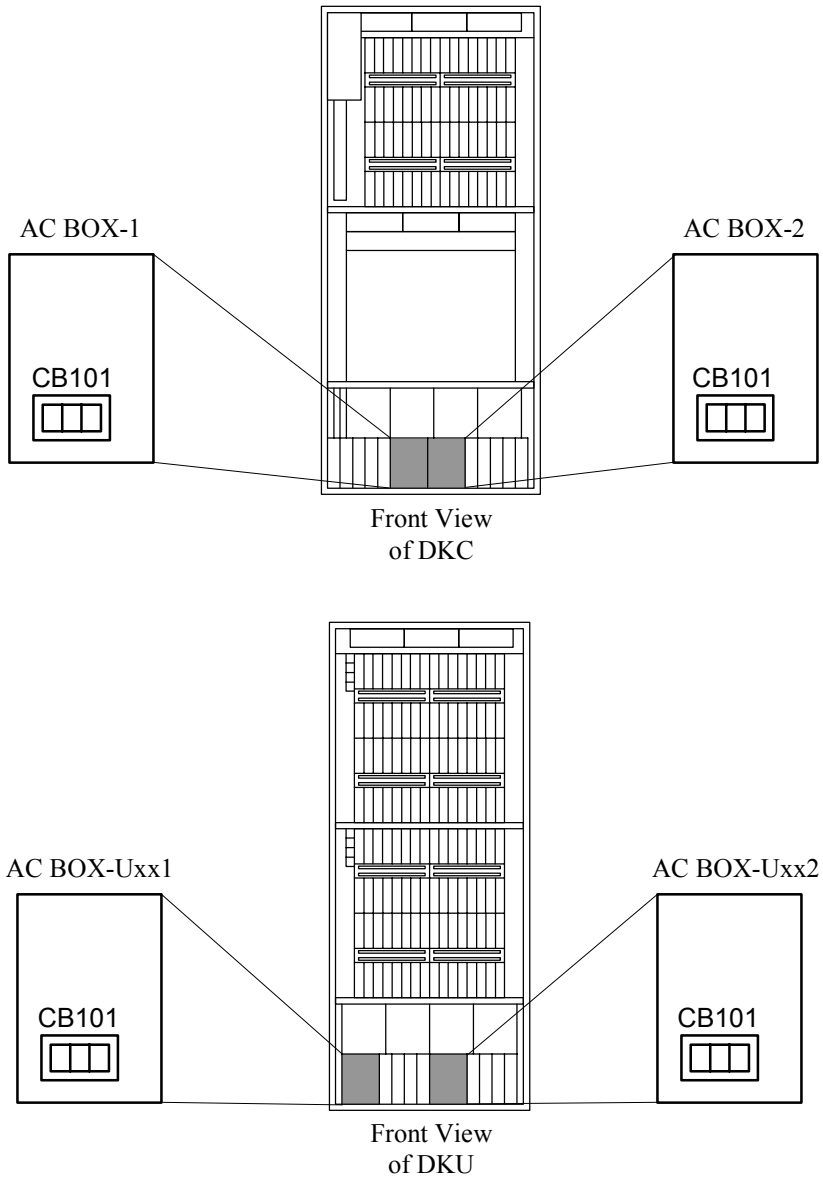


Fig. 3.3.1-1 Locations of Circuit Breakers

Fig. 3.3.1-2 and Fig. 3.3.1-3 show the connection of power supplies.

DKC 3 Phase/30A

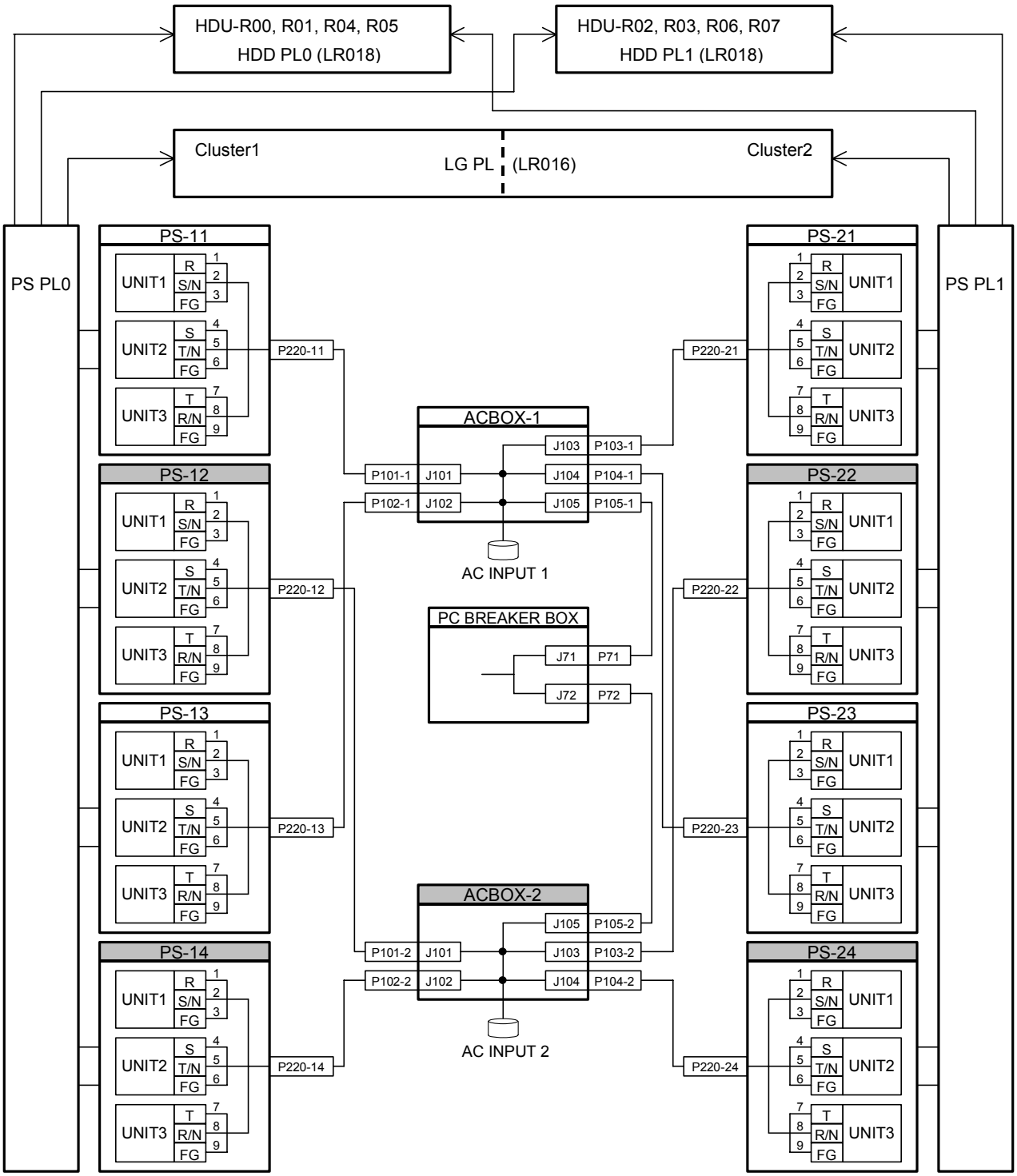


Fig. 3.3.1-2 Connection of Power Supplies (DKC 3 Phase/30A)

DKU 3 Phase/30A

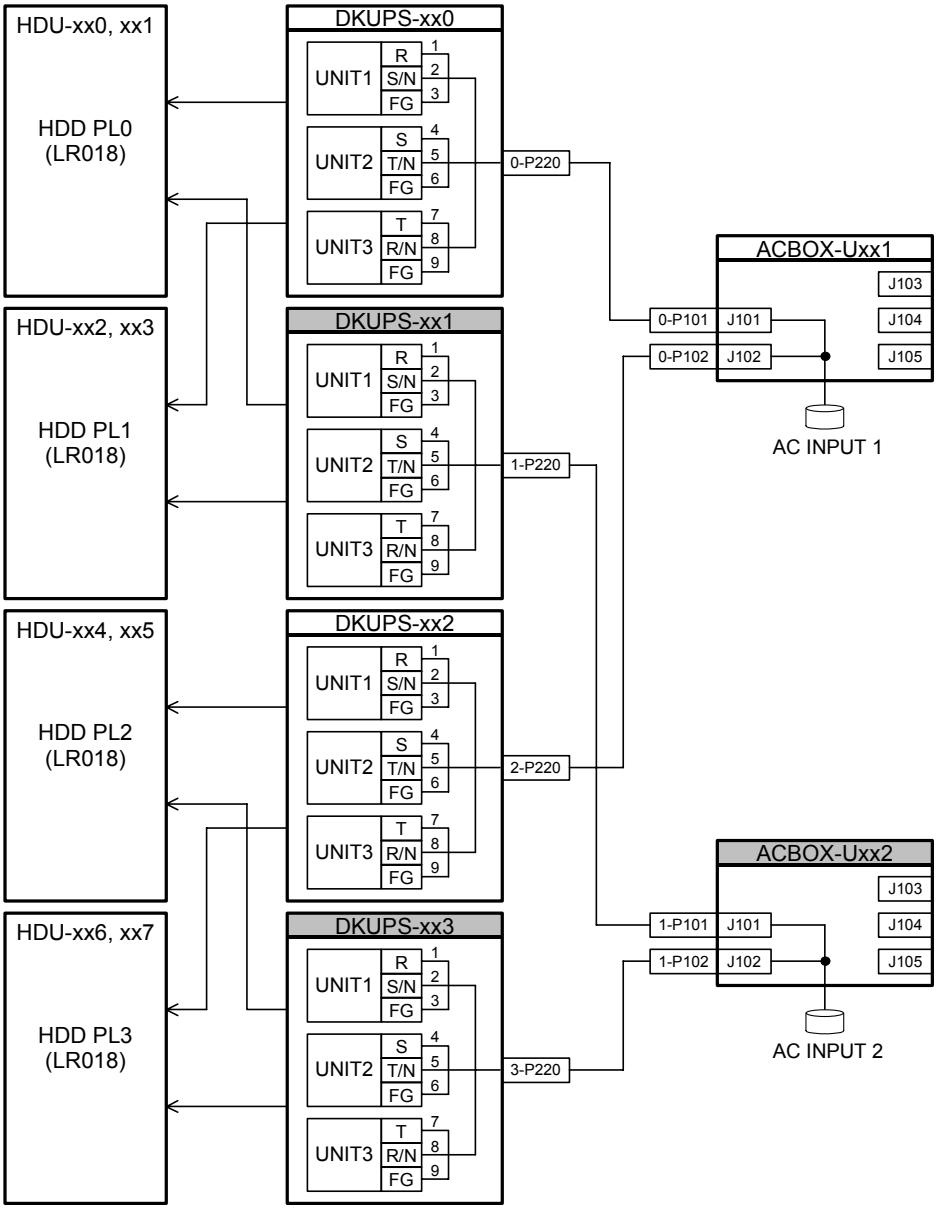


Fig. 3.3.1-3 Connection of Power Supplies (DKU 3 Phase/30A)

3.3.2 Single Phase/30A Model

Fig. 3.3.2-1 show the locations of Circuit Breakers.

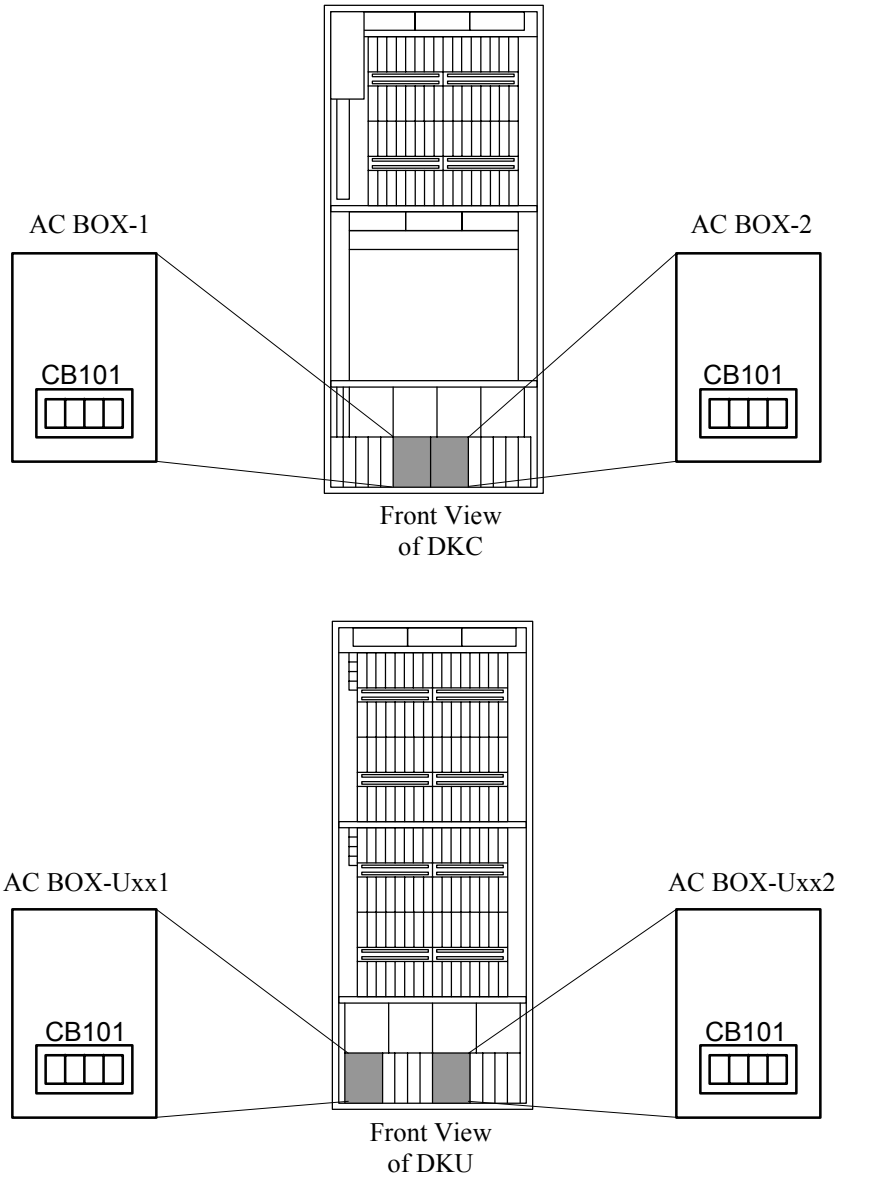


Fig. 3.3.2-1 Locations of Circuit Breakers

Fig. 3.3.2-2 and Fig. 3.3.2-3 show the connection of power supplies.

DKC Single Phase/30A

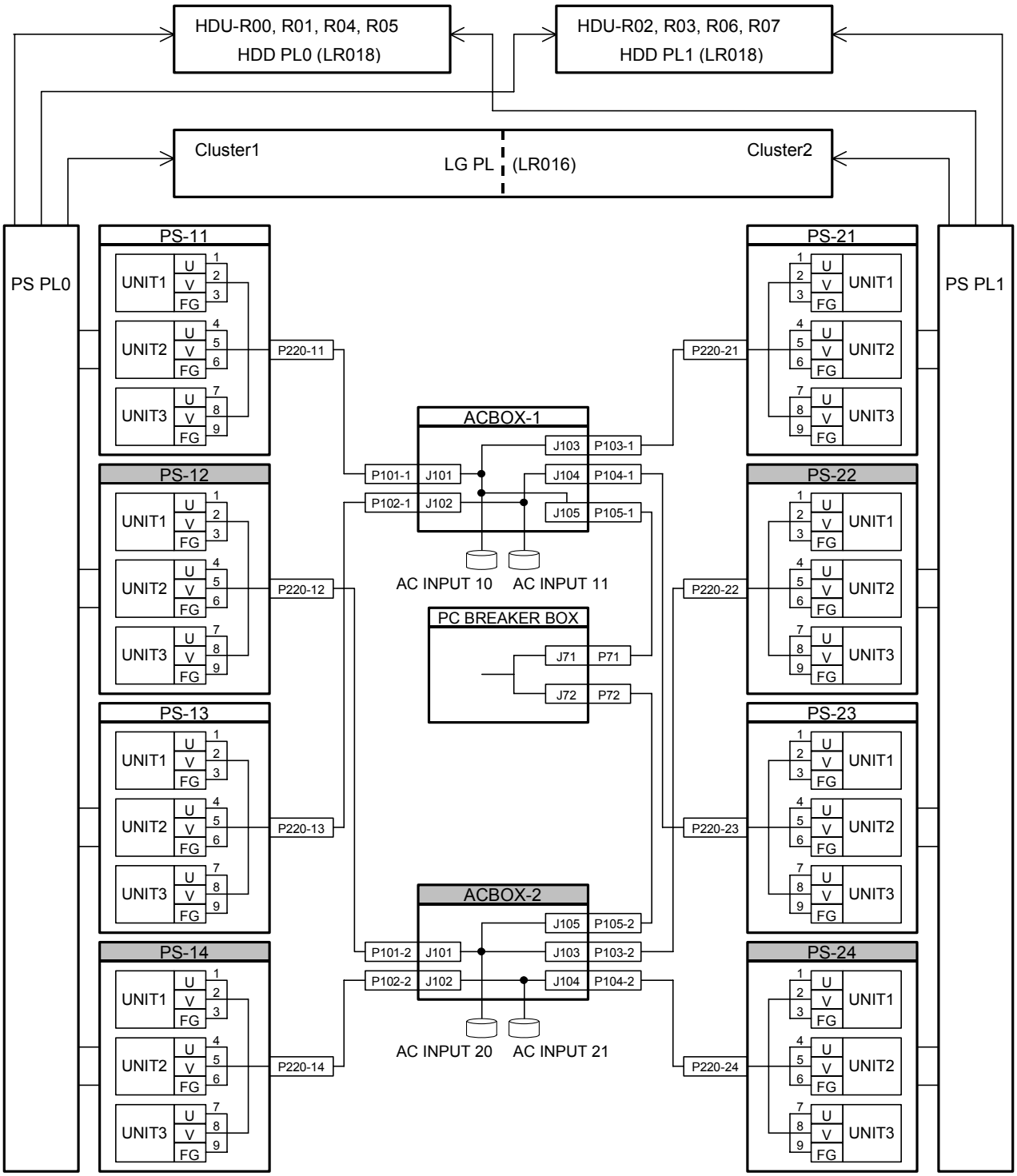


Fig. 3.3.2-2 Connection of Power Supplies (DKC Single Phase/30A)

DKU Single Phase/30A

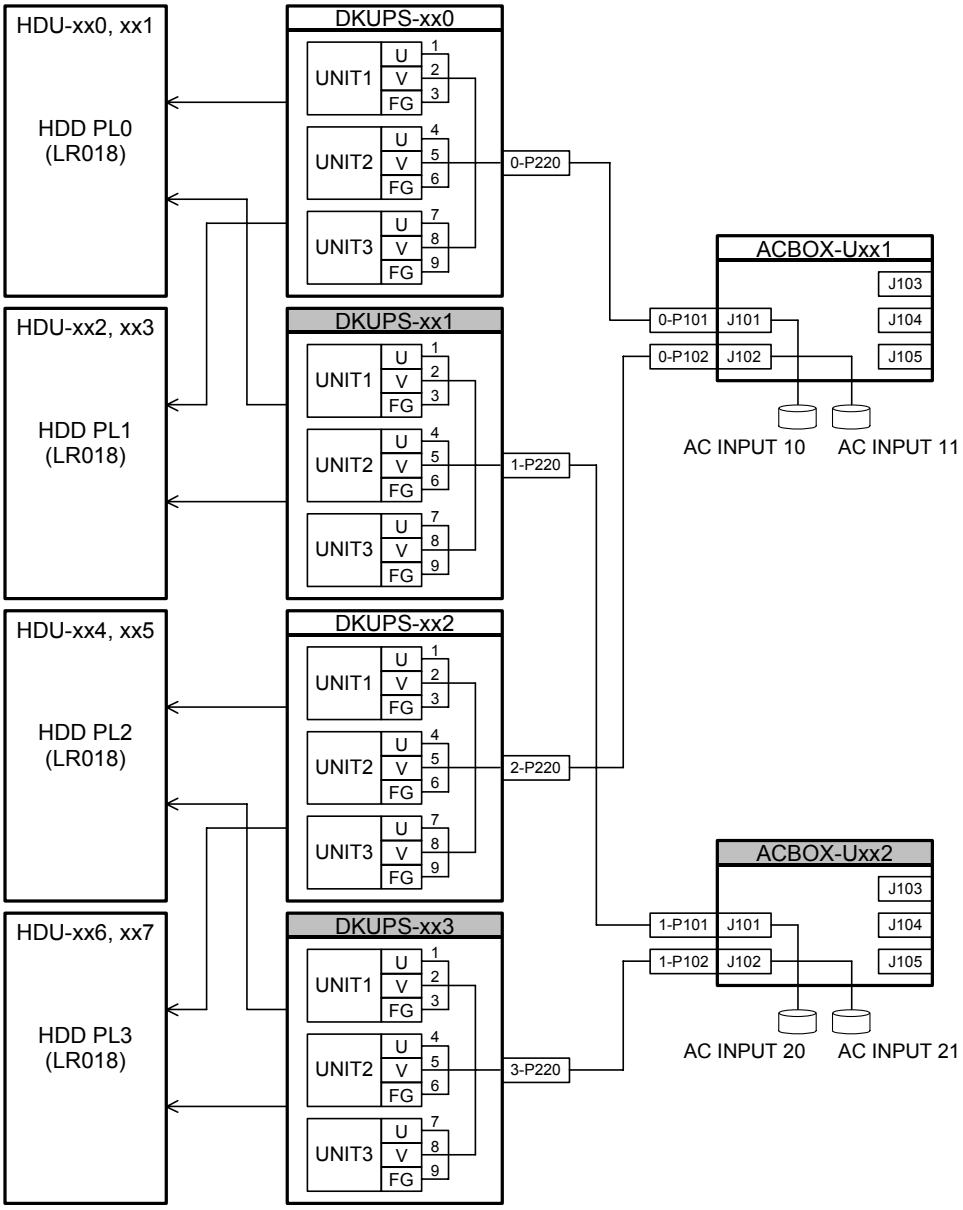
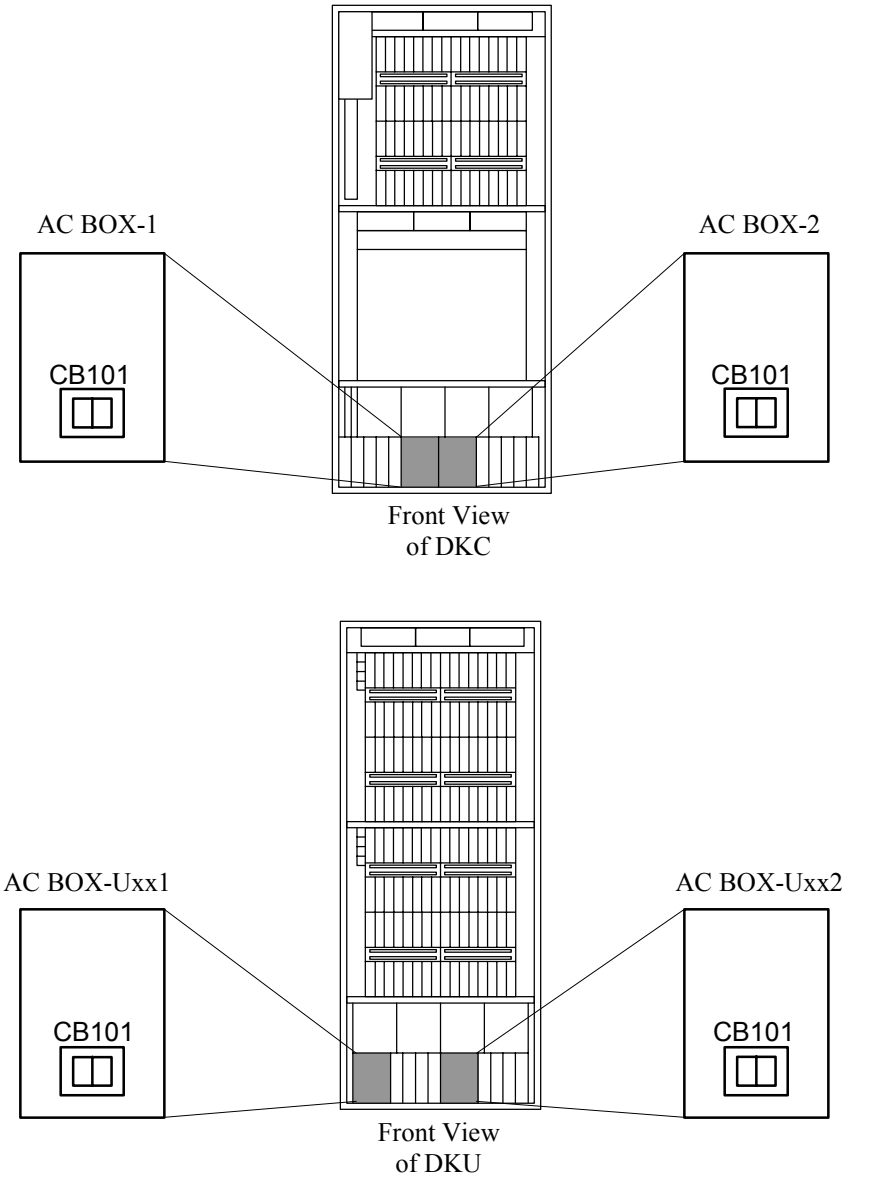


Fig. 3.3.2-3 Connection of Power Supplies (DKU Single Phase/30A)

3.3.3 Single Phase/50A Model

Fig. 3.3.3-1 show the locations of Circuit Breakers.



xx : DKU Location (R1, R2, L1, L2)

Fig. 3.3.3-1 Locations of Circuit Breakers

Fig. 3.3.3-2 and Fig. 3.3.3-3 show the connection of power supplies.

DKC Single Phase/50A

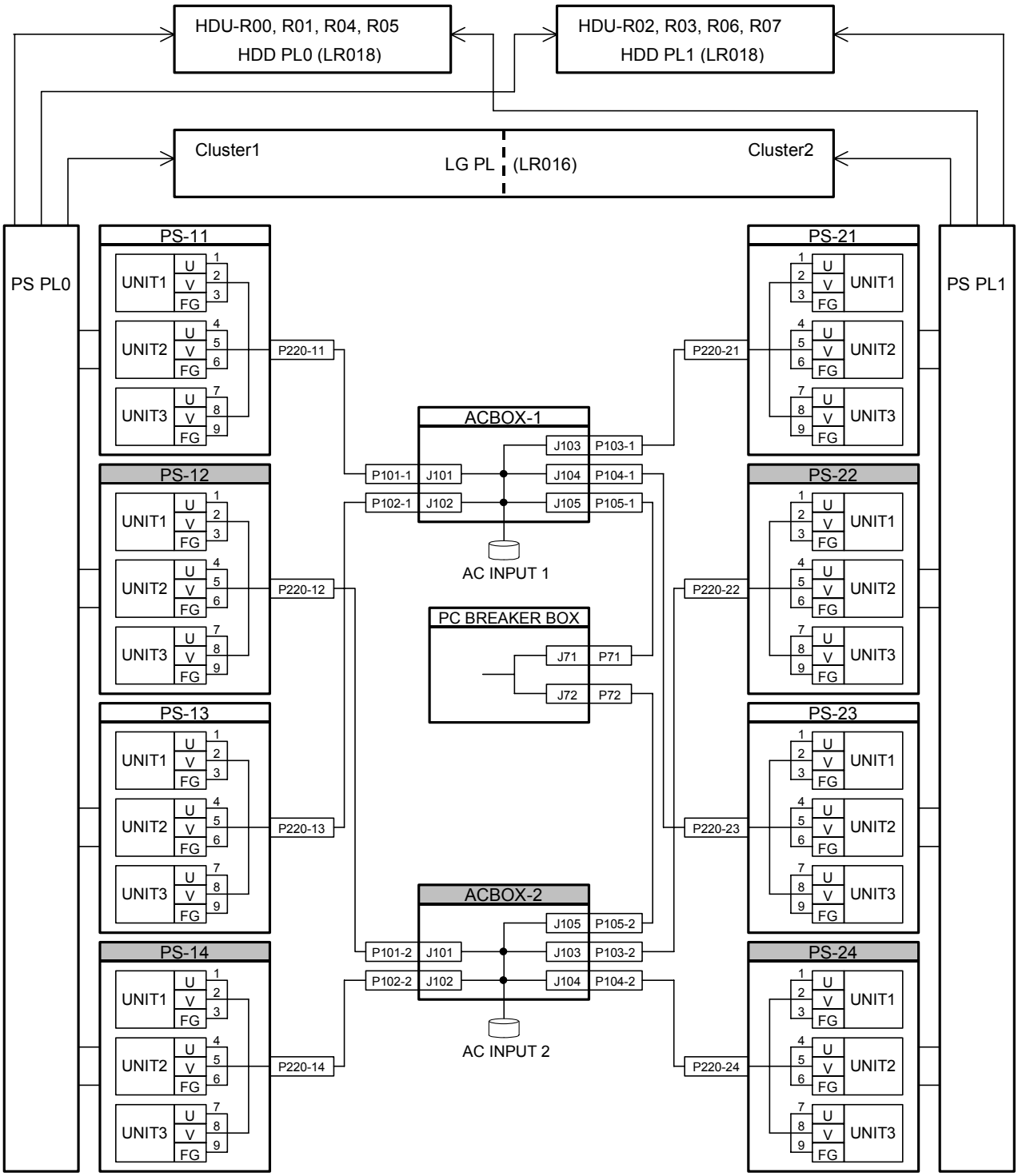


Fig. 3.3.3-2 Connection of Power Supplies (DKC Single Phase/50A)

DKU Single Phase/50A

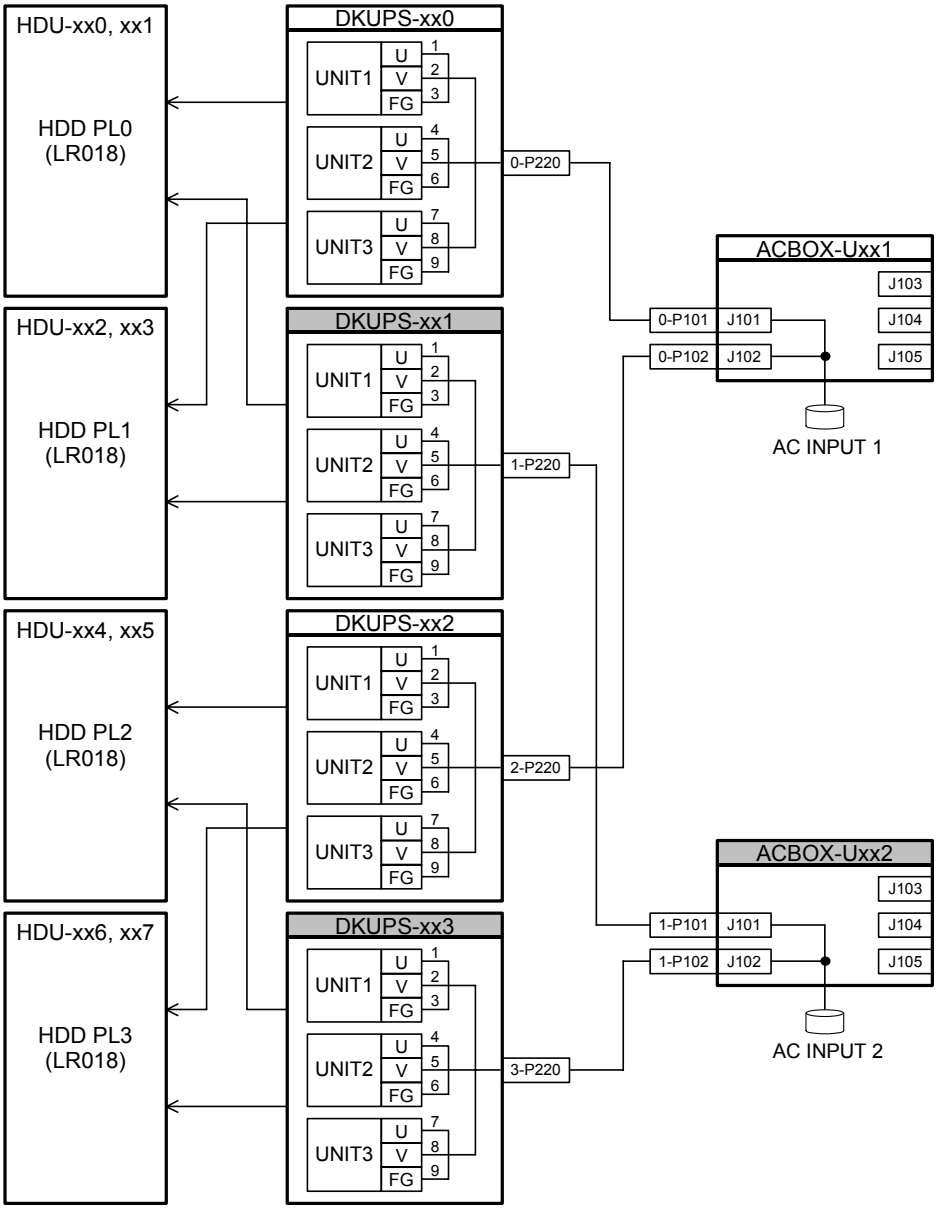


Fig. 3.3.3-3 Connection of Power Supplies (DKU Single Phase/50A)

4. Connection of External Cable

4.1 Channel Interface

1. 16-port CHA PCB (DKC-F510I-32HS/32HSR/32FS2R)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

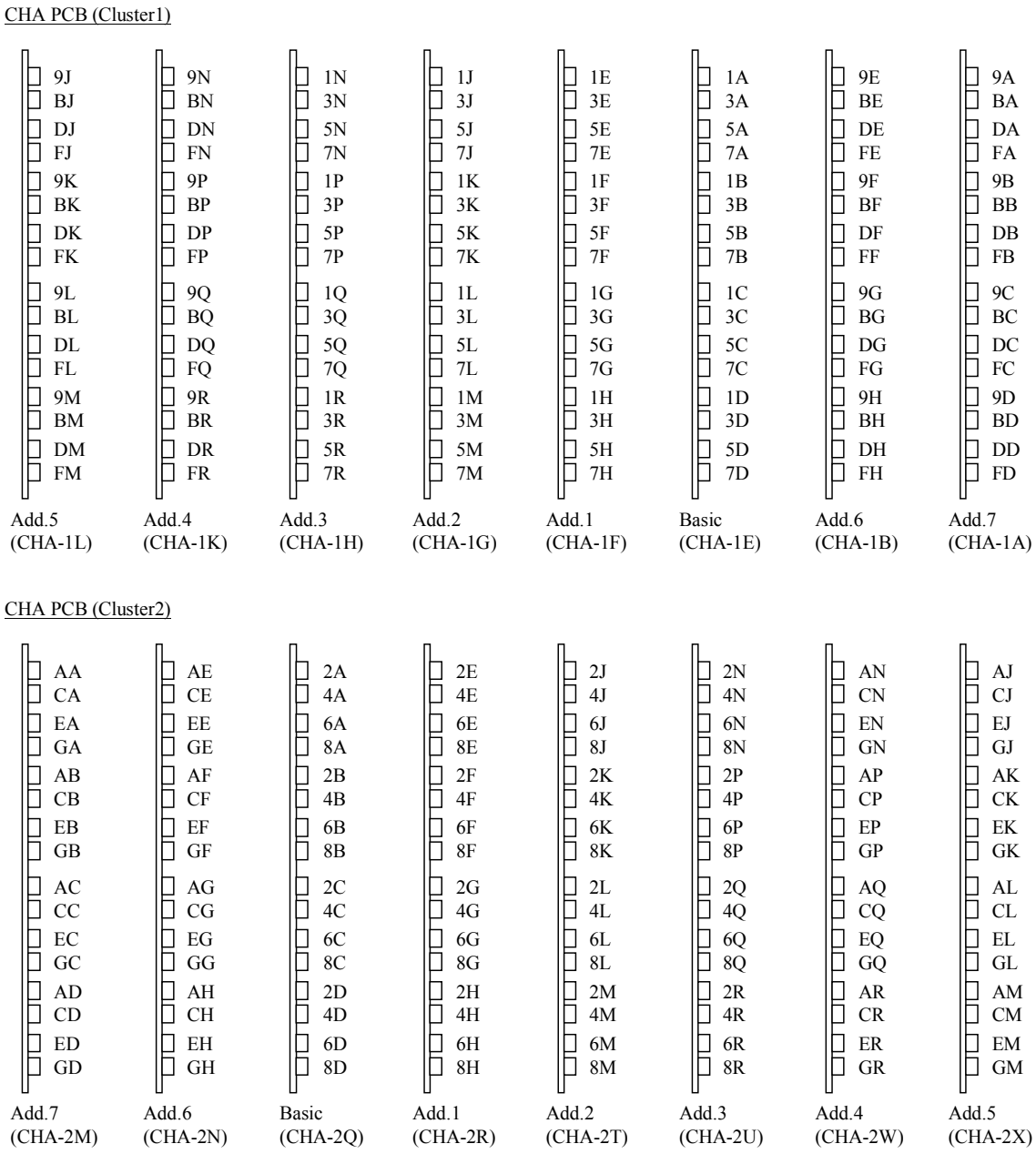


Fig.4.1-1 Port Number of 16-port CHA PCB

2. 8-port CHA PCB (DKC-F510I-16S/16SR)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

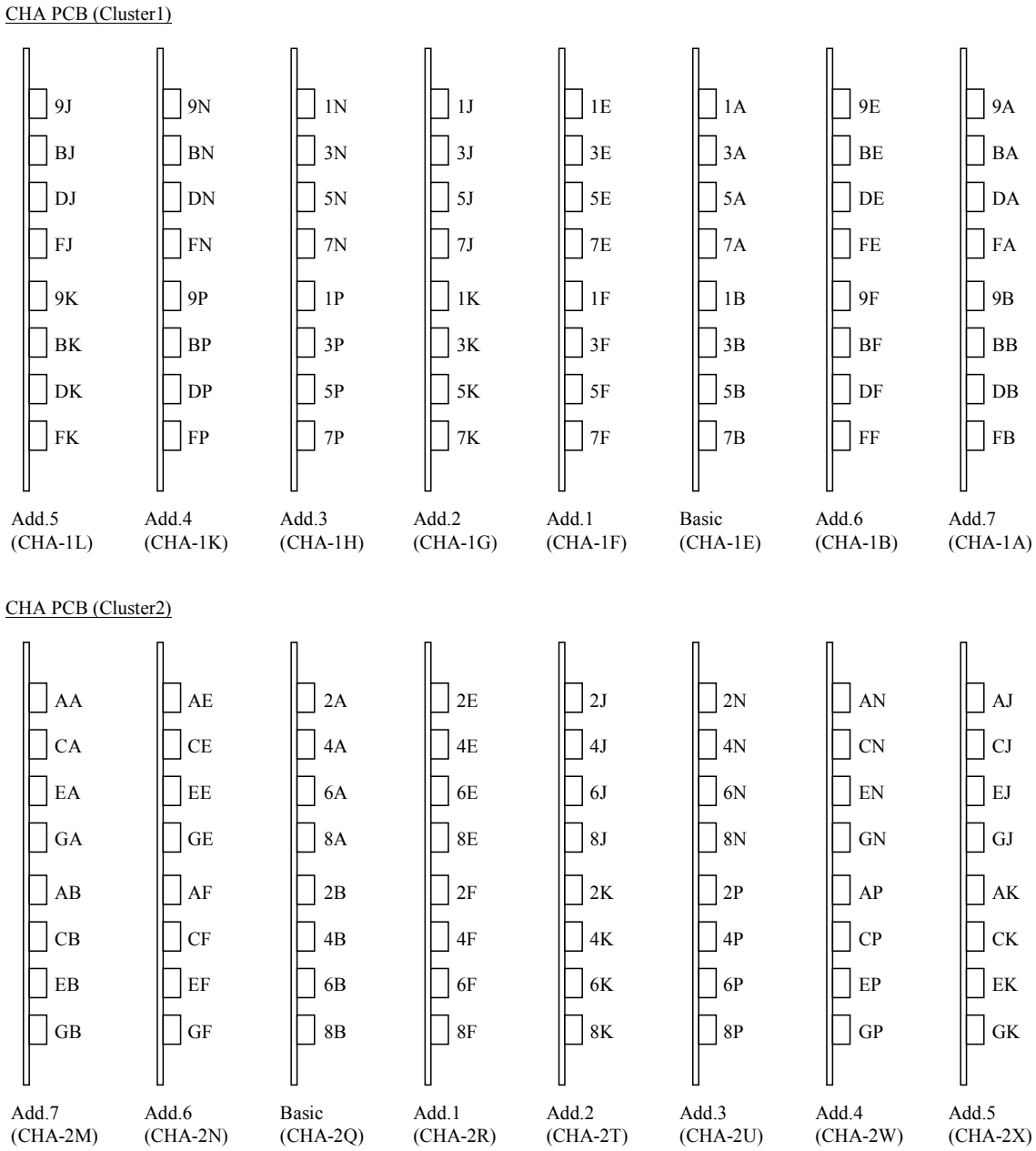


Fig.4.1-2 Port Number of 8-port CHA PCB

3. 8-port CHA PCB (DKC-F510I-16HS/16HSR/16FS2R)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

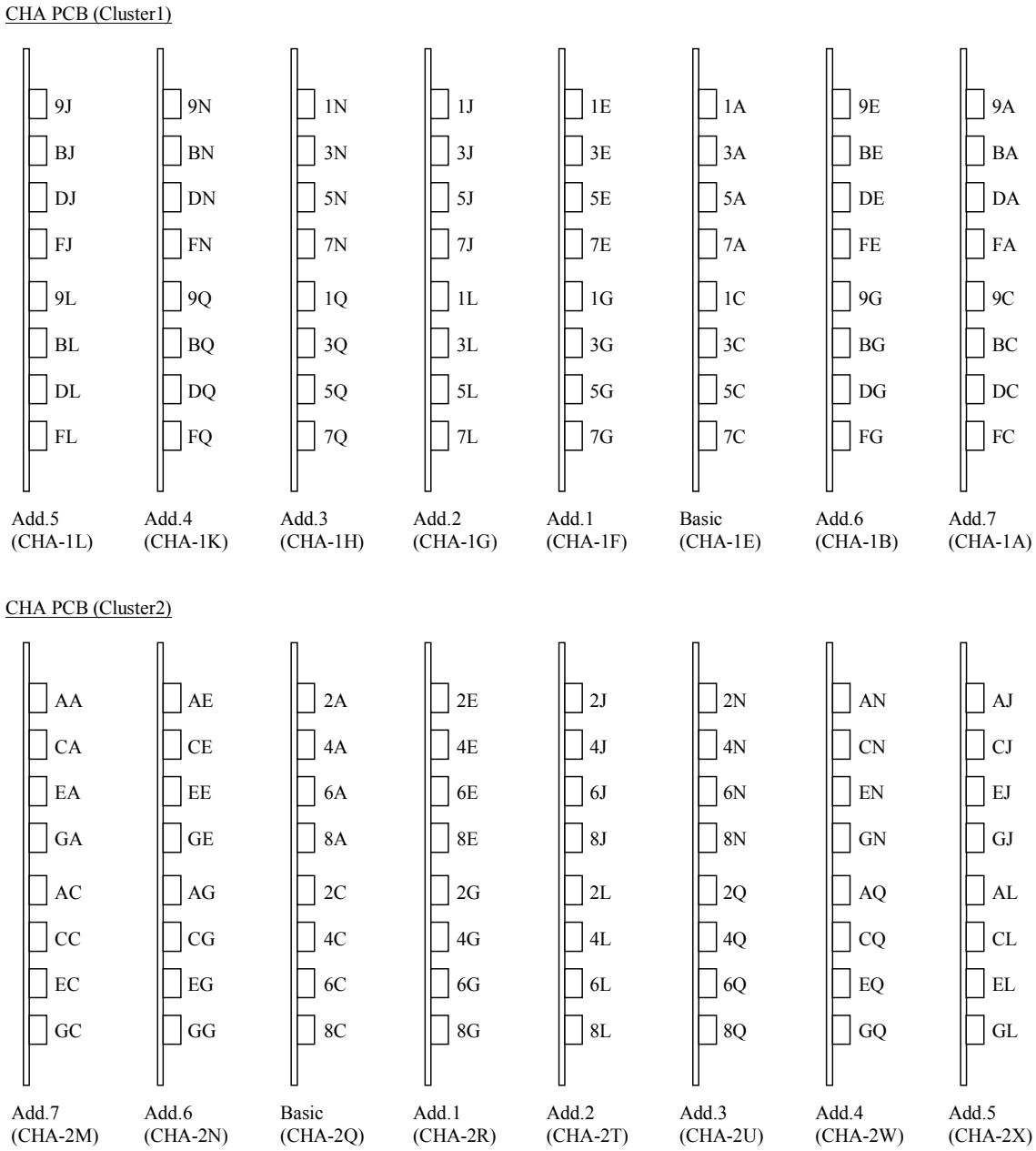


Fig.4.1-3 Port Number of 8-port CHA PCB

4. 4-port CHA PCB (DKC-F510I-8ML/8MS/8MLR/8MSR)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

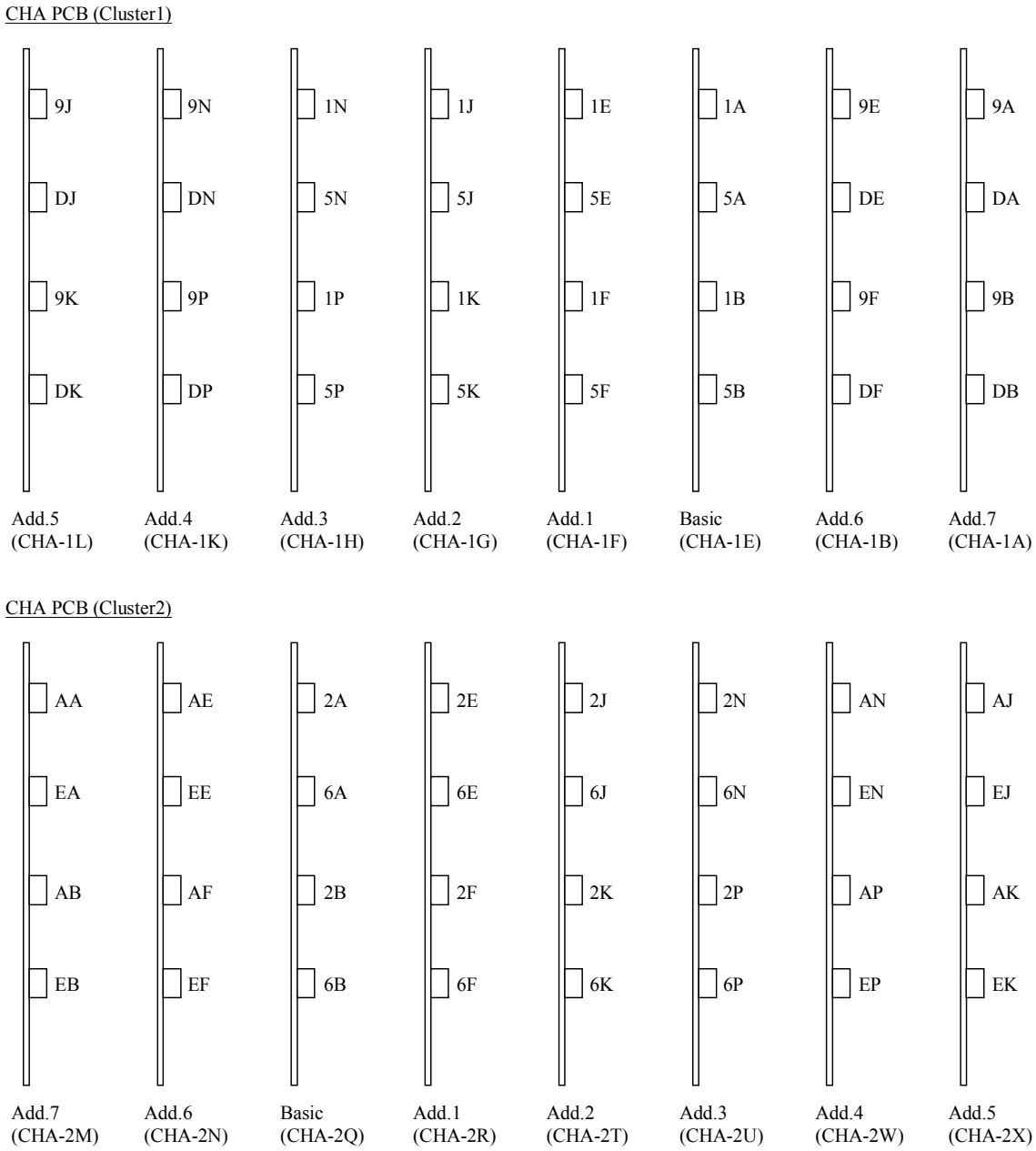


Fig.4.1-4 Port Number of 4-port CHA PCB

5. 8-port CHA PCB (DKC-F510I-16MLR/16MSR/16MFLR/16MFSR/16MFL4R)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

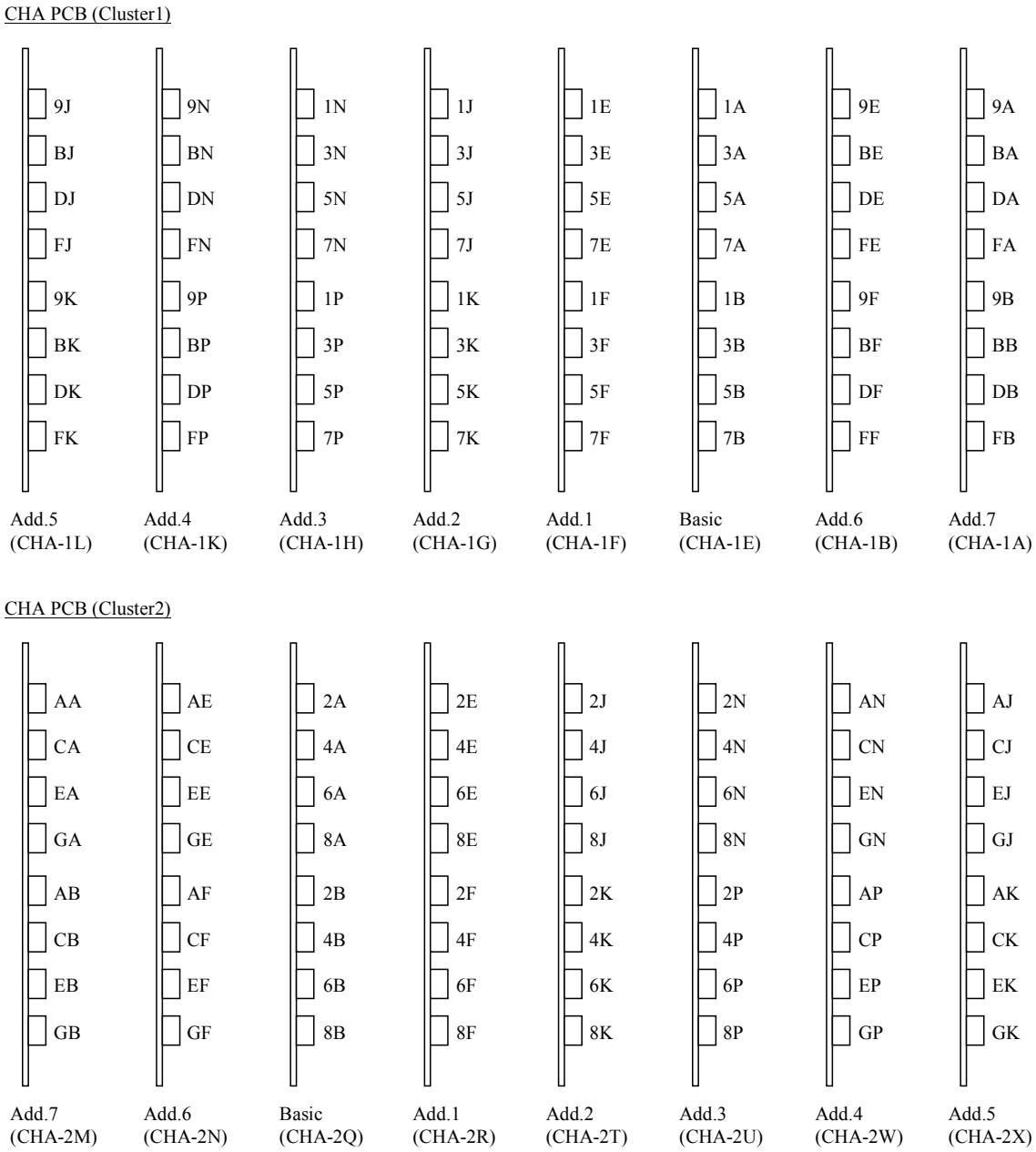


Fig.4.1-5 Port Number of 8-port CHA PCB

6. 4-port CHA PCB (DKC-F510I-8NS/8NSR)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

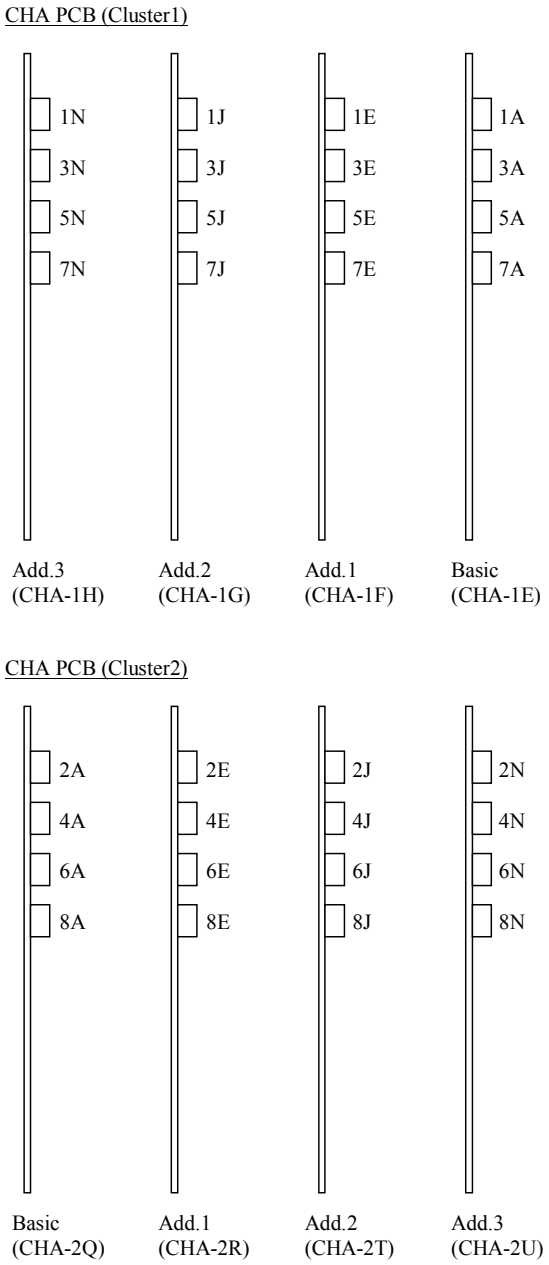


Fig.4.1-6 Port Number of 4-port CHA PCB

7. 4-port CHA PCB (DKC-F510I-8HSR/8FS2R)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

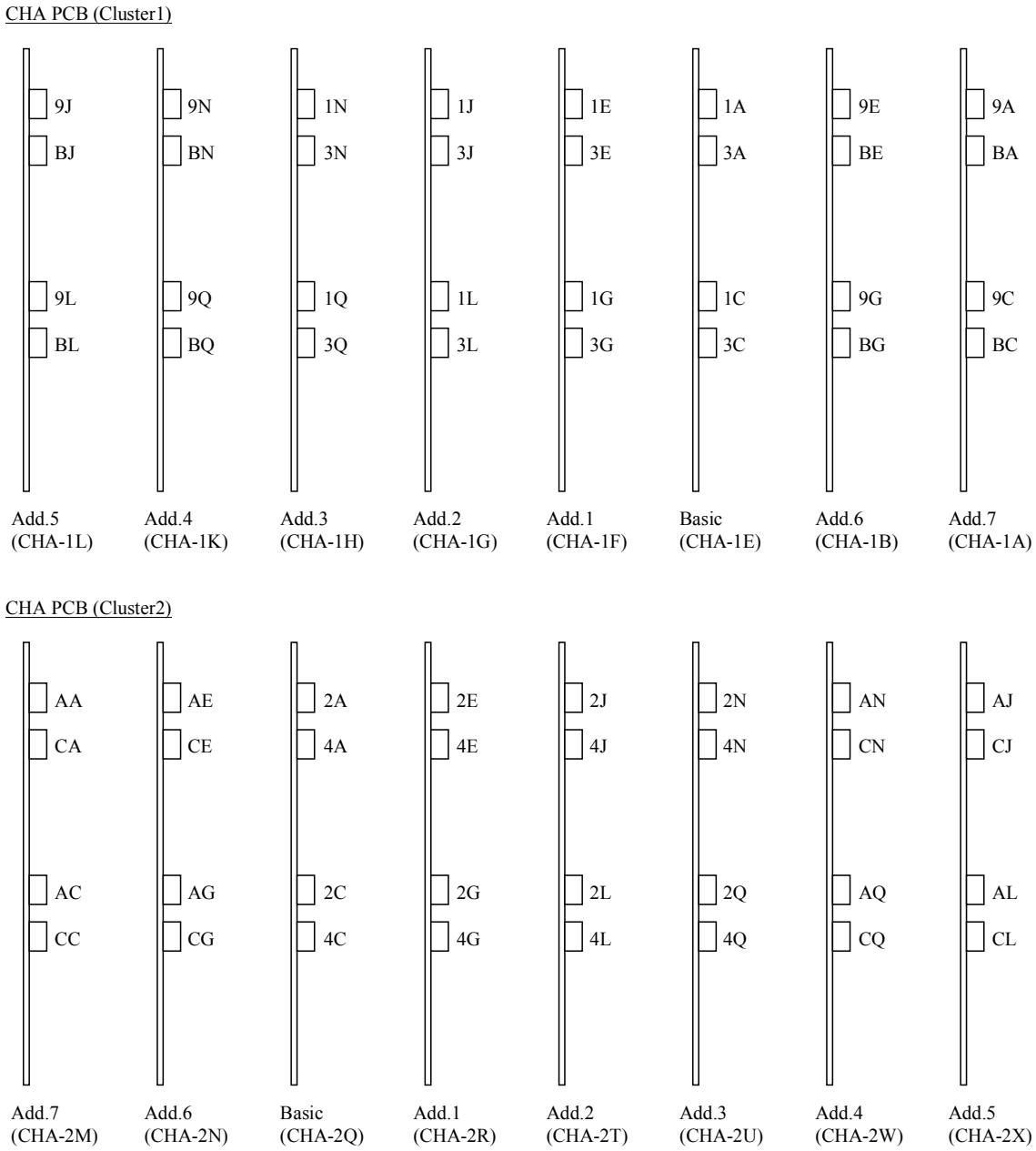


Fig.4.1-7 Port Number of 4-port CHA PCB

8. 4-port CHA PCB (DKC-F510I-8ISR)

Caution: Wear a wrist strap until the work is finished. (Refer to INST03-01-50 for how to wear the wrist strap.)

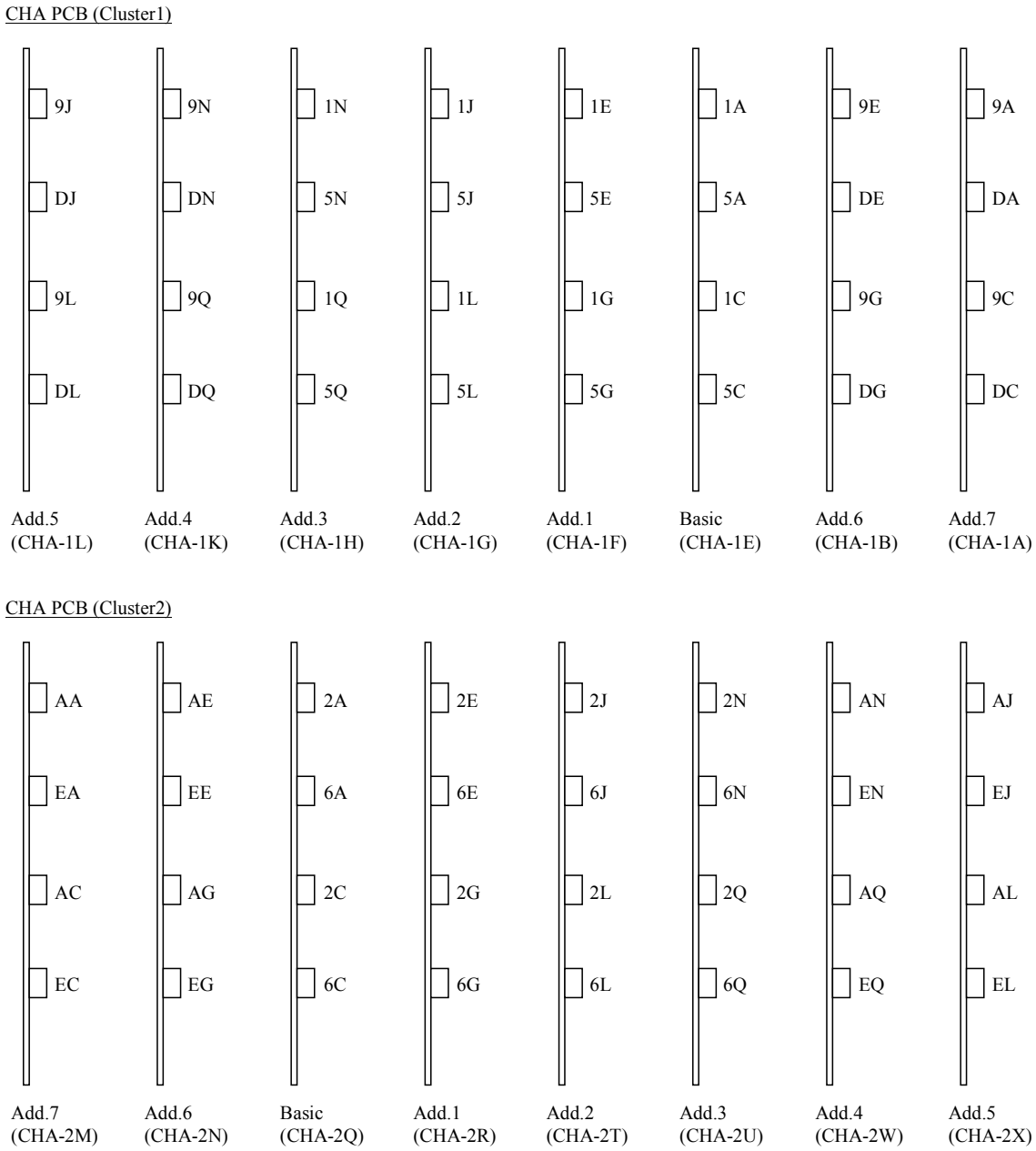
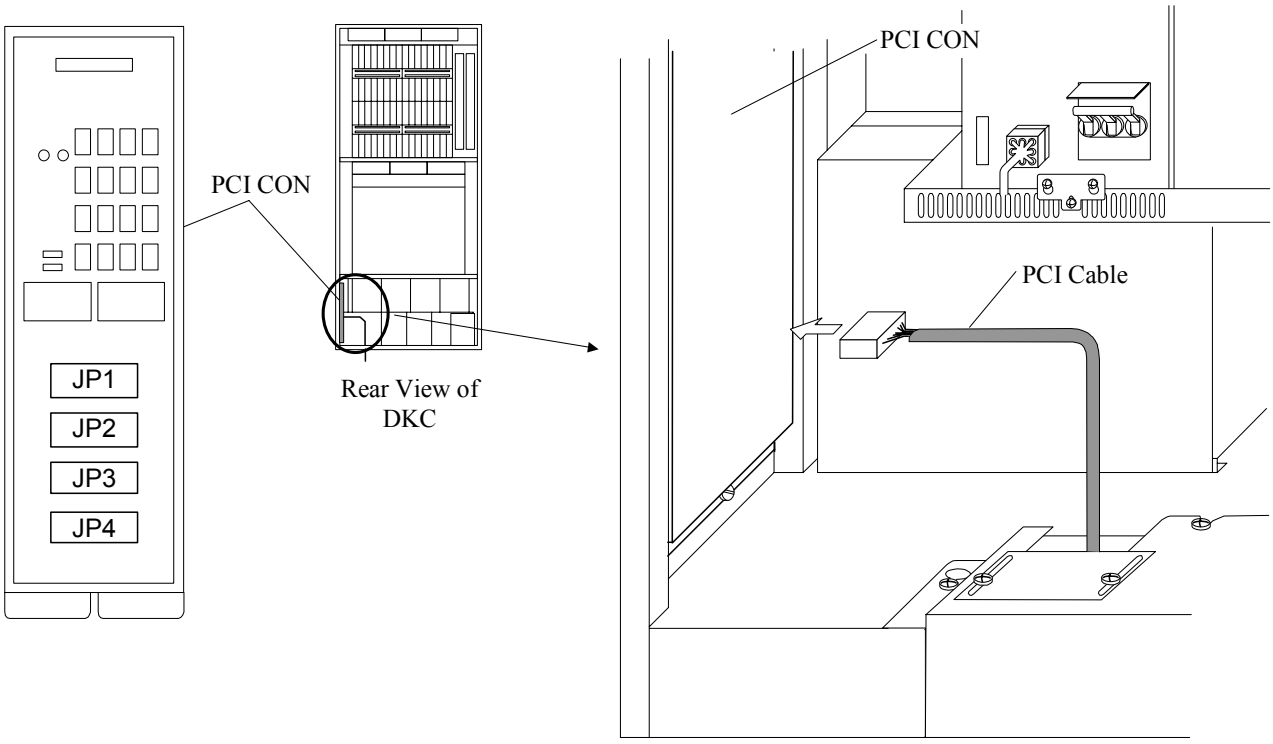


Fig.4.1-8 Port Number of 4-port CHA PCB

4.2 PCI Cabling



4.3 SVP CON Interface

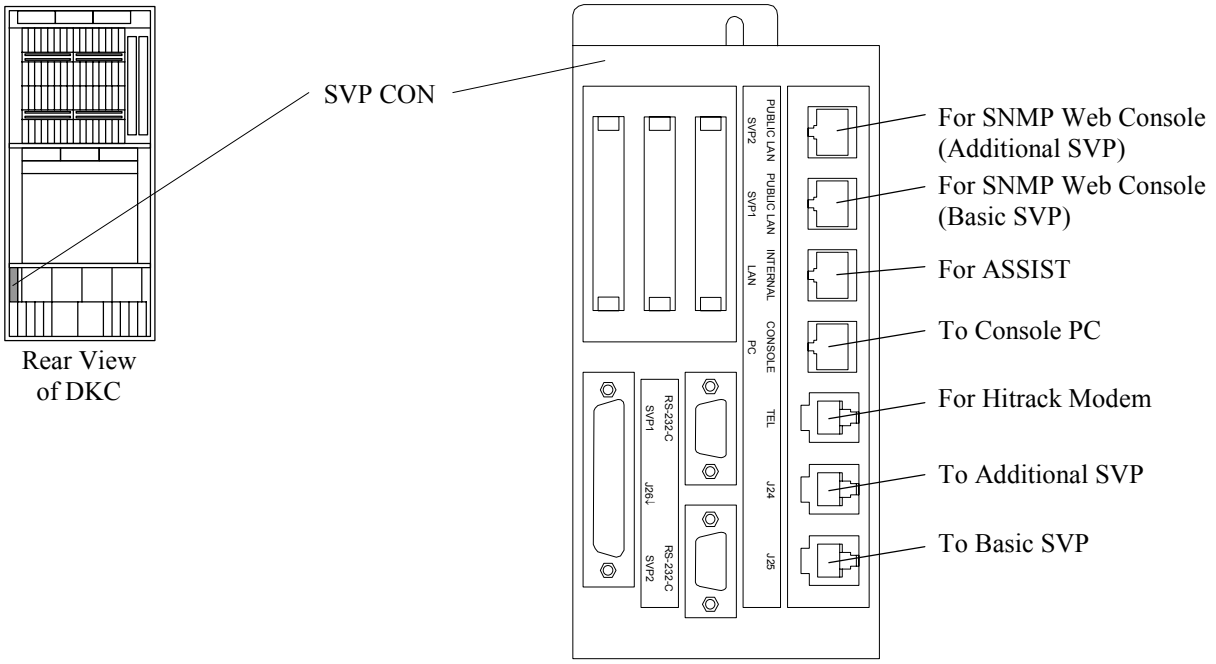


Fig.4.3-1 SVP CON Interface

5. Internal Cabling Block Diagram

5.1 Internal Cable Connection of DKC

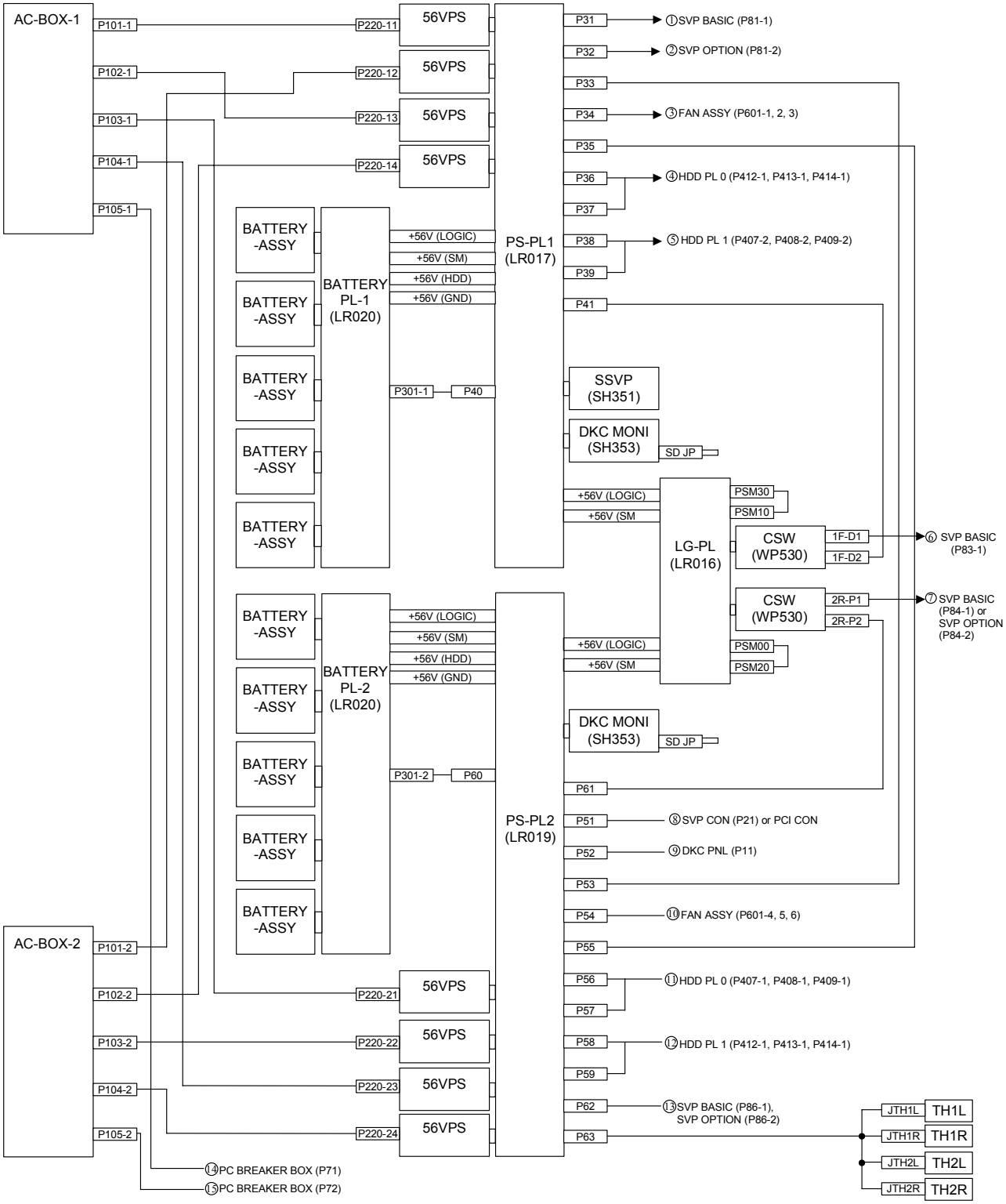


Fig. 5.1-1 DKC Internal Cabling Diagram (1/2)

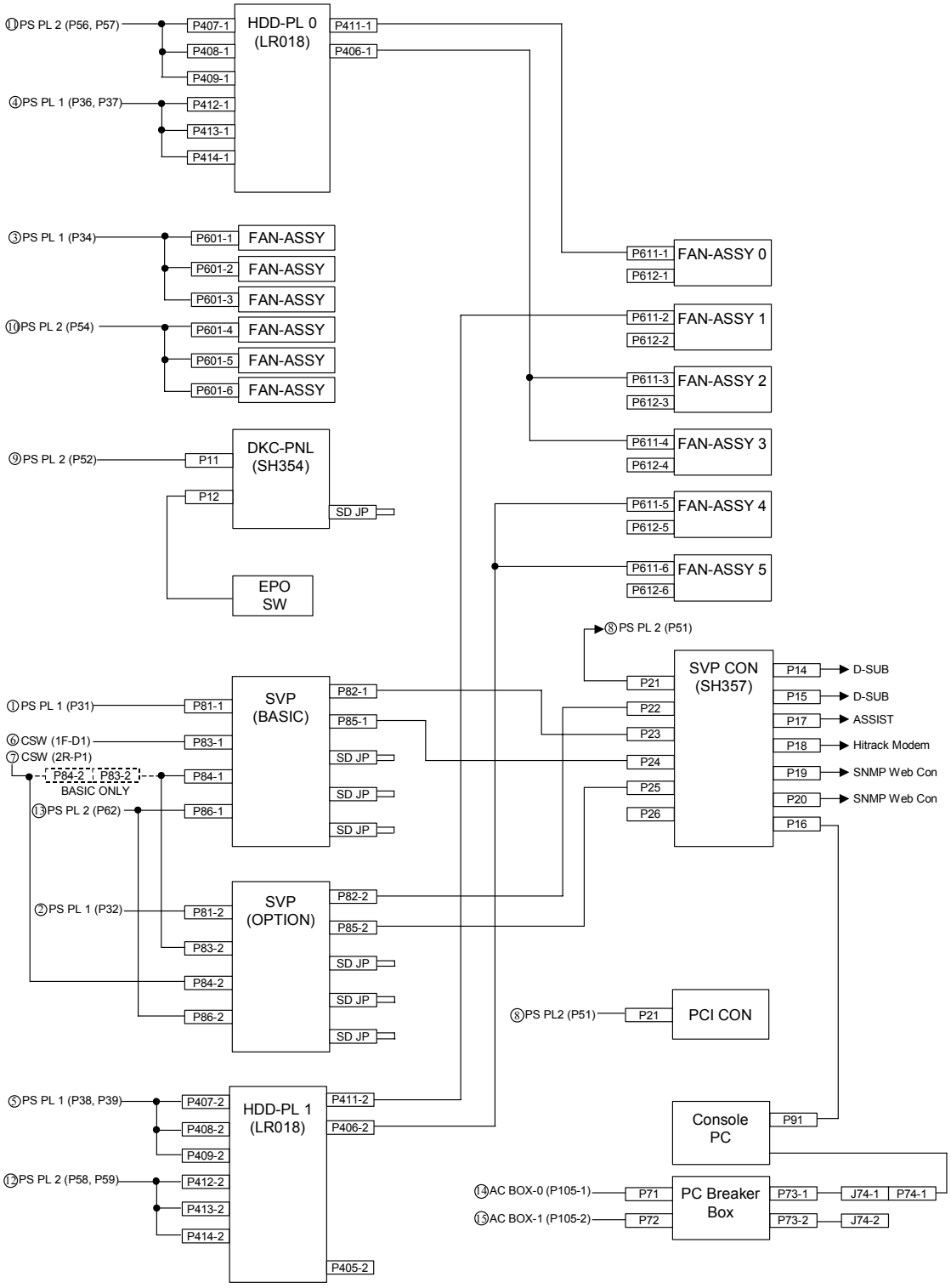


Fig. 5.1-1 DKC Internal Cabling Diagram (2/2)

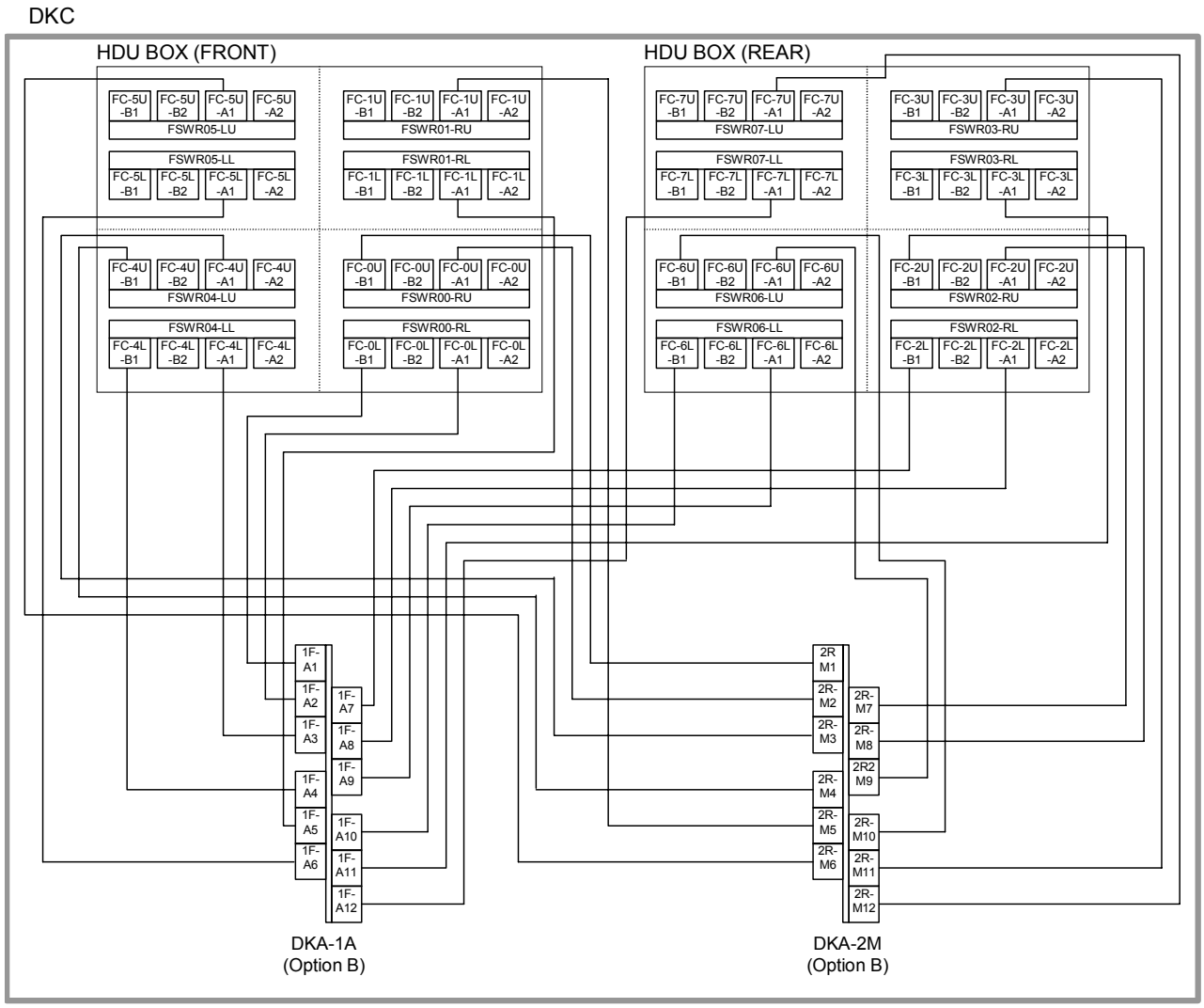


Fig. 5.1-2 DKC Internal Cabling Diagram

5.2 Cable Connection between DKC and DKU

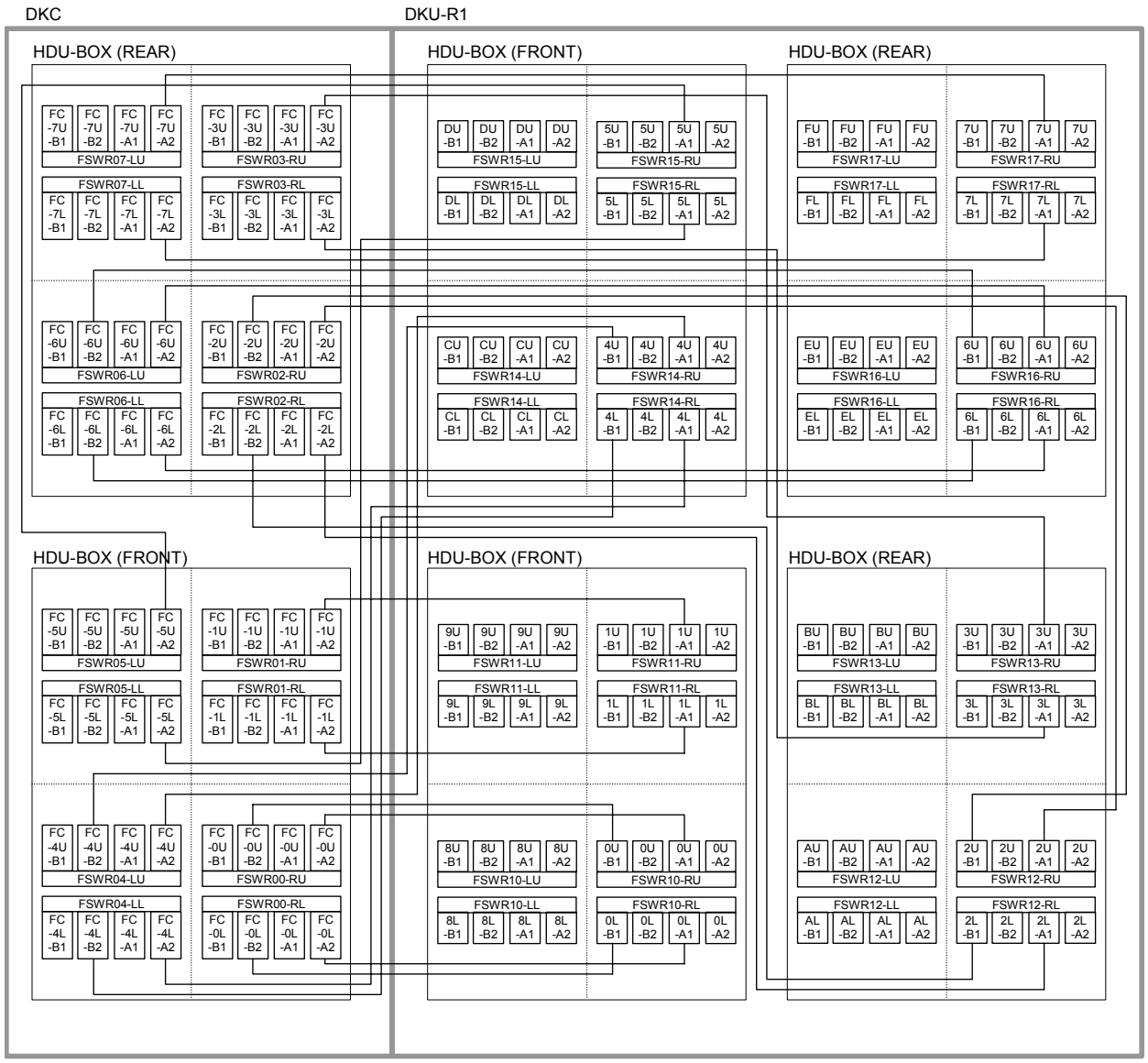


Fig. 5.2-1 Subsystem Internal Cabling Diagram (FR11C)

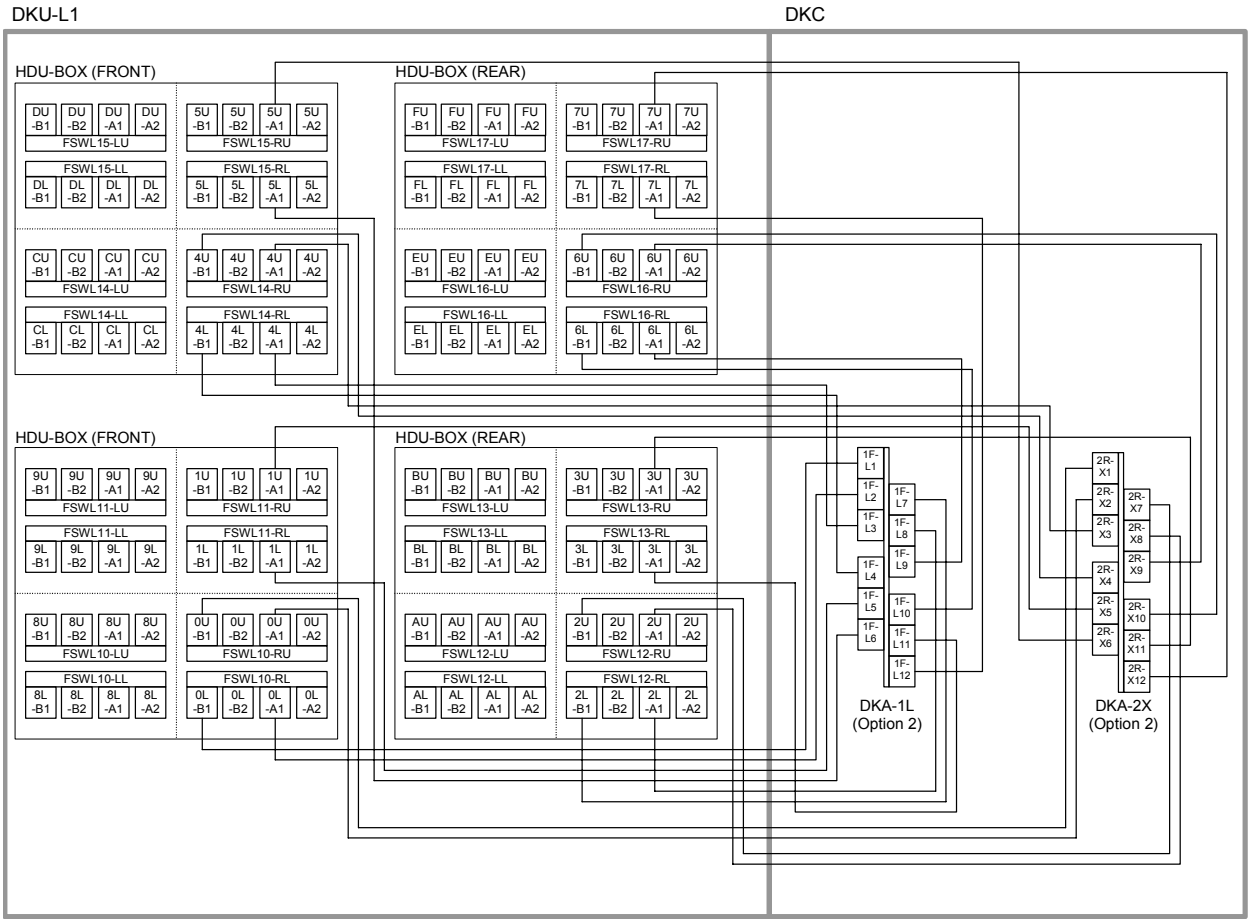


Fig. 5.2-2 Subsystem Internal Cabling Diagram (FL11C)

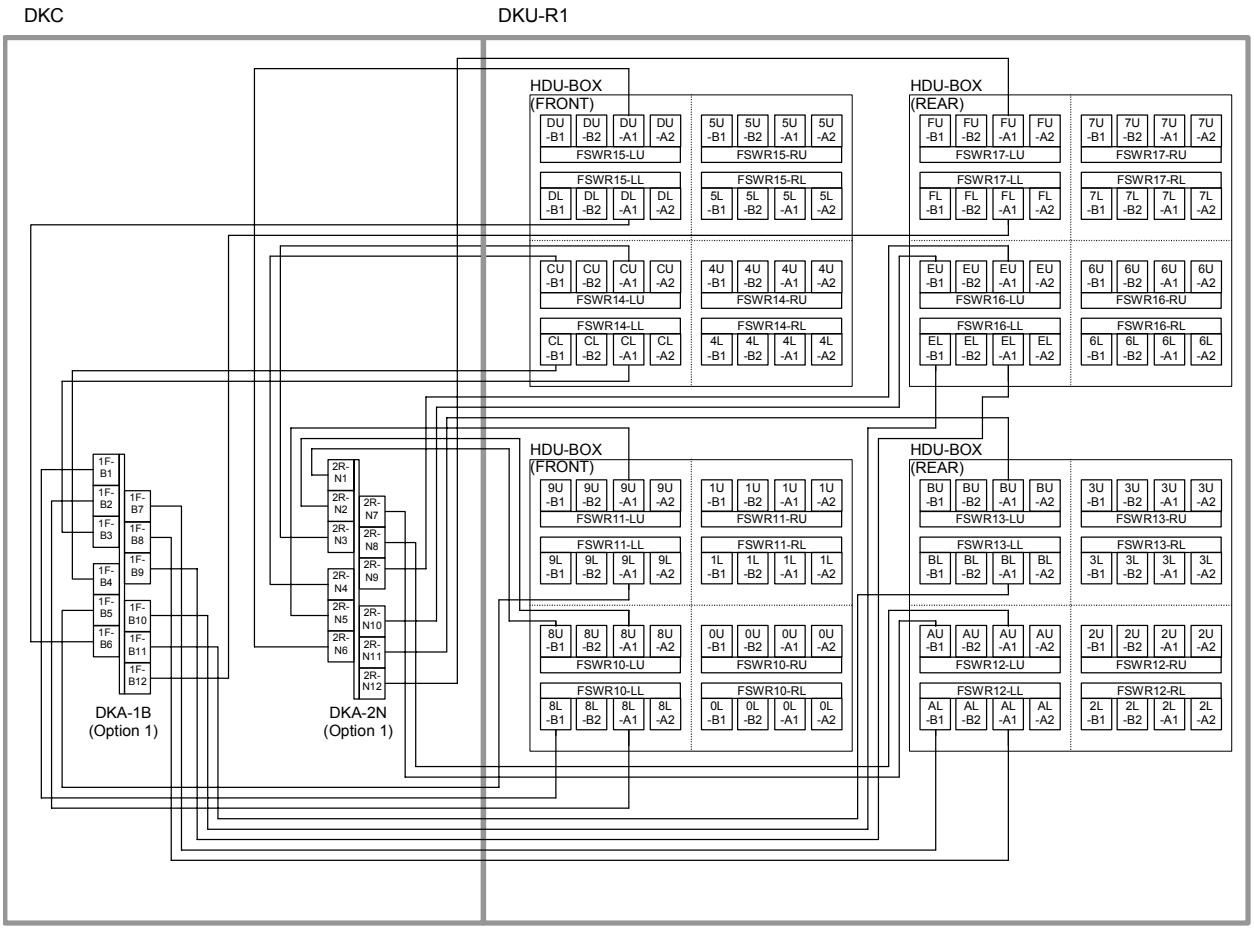


Fig. 5.2-3 Subsystem Internal Cabling Diagram (FR12C)

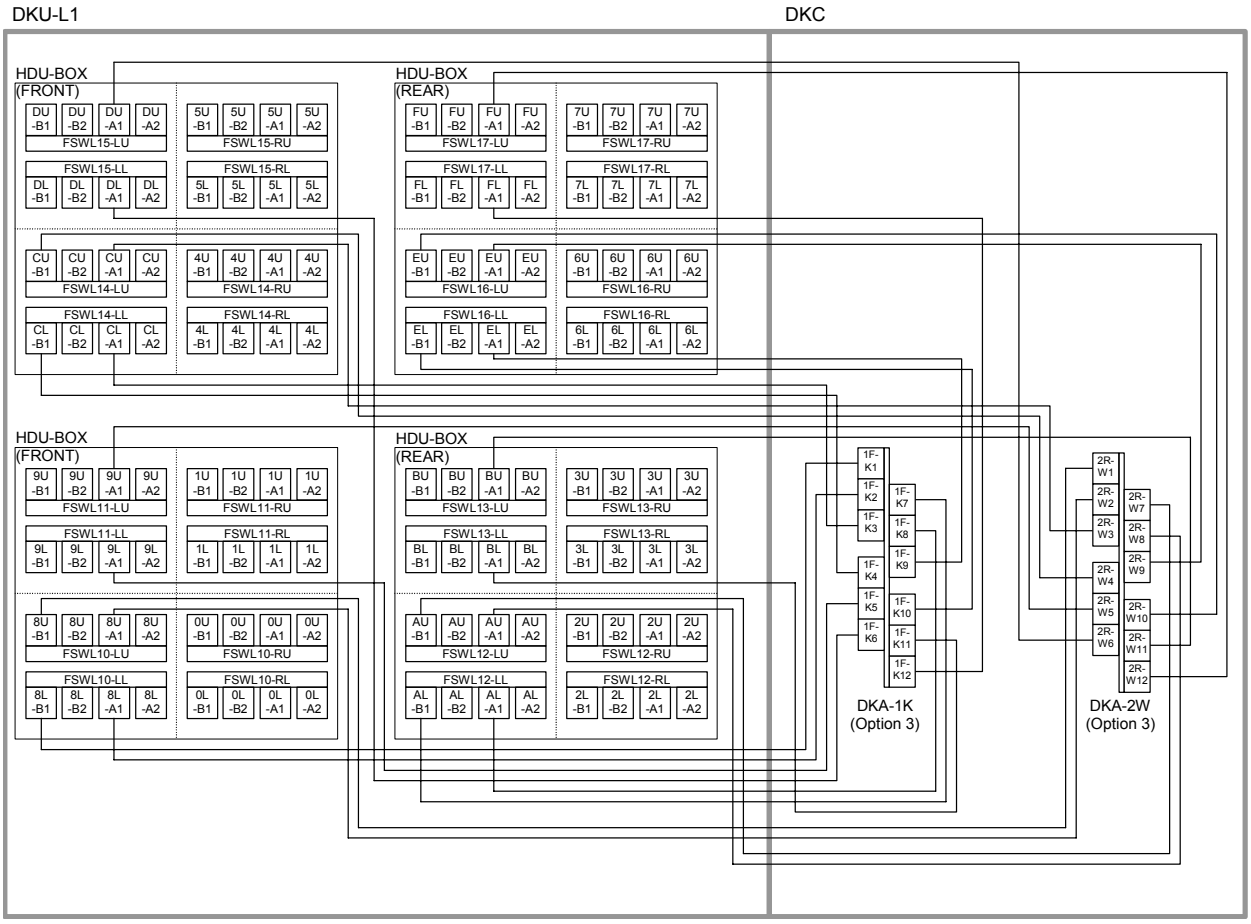


Fig. 5.2-4 Subsystem Internal Cabling Diagram (FL12C)

Fig. 5.2-5 Subsystem Internal Cabling Diagram (FEXC × 2)

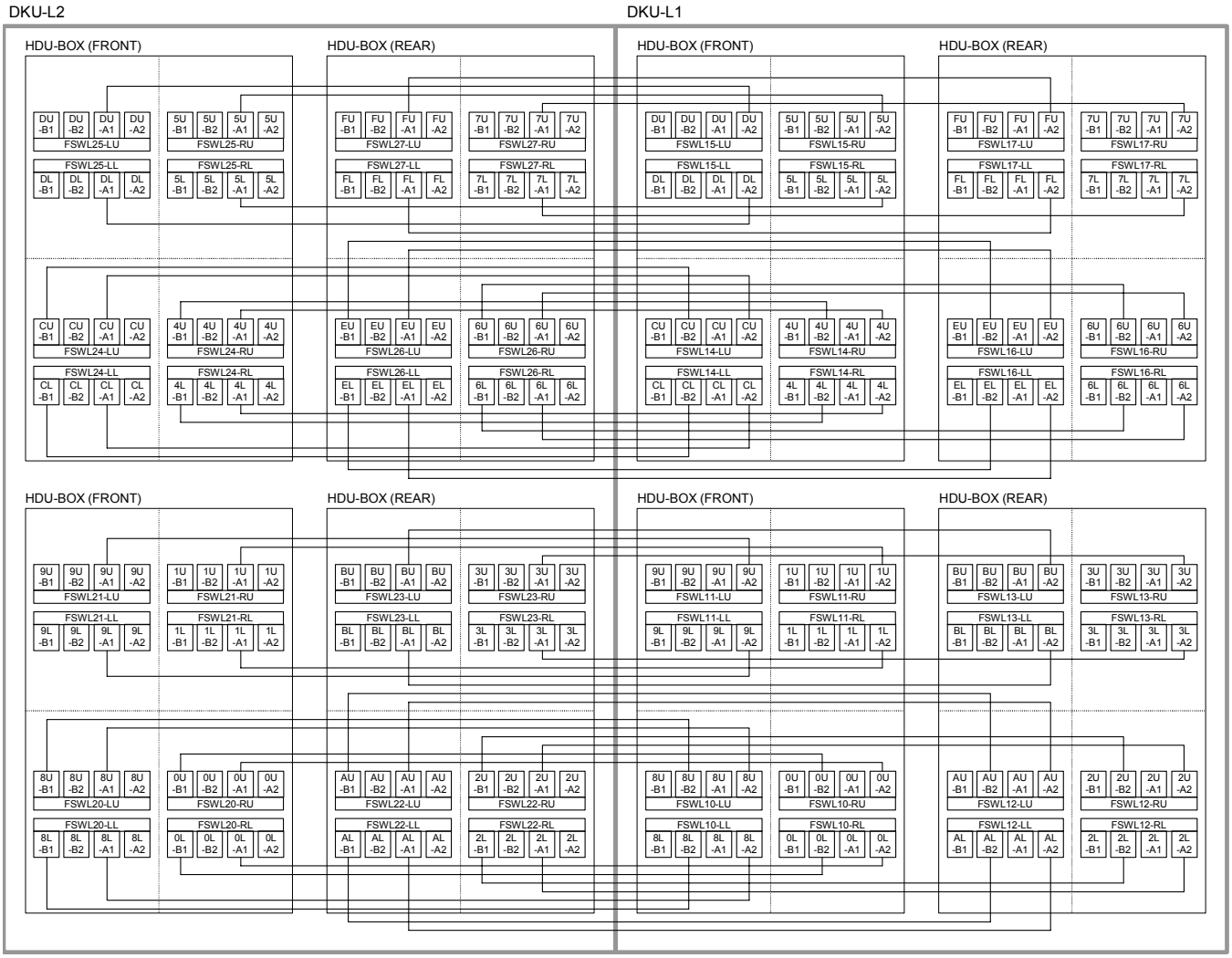


Fig. 5.2-6 Subsystem Internal Cabling Diagram (FEXC × 2)

5.3 Internal Cable Connection of DKU

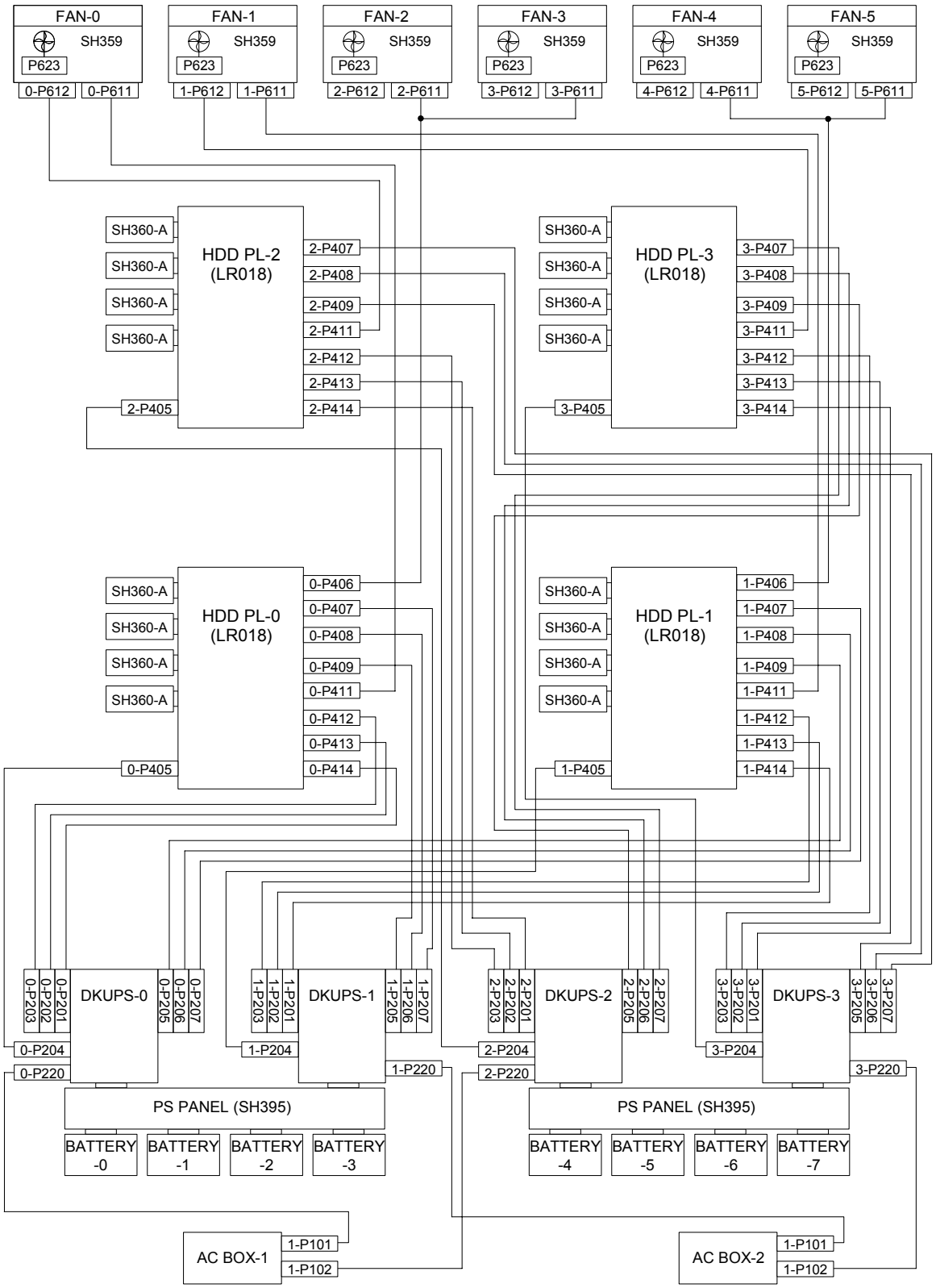


Fig. 5.3-1 DKU Internal Cabling Diagram

5.4 LAN Cabling

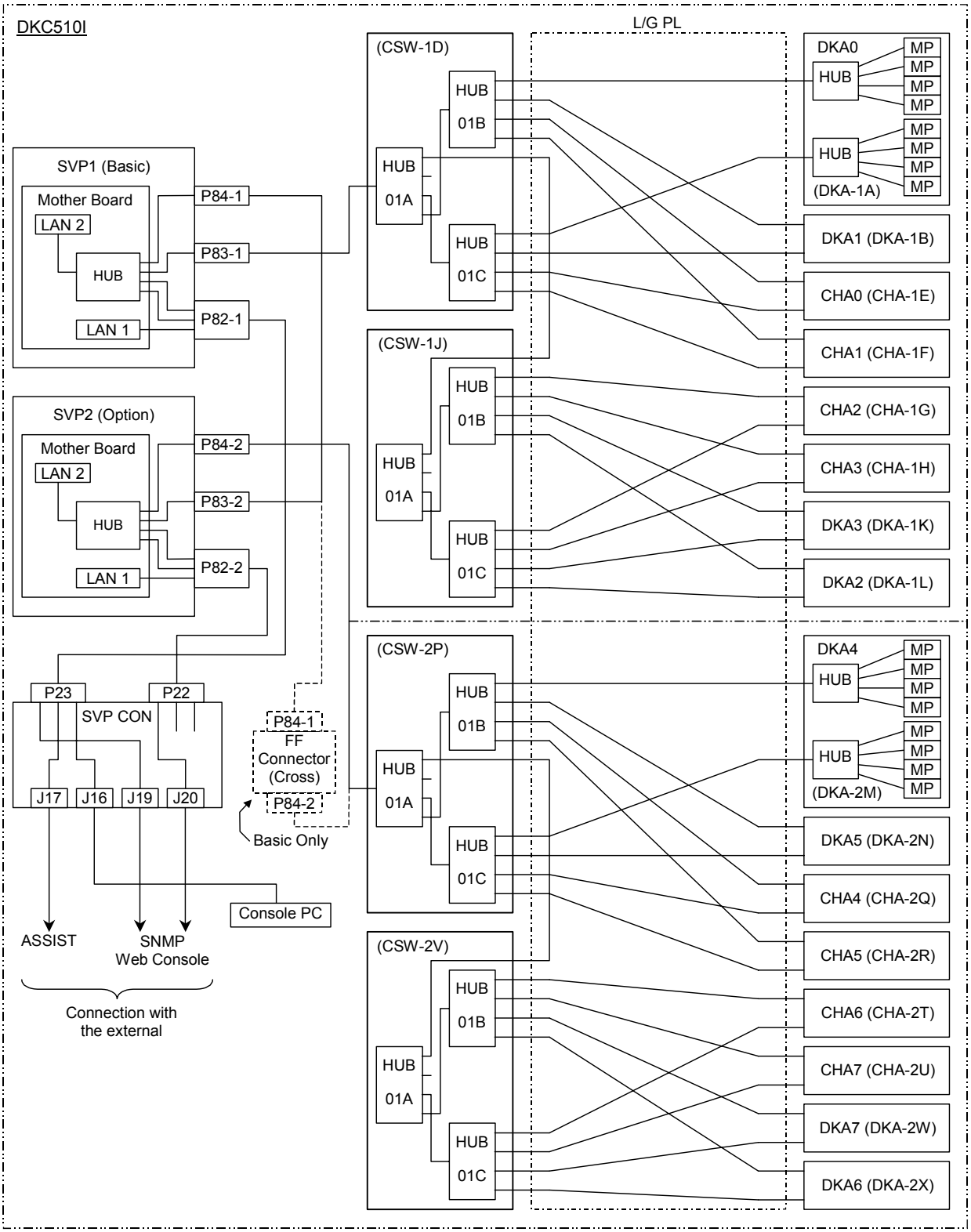


Fig.5.4-1 LAN Cabling Diagram

6. Jumper Setting

6.1 Shut Down Jumpers

[1] Front or Rear Logic Box
Check that the Shut Down LED is turned on. If not, connect the Shut Down Jumper (Maintenance Jumper) to the Shut Down Connector. (Only hot replace procedure)

⚠ CAUTION

A system down may be caused if the Maintenance jumper is inserted in a PCB other than that to be replaced. Make sure that it is the PCB to be replaced.

Table 6.1-1 Shut Down Jumpers List

No.	Function Name	Function	Remarks
1	Channel Adapter	Shut down jumper	
2	Disk Adapter		
3	Cache		
4	SM		
5	CSW		

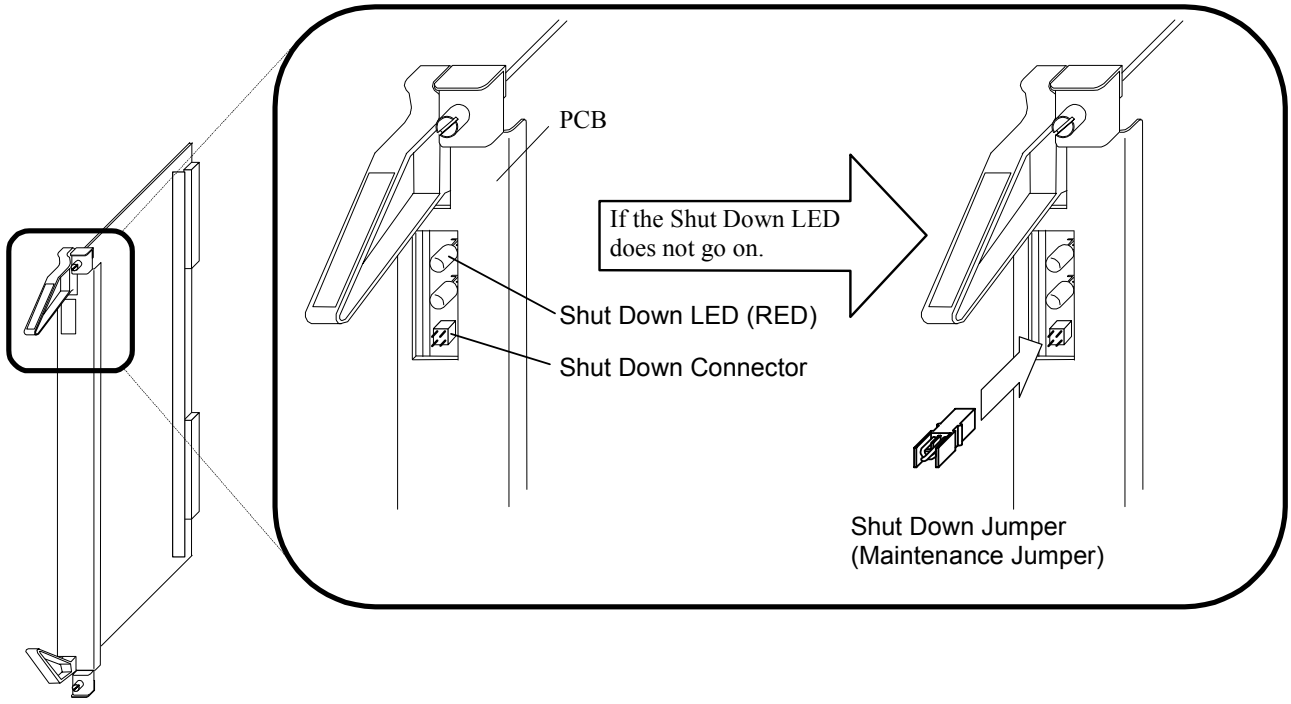


Fig. 6.1-1 Installation of Shut Down Jumper in the Front/Rear Logic Box

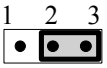
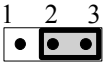
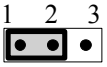
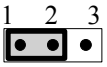
6.2 Other Jumpers

Table 6.2-1 Jumper Stetting List

No.	Function Name	Jumper No.	Settings	Remarks
1	PCI CON	J1	EPO signal	
		J2	EPO signal	
2	SVP	JP1	SVP PS Control Inhibition	
		JP2	SVP PS Shutdown	
		JP3	SVP Initialization	
3	BATTERY	Switch	BATTERY PWR ON/OFF	
4	DKC PANEL	JP1	Alarm Inhibition	
		JP2	Not used	
		JP3	Diagnosis of CSW Cable Connection	
5	HDDFAN	JP1-JP4	Specification of DKU Frame ID	
6	FSW	Switch	Specification of FSW Address	
7	ALPA	JP1-JP4	Specification of HDD Address	

[1] PCI CON

Table 6.2-2 Setting of Jumper Socket on the PCI CON

Function Name	Setting	J1 and J2 Setting
PCI CON	When power is controlled from the host (at least one PCI cable attached to JP1-JP4 on PCI CON PCB), set the jumpers as shown.	J1  J2 
	When power is not controlled from the host, no PCI Cable attached to JP1-JP4 PCI CON PCB or to disable the EPO of host, set the jumpers as shown.	J1  J2 

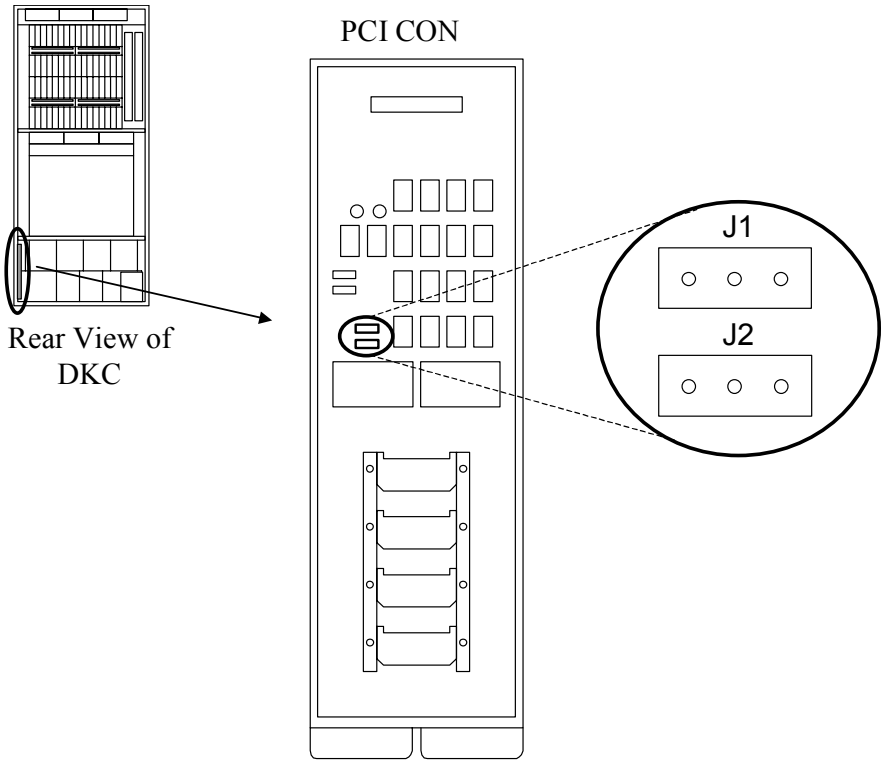


Fig. 6.2-1 Setting of Jumper Socket on the PCI CON

[2] SVP

Table 6.2-3 Setting of Jumper Socket on the SVP

Function Name	Jumper No.	Settings	Remarks
SVP	JP1	The SVP Power ON/OFF Function of SSVP is inhibited by inserting Jumper.	
	JP2	The SVP is powered off forcibly by inserting the Jumper.	
	JP3	The SVP setup is initialized by inserting Jumper.	

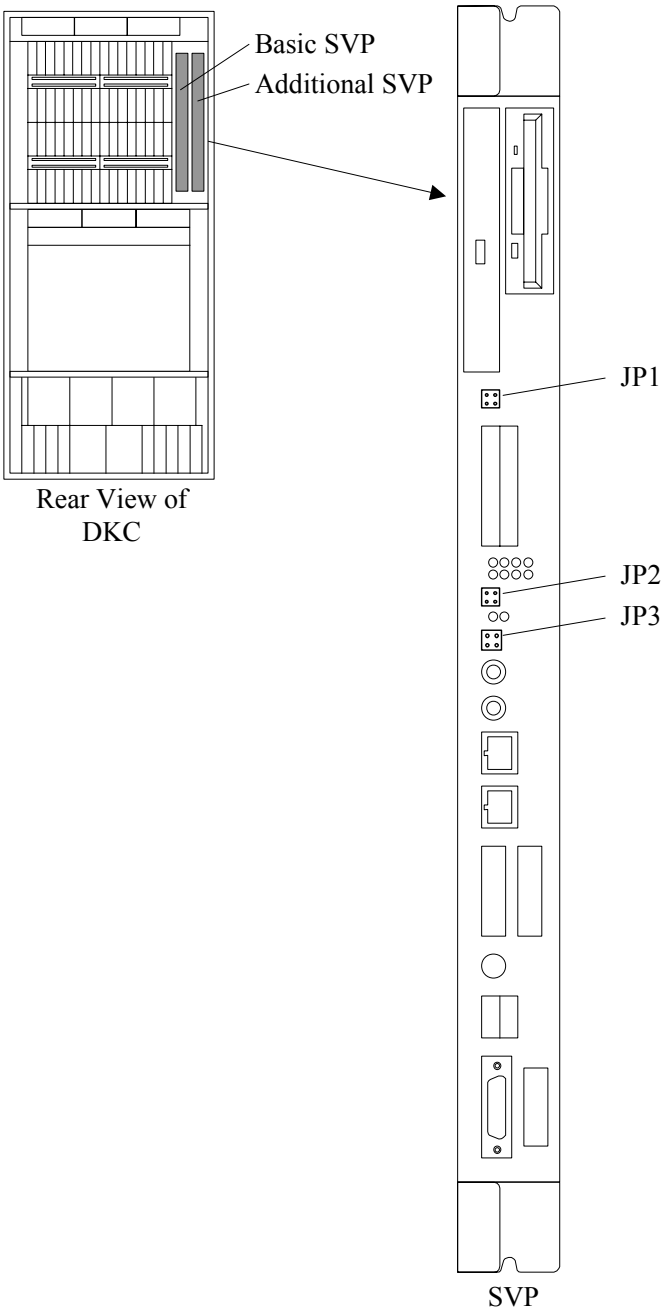


Fig. 6.2-2 Setting of Jumper on the SVP

[3] BATTERY BOX

⚠ CAUTION

When the battery switch is not set, data on the cache memory and shared memory are not assured when an power failure occurs. As a result, all the data on the cache memory and shared memory are lost causing a destruction of user data.
Be sure to set the battery switch.

When the subsystem power is to be turned off for longer than battery backup duration time, the battery switch must be turned off to protect the battery from deterioration. In this case, turn off the battery switch after making sure that the powering off process of the subsystem has been completed normally.

This jumper is set in order to validate the battery when an AC power failure occurs.

Table 6.2-4 Battery Backup Duration Time

Mode	Battery Backup Duration Time				
	① Subsystem Operating	② Data de-stage process	③ Power off process	④ SM/CM backup duration time	
				CM capacity 4 to 128GB	CM capacity 132 to 256GB
De-stage Mode	1 minute	8 minutes	5 minutes	24 hours	18 hours
Back-up Mode	1 minute	—	—	48 hours	36 hours

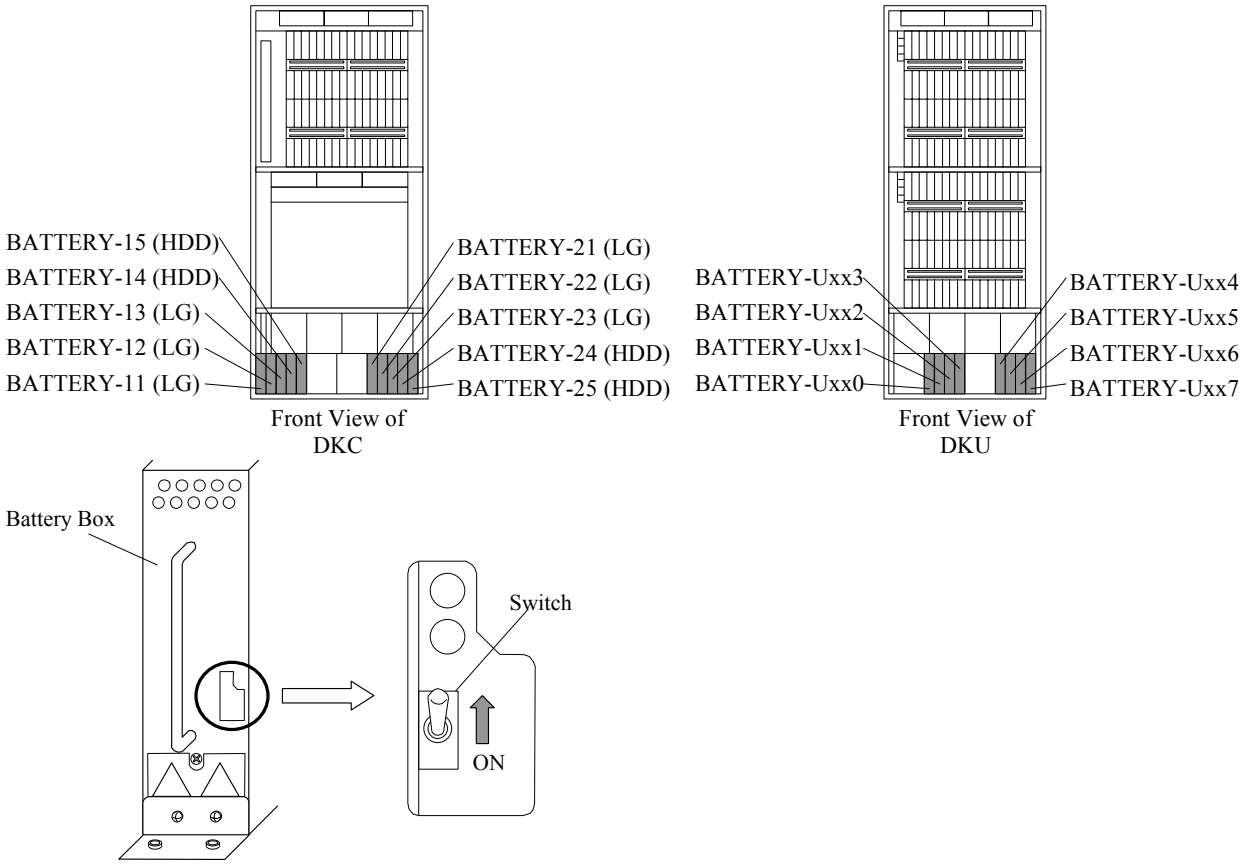


Fig. 6.2-3 Switch Setting of Battery Box

[4] DKC PANEL

Table 6.2-5 Setting of Jumper Socket on DKC PANEL PCB

Function Name	Jumper No.	Settings	Remarks
DKC PANEL	JP1	The voltage and thermal alarm signals are inhibited by inserting maintenance jumper.	
	JP2	Not used	
	JP3	This jumper is used in order to diagnose whether the cables are connected to the CSW PCB.	

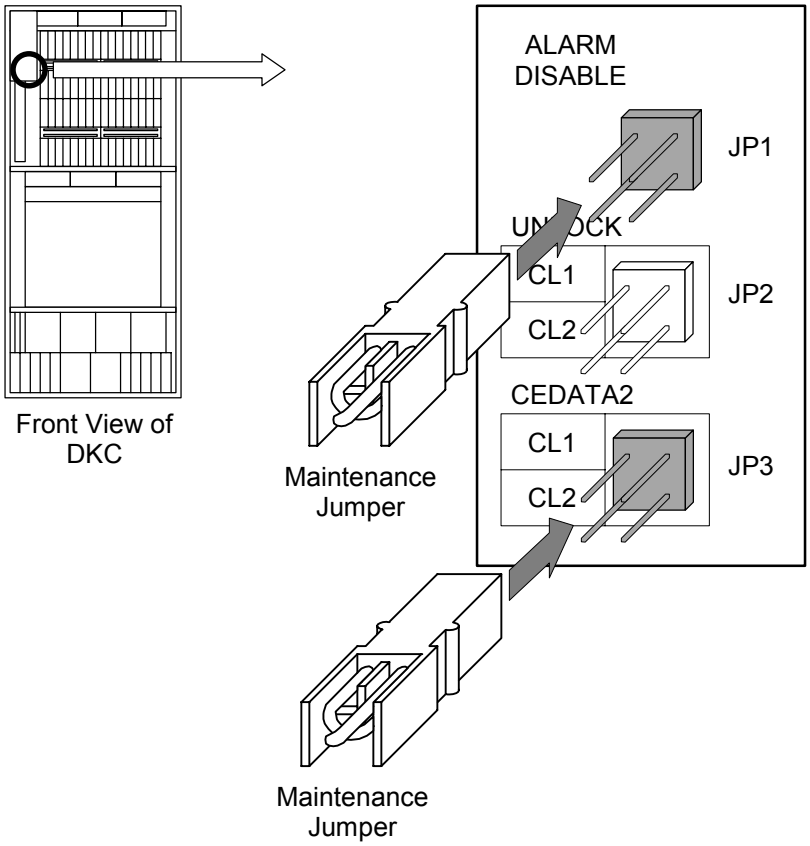


Fig. 6.2-4 Setting of Jumper Socket on DKC PANEL PCB

[5] DKU Frame ID

Table 6.2-6 Installation of Maintenance Jumper in HDDFAN

Function Name	Jumper No.	Settings	Remarks
HDDFAN	JP1-JP4	DKU Frame ID is set up.	

In the case of DKC

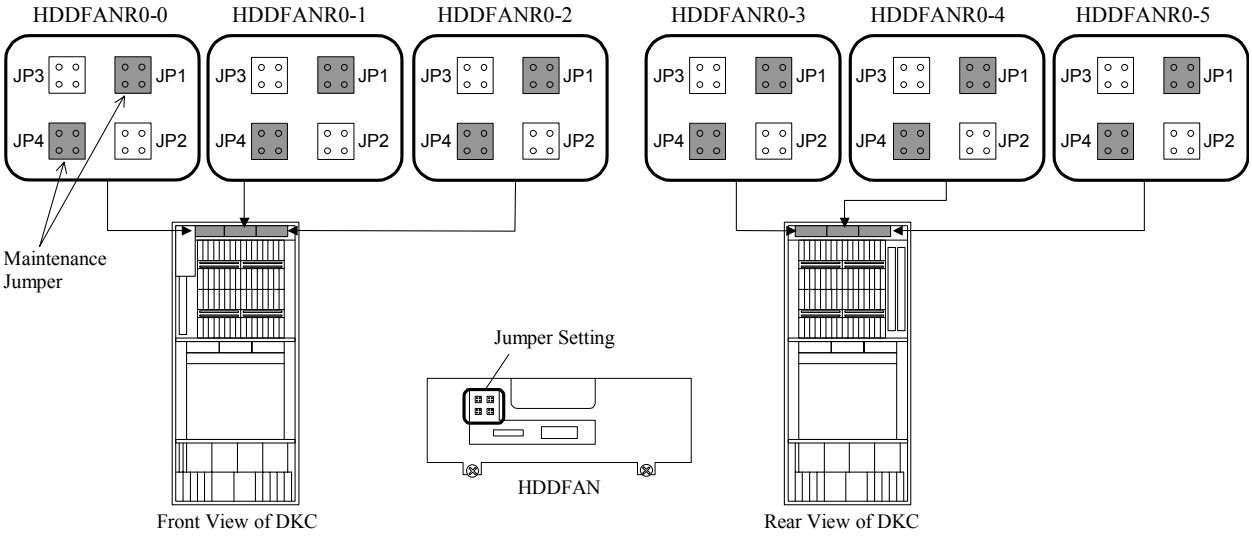


Fig. 6.2-5 Installation of Maintenance Jumper in HDDFAN (DKC)

In the case of DKU-R1

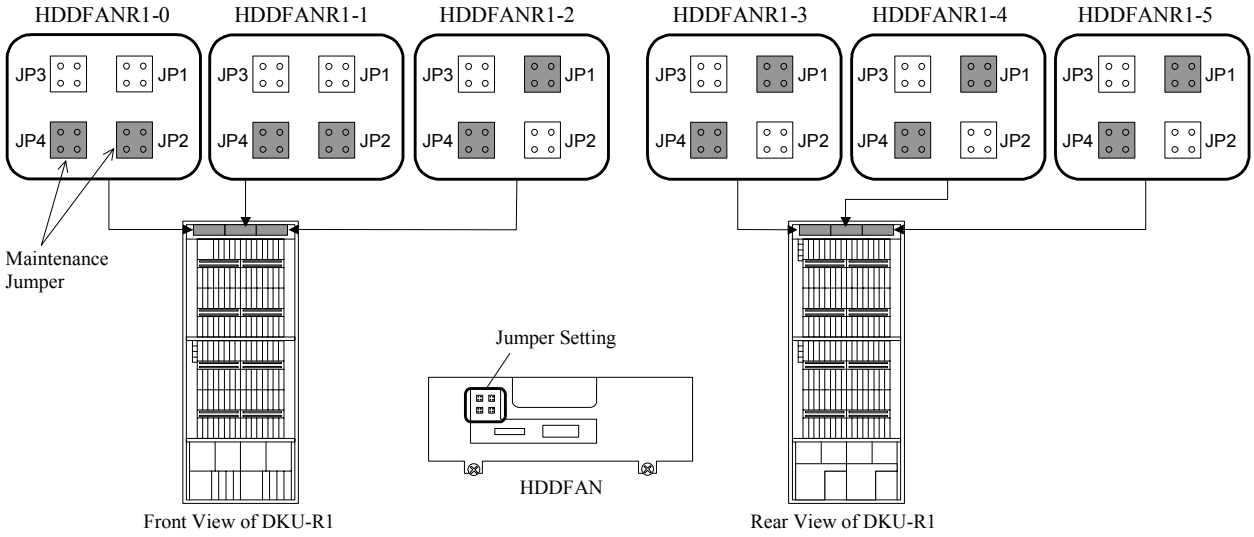


Fig. 6.2-5A Installation of Maintenance Jumper in HDDFAN (DKU-R1)

In the case of DKU-R2

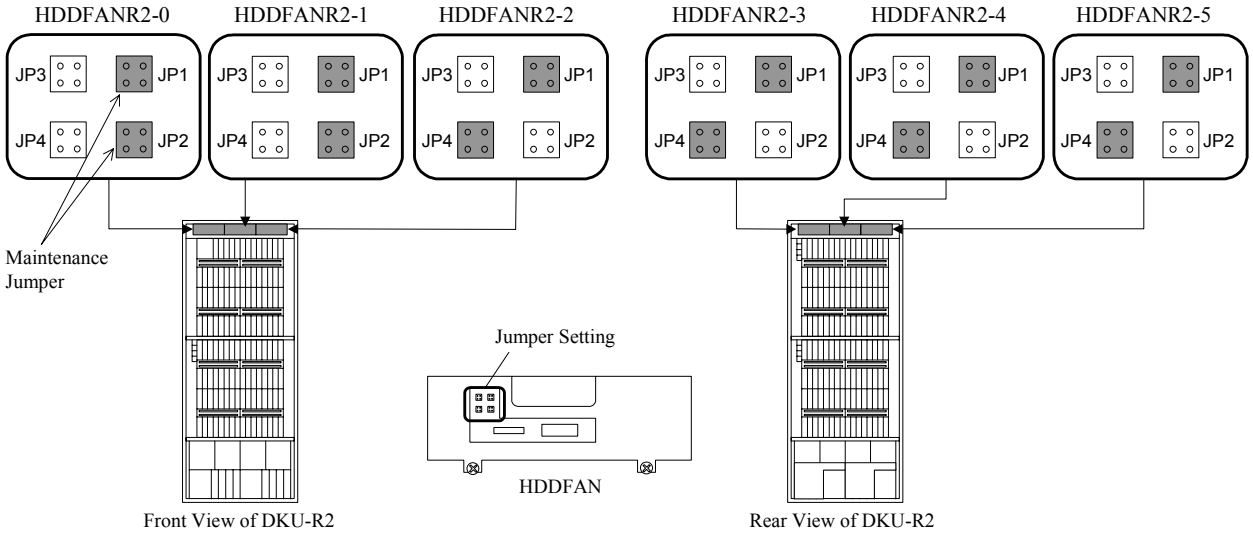


Fig. 6.2-5B Installation of Maintenance Jumper in HDDFAN (DKU-R2)

In the case of DKU-L1

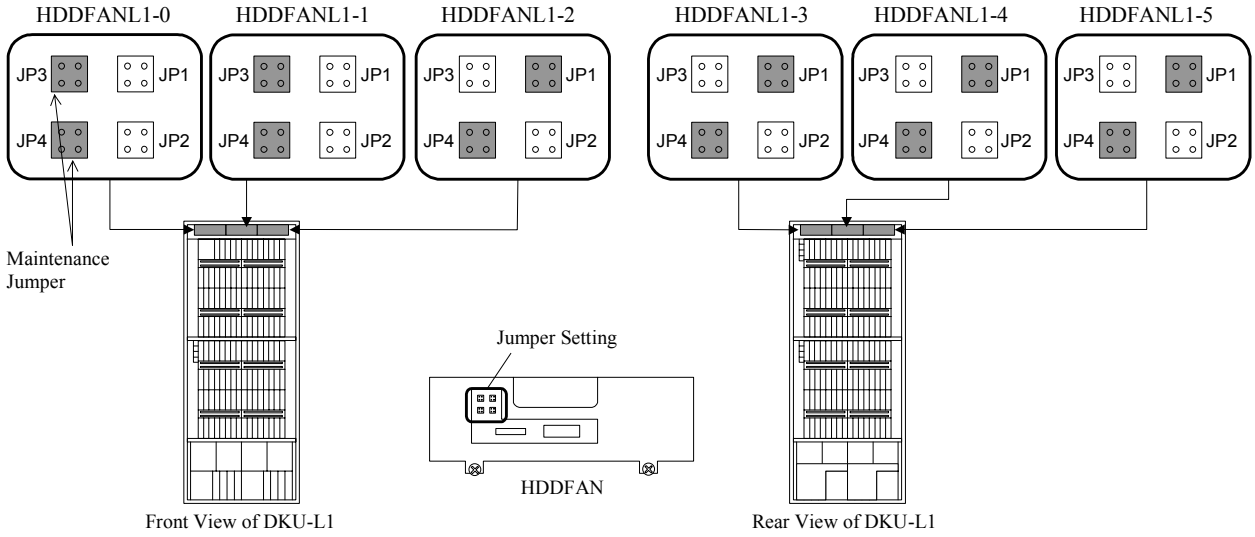


Fig. 6.2-5C Installation of Maintenance Jumper in HDDFAN (DKU-L1)

In the case of DKU-L2

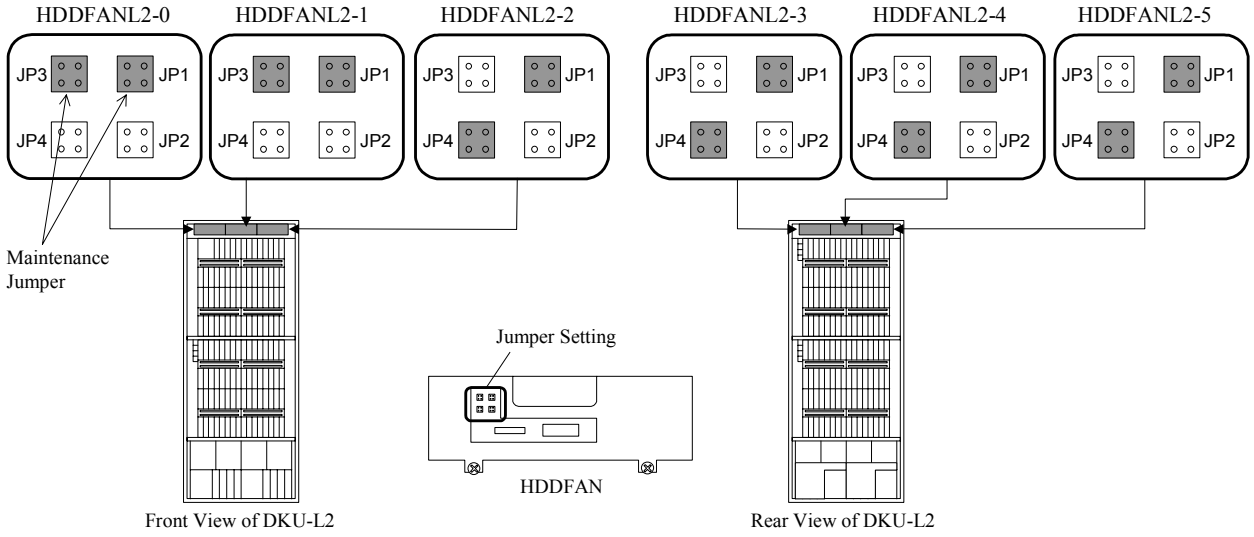
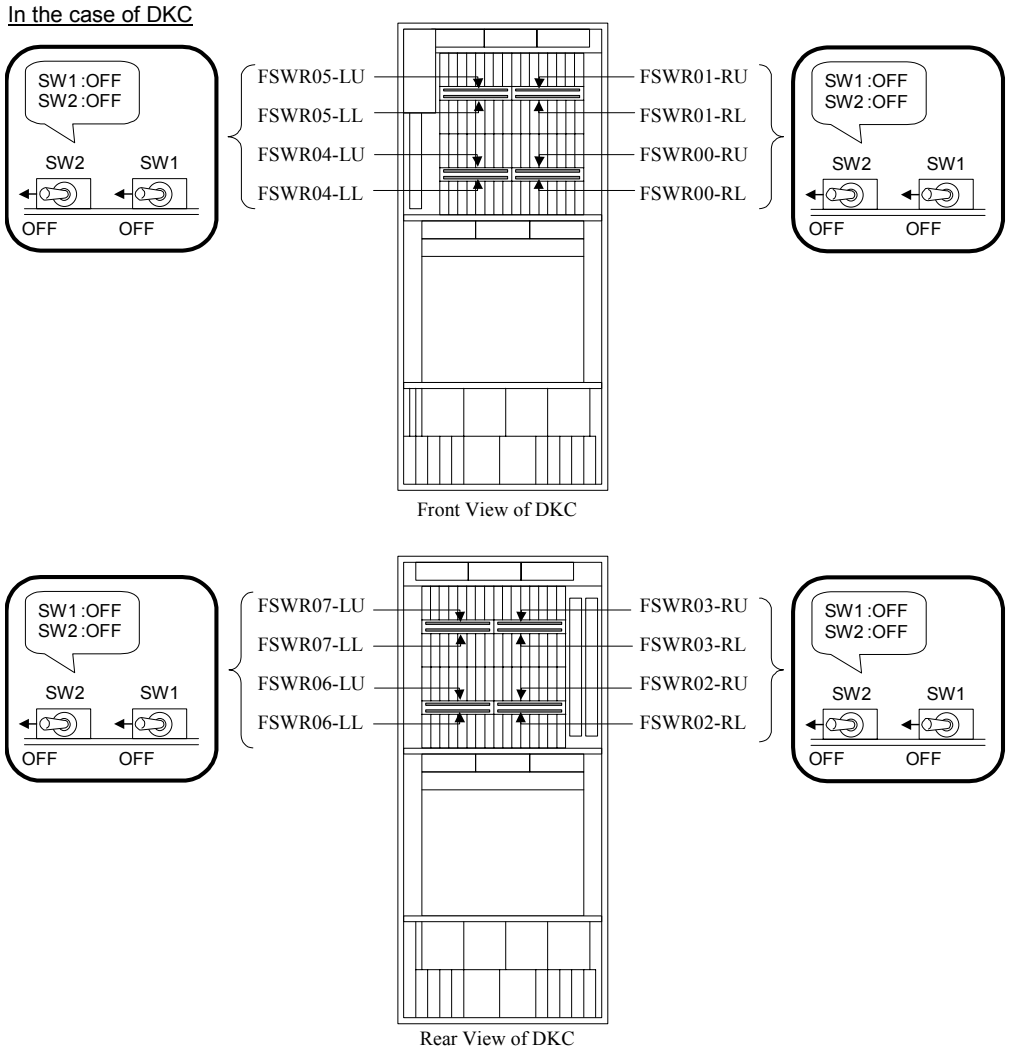


Fig. 6.2-5D Installation of Maintenance Jumper in HDDFAN (DKU-L2)

[6] FSW Address (FSW)

Table 6.2-7 Switch Setting of FSW

Function Name	Jumper No.	Settings	Remarks
FSW	SW1 SW2	The address of FSW is set up.	



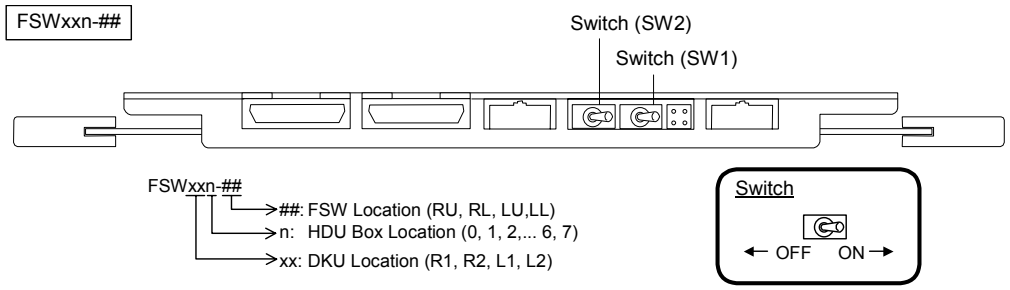


Fig. 6.2-6 Switch Setting of FSW (DKC)

In the case of DKU-R1 or DKU-L1

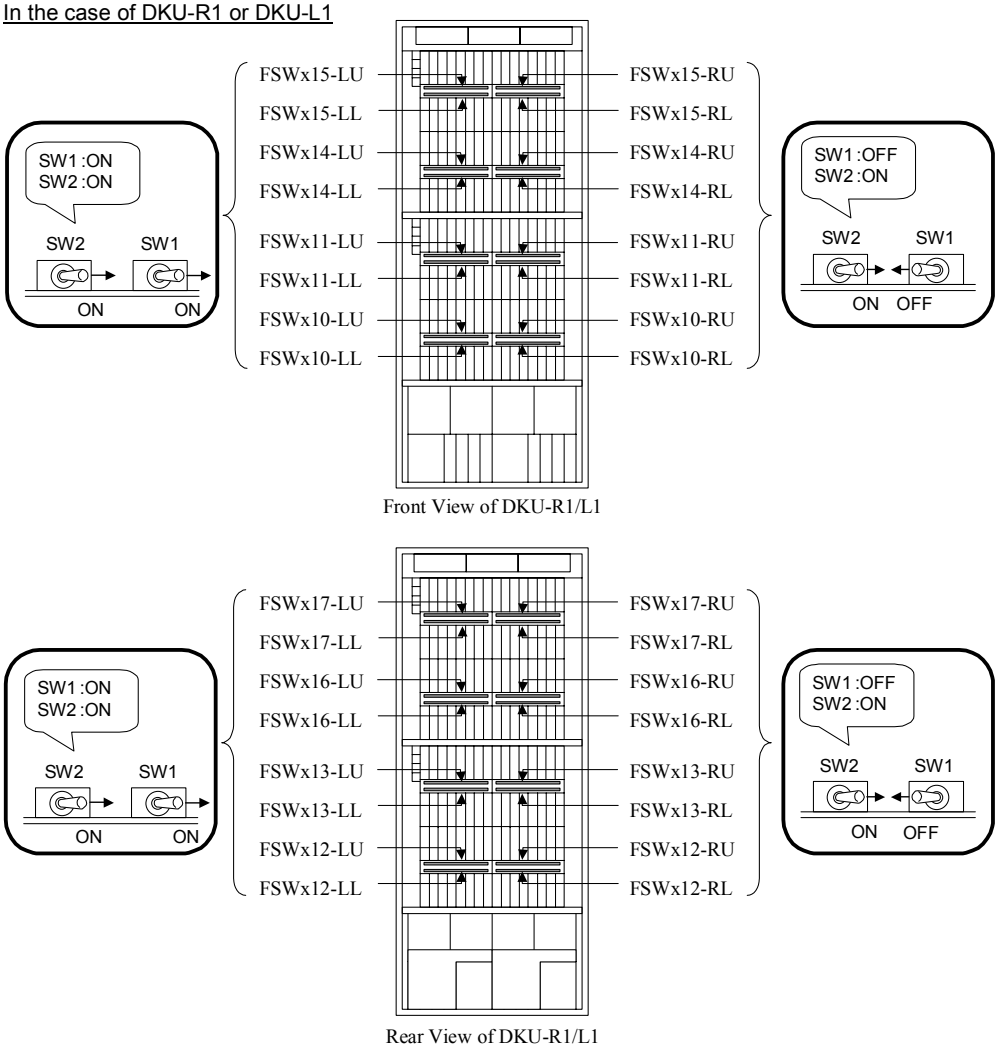


Fig. 6.2-6A Switch Setting of FSW (DKU-R1/L1)

In the case of DKU-R2 or DKU-L2

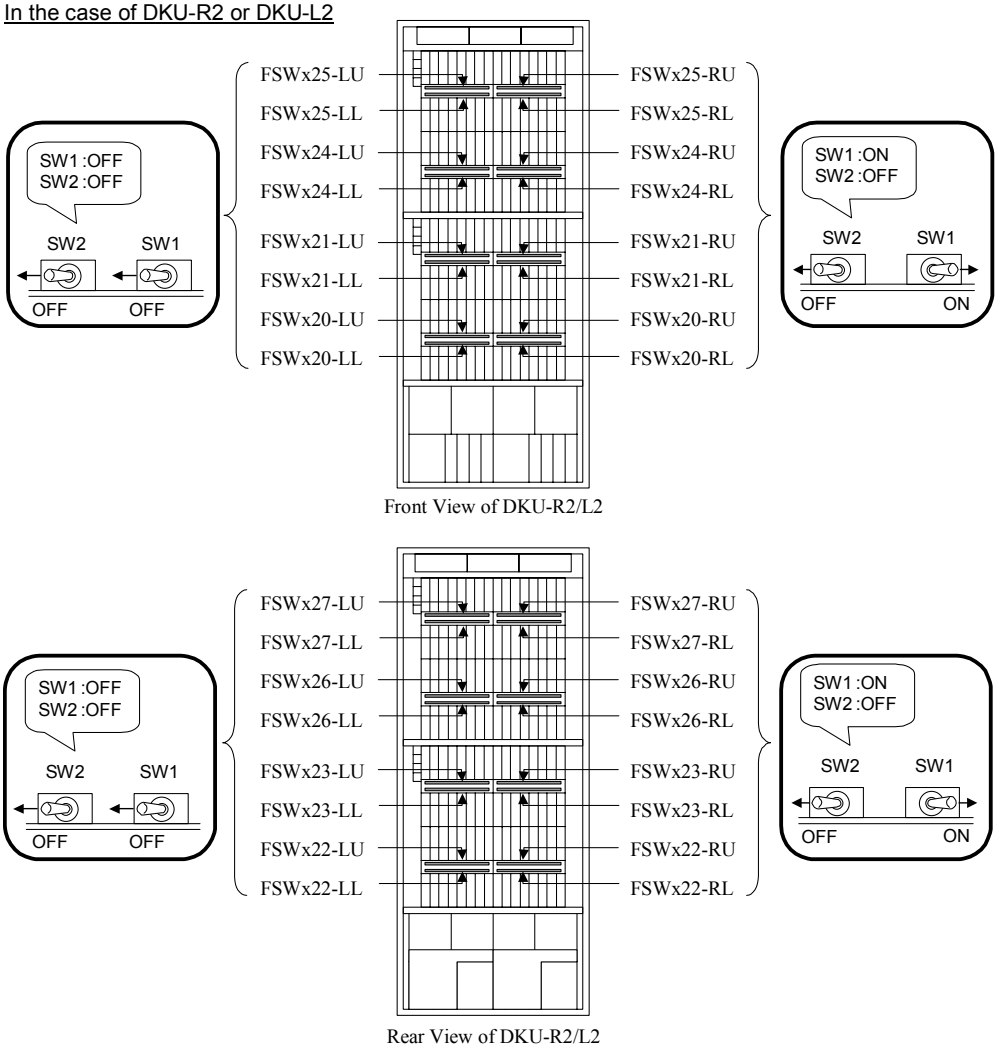


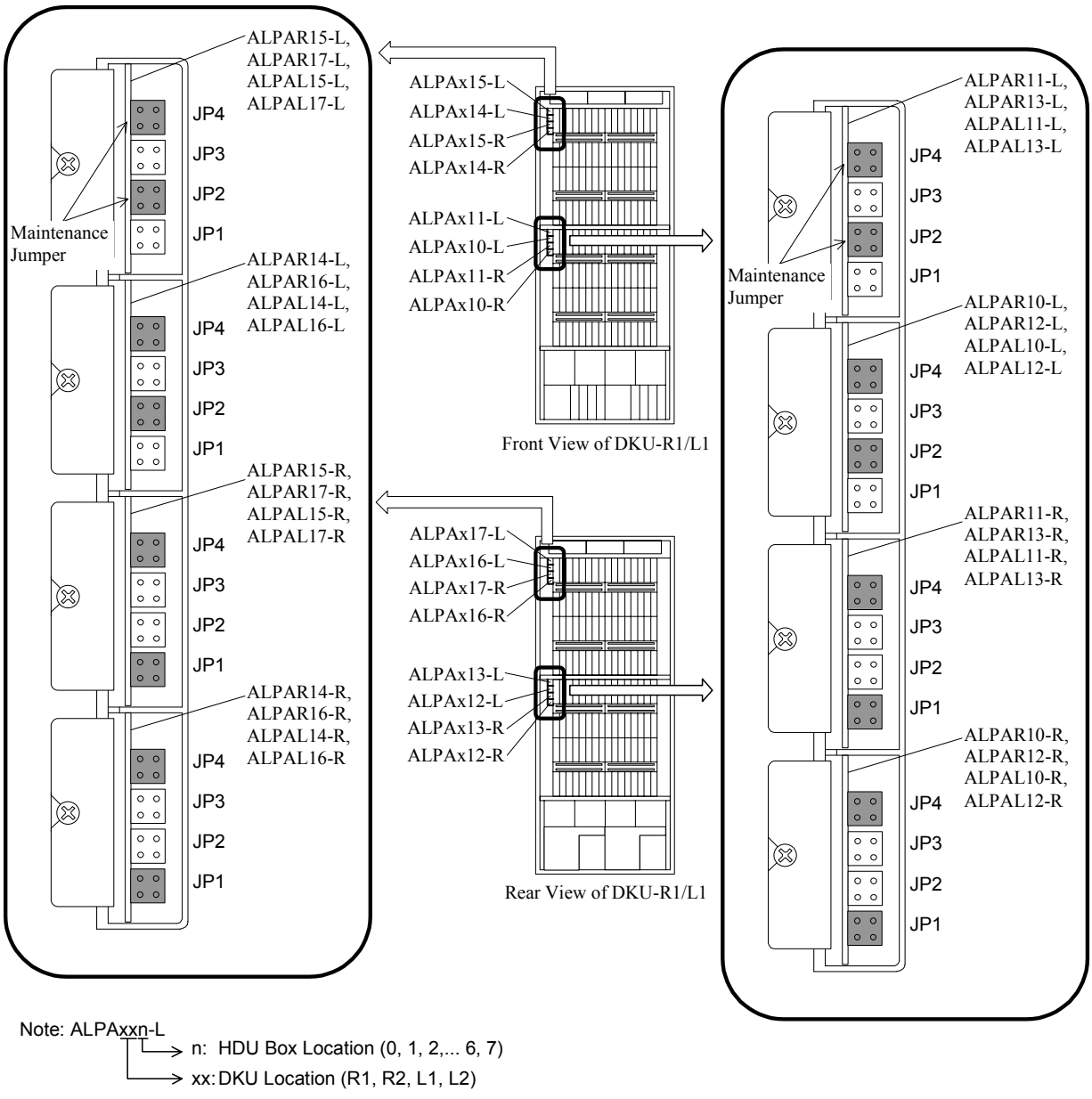
Fig. 6.2-6B Switch Setting of FSW (DKU-R2/L2)

[7] HDD address (ALPA)

Table 6.2-8 Installation of Maintenance Jumper in ALPA

Function Name	Jumper No.	Settings	Remarks
ALPA	JP1-JP4	The HDD address on FC-AL is set up.	

In the case of DKU-R1 or DKU-L1



Note: ALPAxxn-L
- n: HDU Box Location (0, 1, 2,... 6, 7)
- xx: DKU Location (R1, R2, L1, L2)

Fig. 6.2-7 Installation of Maintenance Jumper in ALPA

In the case of DKU-R2 or DKU-L2

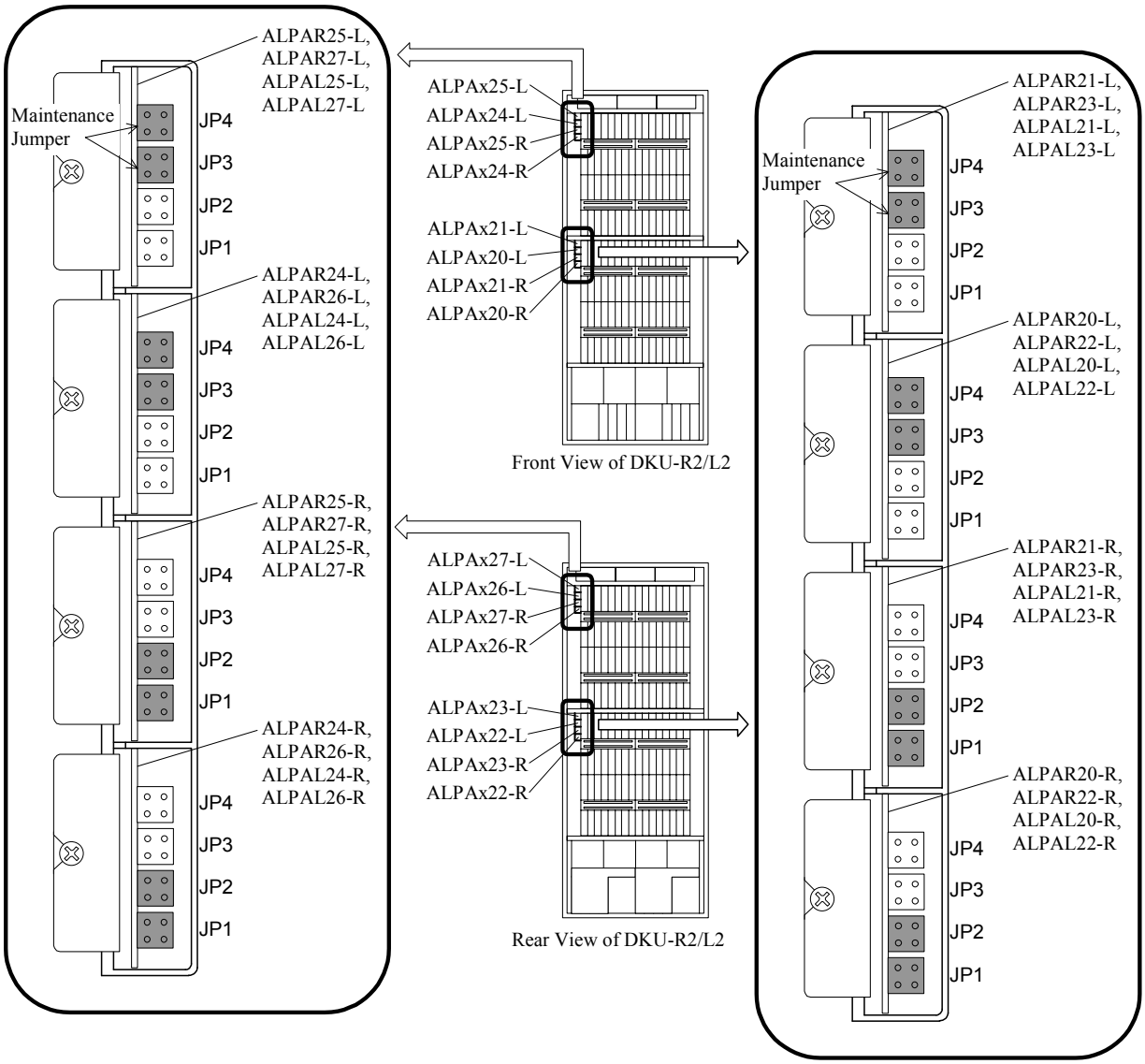
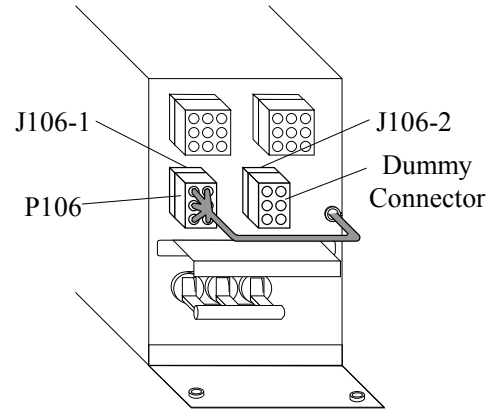
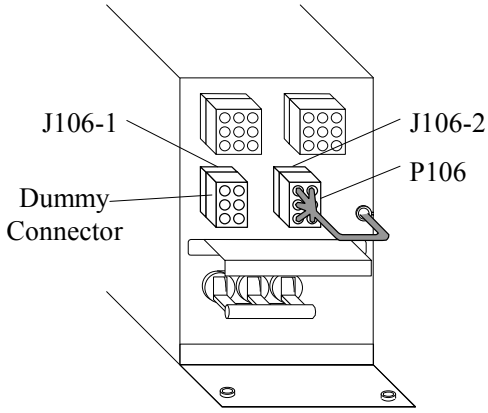


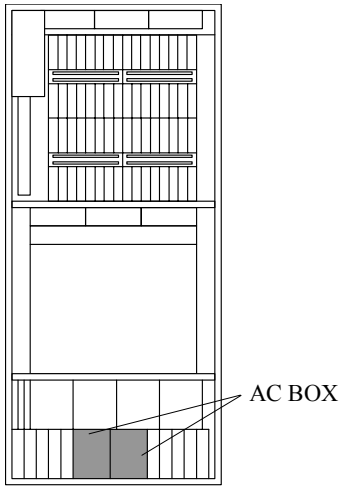
Fig. 6.2-7A Installation of Maintenance Jumper in ALPA

6.3 Voltage Selector

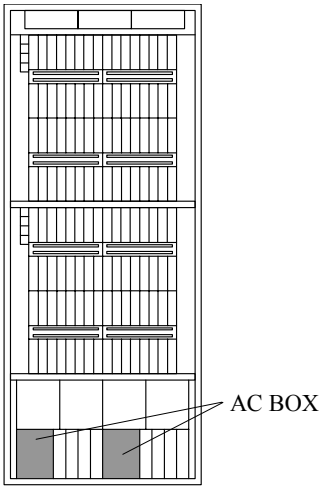
[1] AC BOX (3Phase/30A)

PCH: AC Input Voltage

AC Input Voltage	Voltage Setting	Remarks
200 - 240 Vac		J106-2: dummy connector
380 - 415 Vac		J106-1: dummy connector



Front View of DKC



Front View of DKU