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1 Subsystem Configuration Outline

1.1 General Information

1.1.1 Model List

1. Model of DKC410I

Table 1.1.1-1 shows the model list of DKC410I.

Table 1.1.1-1 Model List of DKC410I

No	Model Number	Model Name	Major Part	Remarks
1	DKC410I-5 DKC410I-5P *1 DKC410I-5F *2	Disk Controller	• Breaker Box × 2 • LP006-A (PS-PL) • Special PCB • +3V PS × 4 • +3V/+5V PS × 4 • +5V/+12V/+16V PS × 2 • FAN ASSY × 16 • I/F Cable between DKC and 1st DKU • LR003-A (L/G-PL) • DKA × 2 • CACHE × 2 • CSWA × 2 • CSWB × 2	DKC410 Disk Controller doesn't contain channel switches, cache memory module and shared memory module. It is necessary to attach the following options according to the configuration. • Channel Adapters DKC-F410I-4S/8S/4GS/ 8GS/4GL/8GL • Cache Memory Module DKC-F410I-512/1024 • Shared Memory Module DKC-F410I-S256
2	DKC-F410I-1EC	Power Cable Kit (for Single phase model for Europe)	• Power Cable Unit (IE)	
3	DKC-F410I-1UC	Power Cable Kit (for Single phase model for USA)	• Power Cable Unit (IU)	
4	DKC-F410I-1PS	AC Box Kit for Single Phase	• AC Box × 2	
5	DKC-F410I-20	Additional Cache Board	• WP440-B (CACHE) × 2 • Battery Assy × 2 • BATCTR PCB (SH199-A) × 2	
6	DKC-F410I-512	Additional Cache Memory Module (512 MB)	• SH185-A (128 MB) × 4	
7	DKC-F410I-1024	Additional Cache Memory Module (1024 MB)	• SH185-B (256 MB) × 4	
8	DKC-F410I-S256	Additional Shared Memory Module (256 MB)	• SH184-B (128 MB) × 2	
9	DKC-F410I-100	Additional Disk Adapter	• WP425-A (DKF) SH189-A (MP) × 4 × 2	

(To be continued)

*1: Disk Controller for XP512.
*2: DKC410I-5F doesn't attach the doors.
Install the door kit of DKC-F410I-DH or DKC-F410I-DS when shipping it.

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(Continued from the preceding page)

No	Model Number	Model Name	Major Part	Remarks
10	DKC-F410I-4S	Serial 4-port Adapter	• WP412-B × 2 • I/F Con. Panel	
11	DKC-F410I-8S	Serial 8-port Adapter	• SH214-A, WP412-A × 2 • I/F Con. Panel	
12	DKC-F410I-4GS	Fibre 4-port Adapter for Short Wavelength	• SH212-B (LC), WP411-A (MP) × 2 • I/F Con. Panel	
13	DKC-F410I-8GS	Fibre 8-port Adapter for Short Wavelength	• SH212-A (LC), WP411-A (MP) × 2 • I/F Con. Panel	
14	DKC-F410I-4GL	Fibre 4-port Adapter for Long Wavelength	• SH212-D (LC), WP411-A (MP) × 2 • I/F Con. Panel	
15	DKC-F410I-8GL	Fibre 8-port Adapter for Long Wavelength	• SH212-C (LC), WP411-A (MP) × 2 • I/F Con. Panel	
16	DKC-F410I-80	CL Additional Power Supply	• +3V PS × 4	This model must be installed when installing three or more channel options.
17	DKC-F410I-18	PCI I/F Connector	• PCI I/F Con.	
18	DKC-F410I-SNMP	SNMP Support Kit	• LAN Port • Flash memory card (64 MB)	
19	DKC-F410I-R1C	DEV I/F Cable 0 (DKC-R1 DKU)	• FC Cable × 8 • LED Cable × 8	
20	DKC-F410I-L1C	DEV I/F Cable 1 (DKC-L1 DKU)	• FC Cable × 16 • LED Cable × 16	
21	DKC-F410I-21	Cache Throughput Expansion Kit	• WP440-B (CACHE) × 2	
22	DKC-F410I-22	Additional Cache Battery	• Battery Assy × 2 • BATCTR PCB (SH199-A) ×2	
23	DKC-F410I-8GSE	Enhanced Fibre 8-port Adapter for Short Wavelength	• SH212-E (LC), WP411-B (MP) × 2 • I/F Con. Panel	
24	DKC-F410I-8GLE	Enhanced Fibre 8-port Adapter for Long Wavelength	• SH212-G (LC), WP411-B (MP) × 2 • I/F Con. Panel	
25	DKC-F410I-8HSE	2 Gbps Fibre 8-port Adapter for Short Wavelength	• SH261-A (LC), WP411-C (MP) × 2 • I/F Con. Panel	
26	DKC-F410I-DH	Door kit	• Front/Rear/Side door • Front/Rear/Side kick plate	For Lightning 9960
27	DKC-F410I-DS	Door kit	• Front/Rear/Side door • Front/Rear/Side kick plate	For StorEdge 9960
28	DKC-F410I-4MS	Mainframe Fibre 4-port Adapter for Short Wavelength	• SH297-A, WP415-A × 2 • I/F Con. Panel	
29	DKC-F410I-4ML	Mainframe Fibre 4-port Adapter for Long Wavelength	• SH297-A, WP415-B × 2 • I/F Con. Panel	

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2. Model of DKU405I

Table 1.1.1-2 shows the model list of DKU405I.

Table 1.1.1-2 Model List of DKU405I

No	Model Number	Model Name	Major Part	Remarks
1	DKU405I-14 DKU405I-14P *1 DKU405I-14F *2	Disk Unit	• SH224-A × 2 • SH217-A × 8 • HDU Box × 4 • FAN ASSY × 4 • LP007-A × 4 • 5/12V PS × 8	The basic part of Disk Unit has no HDD canister.
2	DKU-F405I-B4	Platform for Canister Mount	• HDU Box × 4 • FAN ASSY × 4 • LP007-A × 4 • 5/12V PS × 8 • SH217-A × 8	
3	DKU-F405I-EXC	DEV I/F Cable 2 (DKU-DKU)	• FC Cable × 16 • LED Cable × 16	
4	DKU-F405I-18J4	4 HDD Canisters	• DKR2B/DKR2C/DKR2D-J18FC or DKR2D/DKR2E/DKR2F-J18FD × 4	
5	DKU-F405I-18J1	1 HDD Canister	• DKR2B/DKR2C/DKR2D-J18FC or DKR2D/DKR2E/DKR2F-J18FD × 1	
6	DKU-F405I-18K4	4 HDD Canisters	• DKS2A/DKS2B-K18FC × 4	
7	DKU-F405I-18K1	1 HDD Canister	• DKS2A/DKS2B-K18FC × 1	
8	DKU-F405I-36K4	4 HDD Canisters	• DKS2B/DKS2C-K36FC × 4	
9	DKU-F405I-36K1	1 HDD Canister	• DKS2B/DKS2C-K36FC × 1	
10	DKU-F405I-47J4	4 HDD Canisters	• DKR1B/DKR1C-J47FC or DKR2D/DKR2E/DKR2F-J47FD × 4	
11	DKU-F405I-47J1	1 HDD Canister	• DKR1B/DKR1C-J47FC or DKR2D/DKR2E/DKR2F-J47FD × 1	
12	DKU-F405I-72J4	4 HDD Canisters	• DKR1C/DKR2D/DKR2E/ DKR2F-J72FC × 4	
13	DKU-F405I-72J1	1 HDD Canister	• DKR1C/DKR2D/DKR2E/ DKR2F-J72FC × 1	
14	DKU-F405I-72K4	4 HDD Canisters	• DKS2C-K72FC × 4	
15	DKU-F405I-72K1	1 HDD Canister	• DKS2C-K72FC × 1	
16	DKU-F405I-146J4	4 HDD Canisters	• DKR2E/DKR2F-J146FC × 4	
17	DKU-F405I-146J1	1 HDD Canister	• DKR2E/DKR2F-J146FC × 1	
18	DKU-F405I-180H4	4 HDD Canisters	• DKS1A-H180FC × 4	
19	DKU-F405I-180H1	1 HDD Canister	• DKS1A-H180FC × 1	
20	DKU-F405I-3EC	Power Cable Kit (for 3 phase model for Europe)	• Power Cable Unit (IE)	
21	DKU-F405I-3UC	Power Cable Kit (for 3 phase model for USA)	• Power Cable Unit (IU)	
22	DKU-F405I-1EC	Power Cable Kit (for Single phase model for Europe)	• Power Cable Unit (IE)	
23	DKU-F405I-1UC	Power Cable Kit (for Single phase model for USA)	• Power Cable Unit (IU)	
24	DKU-F405I-3PS	AC Box Kit for 3 phase	• AC Box × 2	
25	DKU-F405I-1PS	AC Box Kit for Single phase	• AC Box × 2	
26	DKU-F405I-DH	Door kit	• Front/Rear door • Front/Rear kick plate	For Lightning 9960
27	DKU-F405I-DS	Door kit	• Front/Rear door • Front/Rear kick plate	For StorEdge 9960

*1: Disk Unit for XP512.
*2: DKU405I-14F doesn't attach the doors.
Install the door kit of DKU-F405I-DH or DKU-F405I-DS when shipping it.

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SVP displays each drive model as the following table.

Disk drive model	SVP screen
DKR2B-J18FC	DKR2B-J018FC
DKR2C-J18FC	DKR2C-J018FC
DKR2D-J18FC	DKR2D-J018FC
DKR2D-J18FD	
DKR2E-J18FD	DKR2E-J018FC *1
DKR2F-J18FD	DKR2F-J018FC *1
DKS2A-K18FC	DKS2A-K018FC
DKS2B-K18FC	DKS2B-K018FC
DKS2B-K36FC	DKS2B-K036FC
DKS2C-K36FC	DKS2C-K036FC *2
DKR1B-J47FC	DKR1B-J047FC
DKR1C-J47FC	DKR1C-J047FC
DKR2D-J47FD	DKR2D-J047FC
DKR2E-J47FD	DKR2E-J047FC *1
DKR2F-J47FD	DKR2F-J047FC *1
DKR1C-J72FC	DKR1C-J072FC
DKR2D-J72FC	DKR2D-J072FC
DKR2E-J72FC	DKR2E-J072FC *1
DKR2F-J72FC	DKR2F-J072FC *1
DKS2C-K72FC	DKS2C-K072FC
DKR2E-J146FC	DKR2E-J146FC
DKR2F-J146FC	DKR2F-J146FC
DKS1A-H180FC	DKS1A-H180FC

*1: On some SVP µ version (ex. 01-18-6x/xx), it would be shown “DKR2D-JxxxFC”.
*2: On some SVP µ version (ex. 01-18-6x/xx), it would be shown “DKS2B-K036FC”.

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1.1.2 Cache / Shared memory capacity and number of necessary options

1.1.2.1 Shared memory capacity and number of necessary options

Shared memory capacities and corresponding number of options required are shown in Table 1.1.2-1.

Table 1.1.2-1 Shared memory capacity and number of necessary options

Shared memory capacity	Number of options DKC-F410I-S256
512MB	2
768MB	3
1024MB	4
1280MB	5
1536MB	6

Note: Please note that Location of shared memory module varies according to the purpose such as additional cache installation or additional LDEV installation.(Refer to table 1.1.2-4.)

1.1.2.2 Cache memory capacity and number of necessary options

There are two types of cache memory upgrade. The first one is called Standard Installation Model in which firstly Basic PCB fully is installed then additional PCB is installed. The second one is High Performance Model installation in which Basic PCB and Additional PCB are installed parallelly.

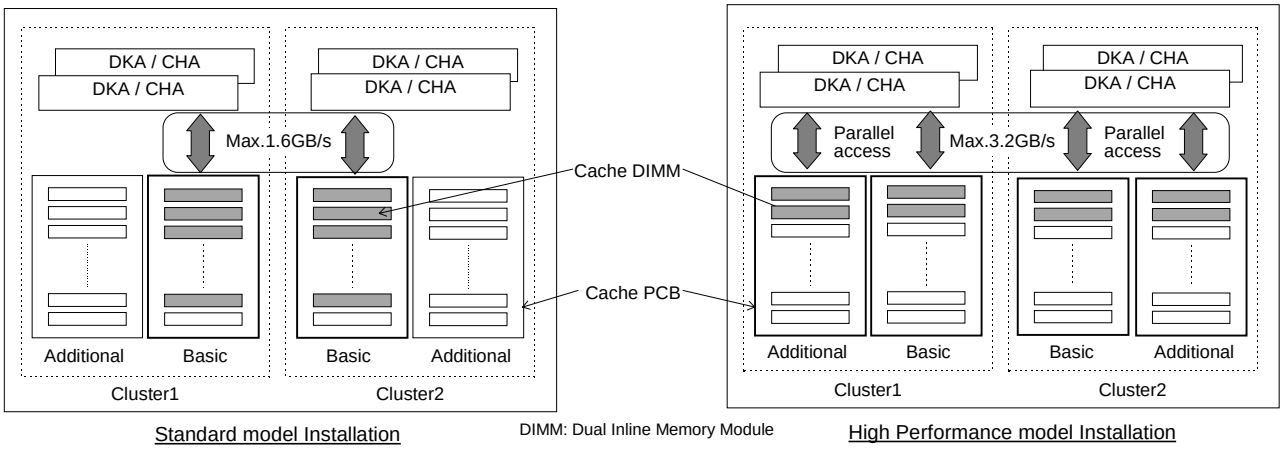


Table 1.1.2-2 shows Cache memory upgrade table of Standard Model Installation.
Table 1.1.2-3 shows Cache memory upgrade table of High Performance Model Installation.

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Table 1.1.2-2 Cache memory upgrade table of Standard Model installation

Cache Memory Capacity (MB)	SH185-A only			SH185-B only			SH185-A/SH185-B mixture			
	DKC-F410I -512	DKC-F410I -20/-21	DKC-F410I -22	DKC-F410I -1024	DKC-F410I -20/-21	DKC-F410I -22	DKC-F410I -512	DKC-F410I -1024	DKC-F410I -20/-21	DKC-F410I -22
512	1	0	0	-	-	-	1	-	-	-
1,024	2	0	0	1	0	0	2	-	0	0
1,536	3	0	0	-	-	-	3	-	-	-
2,048	4	0	0	2	0	0	4	-	0	0
2,560	5	0	0	-	-	-	5	-	-	-
3,072	6	0	0	3	0	0	6	-	0	0
3,584	7	0	0	-	-	-	7	-	-	-
4,096	8	0	0	4	0	0	8	-	0	0
5,120	10	0	0	5	0	0	10	-	-	-
6,144	12	0	0	6	0	0	12	-	0	0
7,168	14	0	0	7	0	0	14	-	-	-
8,192	16	0	0	8	0	0	16	-	0	0
9,216	18	1	0	9	0	0	16	1	1	0
10GB	20	1	0	10	0	0	16	2	1	0
11GB	22	1	0	11	0	0	16	3	1	0
12GB	24	1	0	12	0	0	16	4	1	0
13GB	26	1	0	13	0	0	16	5	1	0
14GB	28	1	0	14	0	0	16	6	1	0
15GB	30	1	0	15	0	0	16	7	1	0
16GB	32	1	0	16	0	0	16	8	1	0
17GB	-	-	-	17	1	1	16	9	1	1
18GB	-	-	-	18	1	1	16	10	1	1
19GB	-	-	-	19	1	1	16	11	1	1
20GB	-	-	-	20	1	1	16	12	1	1
21GB	-	-	-	21	1	1	16	13	1	1
22GB	-	-	-	22	1	1	16	14	1	1
23GB	-	-	-	23	1	1	16	15	1	1
24GB	-	-	-	24	1	1	16	16	1	1
25GB	-	-	-	25	1	1	-	-	-	1
26GB	-	-	-	26	1	1	-	-	-	1
27GB	-	-	-	27	1	1	-	-	-	1
28GB	-	-	-	28	1	1	-	-	-	1
29GB	-	-	-	29	1	1	-	-	-	1
30GB	-	-	-	30	1	1	-	-	-	1
31GB	-	-	-	31	1	1	-	-	-	1
32GB	-	-	-	32	1	1	-	-	-	1

Note1: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

Note2: When the Additional Cache Board (DKC-F410I-20) is installed, the Additional Cache Battery (DKC-F410I-22) is unnecessary.

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Table 1.1.2-3 Cache memory upgrade table of High Performance Model installation

Cache Memory Capacity (MB)	DKC-F410I -20/-21 (Add.PCB)	DKC-F410I -22 (Add.BAT)	DKC-F410I-512			DKC-F410I-1024			DKC-F410I-512/1024mixture		
			Install PCB		Total	Install PCB		Total	Install PCB		Total
			Basic PCB	Add. PCB		Basic PCB	Add. PCB		Basic PCB	Add. PCB	
512	0	0	-	-	-	-	-	-			
1,024	1	0	1	1	2	-	-	-			
1,536	1	0	-	-	-	-	-	-			
2,048	1	0	2	2	4	1	1	2			
2,560	1	0	-	-	-	-	-	-			
3,072	1	0	3	3	6	-	-	-			
3,584	1	0	-	-	-	-	-	-			
4,096	1	0	4	4	8	2	2	4			
5,120	1	0	5	5	10	-	-	-			
6,144	1	0	6	6	12	3	3	6			
7,168	1	0	7	7	14	-	-	-			
8,192	1	0	8	8	16	4	4	8			
9,216	1	0	9	9	18	-	-	-			
10GB	1	0	10	10	20	5	5	10			
11GB	1	0	11	11	22	-	-	-			
12GB	1	0	12	12	24	6	6	12			
13GB	1	0	13	13	26	-	-	-			
14GB	1	0	14	14	28	7	7	14			
15GB	1	0	15	15	30	-	-	-			
16GB	1	0	16	16	32	8	8	16			
17GB	1	1	-	-	-	-	-	-			
18GB	1	1	-	-	-	9	9	18			
19GB	1	1	-	-	-	-	-	-			
20GB	1	1	-	-	-	10	10	20			
21GB	1	1	-	-	-	-	-	-			
22GB	1	1	-	-	-	11	11	22			
23GB	1	1	-	-	-	-	-	-			
24GB	1	1	-	-	-	12	12	24			
25GB	1	1	-	-	-	-	-	-			
26GB	1	1	-	-	-	13	13	26			
27GB	1	1	-	-	-	-	-	-			
28GB	1	1	-	-	-	14	14	28			
29GB	1	1	-	-	-	-	-	-			
30GB	1	1	-	-	-	15	15	30			
31GB	1	1	-	-	-	-	-	-			
32GB	1	1	-	-	-	16	16	32			

- **Mixed installation with F512 and F1024 in the same PCB is not allowed.**
- **When different type of memory option installed between at Basic PCB and Add. PCB, each memory size of PCB is recommended with same capacity.**

Note1: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

Note2: When the Additional Cache Board (DKC-F410I-20) is installed, the Additional Cache Battery (DKC-F410I-22) is unnecessary.

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1.1.2.3 Relation between Shared Memory and Cache Memory

The relationship between Cache Memory and Shared Memory is shown in following table. Please note that Location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

1.1.2.3.1 Except for 180GB, 146GB HDD

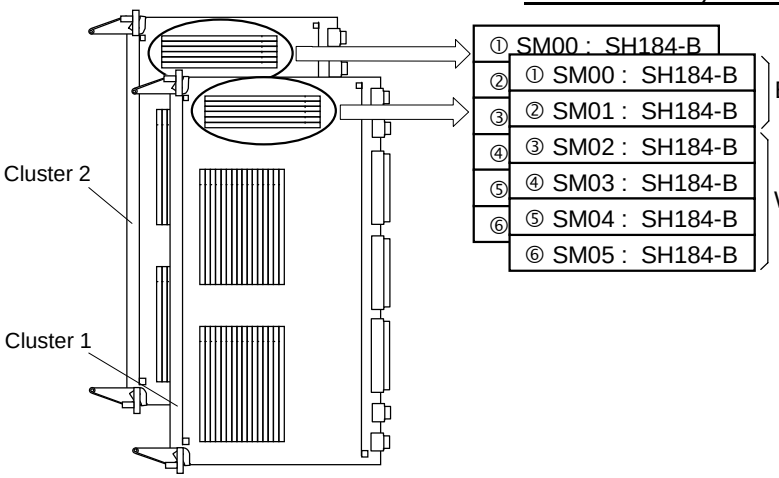
Table 1.1.2-4 Size of Cache Memory and Shared Memory (except for 180GB, 146GB HDD)

Cache Memory	Number of CU:1-4 (to 1024LDEV)			Number of CU:1-8 (to 2048LDEV)			Number of CU:1-16 (to 4096LDEV)			TPF(Number of CU:1-16) (to 4096LDEV)		
Capacity (MB)	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1
512	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,024	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,536	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,048	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,560	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,072	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,584	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
4,096	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
5,120	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
6,144	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
7,168	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
8,192	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
9,216	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
10GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
11GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
12GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
13GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
14GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
15GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
16GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
17GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
18GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
19GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
20GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
21GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
22GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
23GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
24GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
25GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
26GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
27GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
28GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
29GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
30GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
31GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
32GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥

Note. *1: Location ①-⑥ shows actual location of shared memory module on Cache PCB.

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Shared Memory Module install location



Cache Memory PCB (WP440-A)

↓ Color of socket

Black

White

[Basic consideration]

① for Feature expansion 1
② for Feature expansion 2
③ BASIC
④ BASIC
⑤ for CACHE or Feature expansion 1
⑥ for CACHE or Feature expansion 2

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1.1.2.3.2 Application for 180GB, 146GB HDD

Table 1.1.2-5 Size of Cache Memory and Shared Memory (applicable for 180GB HDD only)

In the case where the 180 G byte, 146 G byte HDDs are mounted

(1) When the number of CUs is 1 to 16 and the cache memory capacity is larger than 13 G bytes in the case where the 180 G byte, 146 G byte HDDs are mounted, the shared memory is added.

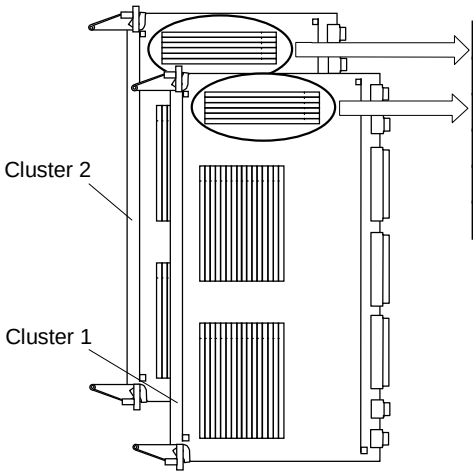
(2) When the number of CUs is 1 to 16 in the case where the 180 G byte, 146 G byte HDDs are mounted, the cache memory with a capacity of 29 G bytes or larger cannot be added.

Cache Memory	Number of CU:1-4 (to 1024LDEV)			Number of CU:1-8 (to 2048LDEV)			Number of CU:1-16 (to 4096LDEV)			TPF(Number of CU:1-16) (to 4096LDEV)		
Capacity (MB)	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1
512	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,024	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,536	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,048	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,560	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,072	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,584	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
4,096	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
5,120	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
6,144	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
7,168	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
8,192	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
9,216	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
10GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
11GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
12GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
13GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
14GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
15GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
16GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
17GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
18GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
19GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
20GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
21GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
22GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
23GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
24GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
25GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
26GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
27GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
28GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
29GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
30GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
31GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
32GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—

Note. *1: Location ①-⑥ shows actual location of shared memory module on Cache PCB.

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Shared Memory Module install location



Cache Memory PCB (WP440-A)

① SM00 : SH184-B	↓ Color of socket	
② ① SM00 : SH184-B	Black	
③ ② SM01 : SH184-B		
④ ③ SM02 : SH184-B		
⑤ ④ SM03 : SH184-B	White	
⑥ ⑤ SM04 : SH184-B		
⑥ SM05 : SH184-B		

[Basic consideration]

① for Feature expansion 1
② for Feature expansion 2
③ BASIC
④ BASIC
⑤ for CACHE or Feature expansion 1
⑥ for CACHE or Feature expansion 2

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1.1.3 Specifications

1. DKC410I Physical Specifications

The DKC410I physical specifications are shown in the following table:

Table 1.1.3-1 DKC410I Physical Specifications

No	Model Number	Weight (kg)	Heat Output (kW)	Power Consumption (kVA)	Dimension (mm)			Air Flow (m^3/min.)
					Width	Depth	Height	
1	DKC410I-5	398.0	0.886	0.952	750 *1	800	1790	18
2	DKC-F410I-1EC	5.0	—	—	—	—	—	—
3	DKC-F410I-1UC	5.0	—	—	—	—	—	—
4	DKC-F410I-1PS	7.0	—	—	—	—	—	—
5	DKC-F410I-512	0.1	0.002	0.002	—	—	—	—
6	DKC-F410I-1024	0.1	0.003	0.003	—	—	—	—
7	DKC-F410I-S256	0.1	0.002	0.002	—	—	—	—
8	DKC-F410I-20	34.0	0.017	0.018	—	—	—	—
9	DKC-F410I-100	4.0	0.143	0.153	—	—	—	—
10	DKC-F410I-80	8.5	0.075	0.080	—	—	—	—
11	DKC-F410I-18	0.6	0.002	0.003	—	—	—	—
12	DKC-F410I-R1C	2.0	—	—	—	—	—	—
13	DKC-F410I-L1C	3.0	—	—	—	—	—	—
14	DKC-F410I-SNMP	0.1	0.002	0.002	—	—	—	—
15	DKC-F410I-4S	3.5	0.116	0.125	—	—	—	—
16	DKC-F410I-8S	4.5	0.166	0.179	—	—	—	—
17	DKC-F410I-4GS	4.5	0.170	0.183	—	—	—	—
18	DKC-F410I-8GS	4.5	0.200	0.215	—	—	—	—
19	DKC-F410I-4GL	4.5	0.170	0.183	—	—	—	—
20	DKC-F410I-8GL	4.5	0.200	0.215	—	—	—	—
21	DKC-F410I-8GSE	4.5	0.200	0.215	—	—	—	—
22	DKC-F410I-8GLE	4.5	0.200	0.215	—	—	—	—
23	DKC-F410I-8HSE	4.5	0.210	0.225	—	—	—	—
24	DKC-F410I-4MS	4.5	0.180	0.183	—	—	—	—
25	DKC-F410I-4ML	4.5	0.180	0.183	—	—	—	—

*1: This includes the thickness of side covers (16 mm × 2).

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2. DKU405I Physical Specifications

The DKU405I physical specifications are shown in the following table:

Table 1.1.3-2 DKU405I Physical Specifications

No	Model Number	Weight (kg)	Heat Output (kW)	Power Consumption (kVA)	Dimension (mm)			Air Flow (m^3/min.)
					Width	Depth	Height	
1	DKU405I-14	206.0	0.561	0.704	600	800	1790	6
2	DKU-F405I-3EC	6.0	—	—	—	—	—	—
3	DKU-F405I-3UC	6.0	—	—	—	—	—	—
4	DKU-F405I-1EC	6.0	—	—	—	—	—	—
5	DKU-F405I-1UC	6.0	—	—	—	—	—	—
6	DKU-F405I-3PS	18.0	—	—	—	—	—	—
7	DKU-F405I-1PS	18.0	—	—	—	—	—	—
8	DKU-F405I-EXC	3.0	—	—	—	—	—	—
9	DKU-F405I-B4	70.0	0.561	0.704	—	—	—	6
10	DKU-F405I-18J1	1.4	0.018	0.018	—	—	—	—
11	DKU-F405I-18J4	5.6	0.072	0.072	—	—	—	—
12	DKU-F405I-18K1	1.6	0.020	0.020	—	—	—	—
13	DKU-F405I-18K4	6.4	0.080	0.080	—	—	—	—
14	DKU-F405I-36K1	1.8	0.023	0.023	—	—	—	—
15	DKU-F405I-36K4	7.2	0.092	0.092	—	—	—	—
16	DKU-F405I-47J1	1.8	0.024	0.024	—	—	—	—
17	DKU-F405I-47J4	7.2	0.096	0.096	—	—	—	—
18	DKU-F405I-72J1	1.8	0.024	0.024	—	—	—	—
19	DKU-F405I-72J4	7.2	0.096	0.096	—	—	—	—
20	DKU-F405I-72K1	1.9	0.023	0.023	—	—	—	—
21	DKU-F405I-72K4	7.6	0.092	0.092	—	—	—	—
22	DKU-F405I-146J1	1.8	0.024	0.024	—	—	—	—
23	DKU-F405I-146J4	7.2	0.096	0.096	—	—	—	—
24	DKU-F405I-180H1	1.8	0.017	0.017	—	—	—	—
25	DKU-F405I-180H4	7.2	0.068	0.068	—	—	—	—

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1.1.4 Environmental Specifications

The environmental specifications are shown in the following table:

Table 1.1.4-1 Environmental Specifications

Item	Condition		
	Operating Note 1	Non-operating Note 2	Shipping & Storage Note 3
Temperature (ºC)	16 ~ 32	-10 ~ 43	-25 ~ 60
Relative Humidity (%) Note 4	20 ~ 80	8 ~ 90	5 ~ 95
Max. Wet Bulb (ºC)	26	27	29
Temperature Deviation (ºC/hour)	10	10	20
Vibration	0.25mm, 5~10Hz 0.05G, 10~300Hz	2.5mm, 5~10Hz 0.5G, 10~70Hz 0.05mm, 70~99Hz 1.0G, 99~300Hz	0.5G, 15min. Note 6 At four most severe resonance between 5~200Hz
Shock	—	8G, 15ms	Horizontal: Note 7 Incline Impact 1.22m/s Vertical: Note 8 Rotational Edge 0.1m

Note: 1. Environmental specification for operating condition should be satisfied before the disk subsystem is powered on. Max. temperature of 32ºC should be strictly satisfied at the air inlet portion. The recommended temperature range is 21~24ºC.
2. Non-operating condition includes both packing and unpacking conditions unless otherwise specified.
3. On shipping/storage condition, the product should be packed with factory packing.
4. No condensation in and around the drive should be observed under any conditions.
5. The above specifications of vibration and shock apply to all three axes.
6. See ASTM D999-86 Standard Methods for Vibration Testing of Shipping Containers.
7. See ASTM D880-86 Standard Methods of Incline Impact Test for Shipping Containers.
8. See ASTM D775-80 Standard Methods for Drop Test for Loaded Boxes.

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1.1.5 Power requirement

The input voltage and input frequency are as follows:

(1) 3 phase AC input

Frequency	Input Voltages (AC)	Conditions	Tolerance (%)	Remarks
60Hz ±0.5Hz	200V, 208V or 230V	3 Phase 3 Wire + Ground	+6% or -8%	for North America 200V : for Japan
50Hz ±0.5Hz	200V, 220V, 230V or 240V	3 Phase 3 Wire + Ground	+6% or -8%	for Europe 200V : for Japan
50Hz ±0.5Hz	380V, 400V or 415V	3 Phase 4 Wire + Ground	+6% or -8%	for Europe

Note: Distribution board with circuit breaker or equivalent is rated 30A for Disk unit.
This unit does not apply to IT power system.

(2) Single phase AC input

Frequency	Input Voltages (AC)	Conditions	Tolerance (%)	Remarks
60Hz ±0.5Hz	200V, 208V or 230V	1 Phase 2 Wire + Ground	+6% or -8%	for North America 200V : for Japan
50Hz ±0.5Hz	200V, 220V, 230V or 240V	1 Phase 2 Wire + Ground	+6% or -8%	for Europe 200V : for Japan

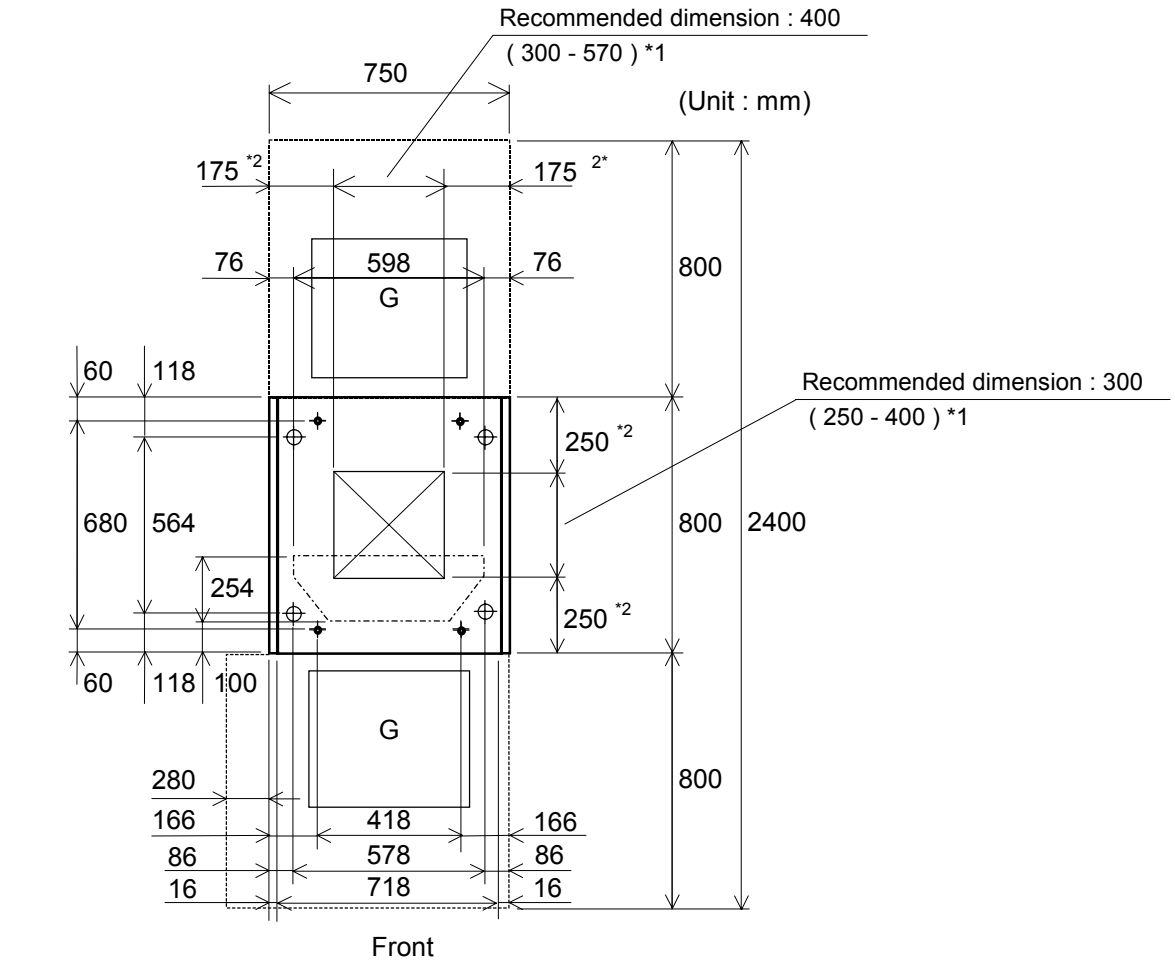
Note: Distribution board with circuit breaker or equivalent is rated 20A for Disk controller and Disk unit.

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1.1.6 Service Clearance and Floor Cutout

1. DKC410I

The service clearance is the space required for CE work. Never use this space for storage of any article to prevent damage.



Floor cutout area for cables

Screw jack

Caster

Service clearance

G Grid panel (over 450mm ×450mm)

Opening on the bottom of the frame (for external cable entry)

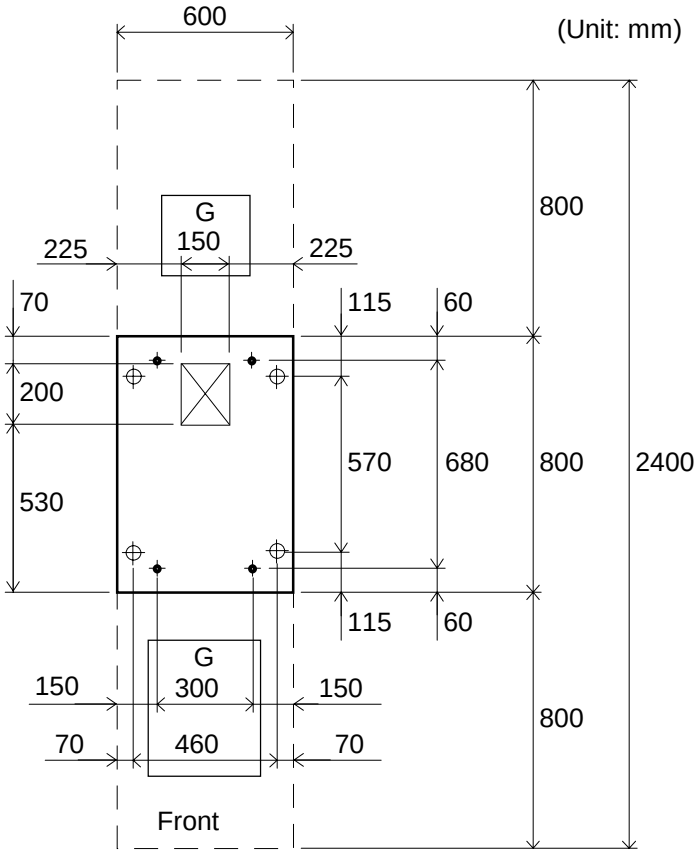
*1 Values of parenthesis show allowable range of the floor cutout dimension.
The floor cutout should be planned in the center of the DKC. In case that the floor cutout is planned in a right position for the external cable work and it is within the allowable range,the cutout position may be off-center.
In this case,check the relation between the positions of the cutout and the opening on the bottom of the frame.
If the floor cutout width is planned more than 520 mm,be careful about the restriction of the movable direction because there is a possibility that the caster wheels fall down into the cutout.

*2 These dimensions vary with the floor cutout dimension.

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2. DKU405I

The service clearance is the space required for CE work. Never use this space for storage of any article to prevent damage.

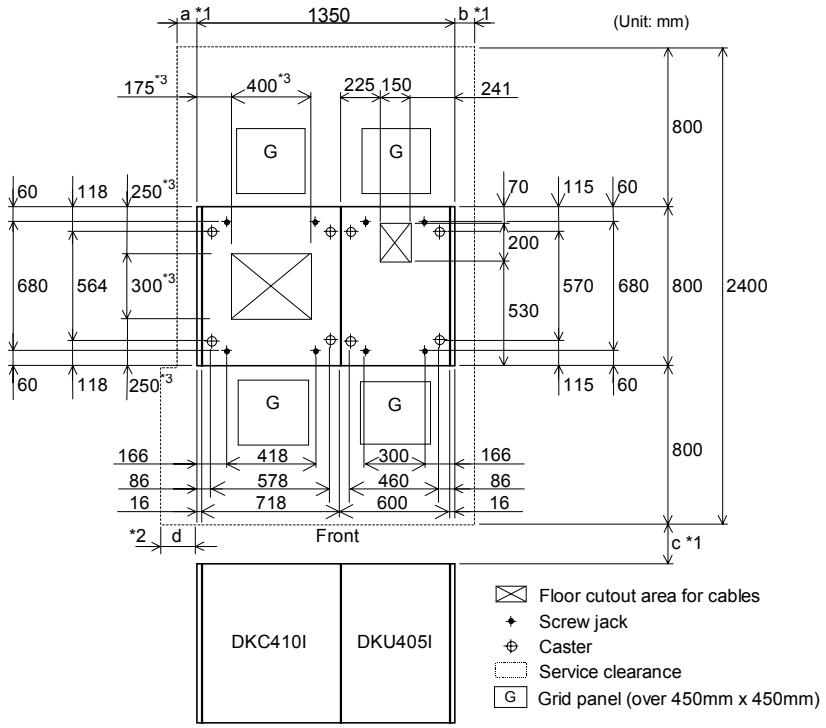


Floor cutout area for cables
Screw jack
Caster
Service clearance
G Grid panel (over 450mm x 450mm)

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3. Subsystem Basic configuration

The service clearance is the space required for CE work. Never use this space for storage of any article to prevent damage.



*1: Clearance (a+b) depend on the floor load rating and clearance c.
Floor load rating and required clearances are shown below.

*2: Clearance (d) is required over 0.28m so as to open the DKC front door, refer to page INST01-130. In case that clearance(d) is less than clearance(a), give priority to clearance(a).

*3: See page INST01-130 about details of the DKC floor cutout.

Table 1.1.6-1 Floor Load Rating for Service Clearances (Minimum Configuration)

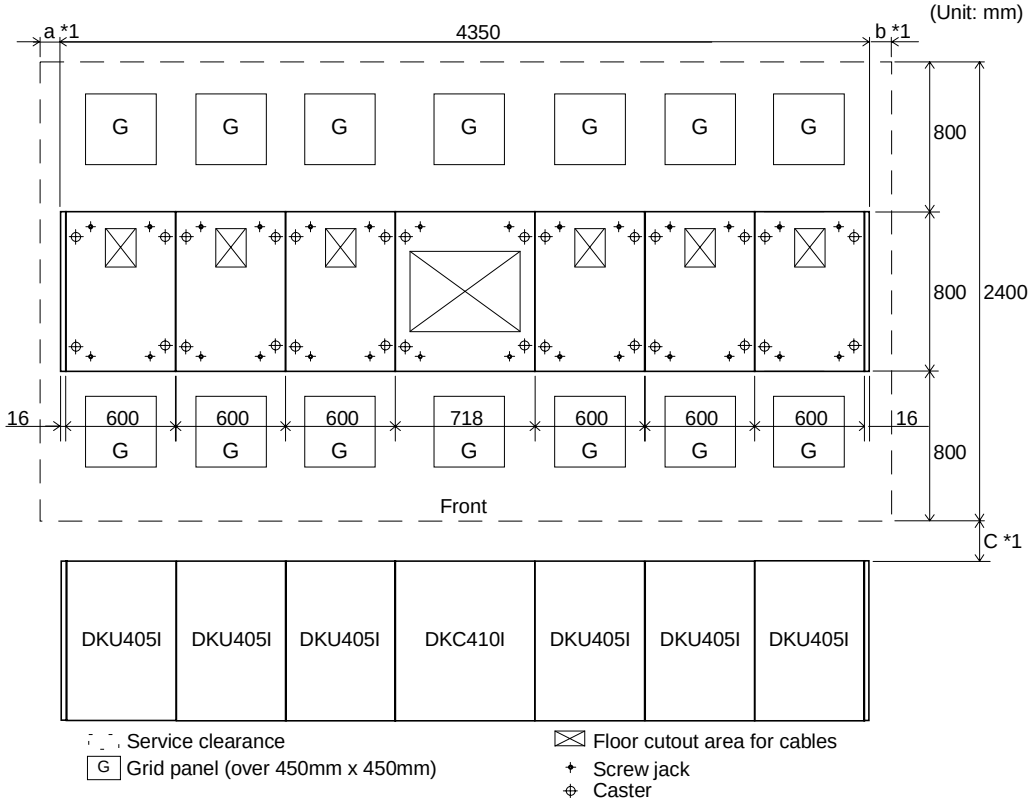
Floor load rating (kg/m^2)	Required clearance (a+b) (m)				
	Clearance (c) (m)				
	C=0	C=0.2	C=0.4	C=0.6	C=1.0
500	0	0	0	0	0
450	0.2	0	0	0	0
400	0.5	0.3	0.1	0	0
350	0.9	0.7	0.5	0.3	0
300	1.6	1.3	1.0	0.8	0.4

Note: 1. Actual clearances for installation should be decided after consulting with construction specialist responsible for installation building, as they could vary depending on the size/layout of the system and building conditions.
2. When various configurations of subsystems are arranged in a row, clearance values based on the largest subsystem configuration should be used.
3. From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

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4. Subsystem Full configuration

The service clearance is the space required for CE work. Never use this space for storage of any article to prevent damage.



*1: Clearance (a+b) depend on the floor load rating and clearance c.
Floor load rating and required clearances are shown below.

Table 1.1.6-2 Floor Load Rating for Service Clearances (Maximum Configuration)

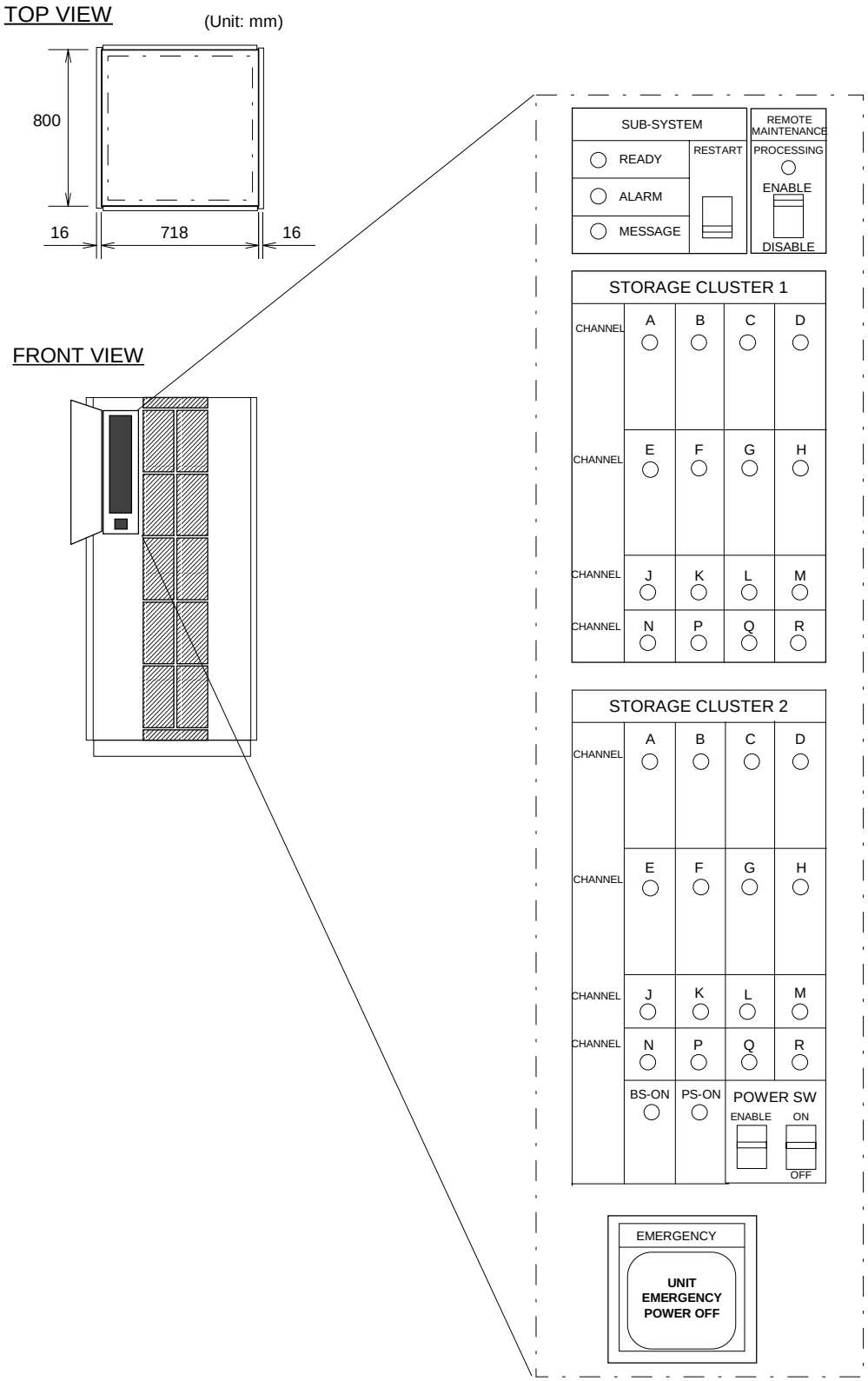
Floor load rating (kg/m^2)	Required clearance (a+b) (m)				
	Clearance (c) (m)				
	C=0	C=0.2	C=0.4	C=0.6	C=1.0
500	0.2	0	0	0	0
450	0.9	0.3	0	0	0
400	1.8	1.1	0.6	0.2	0
350	3.2	2.4	1.7	1.1	0.3
300	5.4	4.3	3.4	2.7	1.6

Note: 1. Actual clearances for installation should be decided after consulting with construction specialist responsible for installation building, as they could vary depending on the size/layout of the system and building conditions.
2. When various configurations of subsystems are arranged in a row, clearance values based on the largest subsystem configuration should be used.
3. From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

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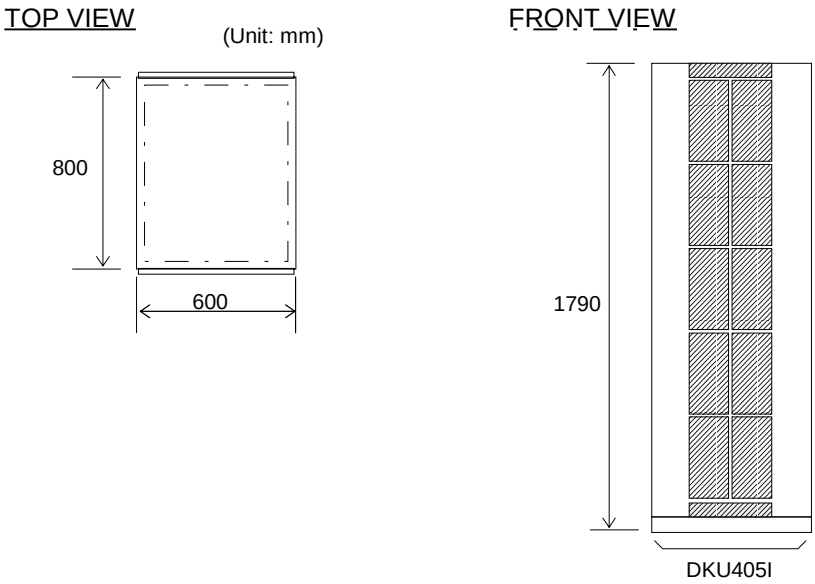
1.1.7 Layout

1. DKC410I Layout

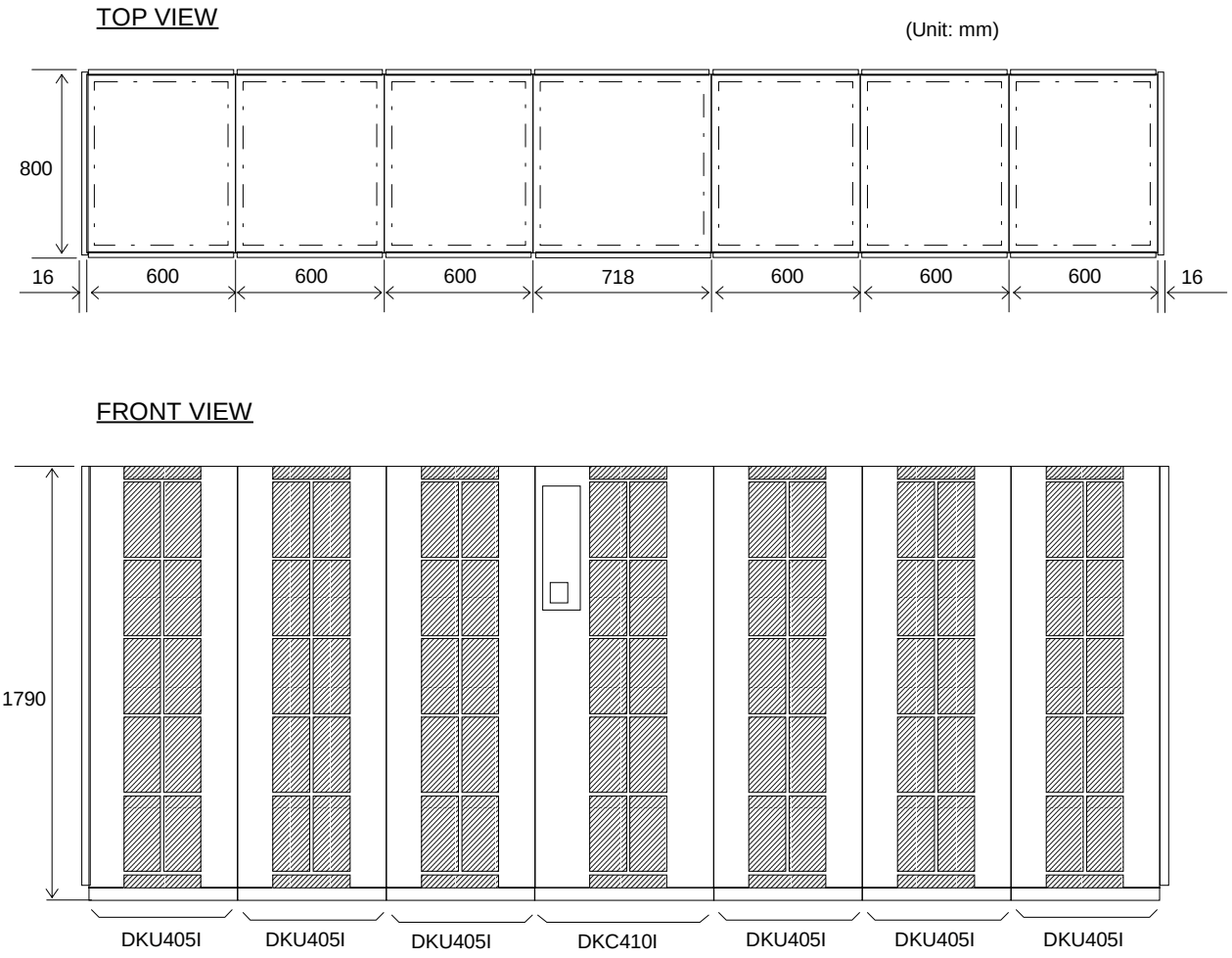


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2. DKU405I Layout



3. Full configuration of DKC410I and DKU405I



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1.1.8 Power and Grounding Check

1.1.8.1 Facility power check

1. 3 Phase Model
   The customer's outlet for the 60Hz UL Listed unit must be either of the followings.
   Connector R & S 3934
   Receptacle R & S 3754
   The plug type for the AC power cable must be R & S 3760, 3760PDG or RAID PLUG (DDK115J-AP8508).

2. Single Phase Model
   The customer's outlet for the 60Hz UL Listed unit must be either of the followings.
   Connector R & S 3913
   Receptacle R & S 3743
   The plug type for the AC power cable must be R & S 3720DP.

1.1.8.2 Facility grounding check

The subsystem must meet all of the following three conditions of installation for GROUNDING.

a. An insulated grounding conductor that is identical in size and insulation material and thickness to the grounded and ungrounded branch-circuit supply conductors. It should be green, with or without yellow stripes, and is to be installed as a part of the branch circuit that supplies the unit or system.

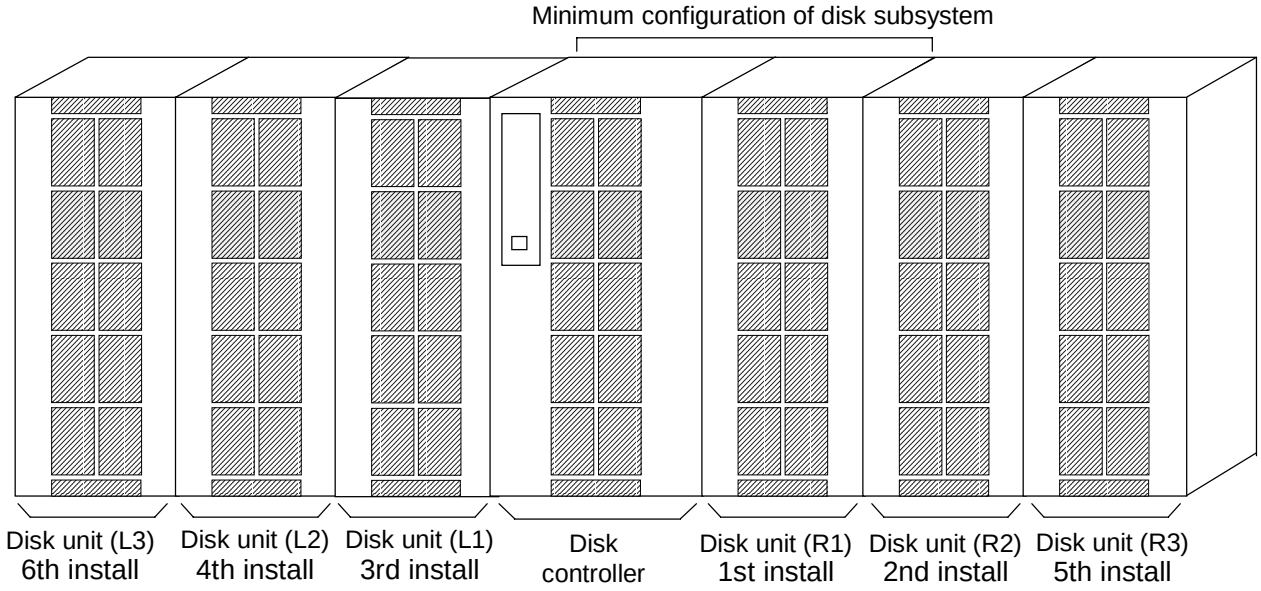
b. The grounding conductor mentioned in item (a.), should be grounded to earth at the service equipment or other acceptable building earth ground such as the building frame in the case of a high rise steel-frame structure.

c. The attachment-plug receptacles in the vicinity of the unit or system are all to be a grounding type. The grounding conductors serving these receptacles should be connected to earth ground at the service equipment or other acceptable building earth ground such as the building frame in the case of a high-rise steel-frame structure.

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1.2 Subsystem Frame Configuration

1. Disk unit installation order
Make the installation order of Disk unit the following figure in principle.



2. Device interface cable installation
Show the installation position of the device interface cable option in the sub-system in the following figure.

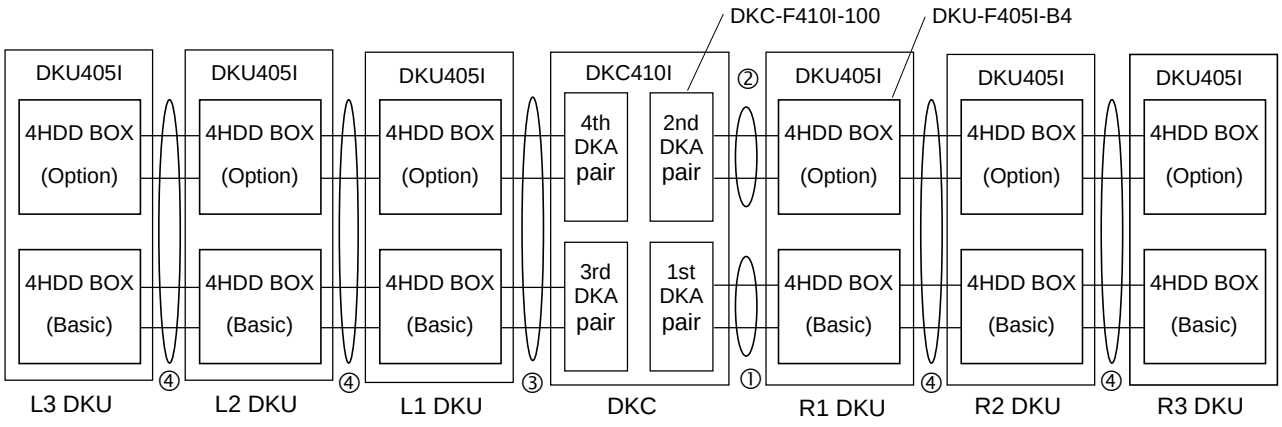


Table 1.2-1 List of Device Interface Cable

No.	Model Number	Model Name	Connection	Cable Numbers
①	DKC410I-5	Disk Controller	DKC (1st DKA) - R1 DKU	8 sets
②	DKC-F410I-R1C	Dev I/F Cable 0	DKC (2nd DKA) - R1 DKU	8 sets
③	DKC-F410I-L1C	Dev I/F Cable 1	DKC - L1 DKU	16 sets
④	DKU-F405I-EXC	Dev I/F Cable 2	DKU - DKU	16 sets

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1.3 Drive Expansion Sequence

The order in which DKU-F405I-18J4/18K4/36K4/47J4/72J4/72K4/146J4/180H4 (4 HDD canisters) units are to be installed in a DKU-F405I-B4 is shown in Fig. 1.3-1 and the order in which DKU-F405I-18J1/18K1/36K1/47J1/72J1/72K1/146J1/180H1 (spare HDD) units are to be installed in Fig. 1.3-2.

NOTICE:

(1) The position to be installed in the 2nd or 4th DKU is different from one in the 1st or 3rd DKU. Be sure to set the HDDs in the right position.

(2) Don't use the position marked as X in the 5th and 6th DKU.
Wrong setting of a HDD in the 5th or 6th DKU may cause DKU failure on the same SCSI path.

(3) Specifications for the selection of the spare HDD are shown below.
A sparing of an HDD with a smaller capacity for an HDD with a larger capacity is possible. However, there are some cases in which an HDD cannot be assigned depending on the drive type as shown in the table below.

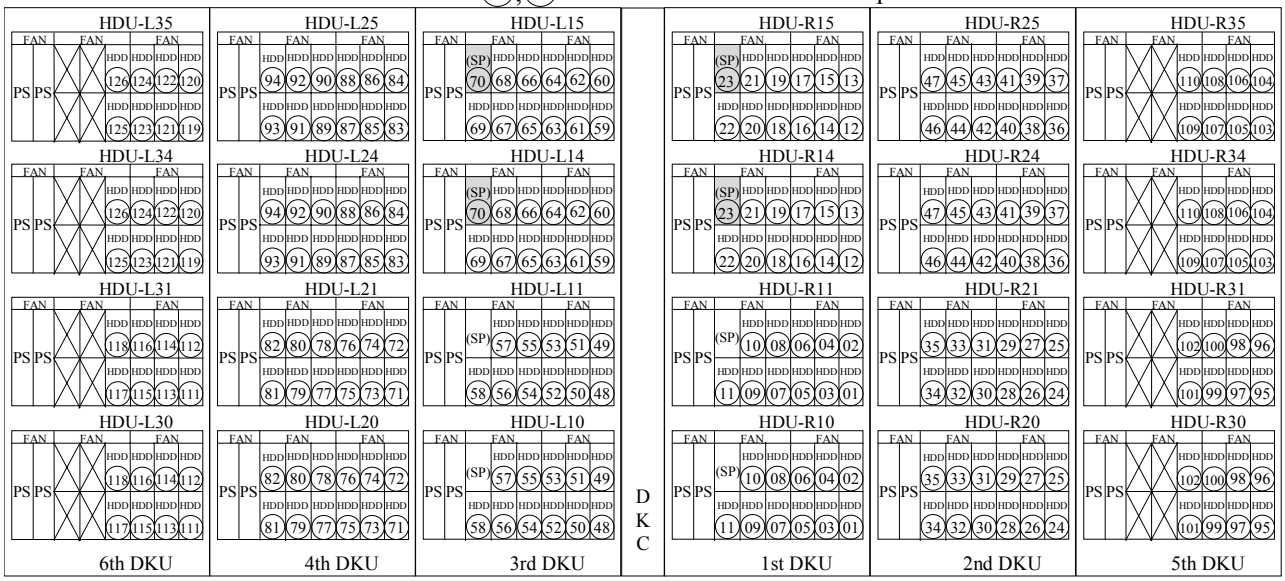
Copy destination spare HDD / Copy source data HDD	DKR1x-Jxx DKR2x-Jxx	DKS2x-Kxx	DKS1A-Hxx
DKR1x-Jxx DKR2x-Jxx	A spare HDD can be assigned when the following condition is satisfied. Capacity of a copy source data HDD ≤ Capacity of a copy destination spare HDD.	Assignment cannot be done.	Assignment cannot be done.
DKS2x-Kxx	Assignment cannot be done.	A spare HDD can be assigned when the following condition is satisfied. Capacity of a copy source data HDD ≤ Capacity of a copy destination spare HDD	Assignment cannot be done.
DKS1A-Hxx	Assignment cannot be done.	Assignment cannot be done.	A spare HDD can be assigned when the following condition is satisfied. Capacity of a copy source data HDD ≤ Capacity of a copy destination spare HDD

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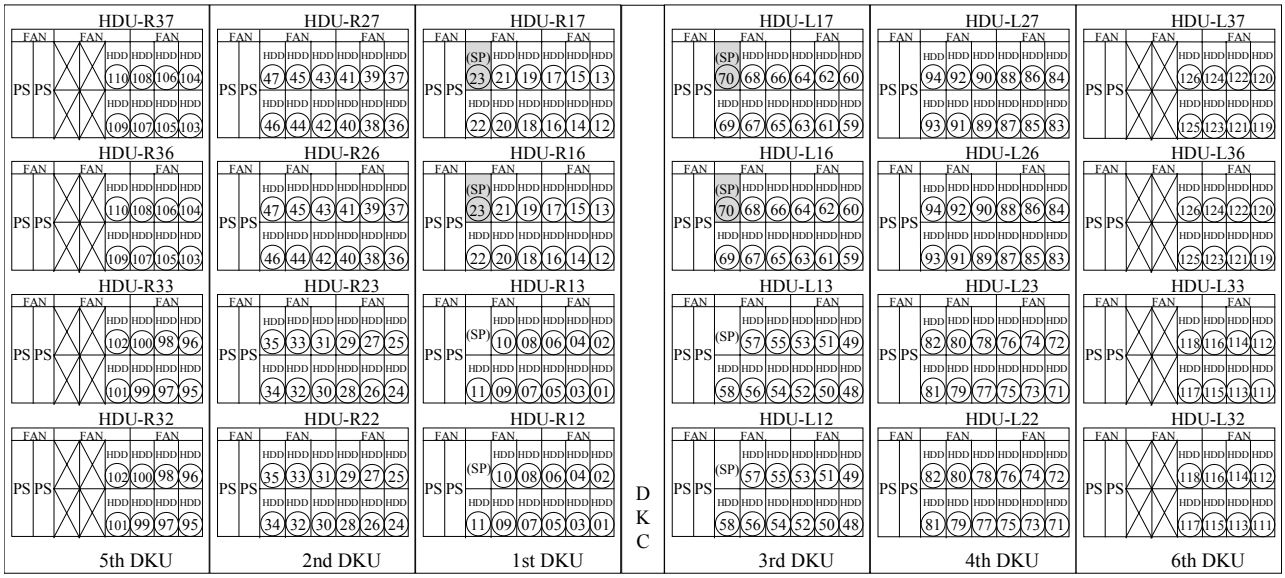
No.	Model Number	Model Name	Data and Parity
1	DKU-F405I-18J4/18K4/36K4/47J4/72J4/72K4/ 146J4/180H4	4 HDD Canisters	Data and Parity Drive

(01) - (126) : 4HDD canister expansion sequence

Note: Number of (23), (70) can be used as data HDD or spare HDD



Front view



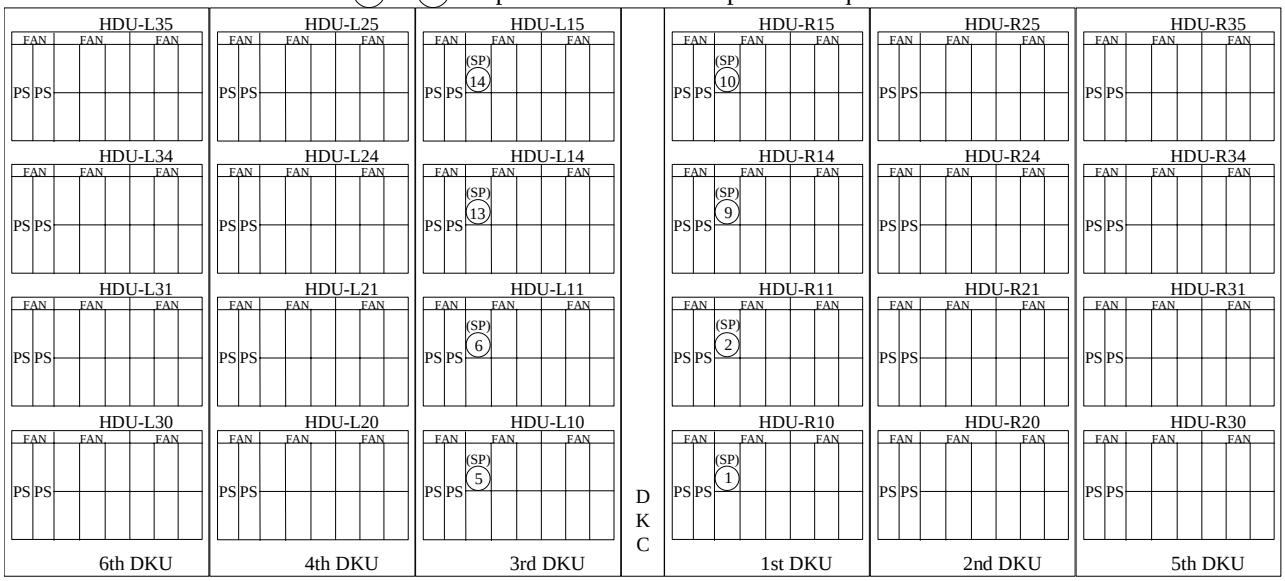
Rear view

Fig. 1.3-1 Data Drive/Parity Drive Expansion Sequence

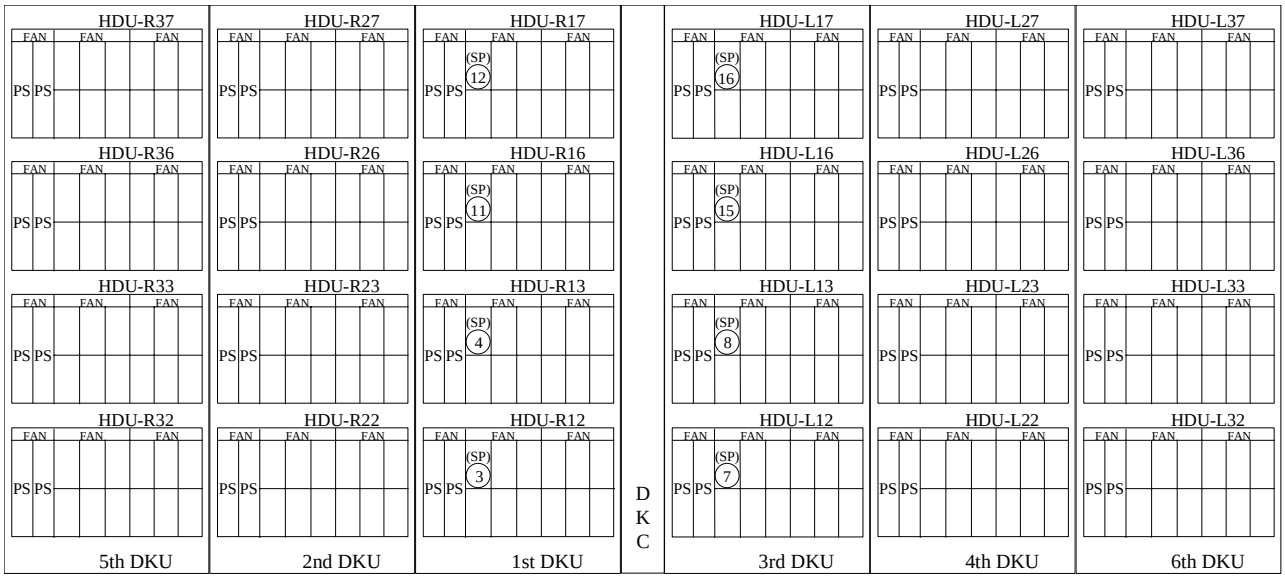
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No.	Model Number	Model Name	Data and Parity
1	DKU-F405I-18J1/18K1/36K1/47J1/72J1/72K1/ 146J1/180H1	1 HDD Canister	Spare Drive

(01) - (16) : Spare HDD canister expansion sequence



Front view



Rear view

Fig. 1.3-2 Spare Drive Expansion Sequence

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1.4 Explanation of Channel Option Configuration

1.4.1 List of Channel Options

Channel options which can be installed in the DKC410 are shown in Table 1.4-1. Up to 4 sets of them can be installed in the entire subsystem.

Table 1.4-1 List of Channel Options

No.	Model Number	Model Name	Major Part	Remarks
1	DKC-F410I-4S	Serial 4-port Adapter	• WP412-B × 2 • I/F Con. Panel	For connection to the main frame
2	DKC-F410I-8S	Serial 8-port Adapter	• SH214-A, WP412-A × 2 • I/F Con. Panel	For connection to the main frame
3	DKC-F410I-4GS	Fibre 4-port Adapter for Short Wavelength	• SH212-B (LC), WP411-A (MP) × 2 • I/F Con. Panel	For connection to the open system
4	DKC-F410I-8GS	Fibre 8-port Adapter for Short Wavelength	• SH212-A (LC), WP411-A (MP) × 2 • I/F Con. Panel	For connection to the open system
5	DKC-F410I-4GL	Fibre 4-port Adapter for Long Wavelength	• SH212-D (LC), WP411-A (MP) × 2 • I/F Con. Panel	For connection to the open system
6	DKC-F410I-8GL	Fibre 8-port Adapter for Long Wavelength	• SH212-C (LC), WP411-A (MP) × 2 • I/F Con. Panel	For connection to the open system
7	DKC-F410I-8GSE	Enhanced Fibre 8-port Adapter for Short Wavelength	• SH212-E (LC), WP411-B (MP) × 2 • I/F Con. Panel	For connection to the open system
8	DKC-F410I-8GLE	Enhanced Fibre 8-port Adapter for Long Wavelength	• SH212-G (LC), WP411-B (MP) × 2 • I/F Con. Panel	For connection to the open system
9	DKC-F410I-8HSE	2 G bps Fibre 8-port Adapter for Short Wavelength	• SH261-A (LC), WP411-C (MP) × 2 • I/F Con. Panel	For connection to the open system
10	DKC-F410I-4MS	Mainframe Fibre 4-port Adapter for Short Wavelength	• SH297-A, WP415-A × 2 • I/F Con. Panel	For connection to the Mainframe system
11	DKC-F410I-4ML	Mainframe Fibre 4-port Adapter for Long Wavelength	• SH297-A, WP415-B × 2 • I/F Con. Panel	For connection to the Mainframe system

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1.4.2 Channel Specifications

Specifications for each channel option are shown in table 1.4-2.

Table 1.4-2 Channel Specifications

Mainframe Connection

Item	Serial CHA		Mainframe Fibre CHA	
	4-port	4-port	Short Wavelength	Long Wavelength
Option name	4S	4S	4MS	4ML
Data transfer rate (MB/s)	10/17	10/17	Max.100	Max.100
Number of connected ports/option	4	4	4	4
Host interface	Serial channel	Serial channel	FICON	FICON
Number of installable options/subsystem	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable length	3 km	3 km	500 m *1	10 km

Open System Connection

Item	1 G bps Fibre CHA				2 G bps Fibre CHA
	Short Wavelength		Long Wavelength		Short Wavelength
Option name	4GS	8GS/8GSE	4GL	8GL/8GLE	8HSE
Data transfer rate (MB/s)	Max.100	Max.100	Max.100	Max.100	100/200
Number of connected ports/option	4	8	4	8	8
Host interface	FC-AL	FC-AL	FC-AL	FC-AL	FC-AL
Number of installable options/subsystem	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable length	500 m *1	500 m *1	10 km	10 km	500 m / 300 m *2

*1 : Indicates when 50/125µm multimode fibre cable is used.
If 62.5/125µm multimode fibre cable is used, maximum length is decrease to 300m.

*2 : Indicate when 50/125µm multimode fibre cable is used.
If 62.5/125µm multimode fibre cable is used, 500m (100 MB/s) and 300m (200 MB/s) are decreased to 300m and 150m respectively.

Up to 4 sets of combinations of the aforementioned channel options and up to 32 ports can be connected to each subsystem.

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1.4.3 Installing Location

(1) Option installing location
The channel option installing location and the interface connector installing section are shown in Figure 1.4-1.

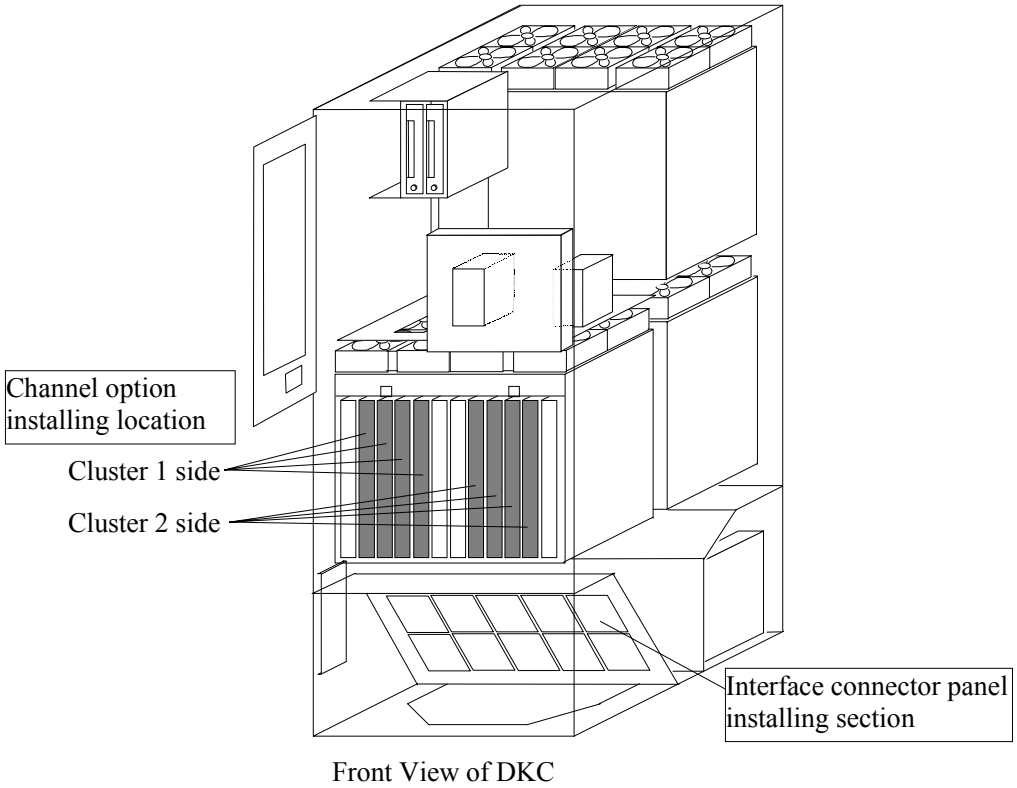


Fig. 1.4-1 Channel Option Installation

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(2) PCB location diagram
Location of channel option PCBs are shown in Table 1.4-3.

Table 1.4-3 PCB Location Diagram

CL1							CL2				
N	P	Q	R	S	T	U	V	W	X	Y	Z
W	4S	4S	4S	4S	W	W	4S	4S	4S	4S	W
P	8S	8S	8S	8S	P	P	8S	8S	8S	8S	P
4	4GS	4GS	4GS	4GS	4	4	4GS	4GS	4GS	4GS	4
3	8GS	8GS	8GS	8GS	4	4	8GS	8GS	8GS	8GS	3
0	4GL	4GL	4GL	4GL	0	0	4GL	4GL	4GL	4GL	0
-	8GL	8GL	8GL	8GL	-	-	8GL	8GL	8GL	8GL	-
A	8GSE	8GSE	8GSE	8GSE	A	B	8GSE	8GSE	8GSE	8GSE	B
	8GLE	8GLE	8GLE	8GLE			8GLE	8GLE	8GLE	8GLE	
	8HSE	8HSE	8HSE	8HSE			8HSE	8HSE	8HSE	8HSE	
	4MS	4MS	4MS	4MS			4MS	4MS	4MS	4MS	
	4ML	4ML	4ML	4ML			4ML	4ML	4ML	4ML	
TM-1N	CHA-1P (Basic)	CHA-1Q (Add.1)	CHA-1R (Add.2)	CHA-1S (Add.3)	CACHE-1T	CACHE-1U	CHA-2V (Basic)	CHA-2W (Add.1)	CHA-2X (Add.2)	CHA-2Y (Add.3)	TM-2Z

4S : PCB for DKC-F410I-4S 4GS : PCB for DKC-F410I-4GS 8GSE : PCB for DKC-F410I-8GSE
8S : PCB for DKC-F410I-8S 8GS : PCB for DKC-F410I-8GS 8GLE : PCB for DKC-F410I-8GLE
4MS : PCB for DKC-F410I-4MS 4GL : PCB for DKC-F410I-4GL 8HSE : PCB for DKC-F410I-8HSE
4ML : PCB for DKC-F410I-4ML 8GL : PCB for DKC-F410I-8GL
(For the configuration of each PCB, see Table 1.4-1.)

(3) Interface connector panel installing section
The interface connector panel installing section is shown in Fig. 1.4-2 and the number of necessary interface connector panels for each option is shown in Table 1.4-4.
(For the installing location, see Fig. 1.4-1)

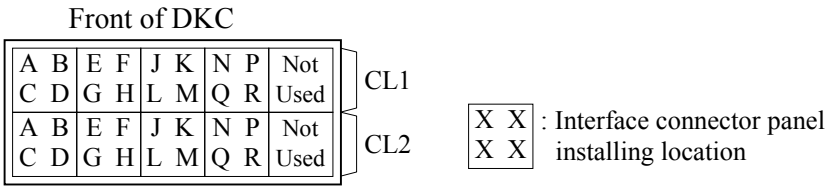


Fig. 1.4-2 Interface connector panel installing section

Table 1.4-4 Number of necessary interface connector panel

Option model	Number of necessary interface connector panels
DKC-F410I-4S/8S/4GS/4GL/ 8GS/8GL/8GSE/8GLE/8HSE/4MS/4ML	CL1 CL2

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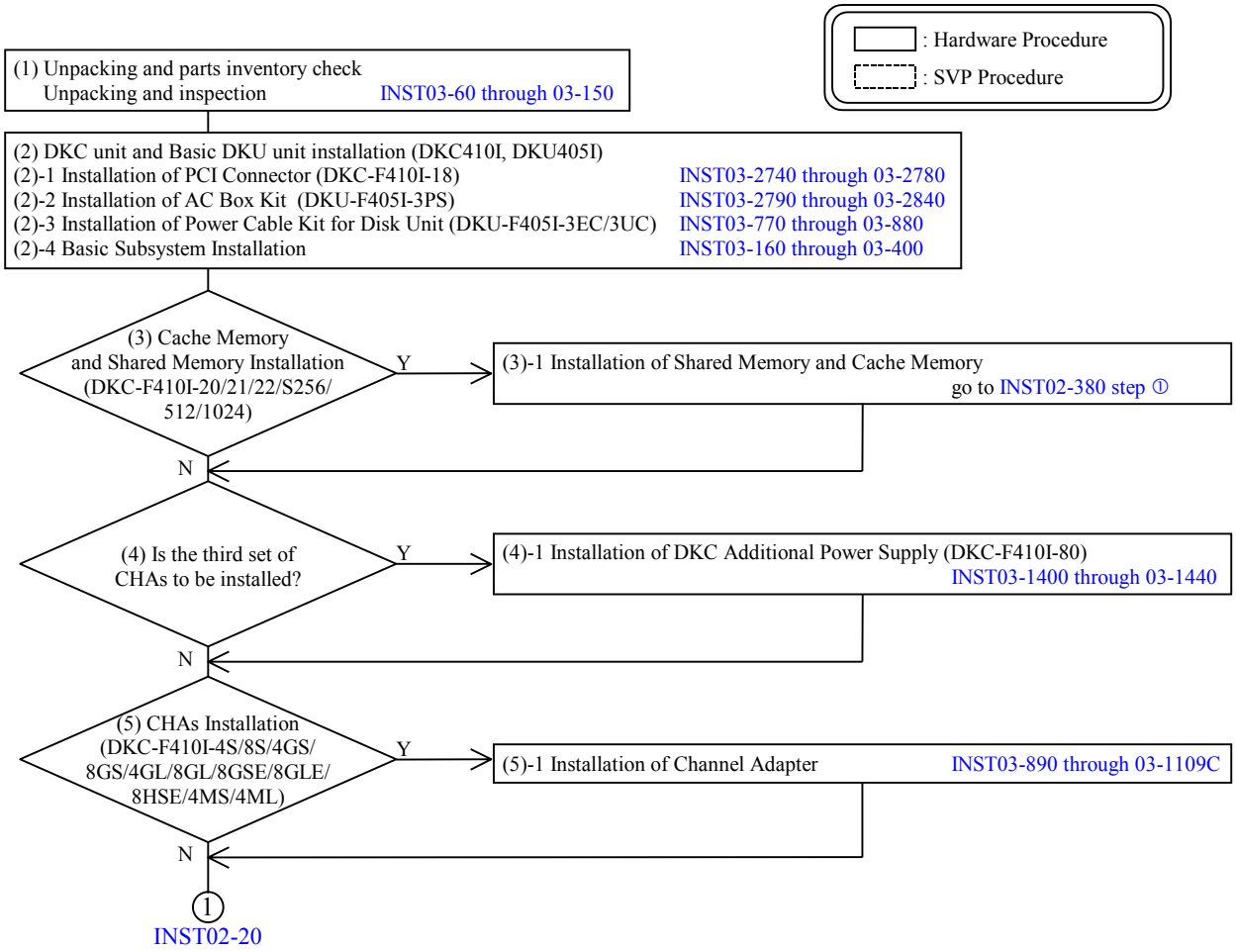
2 Installation and De-installation procedure

2.1 New Installation Procedure General Flow

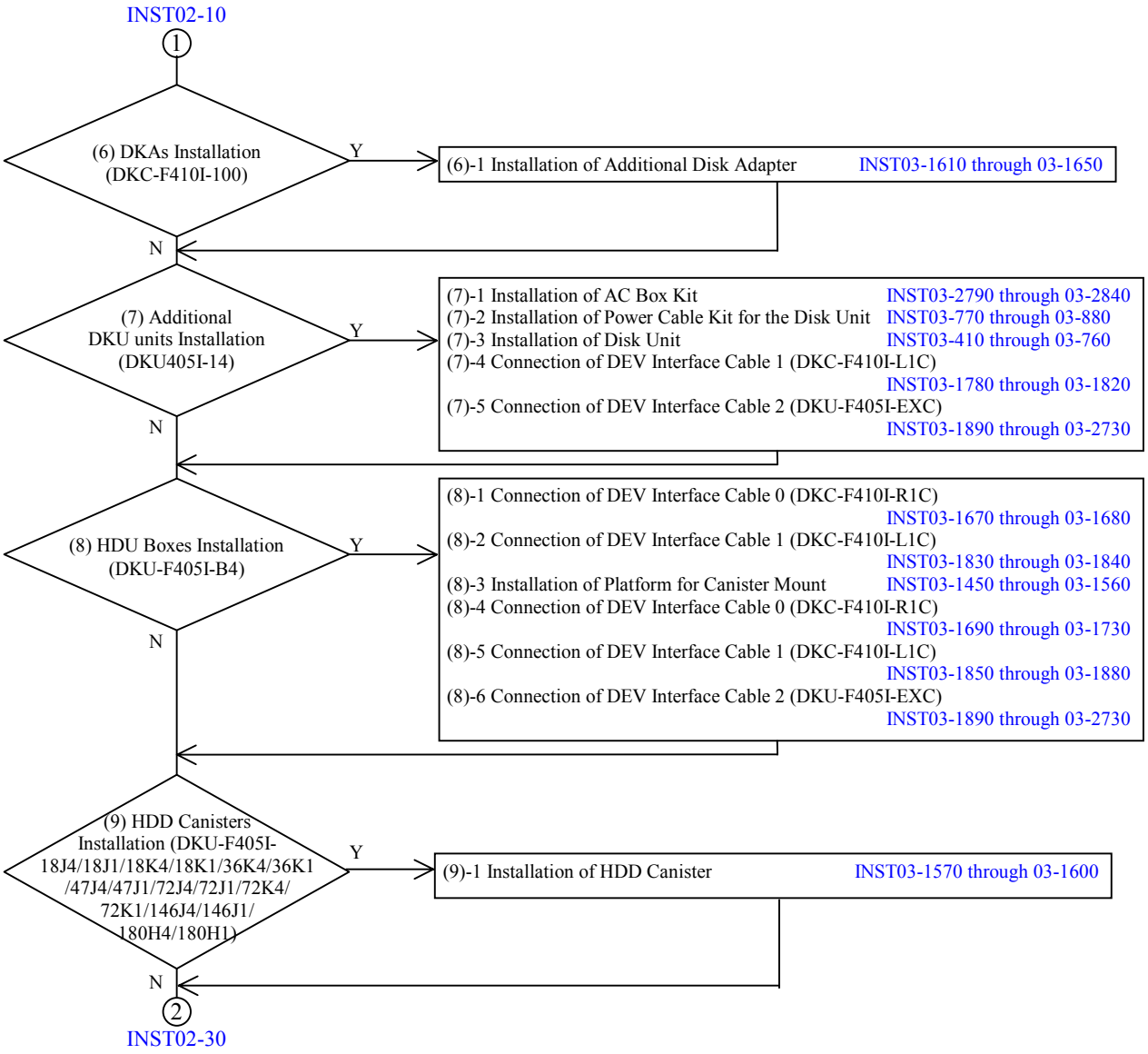
When installing Subsystem for the first time, perform all hardware installation procedures before initiating the installation through SVP procedure. The general procedure for installing a new Subsystem is shown below. Each procedure is performed referring to the following flow chart. Skip the next procedure when the procedure is not necessary. If any problems arise during the following procedure, isolate failure part with analysis of SIM log or SSB log. If neither SIM log nor SSB log has been created, re-check the general procedure and see TROUBLE SHOOTING SECTION.

Precaution on New Installation

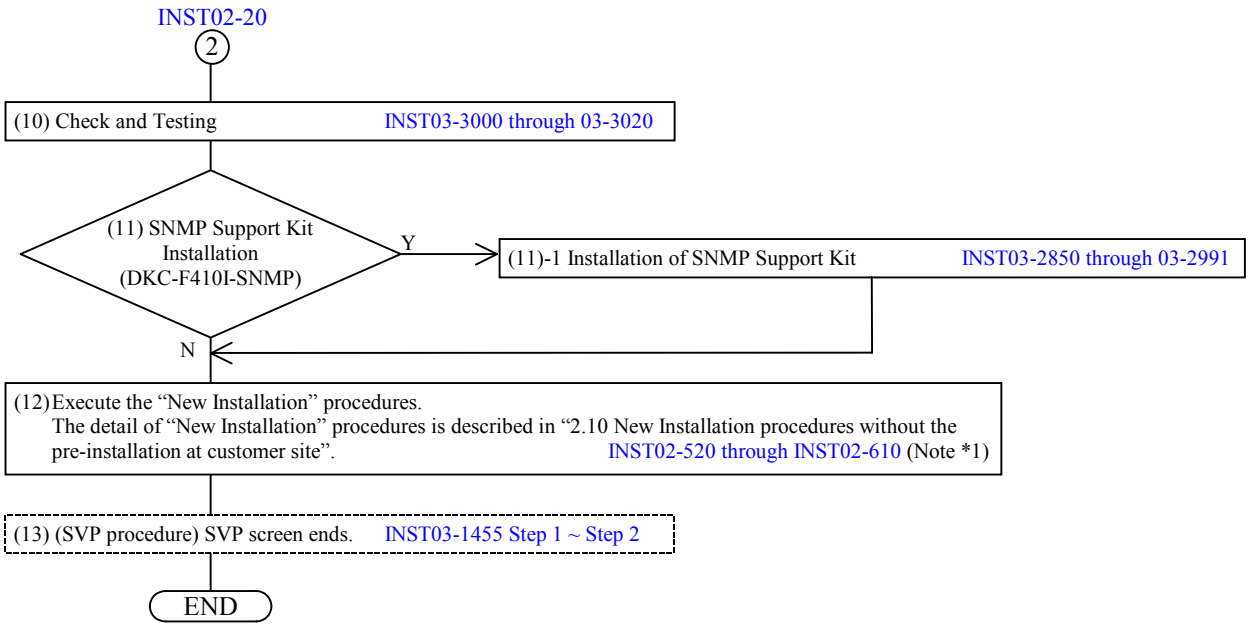
- The DKC Additional Power Supply (DKC-F410I-80) must be installed when installing three or more channel options.
  In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.



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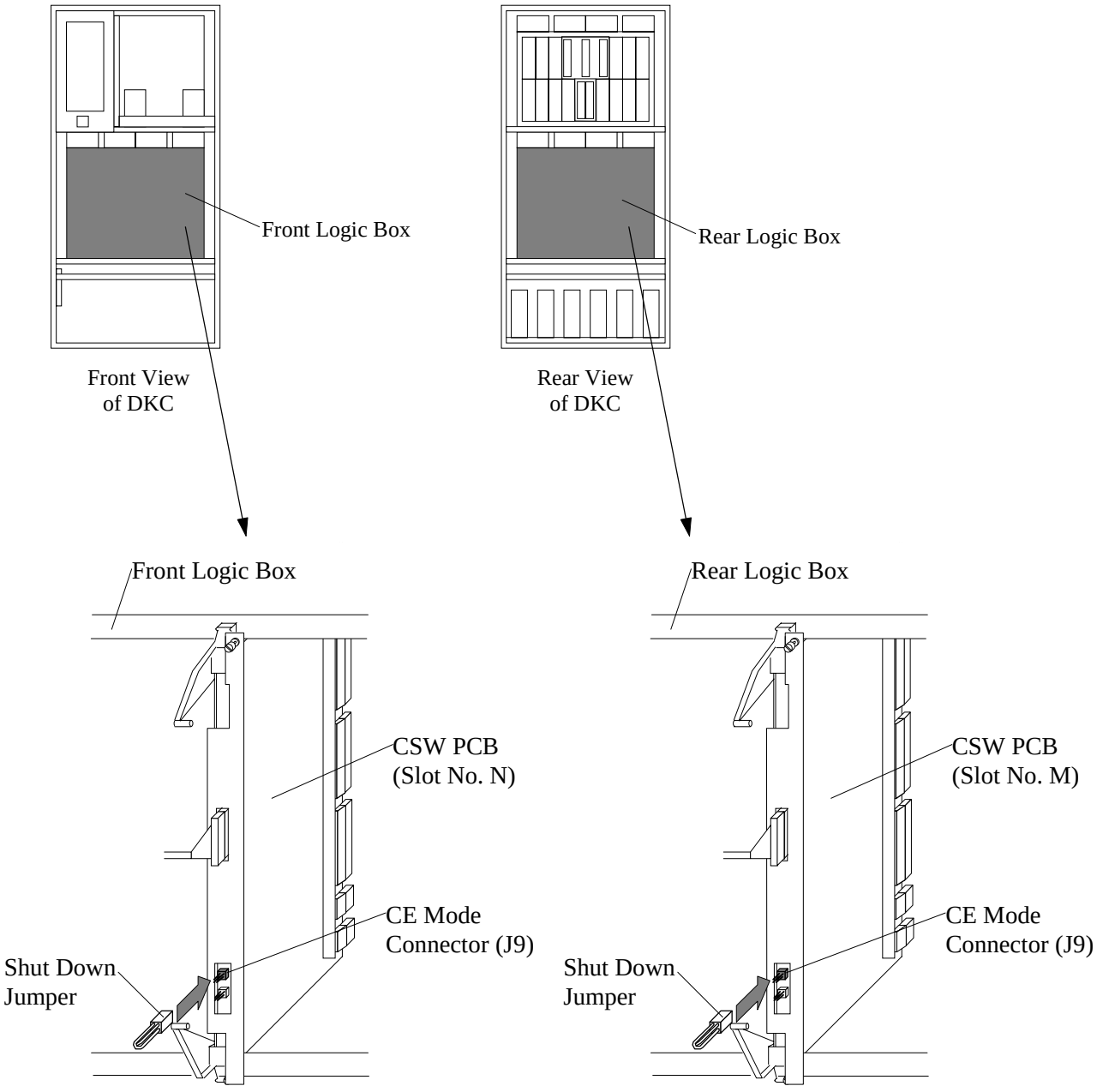


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Note *1 : The Shut Down Jumper of the CE Mode Connector (J9).



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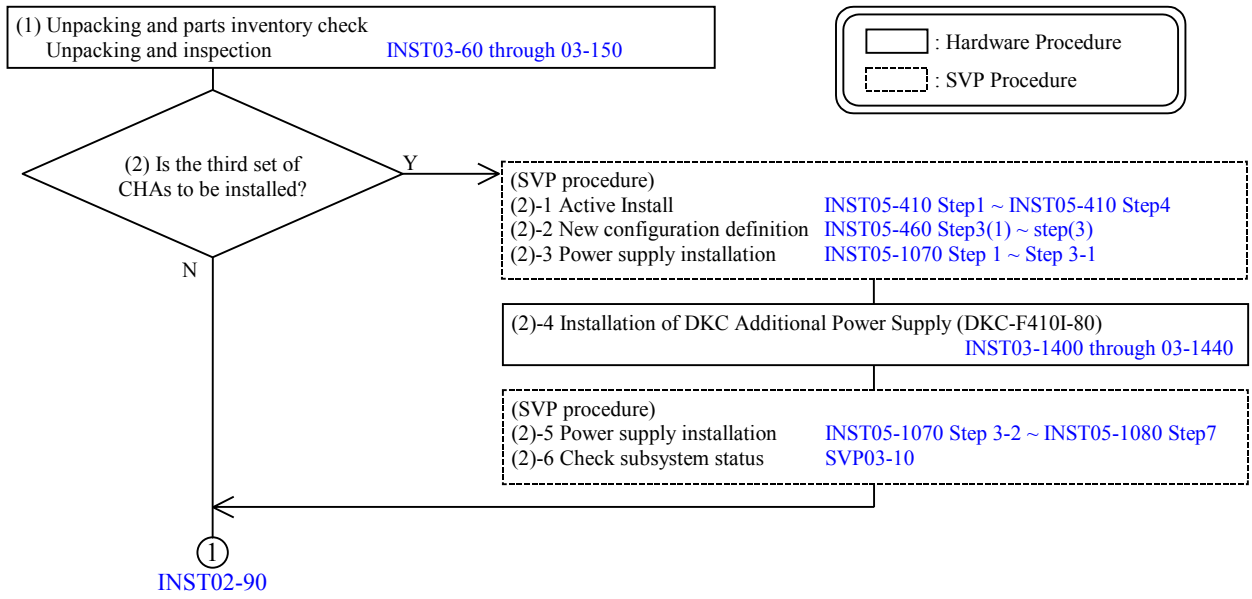
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2.2 Non-Disruptive Installation Procedure General Flow

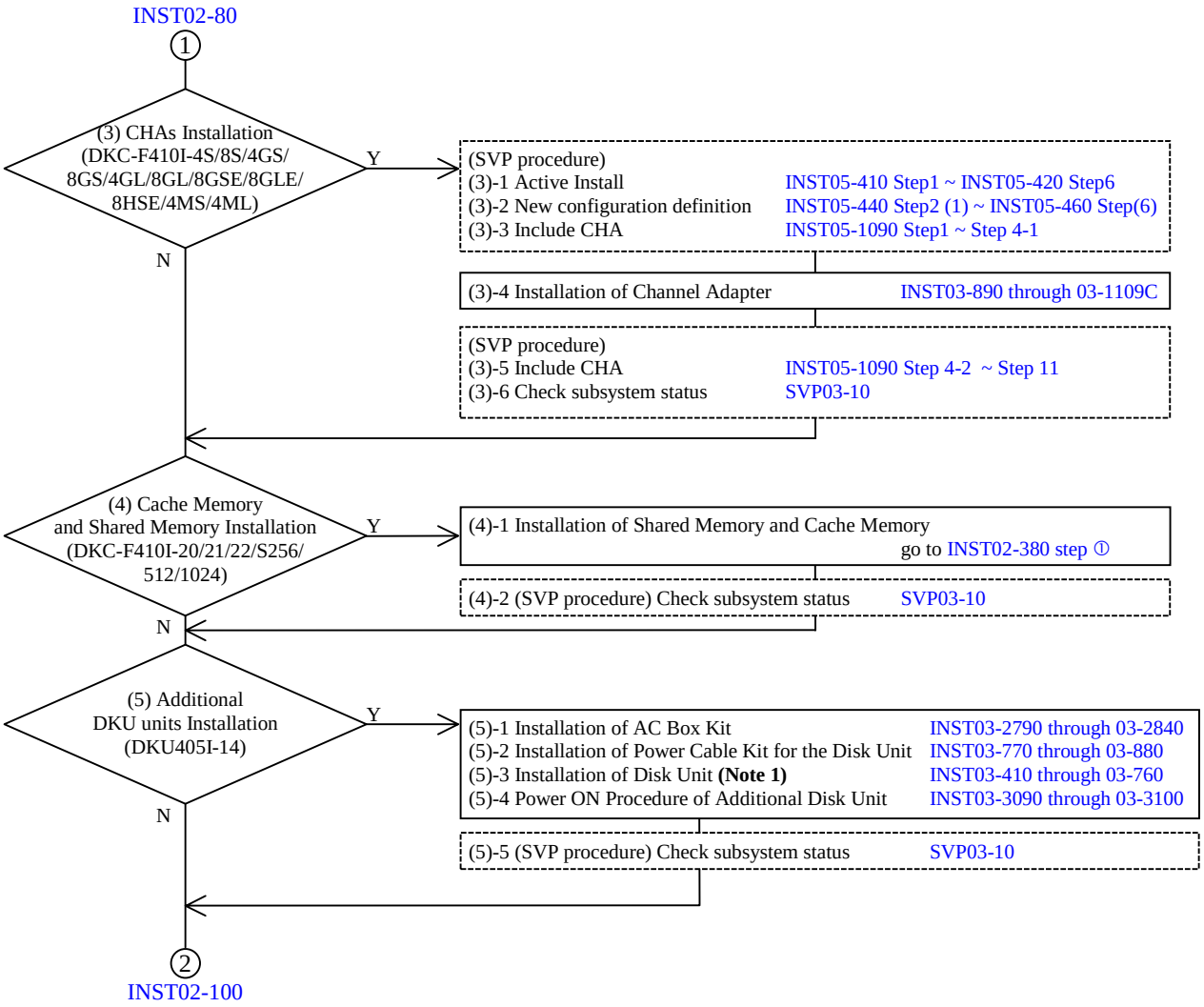
Install additional non-disruptive options according to the flow shown below. This work is completed by installing additional hardware for each option and performing SVP-controlled installation.
When all the installation operations are completed, refer to Maintenance Screen and confirm that all the installed parts as well as other parts are normal (not blinking). (Refer to SVP section.)
If a fault occurs during or after additional installation, see INST02-420 to locate a faulty unit and take action. If any other message than the list is displayed, see the SVP Message section.

Precautions on Non-Disruptive Installation

- "Non-Disruptive" means that the subsystem is connected to the host (OS). Non-Disruptive Installation shall be done with the subsystem power ON. However, the subsystem may be disconnected from the host (OS).
- Install additional Cache Memory and Shared Memory (DKC-F410I-20/S256/512/1024) on one side first without affecting subsystem operation according to the SVP guidance.
- The DKC Additional Power Supply (DKC-F410I-80) must be installed when installing three or more channel options.
  In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.
- When the type of the CHAs is changed (e.g. from parallel to serial channel), de-install the old CHAs temporarily before installing new CHAs.
- When adding a new HDD Box (DKU-F405I-B4) to the 1st or 3rd DKU or both, perform DKA upgrade procedure before proceeding with HDD upgrade procedure.
- You do not need to confirm the messages without respond request displayed during installation. (You may not confirm some of the messages because they are displayed momentarily depending on process status.)

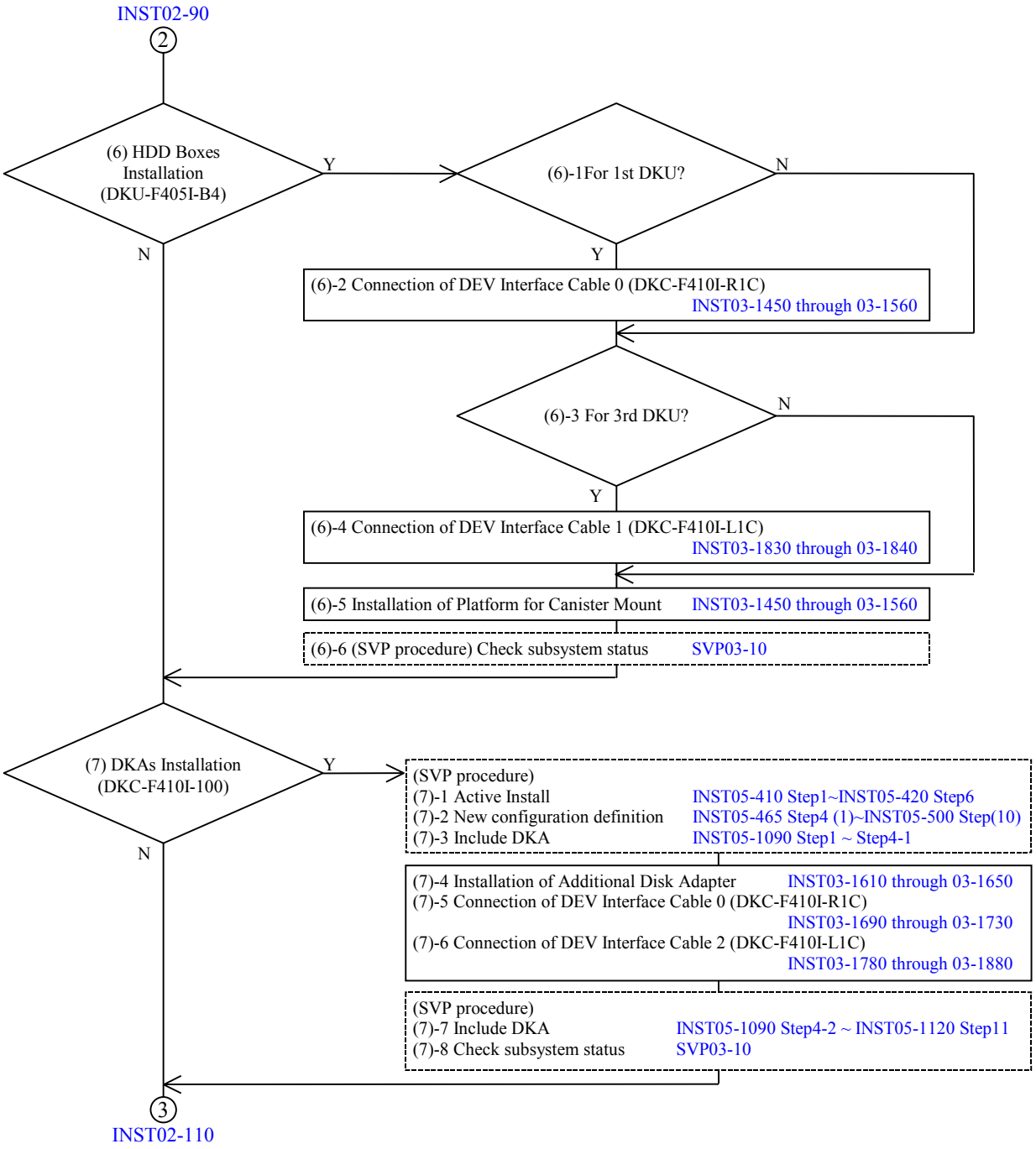


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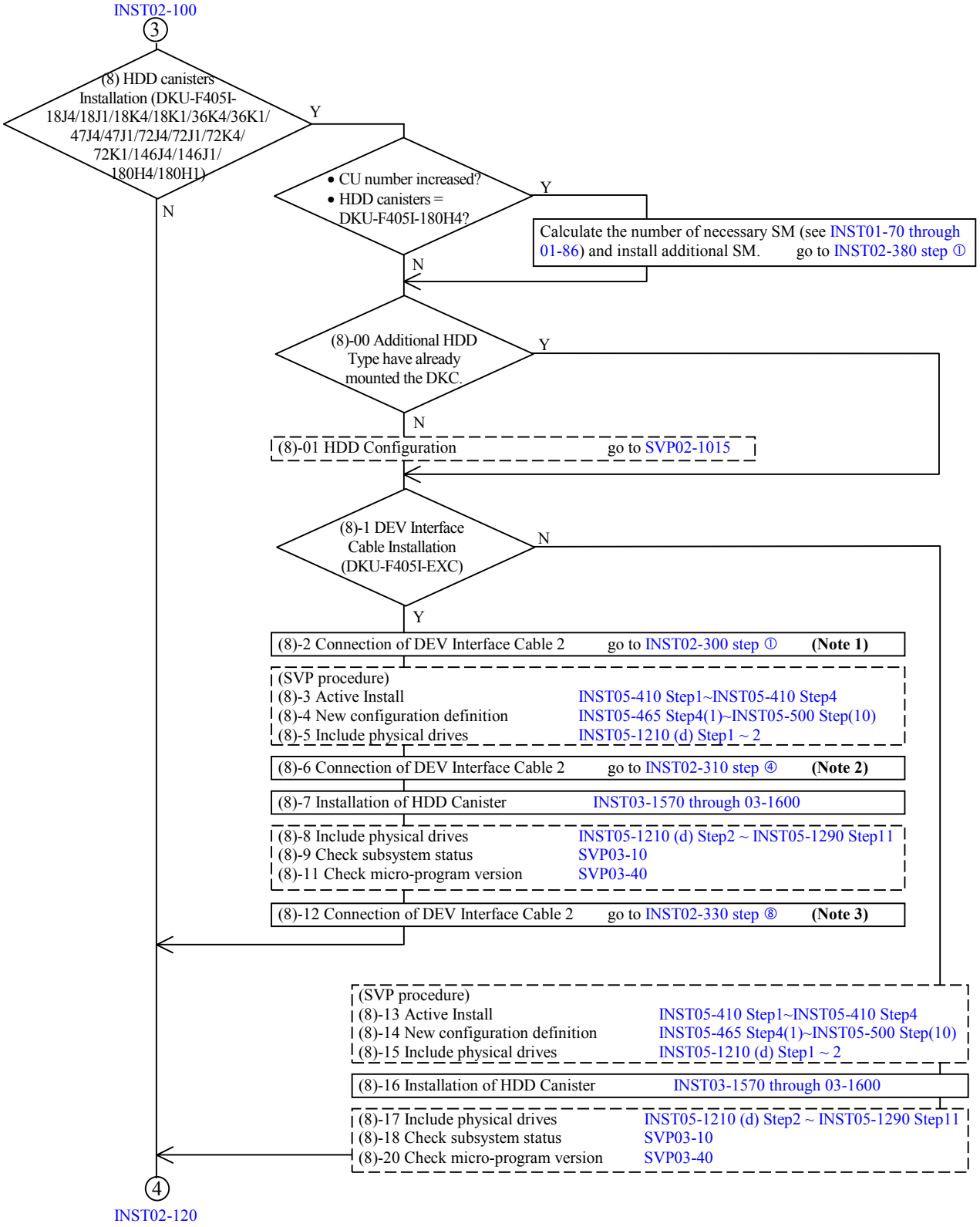


(Note 1) When installing the 3rd DKU frame, attach the DEV interface cable (DKC-F410I-L1C) before connecting the DKC and the 3rd DKU frame.
However, in this step, do not connect the cable to the DKA PCB and the FSW PCB.

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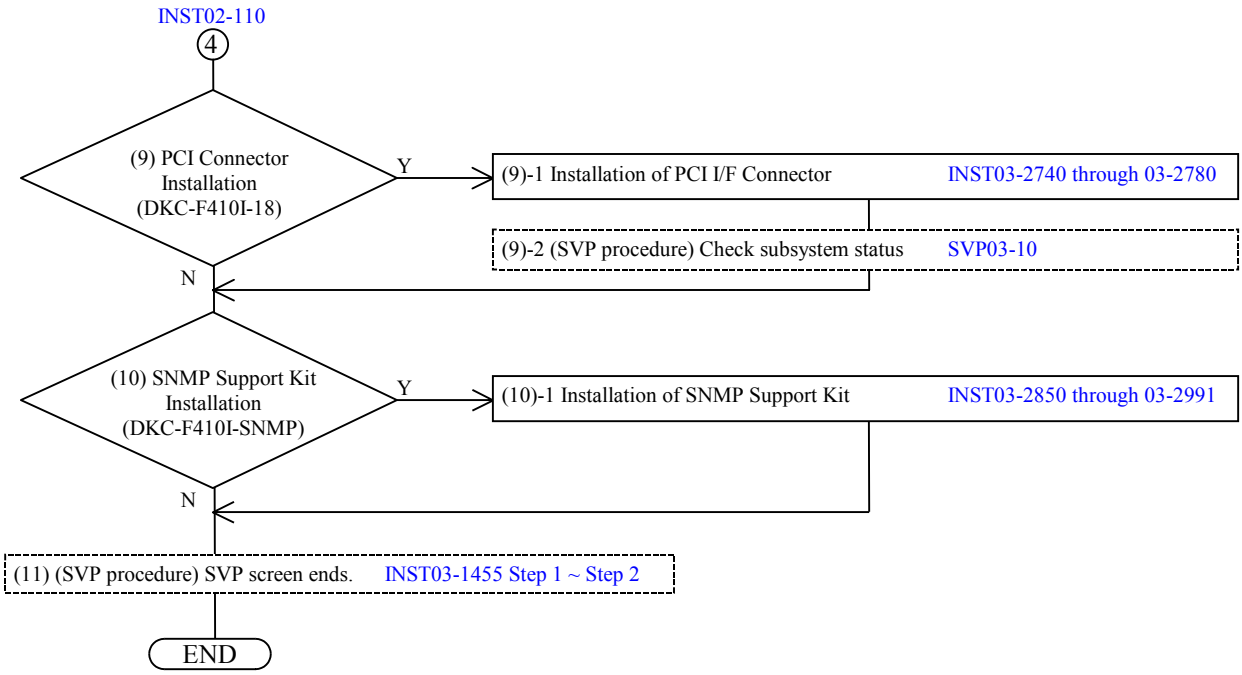


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(Note 1) Connect the DEV interface cable only with installed Disk Unit (DKU405I-14) or Platform for Canister Mount (DKU-F405I-B4).
* In this step, do not connect the DEV interface cable with operating DKU.
(Note 2) Connect the DEV interface cable with operating DKU.
(Note 3) Attach the cable covers for DEV interface cable.

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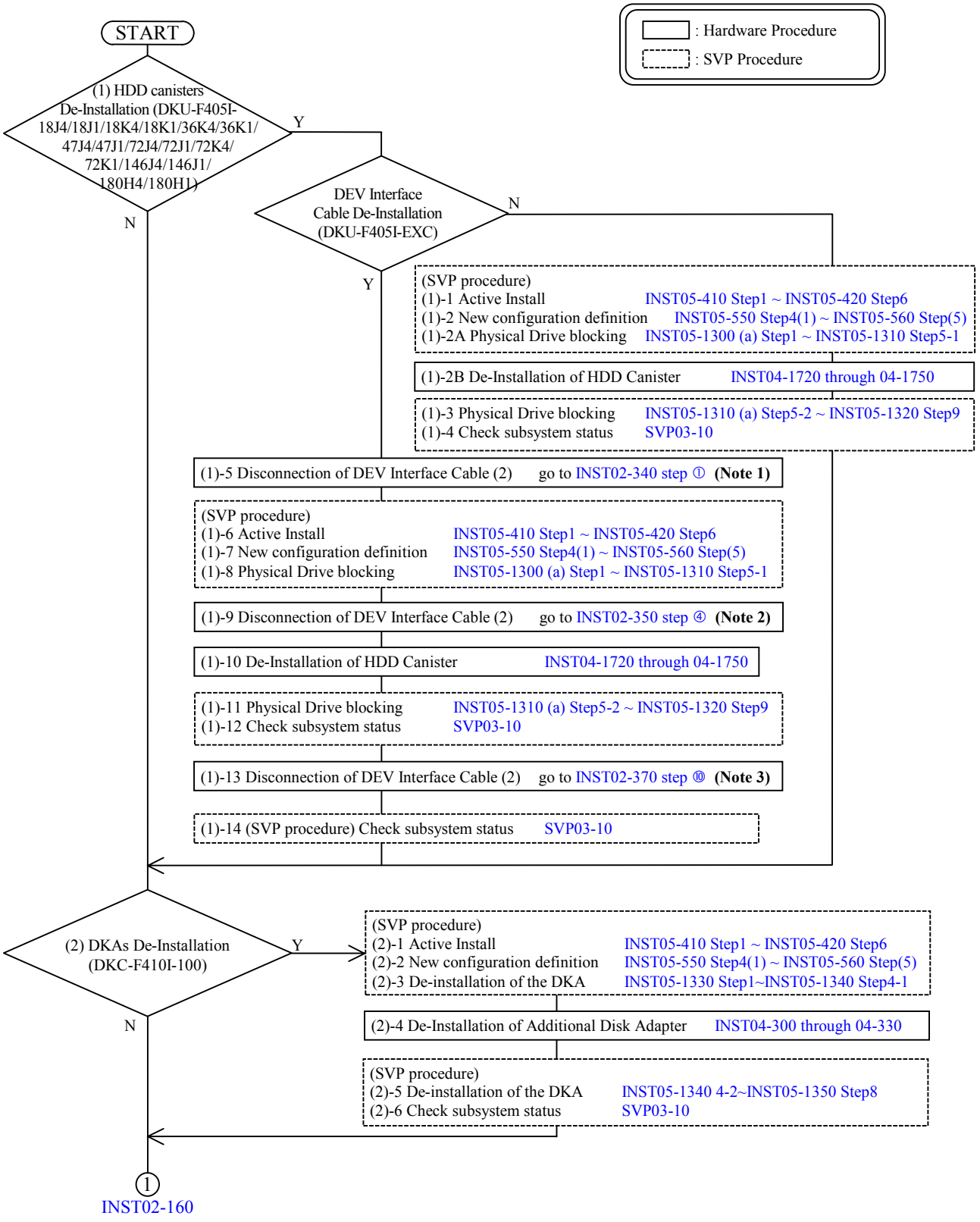
2.3 Non-Disruptive De-installation Procedure General Flow

Remove additional non-disruptive options according to the flow shown below. This work is completed by removing hardware for each option and performing SVP-controlled removal.
When De-Installation has been all done, make sure that all the removed units are displayed as "empty" and that the other units are normal (See the SVP Section).
If a fault occurs during or after removal, see INST02-440 to locate a faulty unit and take action. If any other message than the list is displayed, see the SVP Message section.

Precautions on Non-Disruptive De-Installation

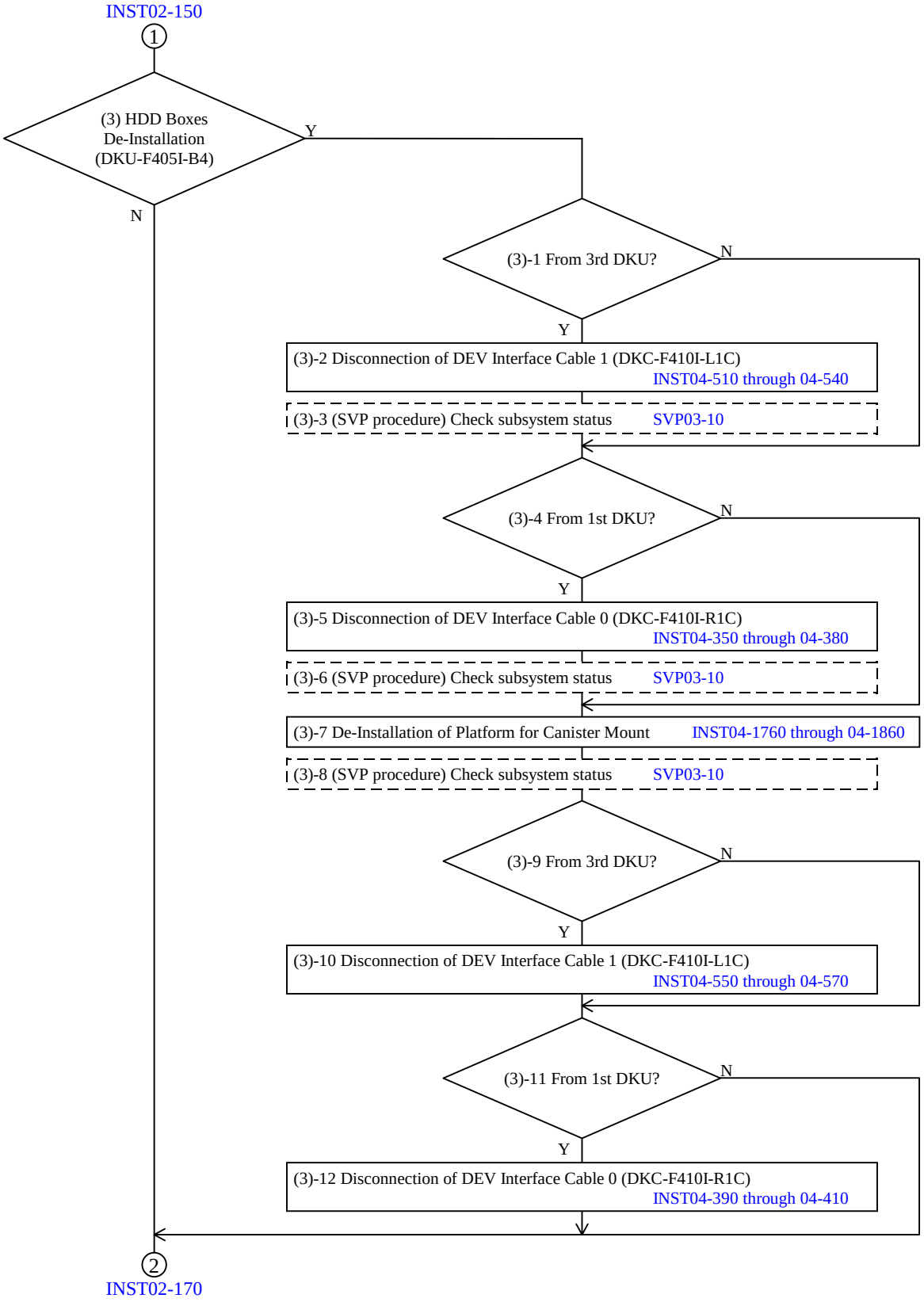
- "Non-Disruptive" means that the subsystem is connected to the host (OS). Non-Disruptive De-Installation shall be done with the subsystem power ON. However, the subsystem may be disconnected from the host (OS).
- Remove additional Cache Memory and Shared Memory (DKC-F410I-20/S256/512/1024) on one side first without affecting subsystem operation according to the SVP guidance.
- When removing HDU Box from 1st or 3rd DKU, remove HDD canisters first and then DKA.
- When de-installing HDU Box from the 1st or 3rd DKU or both, perform DKA de-installing procedure after proceeding with HDD de-installing procedure.
- You do not need to confirm the messages without respond request displayed during de-installation. (You may not confirm some of the messages because they are displayed momentarily depending on process status.)

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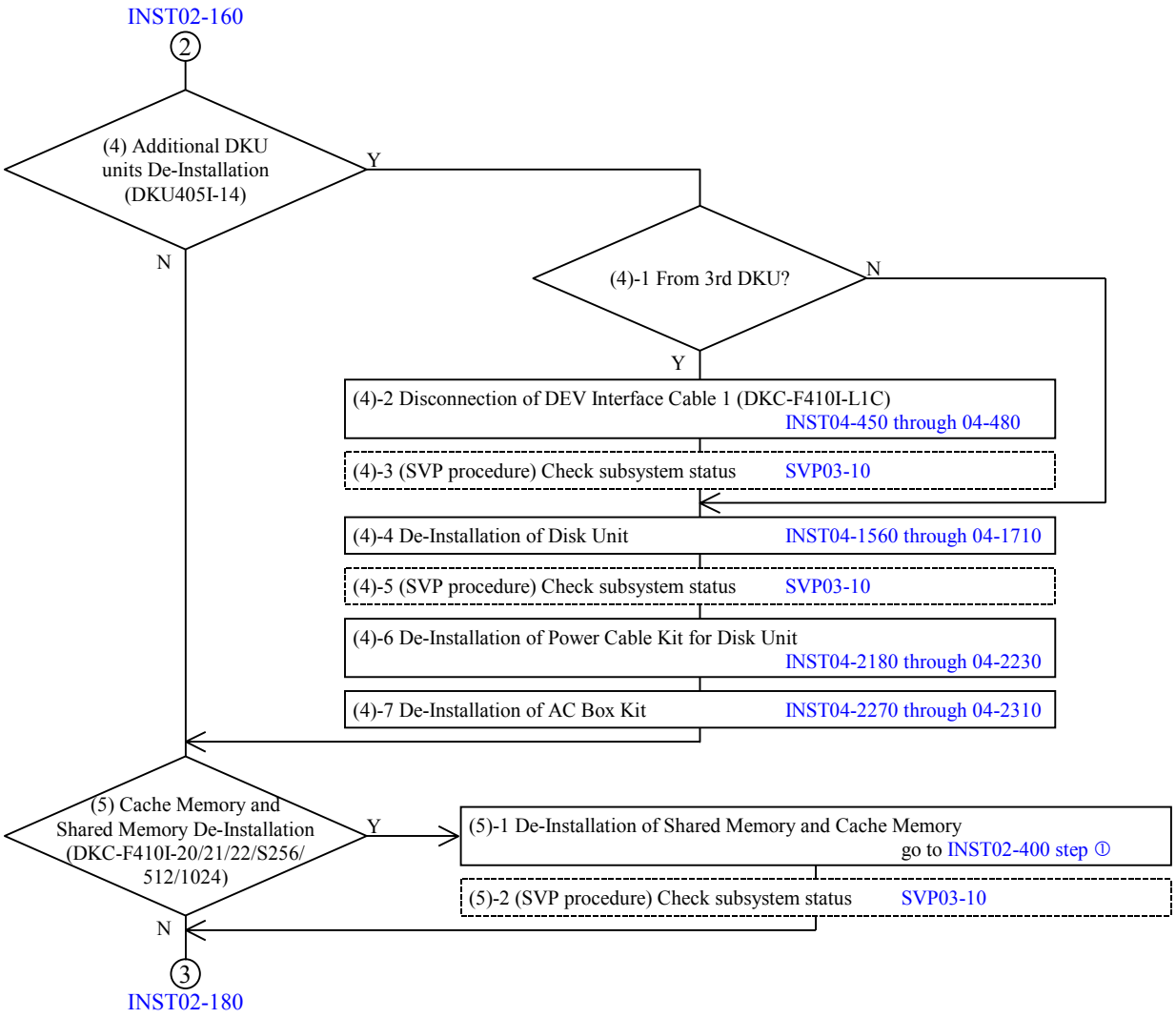


(Note 1) Remove the cable covers to disconnect the DEV interface cables.
* In this step, do not disconnect the DEV interface cable from operating DKU.
(Note 2) Disconnect the DEV interface cable from operating DKU.
(Note 3) Remove the DEV interface cable from DKU and attach the cable covers.

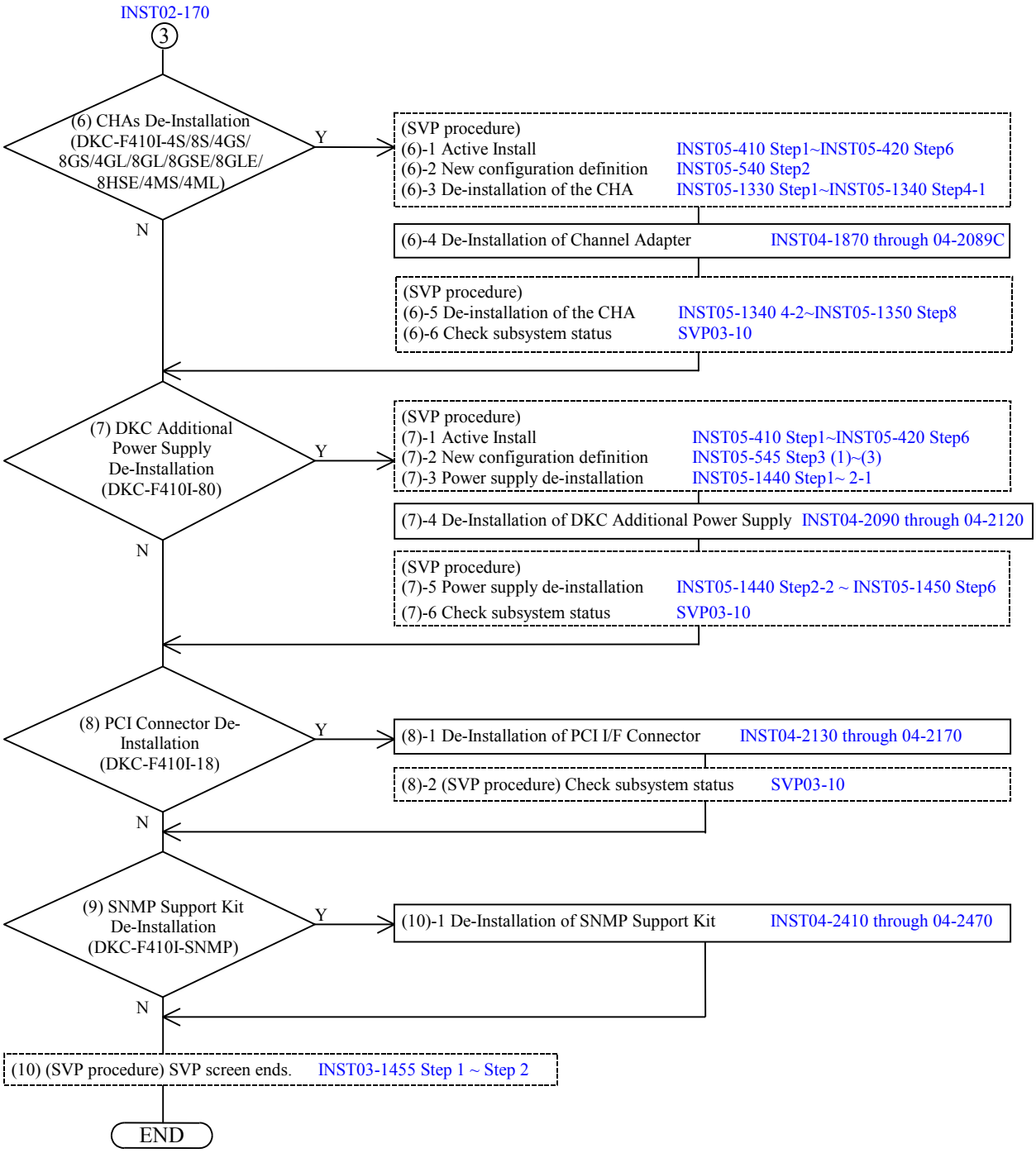
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Note : If any trouble has occurred during following procedure, go to INST02-440.

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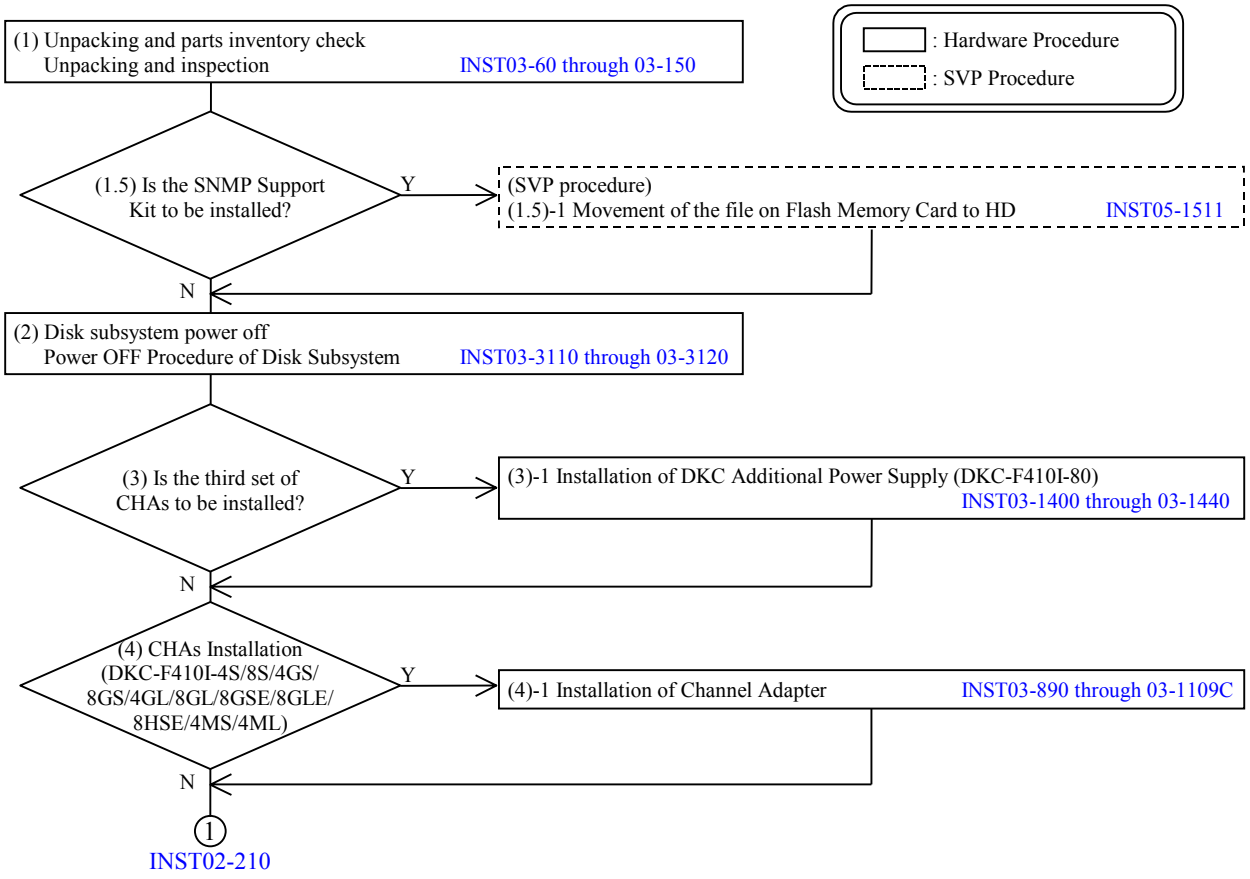
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2.4 Disruptive Installation Procedure General Flow

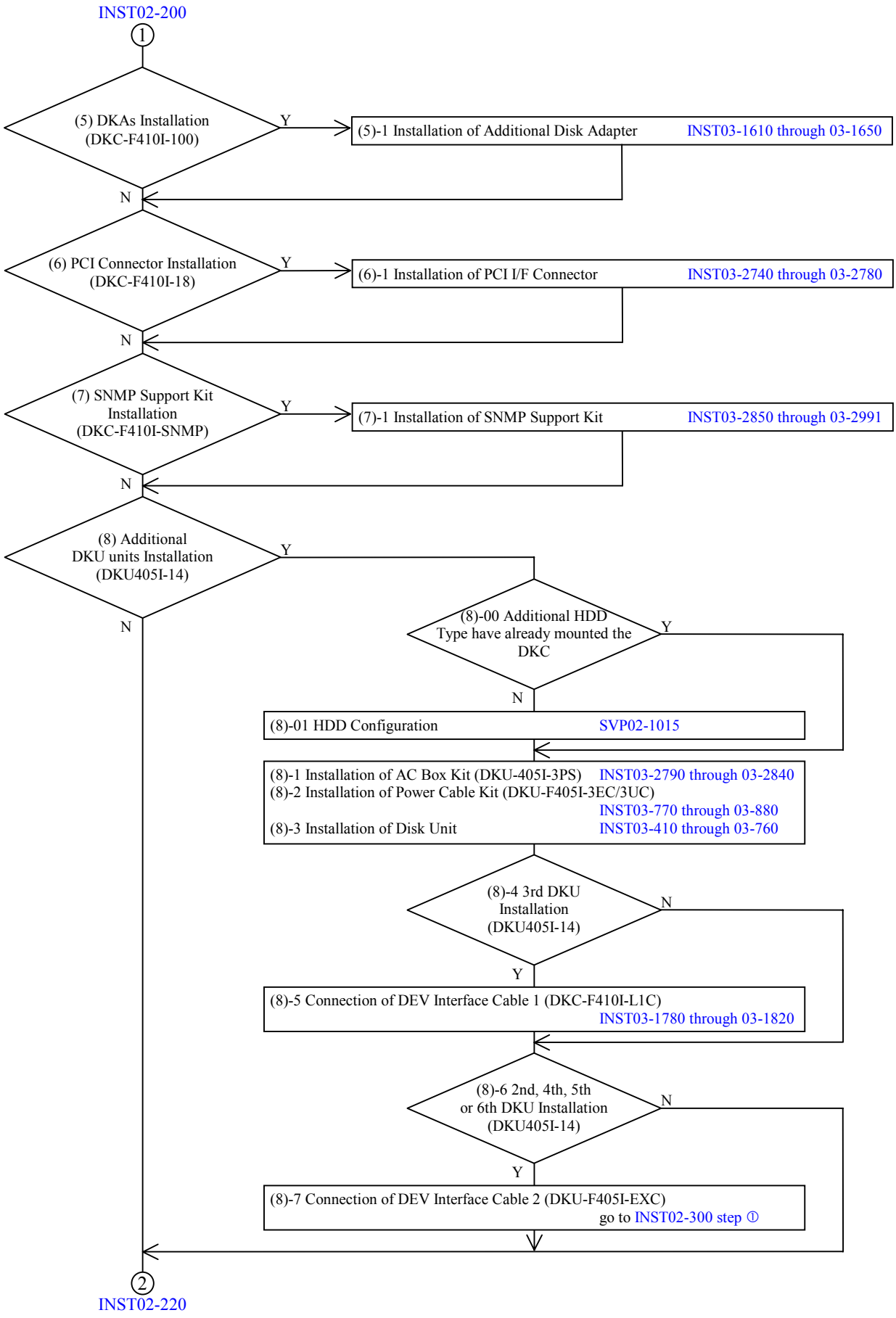
Install additional disruptive options according to the flow shown below.
When all the installation operations are completed, refer to Maintenance Screen and confirm that all the installed parts as well as other parts are normal (not blinking). (Refer to SVP section.)
If a fault occurs during or after additional installation, see INST02-420 to locate a faulty unit and take action. If any other message than the list is displayed, see the SVP Message section.

Precautions on Disruptive Installation

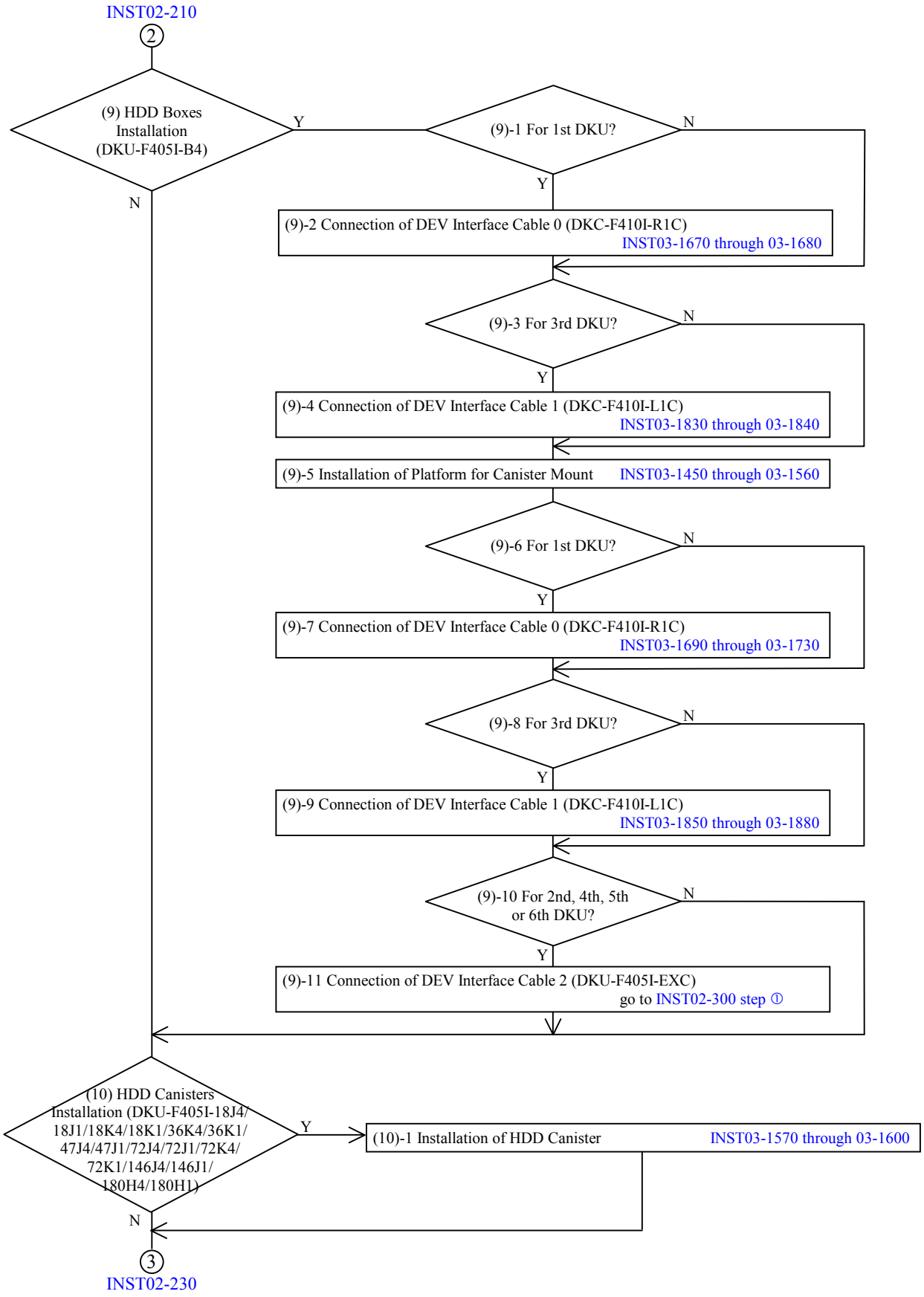
- "Disruptive" means that the subsystem is disconnected from the host (OS). Disruptive Installation shall be done with the subsystem power OFF. However, be sure to turn on the subsystem whenever installing additional Cache Memory and Shared Memory (DKC-F410I-20/S256/512/1024) because configuration information must be updated simultaneously according to the SVP guidance.
- The DKC Additional Power Supply (DKC-F410I-80) must be installed when installing three or more channel options.
  In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.
- You do not need to confirm the messages without respond request displayed during installation. (You may not confirm some of the messages because they are displayed momentarily depending on process status.)



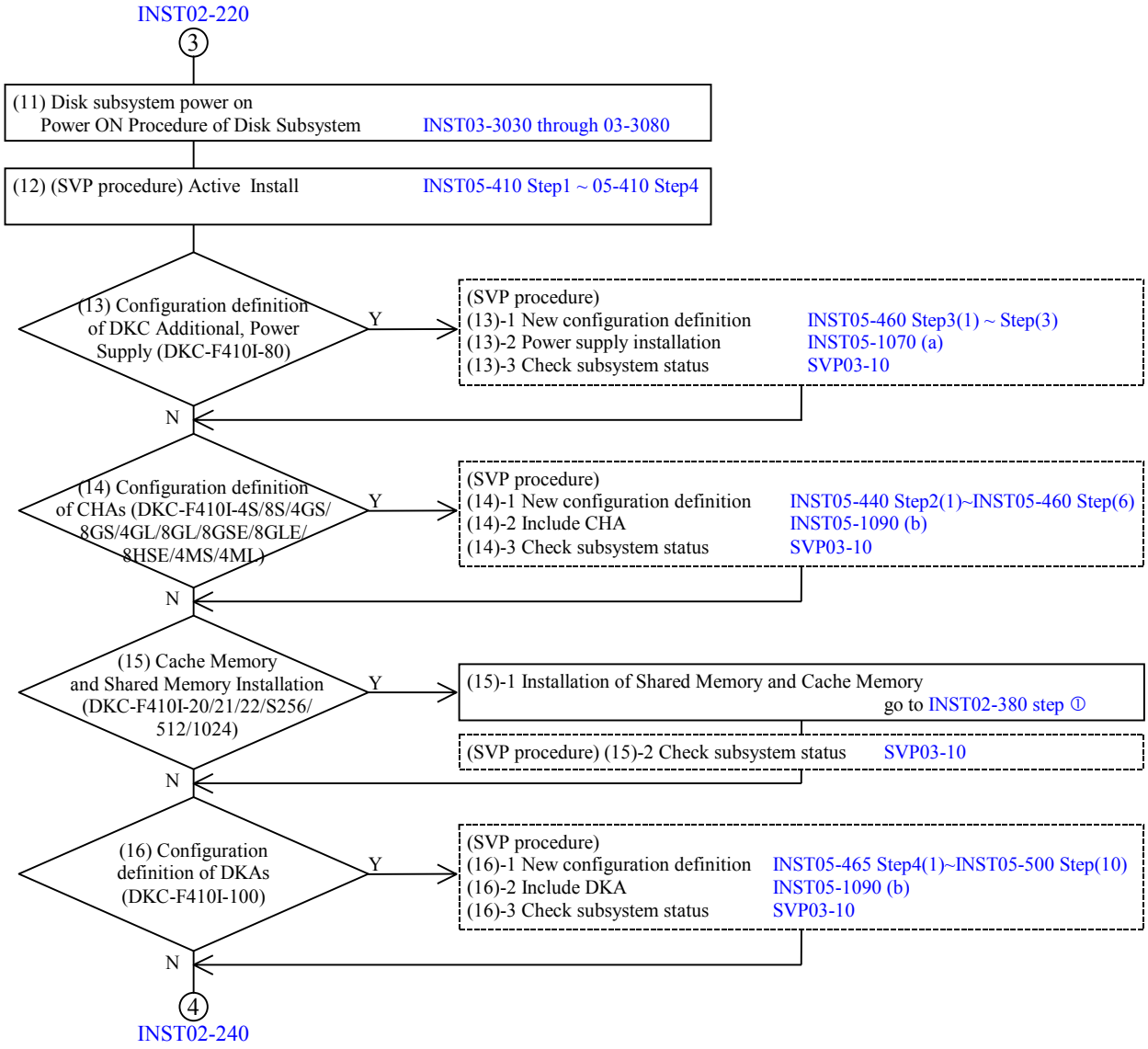
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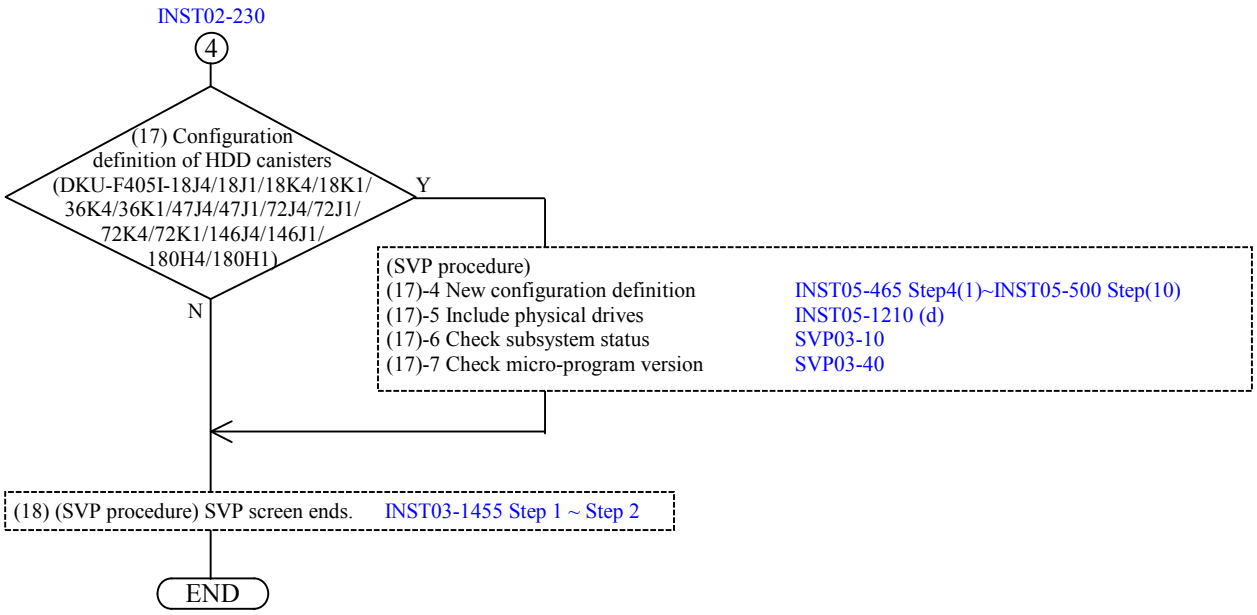
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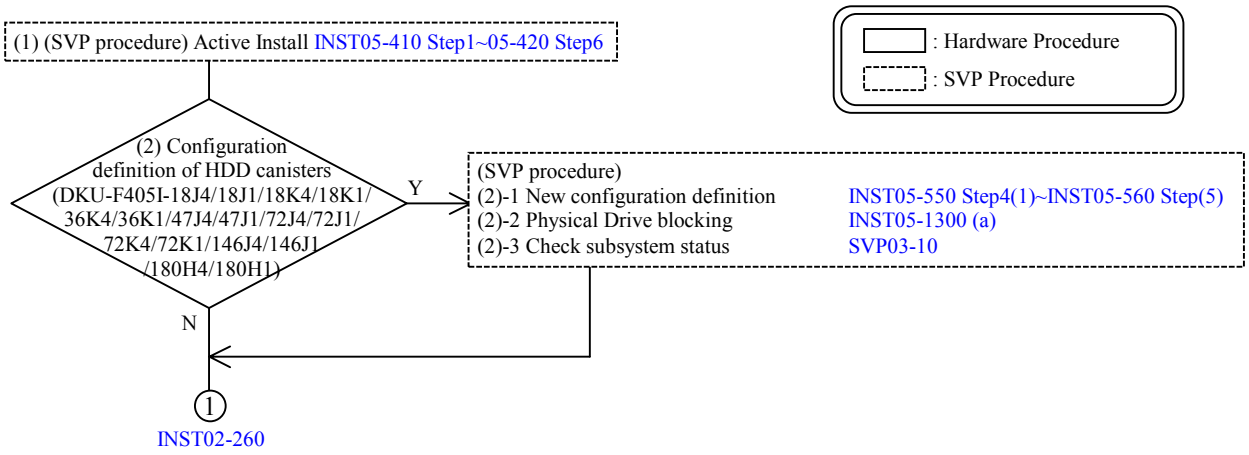
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2.5 Disruptive De-installation Procedure General Flow

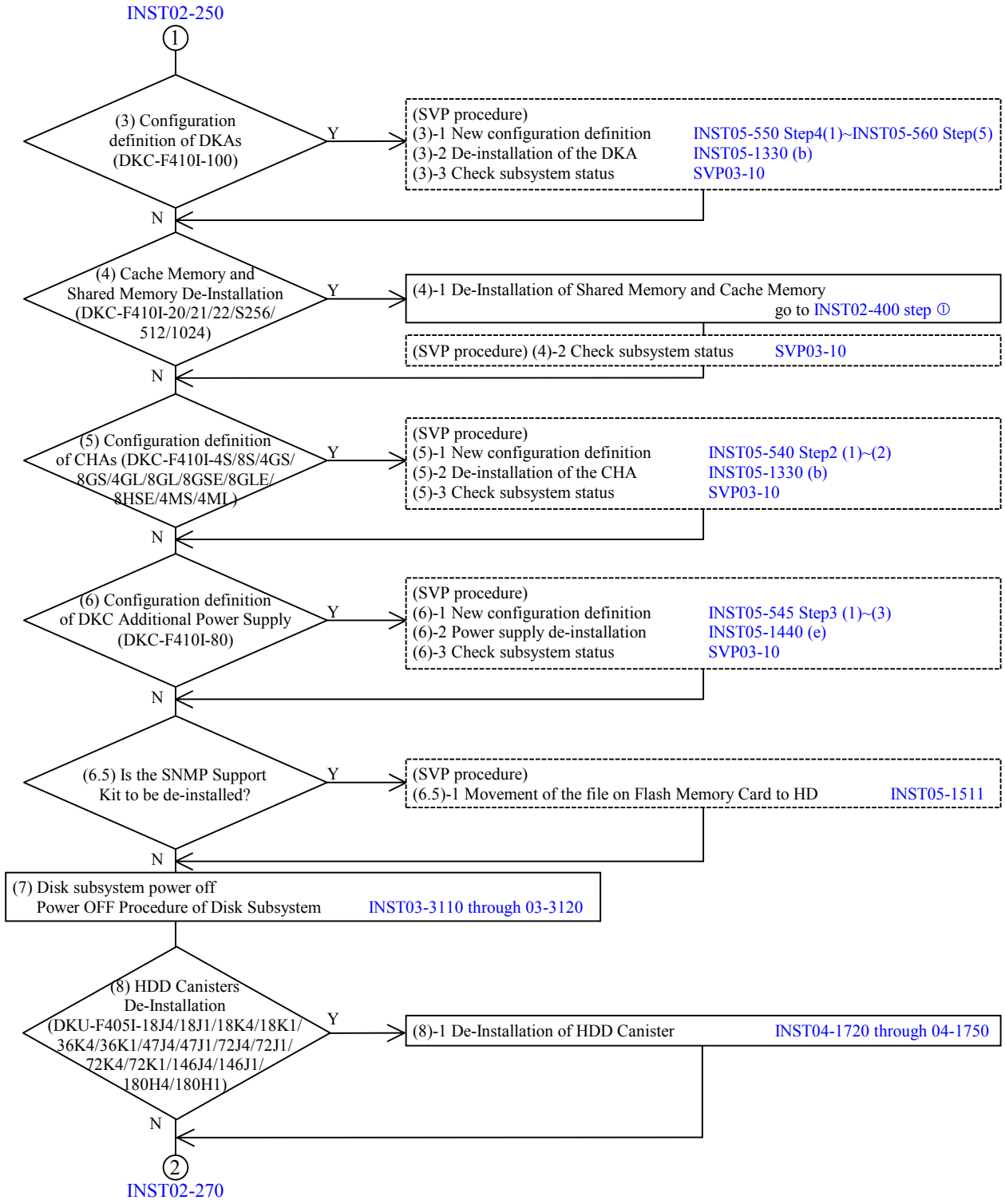
Remove additional disruptive options according to the flow shown below.
When De-Installation has been all done, make sure that all the removed units are displayed as "empty" and that the other units are normal (See the STATUS Section).
If a fault occurs during or after removal, see INST02-440 to locate a faulty unit and take action. If any other message than the list is displayed, see the SVP Message section.

Precautions on Disruptive De-Installation

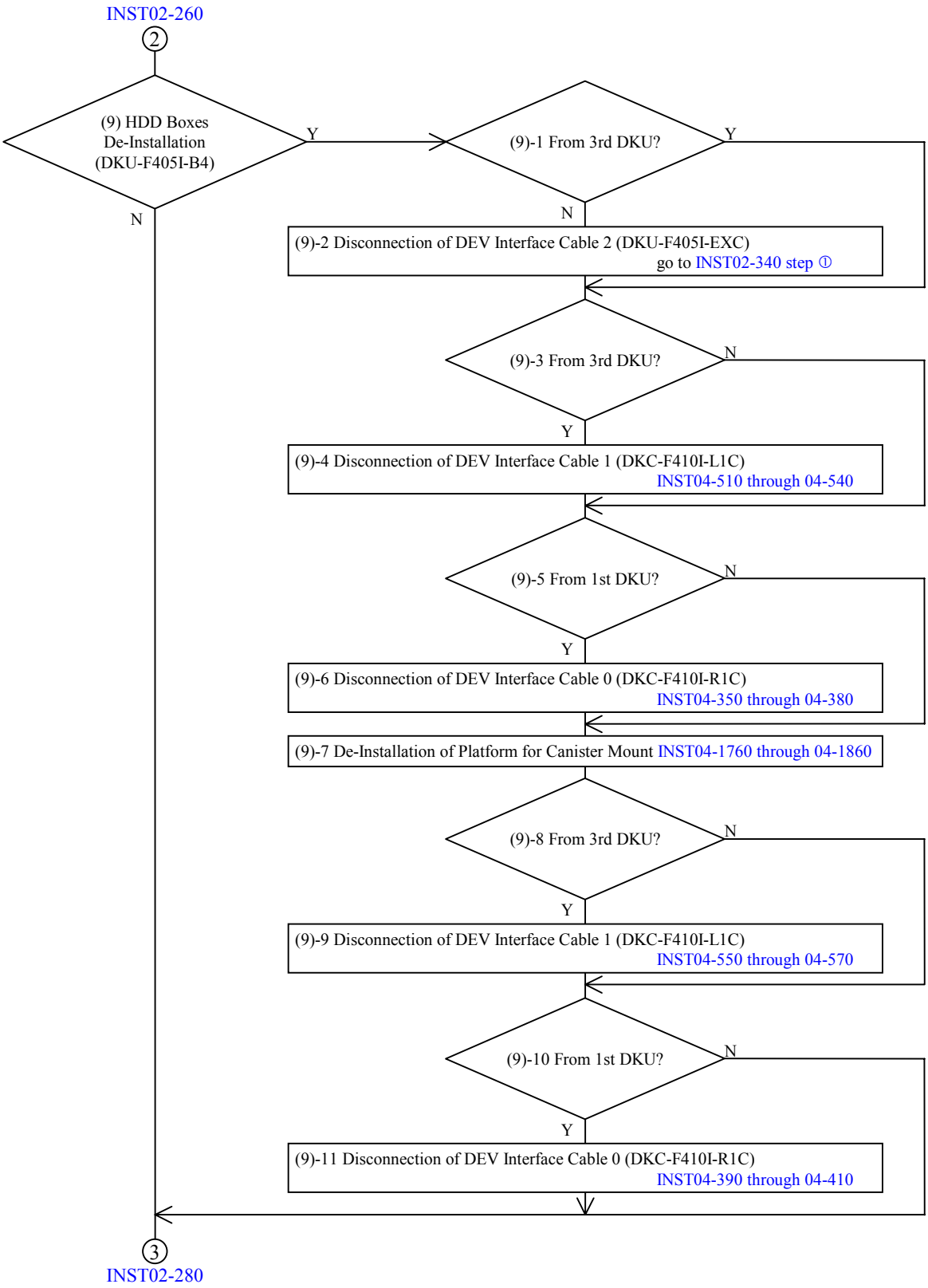
- "Disruptive" means that the subsystem is disconnected from the host (OS). Disruptive De-installation shall be done with the subsystem power OFF. However, be sure to turn on the subsystem whenever removing additional Cache Memory and Shared Memory (DKC-F410I-20/S256/512/1024) because configuration information side must be updated simultaneously according to the SVP guidance.
- You do not need to confirm the messages without respond request displayed during de-installation. (You may not confirm some of the messages because they are displayed momentarily depending on process status.)



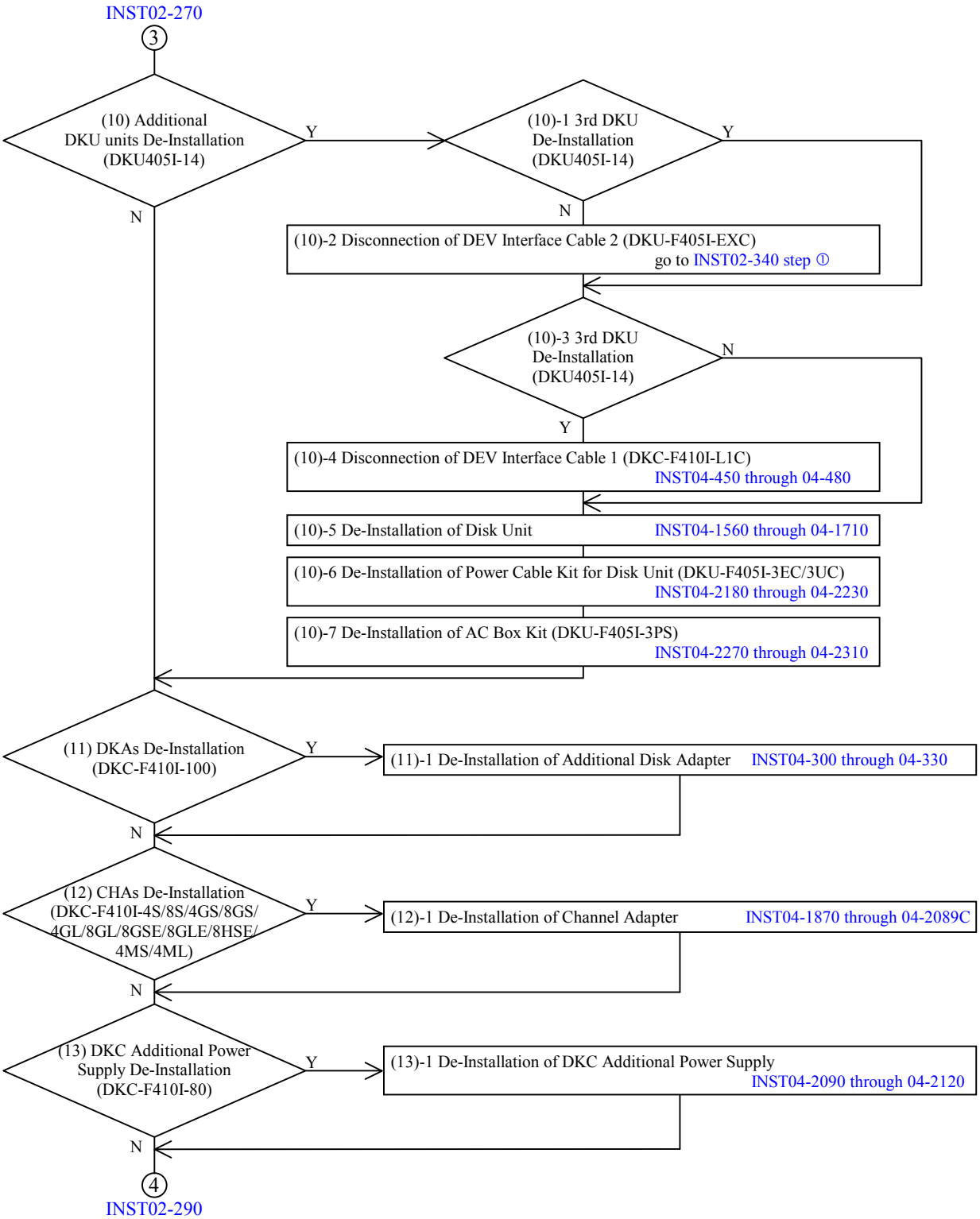
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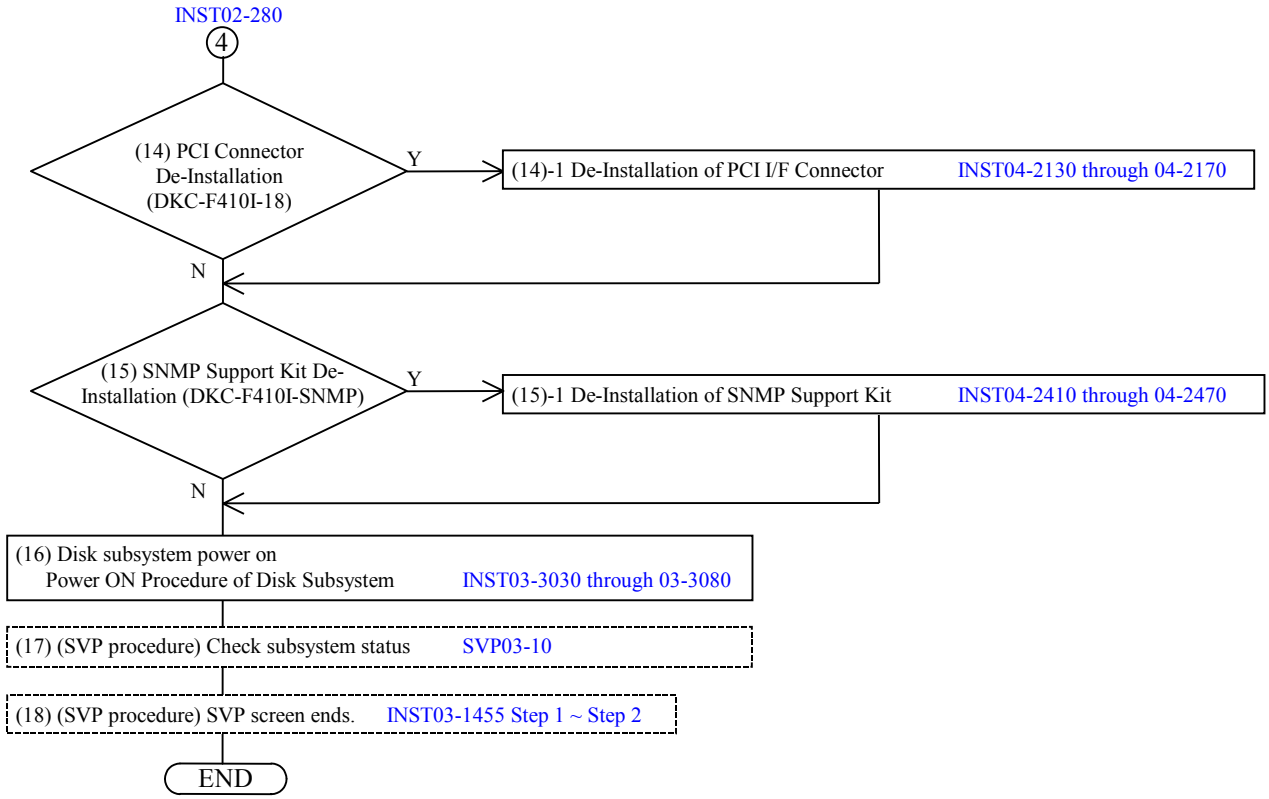
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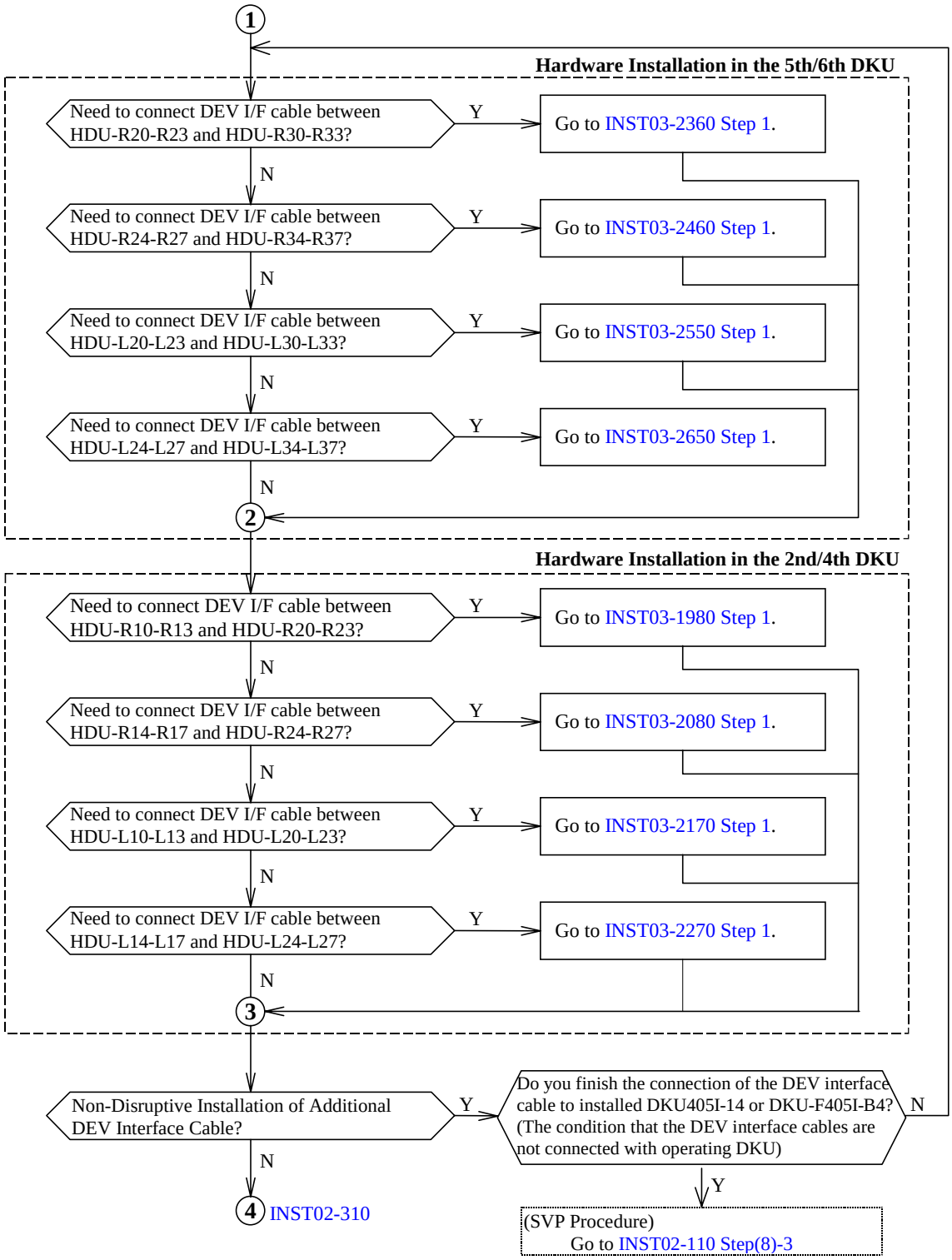


Note : If any trouble has occurred during following procedure, go to INST02-420.

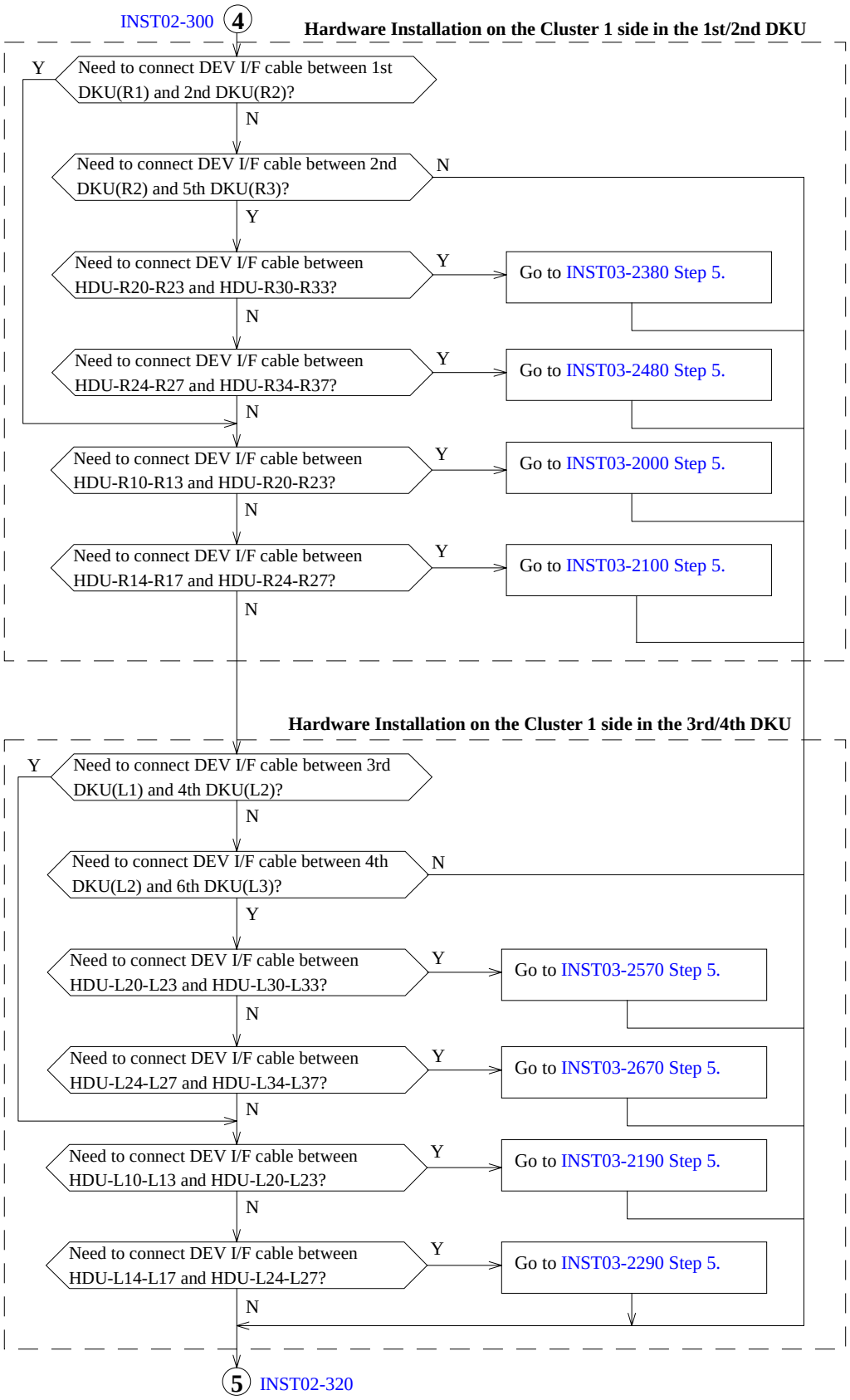
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Non-Disruptive / Disruptive Installation General Flow of Additional DEV Interface Cables (DKU-F405I-EXC)

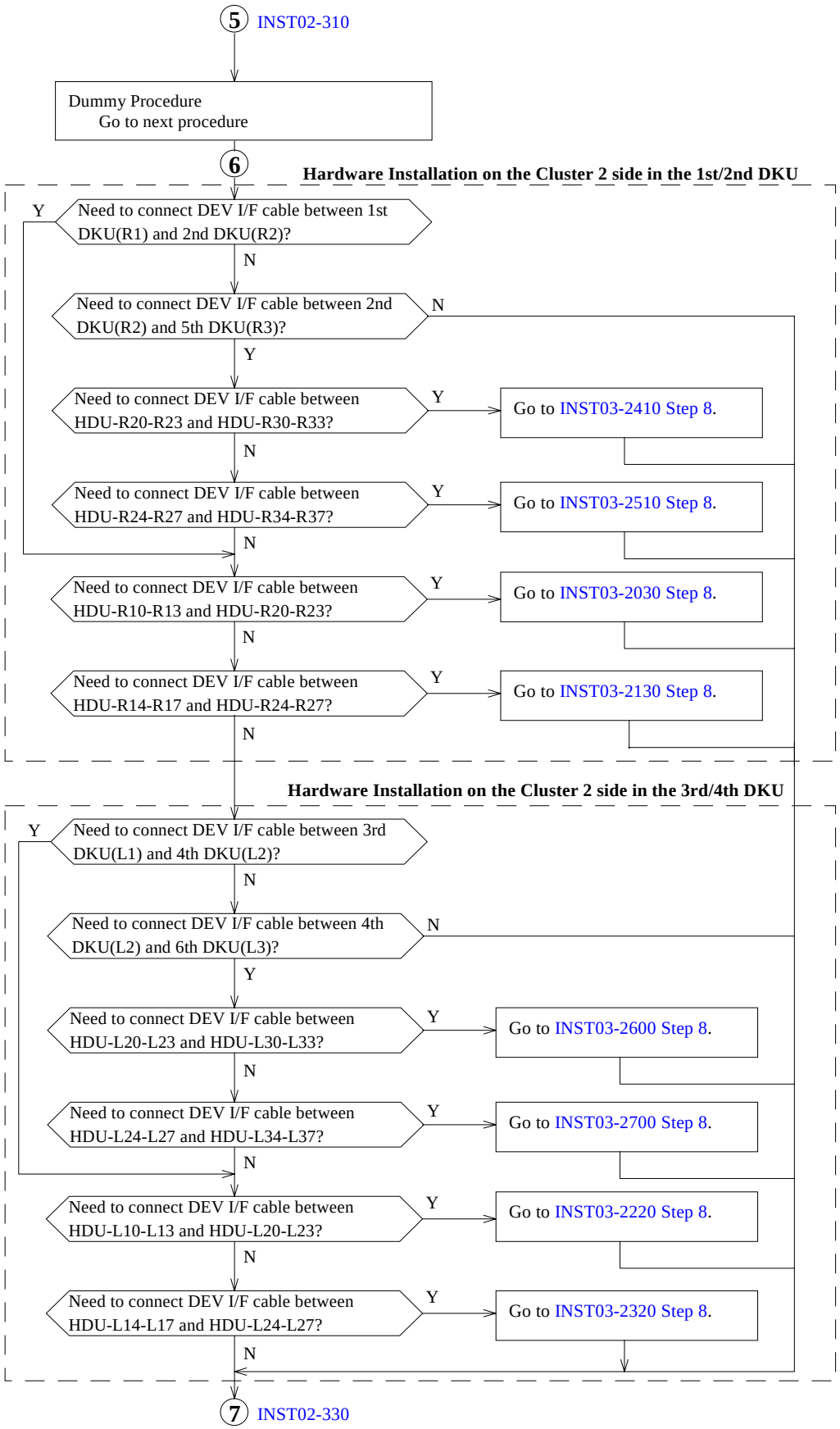
NOTICE
Repeat the work until all DEV interface cables (DKU-F405I-EXC) are installed.



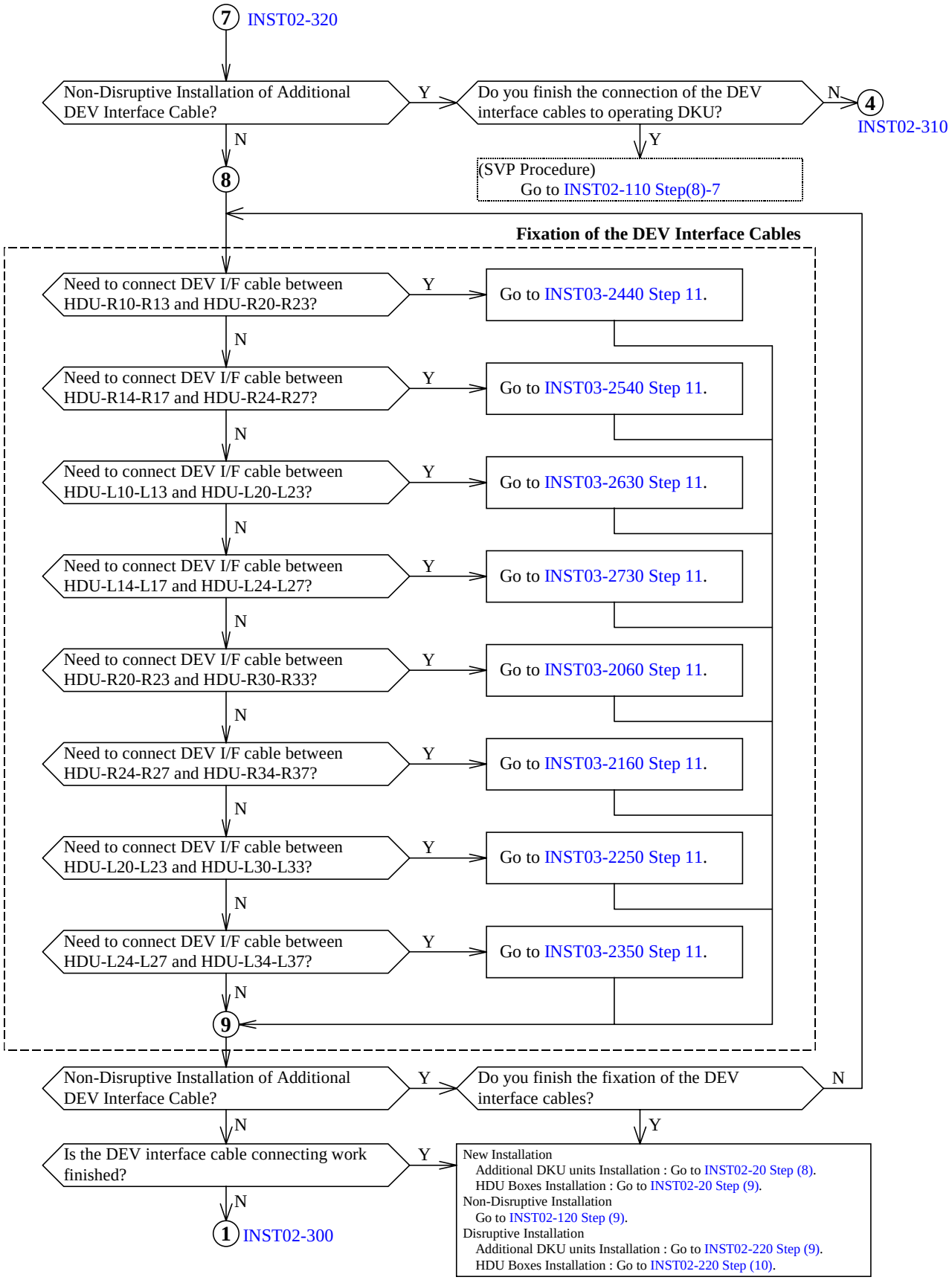
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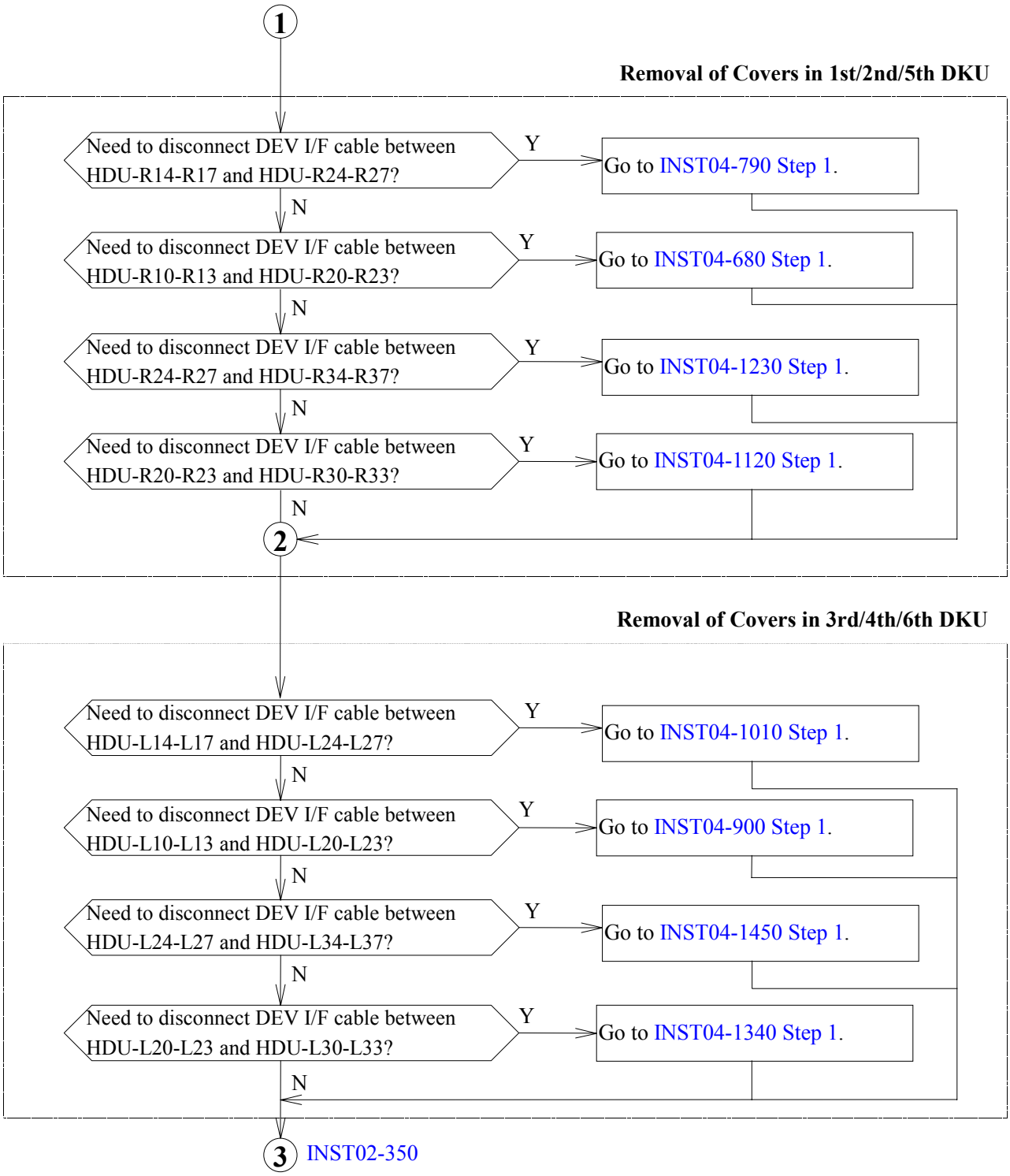
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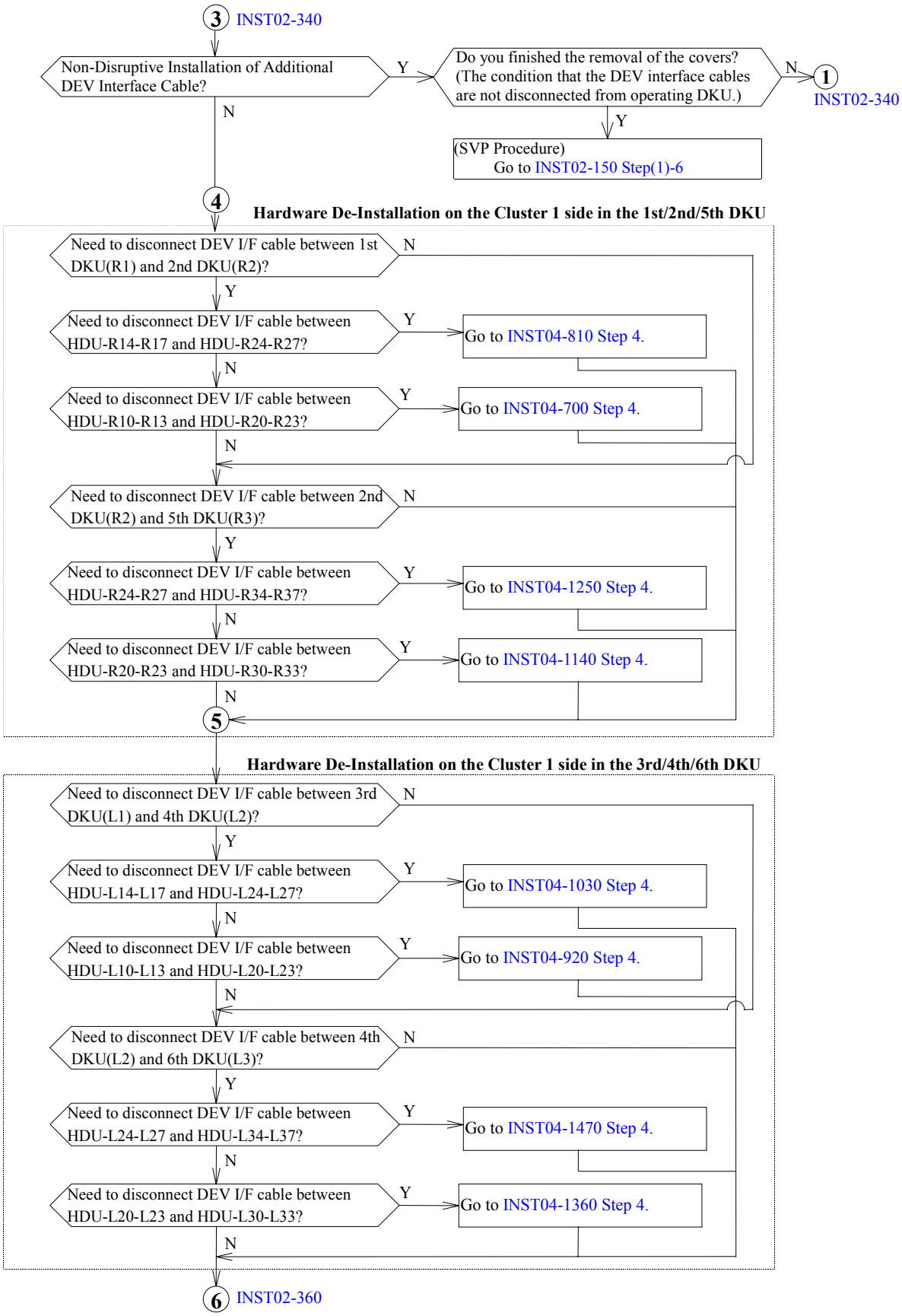
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Non-Disruptive / Disruptive De-Installation General Flow of Additional DEV Interface Cables (DKU-F405I-EXC)

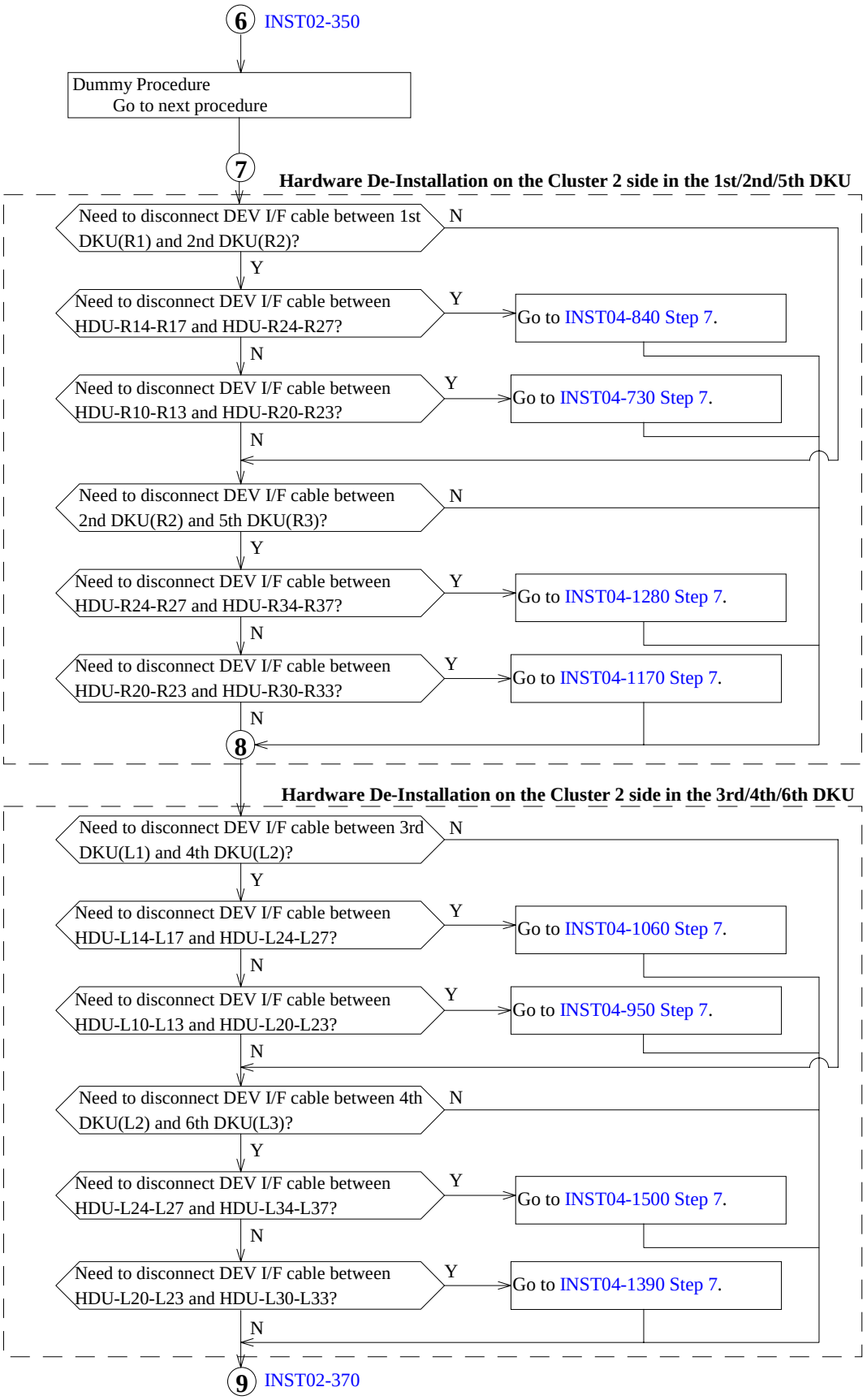
NOTICE
Repeat the work until all DEV interface cables (DKU-F405I-EXC) are removed.



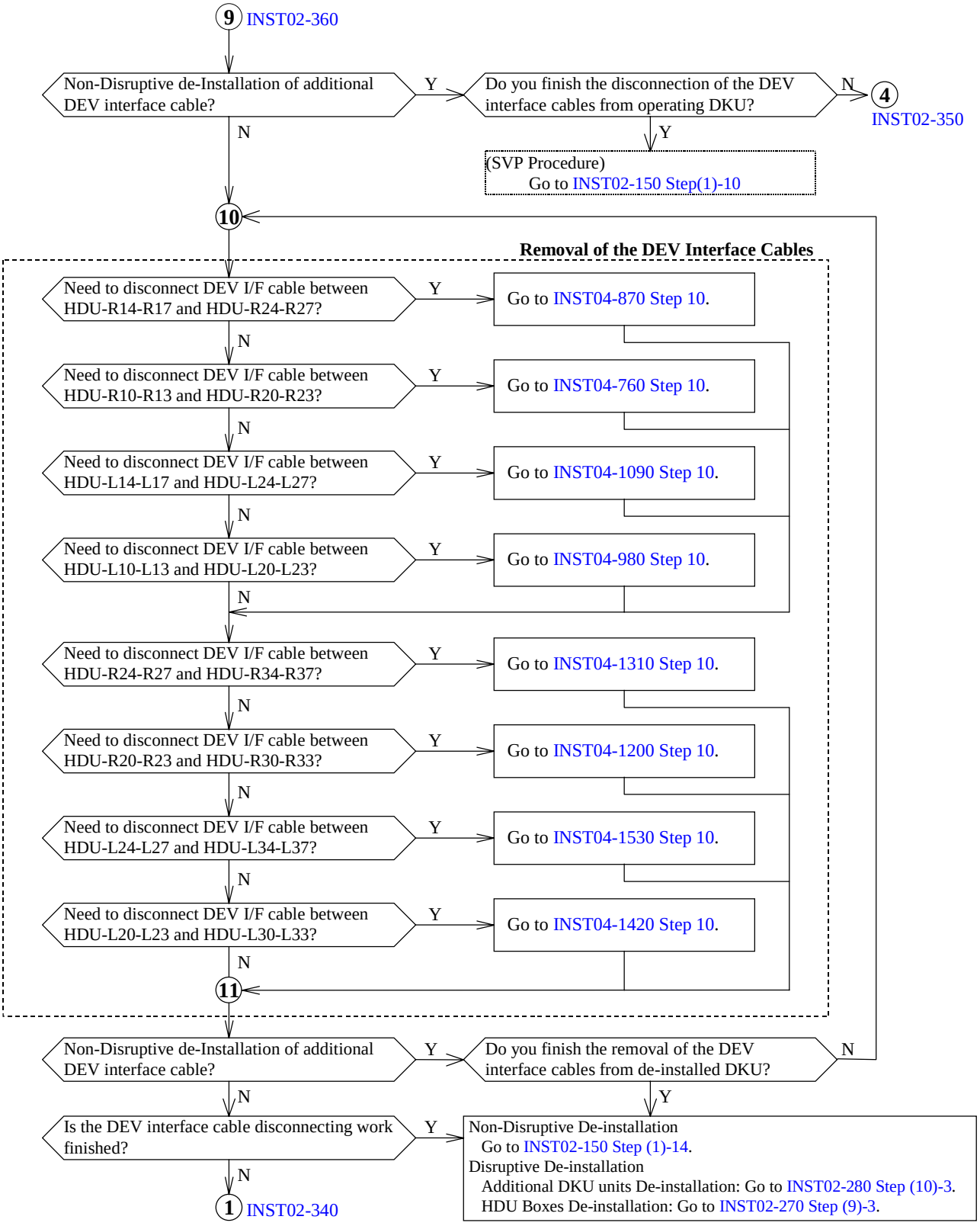
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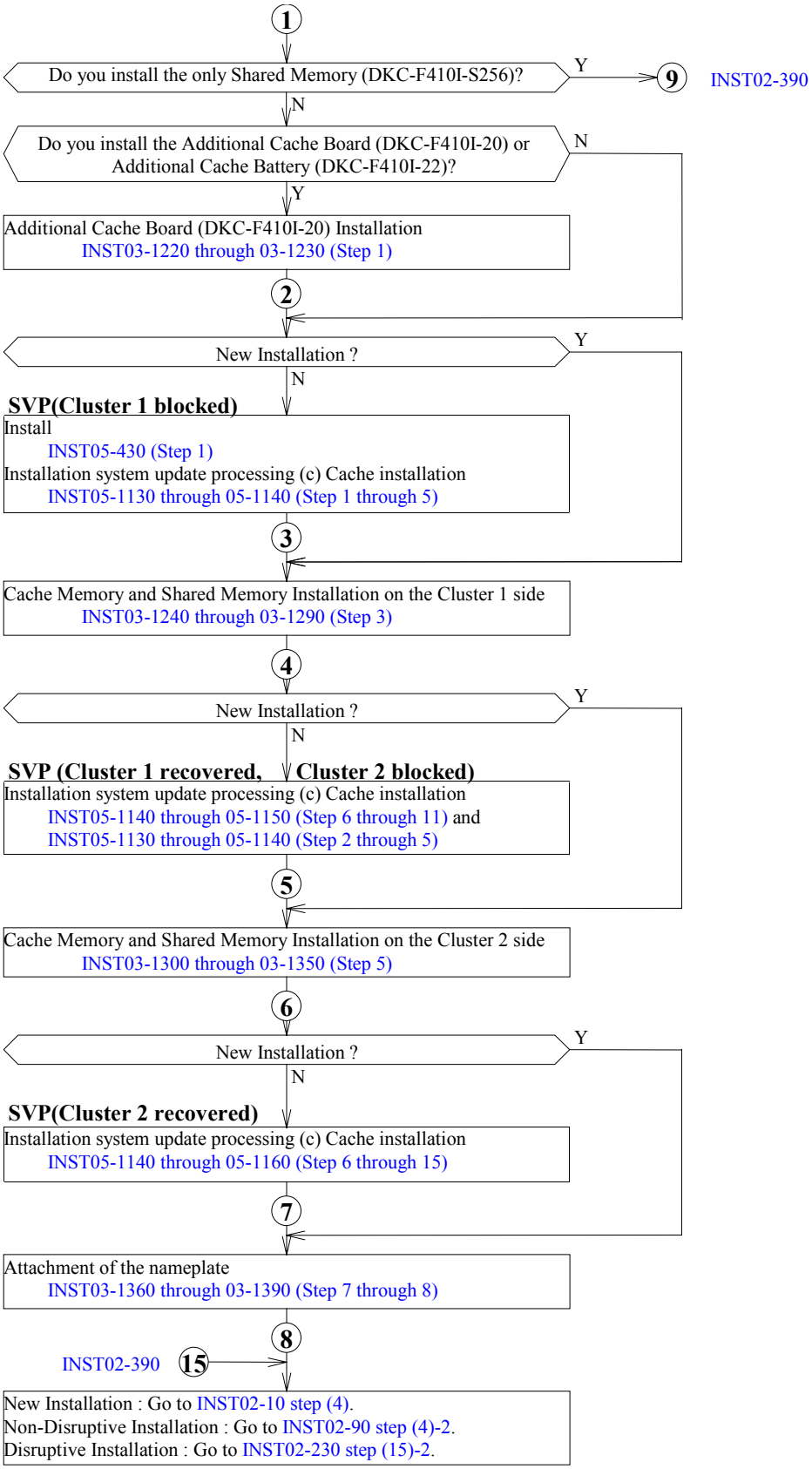


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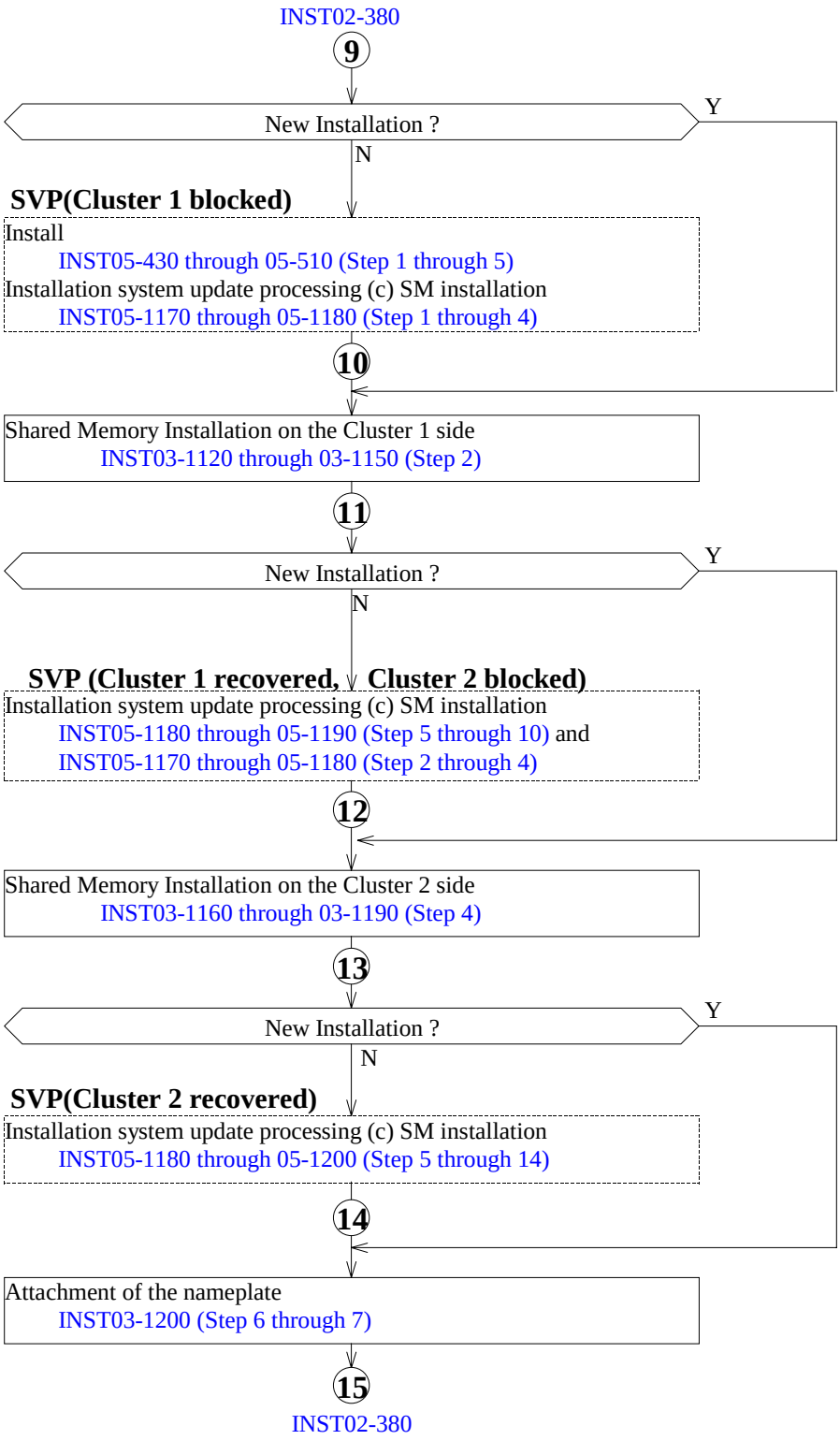


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1. Installation of Cache Memory and Shared Memory (DKC-F410I-20/21/22/S256/512/1024)

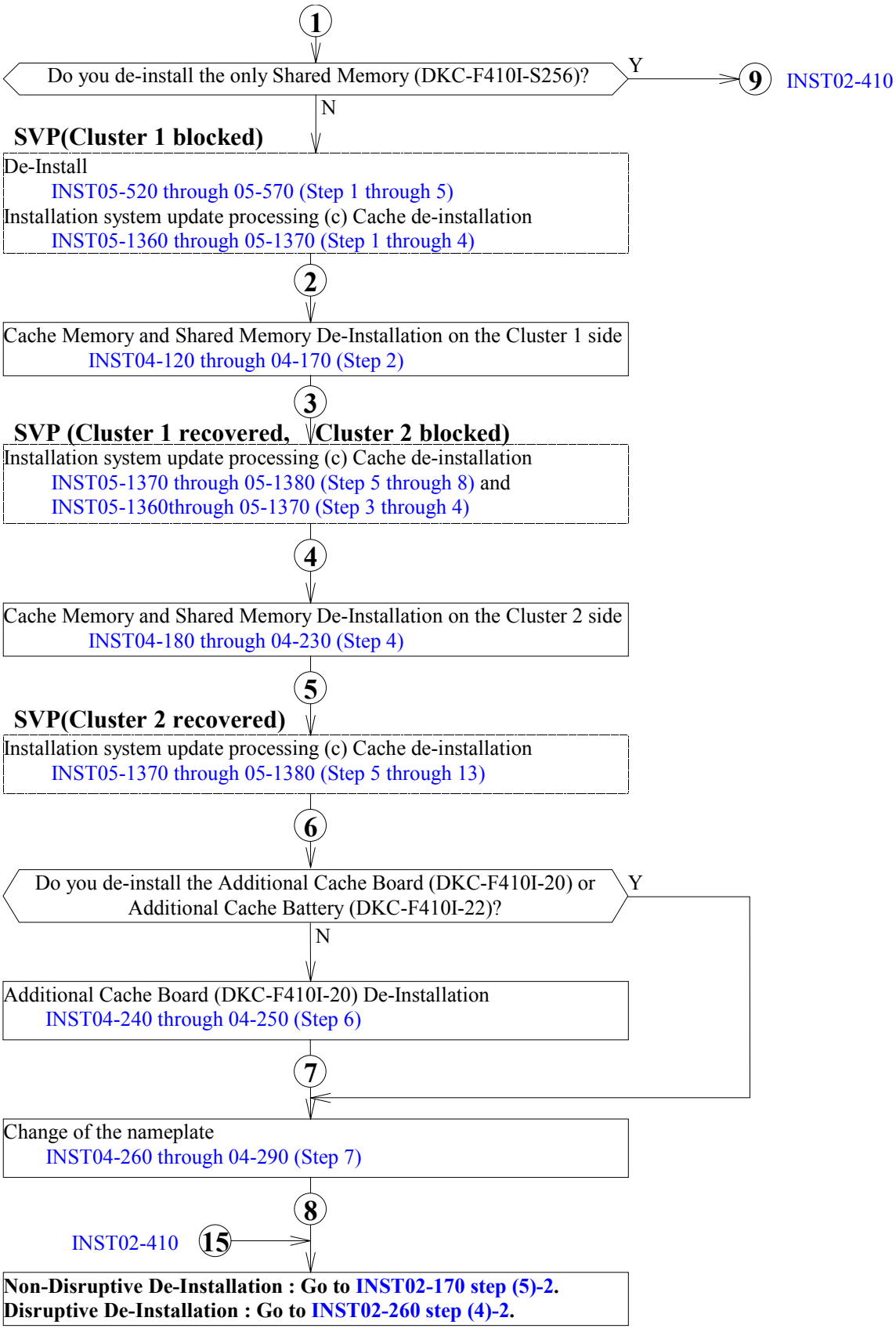


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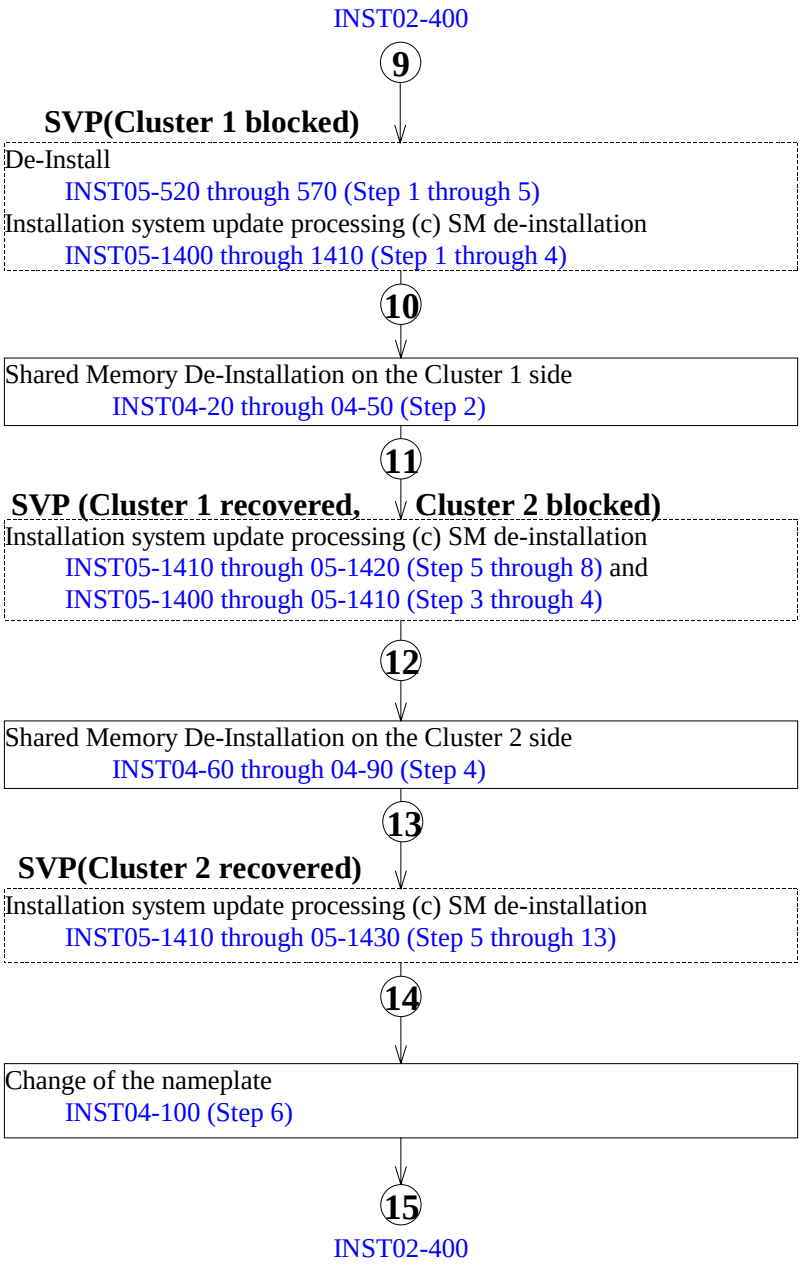


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2. De-Installation of Cache Memory and Shared Memory (DKC-F410I-20/21/22/S256/512/1024)

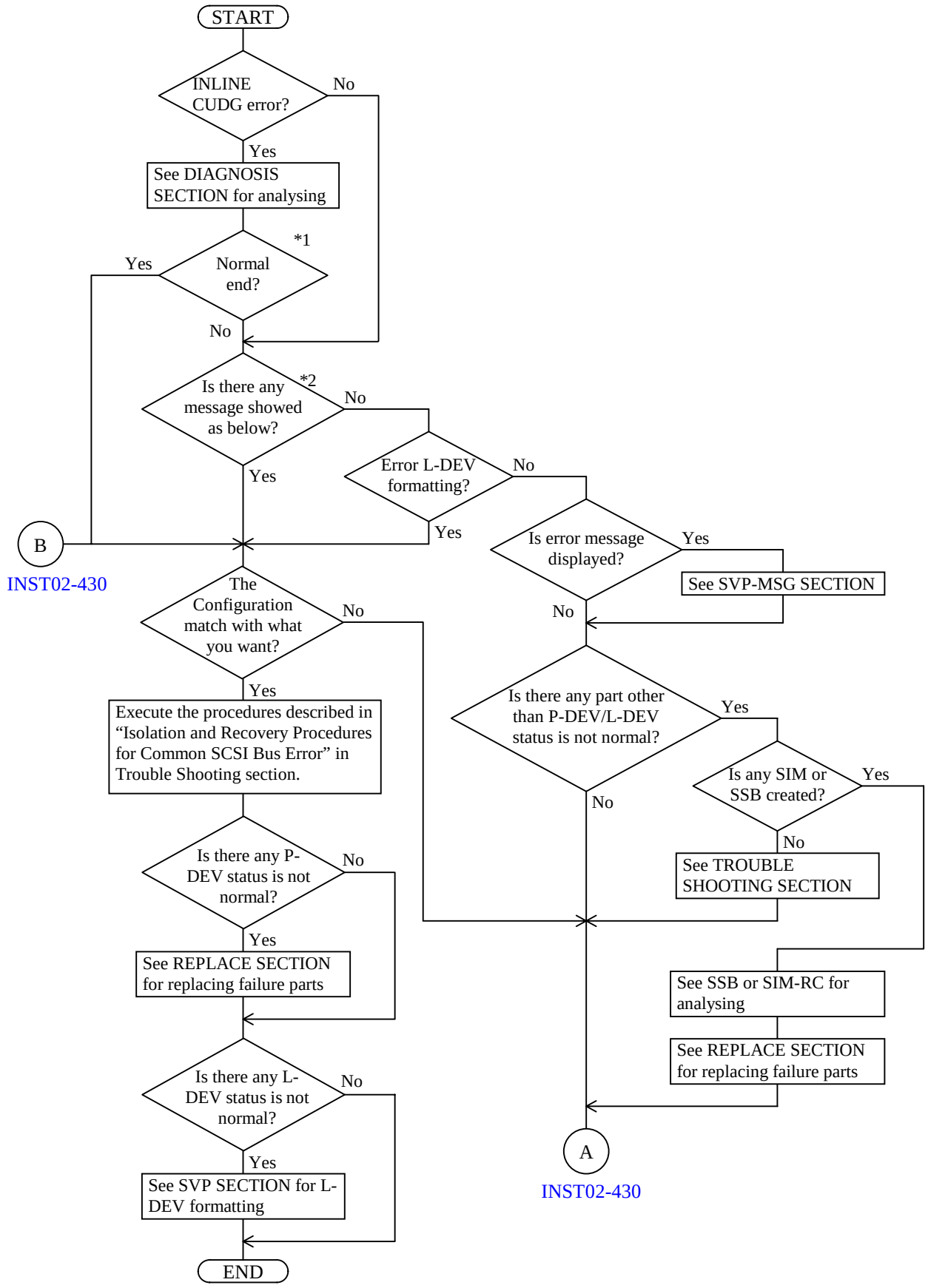


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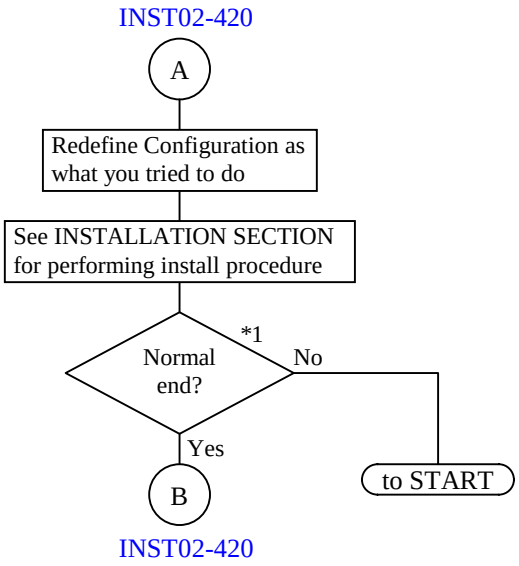


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2.6 Trouble shooting for errors in install SVP procedure



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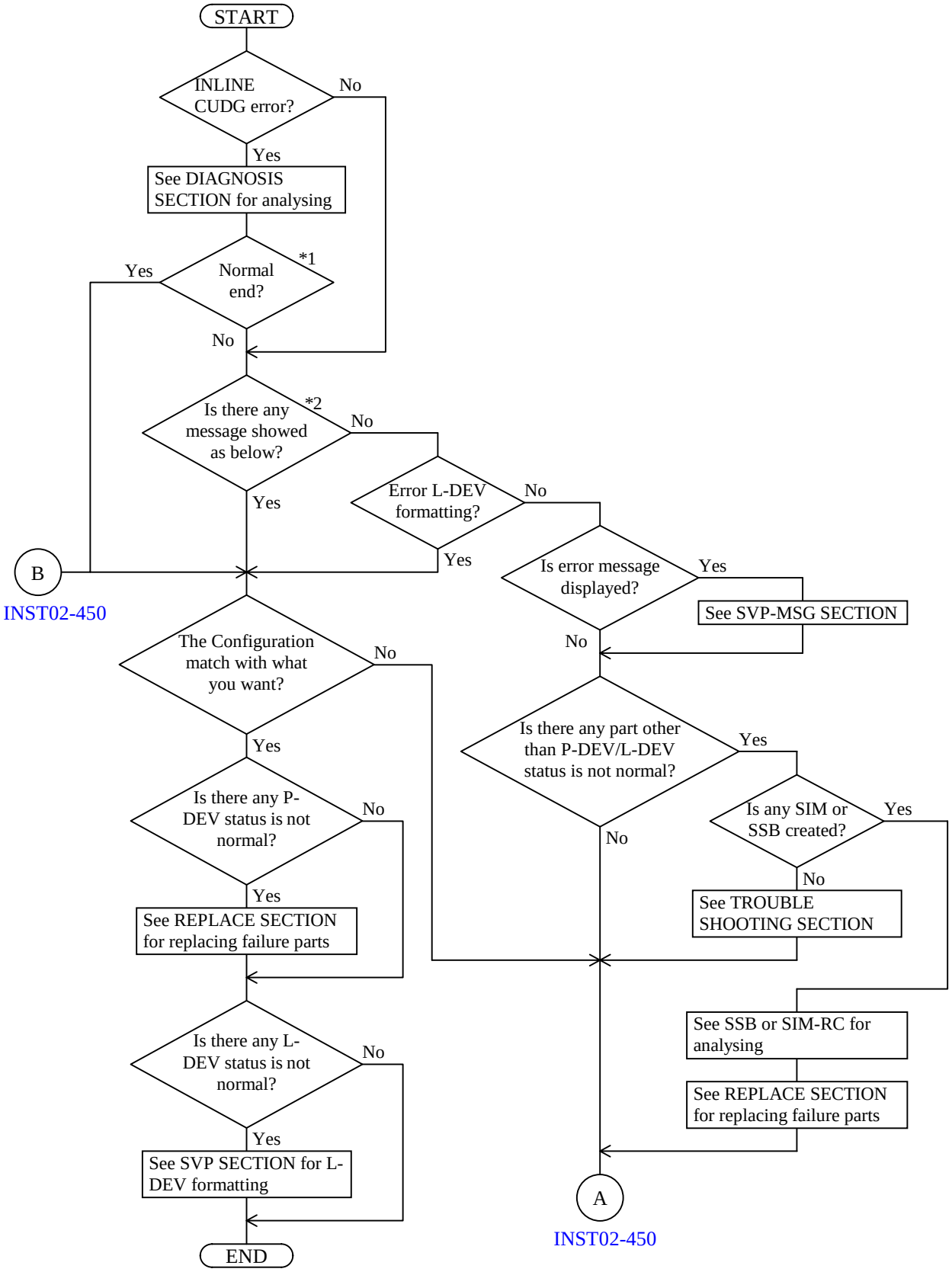


*1 In case of the message “Renewal process has completed”

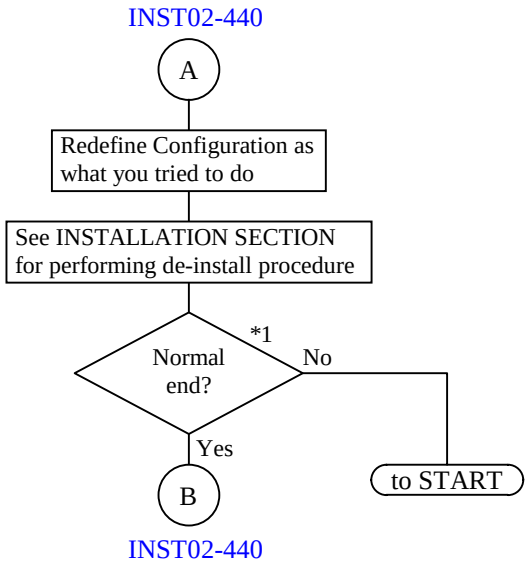
*2 “There is no change in configuration data (upgrade/de-install)”

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2.7 Trouble shooting for errors in de-install SVP procedure



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*1 In case of the message “Renewal process has completed”

*2 “There is no change in configuration data (upgrade/de-install)”

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2.8 Change Configuration

When Changing Configuration Information such as subsystem ID, DKC Emulation Type, Control Devices, Device Address, and Channel Speed, perform the following General flow chart.
Above Configuration Information can not change while subsystem is running.
After changing Configuration Information, PS off/on required.

System tuning
1) Device Structure Set Up
2) Channel Configuration
3) System Option

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2.9 Availability of Installation and De-installation

(1) Availability of the online maintenance when HRC/HORC is used

Component	Maintenance Type	Condition	HRC path established		During initial copy		After finished copy		Suspend	
			MCU	RCU	MCU	RCU	MCU	RCU	MCU	RCU
HDD canister	Installation	—	×	×	×	×	×	×	×	×
	De-installation	—	×	×	SVP2031W	SVP2034W	SVP2031W	SVP2034W	SVP2031W	SVP2034W
Cache PCB	Installation	—	×	×	SVP2059W	SVP2079W	× (**)	×	×	×
	De-installation	—	×	×	SVP2059W	SVP2079W	× (**)	×	×	×
CHE or CHF	Installation	Alternate path exist.	×	×	×	×	×	×	×	×
		Alternate path not exist.	×	×	×	×	×	×	×	×
	De-installation	Alternate path exist.	×	×	×	SVP2038W	×	SVP2038W	×	SVP2038W
		Alternate path not exist.	× (*)	×	SVP2073W (*)	SVP2038W	SVP2074W (*)	SVP2038W	SVP2075W (*)	SVP2038W
DKA	Installation	—	×	×	×	×	×	×	×	×
	De-Installation	—	×	×	×	×	×	×	×	×

(To be continued)

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(Continued from preceding sheet)

Component	Maintenance Type	Condition	Suspending		Deleting	
			MCU	RCU	MCU	RCU
HDD canister	Installation	—	×	×	×	×
	De-Installation	—	SVP2031W	SVP2034W	SVP2031W	SVP2034W
CACHE	Installation	—	× (**)	×	× (**)	×
	De-Installation	—	× (**)	×	× (**)	×
CHE or CHF	Installation	Alternate path exist.	×	×	×	×
		Alternate path not exist.	×	×	×	×
	De-Installation	Alternate path exist.	×	SVP2038W	×	SVP2038W
		Alternate path not exist.	SVP2075W (*)	SVP2038W	SVP2075W (*)	SVP2038W
DKA	Installation	—	×	×	×	×
	De-Installation	—	×	×	×	×

× : Maintenance is available
SVPXXXXW : Maintenance is not available based on the specification. Refer to SVP-MSG SECTION.

The pair will be suspended if the ESTPAIR or paircreate(pairesync) command issues during the HDD Canister or the Cache PCB installation/de-installation. Please ask for the consent of a customer before the online maintenance operation.

* : In the case of that all connected HRC/HODM/HORC Path(s) will be deleted by this operation, SVP displays a warning message with SVP2032W.
** : If the maintenance operation must be done while HRC asynchronous is using, you must confirm that the usage of Sidefile monitor less than 20% of total Cache capacity before you start the maintenance operation. Only when the usage of Sidefile monitor is less than 20% of total Cache capacity, you can proceed the maintenance operation.
Refer to “Monitoring” in the SVP SECTION about Sidefile monitor.

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(2) Availability of the online maintenance when HODM is used

Component	Maintenance Type	Condition	HODM path established		During initial copy		Waiting for erase	
			MCU	RCU	MCU	RCU	MCU	RCU
HDD canister	Installation	—	×		×		×	
	De-installation	—	×		SVP2031W		SVP2031W	
Cache PCB	Installation	—	×		SVP2059W		×	
	De-installation	—	×		SVP2059W		×	
CHE	Installation	Alternate path exist.	×		×		×	
		Alternate path not exist.	×		×		×	
	De-installation	Alternate path exist.	×		×		×	
		Alternate path not exist.	× *		SVP2076W *		SVP2078W *	
CHF	Installation	—	×		×		×	
	De-installation	—	×		×		×	
DKA	Installation	—	×		×		×	
	De-Installation	—	×		×		×	

Component	Maintenance Type	Condition	Suspend		During for R-Vol Erasing		Erasing Error	
			MCU	RCU	MCU	RCU	MCU	RCU
HDD canister	Installation	—	×		×		×	
	De-installation	—	SVP2031W		SVP2031W		SVP2031W	
Cache PCB	Installation	—	×		×		×	
	De-installation	—	×		×		×	
CHE	Installation	Alternate path exist.	×		×		×	
		Alternate path not exist.	×		×		×	
	De-installation	Alternate path exist.	×		×		×	
		Alternate path not exist.	SVP2077W *		SVP2078W		SVP2078W	
CHF	Installation	—	×		×		×	
	De-installation	—	×		×		×	
DKA	Installation	—	×		×		×	
	De-Installation	—	×		×		×	

× : Maintenance is available

SVPXXXXW : Maintenance is not available based on the specification. Refer to SVP-MSG SECTION.

* : In the case of that all connected HRC/HODM/HORC Path(s) will be deleted by this operation, SVP displays a warning message with SVP2032W.

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(3) Availability of the System tuning when HRC/HODM/HORC is used.
It is impossible to change the DKCNo ,SSID ,or DKC Emulation type by system tuning when HRC, HODM or HORC is used.

(4) Availability of the online maintenance when HMRCF is used

Component	Maintenance Type	Condition	HMRCF Reserve Volume	Pending/Resync /SP-Pend		Duplex		Split		Suspend	
				S-VOL	T-VOL	S-VOL	T-VOL	S-VOL	T-VOL	S-VOL	T-VOL
HDD canister (DATA)	Installation	—	×	×		×		×		×	
	De-installation	—	SVP2485W	SVP2485W		SVP2485W		SVP2485W		SVP2485W	
HDD canister (SPARE)	Installation	—	×	×		×		×		×	
	De-installation	—	×	×		×		×		×	
Cache PCB	Installation	—	×	SVP2486W		×		×		×	
	De-installation	—	×	SVP2486W		×		×		×	
CHA	Installation	—	×	×		×		×		×	
	De- installation	—	×	×		×		×		×	
DKA	Installation	—	×	×		×		×		×	
	De-Installation	—	×	×		×		×		×	

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(5) Availability of the online maintenance when HXRC is used

Component	Maintenance Type	During initial copy		Established		Suspend	
		Primary	Secondary	Primary	Secondary	Primary	Secondary
HDD canister	Installation	*	x	*	x	*	x
	De-installation	*	x	*	x	*	x
Cache PCB	Installation	*	x	*	x	*	x
	De-installation	*	x	*	x	*	x
CHA	Installation	x	x	x	x	x	x
	De-installation	x	x	x	x	x	x
DKA	Installation	x	x	x	x	x	x
	De-installation	x	x	x	x	x	x

x: Maintenance is available.

*: When a maintenance operation is needed while HXRC is using, I/O's for HXRC pair volumes or HXRC itself should be stopped before the maintenance operation.
If the maintenance operation must be done while HXRC is using, you must confirm that the usage of Sidefile monitor less than 20% of total Cache capacity before you start the maintenance operation. Only when the usage of Sidefile monitor is less than 20% of total Cache capacity, you can proceed the maintenance operation.
Refer to "Monitoring" in the SVP SECTION about Sidefile monitor.
Select the [Information] icon in the 'SVP' window.
Next select the [Monitor] menu in the 'Information' window and select [start...].
Next select the 'Sidefile' box in the 'Item' menu in the 'Monitoring' window and select [OK].

Availability of the System tuning when HXRC is used.

When the following System tuning operation is needed while HXRC is using, HXRC should be stopped before the System tuning operation.

- It is impossible to change the DKC No, SSID, or DKC Emulation type by System tuning operation while HXRC is using.
- When the DRV emulation type of HXRC pair volumes are 3390-3 or 3390-3R, it is impossible to change the emulation type between 3390-3 and 3390-3R by CHANGE EMULATION operation while HXRC is using.

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2.10 New Installation procedures without the pre-installation at a customer site

2.10.1 Application

These procedures are applied to a new installation without the pre-installation at a customer site or the pre-installation at the warehouse as shown below.

- Installing the micro programs into the DKC subsystem. Its' version must be appropriate one.
- Installing the configuration information which is appropriate to the customer.

If these procedures are used in other cases, their processes are not assured.

2.10.2 Conditions to use these procedures

These procedures can be used in the following conditions.

① The installation of the Hardware parts (for example, the connections of cables, power supplies and so on) have been finished. (For the Hardware installation, refer to "2.1 New Installation Procedure General Flow" (INST02-10 ~ INST02-30(11)) of Maintenance Manual.)

② The PC (SVP) is installed and can be used. (For the SVP installation, refer to "REP04-410 ~ REP04-560" of Maintenance Manual.)

2.10.3 Procedures

(1) Summary

The procedures are divided roughly into 4 processes.

① Pre-processing (the installation of the micro-programs into the SVP HD : (1)-(7) in the following flow)

② Execution of "New Installation" by the SVP. (By this procedure, the micro-programs and Fixed Minimum configuration are installed into PCBs (packages). : (8)-(19) in the following flow)

③ Execution of "Define Configuration and Install" by the SVP.(By this procedure, the customer's configurations are defined.) : ((20)-(31) in the following flow)

④ Others ((32)-(49) in the following flow)

(2) Processing Flow

The processing flow of the new installation is as follows.

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START

(1)-1 Confirm to be in the breaker off (DKU and DKC). (If it is “on”, turn off the breaker after the SVP is shut down.). [Breaker:INST03-3110 – INST03-3120, SVP Shut Down:SVP01-70]
(1)-2 Verify the size of the Cache and SM SIMM equipped with the DKC and memorize them. They must be specified in step (30).
(1)-3 If the LAN cables of the DKC subsystem is connected, pull out them except the SVP to the DKC subsystem.

(2) Breaker on (DKU and DKC) and wait for the SVP to be able to use.
(Don’t turn on the “POWER ON/OFF” switch on the DKC Panel PCB)
[Power ON procedures of Disk Subsystem:INST03-3030 – INST03-3040]

(3) Set the jumper to “SVP PS ON/OFF INH jumper”(JP2). [LOCATION06-50]

(SVP procedure)
(4) TOD setting
(In this time, “Communication Error” may occurred. But it should be neglected.)
[INST05-20 – INST05-50]

(SVP procedure)
(5) Execute the following procedures.
[Install micro-programs and configuration to the HD to the SVP]
[REP04-430 step 2. – REP04-440 step 6.]
step1: Prepare the CD-ROM and CONFIG FD. (Note *1)
step2: Restart the computer in MS-DOS mode.
step3: Insert the CD-ROM disk into its drive.
step4: Enter the following command. e:\setcopy.bat (enter)
(Set the CONFIG FD when the message, “Set CONFIG FD”, is output, and then press the enter key. Also, remove it when “Remove Config FD” message is output, and then press the enter key.)
step5: Enter the following command.
e:\pcconf.bat(enter)
step6: Pull out the jumper setting to “SVP PS ON/OFF INH Jumper”.
step7: Reboot PC (Press the following keys at the same time:[Ctrl],[Alt],[Delete]).
[Initialize SVP icon] [REP04-440 step 7. - REP04-450]
step8: The following message may be output. Reply “No” to it.
“The item ‘WAR-FTPD.EXE’ that this shortcut refers to has been changed or moved.
.....Do you want to this shortcut to point to this item?”
step9: Click [Start] and select [Run].
step10: Enter the following command.
e: \setup.exe (enter)
step11: Remove the CD-ROM from its drive.
step12: Click [Start] and select [Shut Down].
step13: Select “Restart the computer” in “Shut Down Window”.

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(SVP procedure)
(6) Set IP Address
IP Address must be 126.255.255.15 and Subnet mask must be 255.0.0.0. Also, "Target must be "SVP". (Don't select "SVP and DKC" as the "Target". [INST05-60 – INST05-70] (Note*2)

(SVP procedure)
(7) Delete LOGs.
[Log Delete:SVP02-170 – SVP02-180, SIM LogComplete:SVP02-510 – SVP02-520] (NOTE*3)

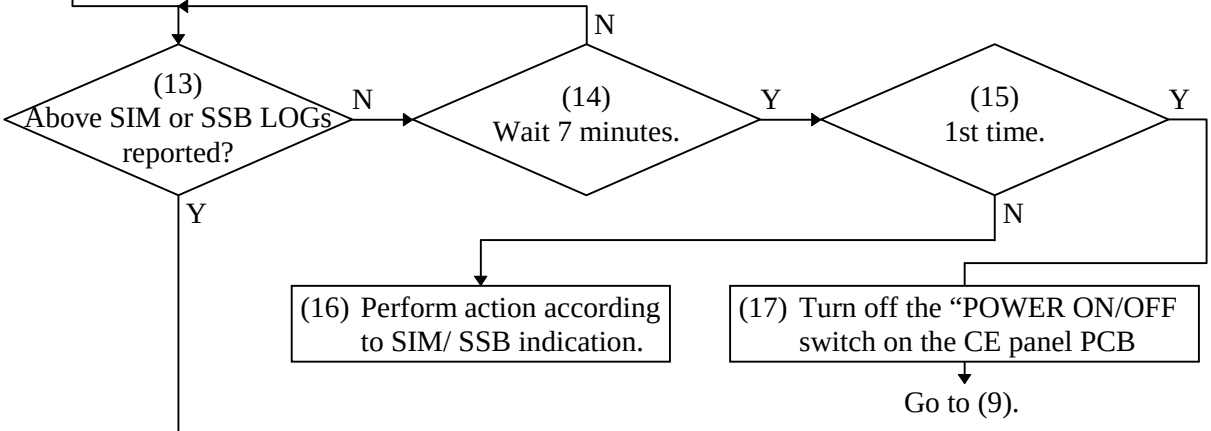
(8) Set all packages to be installed.
Set the packages(CHA,DKA and so on) to be installed to their locations of CL1 and CL2. The same kind of package must be set to the same location of each CL (CL1 and CL2).
[LOCATION02-30 – LOCATION02-40]

(9) Set the Shut Down Jumpers to CE Mode connectors (J9) on the CSW PCBs. (Note*4)

(10) Turn on the "POWER ON/OFF" switch on the DKC Panel PCB. [INST03-3080]

(11) Pull out the Shut Down Jumpers from the CSW PCBs when the MESSAGE LED is lit after the step (10) was done. Also, after pulling out the Shut Down Jumpers from the CSW PCBs, insert the Shut Down Jumpers to CE Mode connectors (J9) on the CSW PCBs again within 30 seconds. The MESSAGE LED is burned for about 90 seconds. (Note *5)

(12) Wait until SIM (Reference Code = 7900XX/7901XX) or SSB(Error Code = 3309) LOGs are reported from all installed MPs. (Check SVP Information SIM and SSB LOG.) (Note *6)



(SVP procedure)--(Micro Program Install)
(18) Execute "New Installation" procedures to install the micro-programs and Fixed Minimum Configuration into the DKC. (Note *7)

(19) Turn off the "POWER ON/OFF" switch on the DKC Panel PCB. [INST03-3110]

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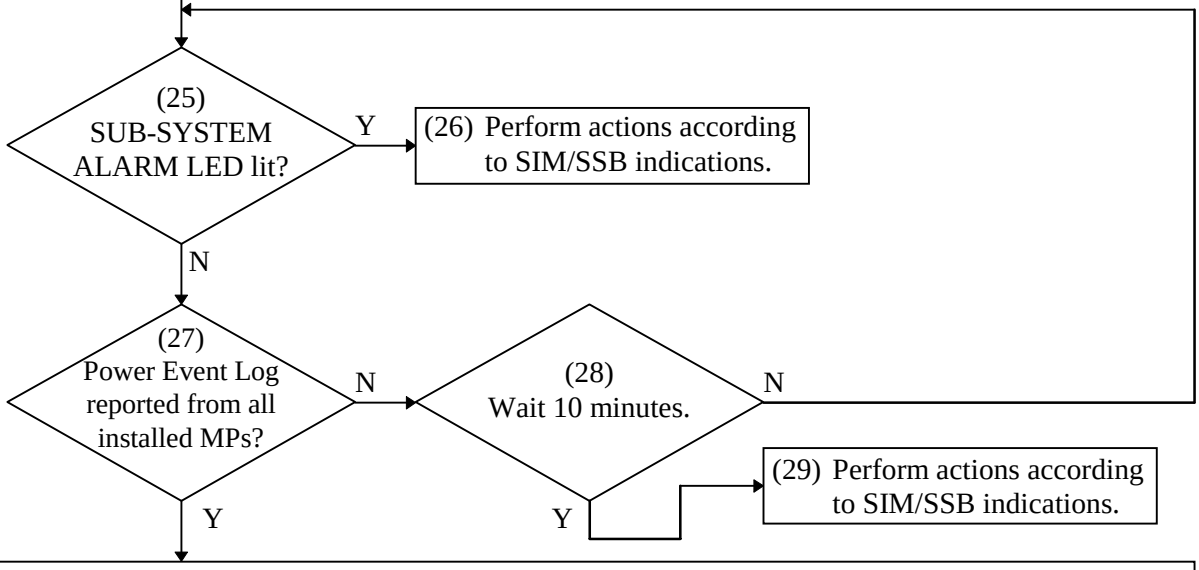
(20) Pull out the Shut Down Jumpers from the CSW PCBs. (Note *4)

(21) Delete error logs.
[Log Delete:SVP02-170 – SVP02-180, SIM Log Complete:SVP02-510 – SVP02-520] (Note*3)

(22) Shut down the SVP and turn off the Breaker (DKC and DKU) and pull out the jumper connectors in the BATT CTR PCBs to make the SM volatilize. Then, wait for 1 minute. And set them again.
[SVP Shut Down:SVP01-70, Breaker:INST03-3110 – INST03-3120,
BATT CTR PCBs: LOCATION06-60 – LOCATION06-70] (Note *8)

(23) Execute Power ON procedures (Turn on the Breaker (DKC and DKU) and the "POWER ON/OFF" switch on the DKC Panel PCB).
[Power ON procedure of Disk Subsystem:INST03-3030 – INST03-3040, INST03-3080]

(24) Wait till Power Event Log (SYSTEM ON) will be reported from all installed MPs. (Note *9)

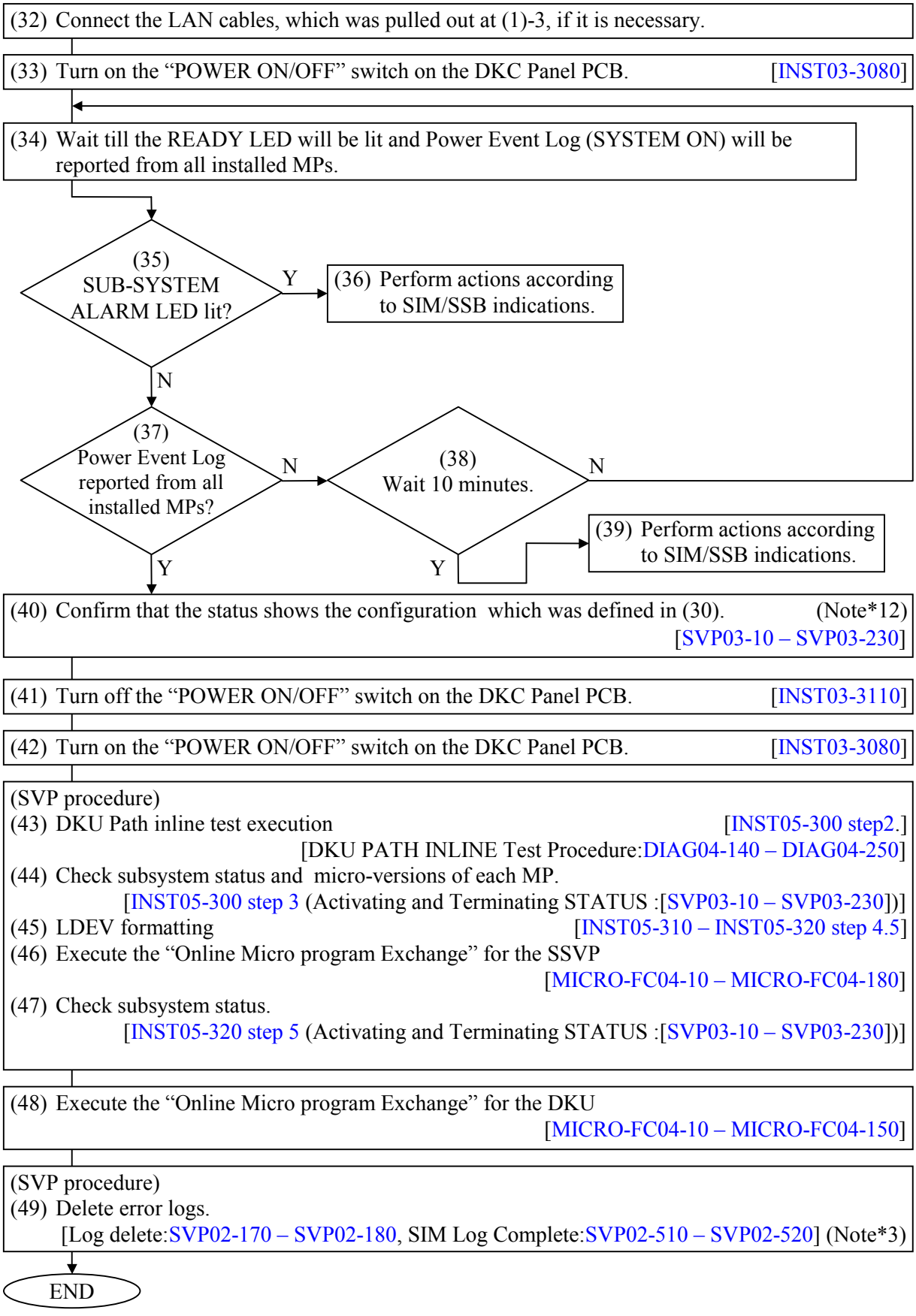


(SVP procedure) -- (Execution of Define Configuration and Install))

(30) Define the configuration information that you want to install now for this DKC subsystem. Then, the defined size of the Cache and SM SIMM must be equal to ones of the equipped Cache and SM SIMM. (Note*10, Note *11)
The definition of configuration information must be done according to the SVP guidance. Especially, you must not forget the definition of the following information.
① DKC Serial No., IP Address. ② Cache Configuration
③ Host Interface Configuration: ex. Serial 4ch, SCSI 4ch, etc.
④ PDEVs, LDEVs, etc. [INST05-80 – INST05-290]

(31) Delete error logs.
[Log Delete:SVP02-170 – SVP02-180, SIM Log Complete:SVP02-510 – SVP02-520] (Note*3)

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Note *1 : The CD-ROM include the micro-programs to be installed into the DKC subsystem. And the FD is the one corresponding to the micro-program version.

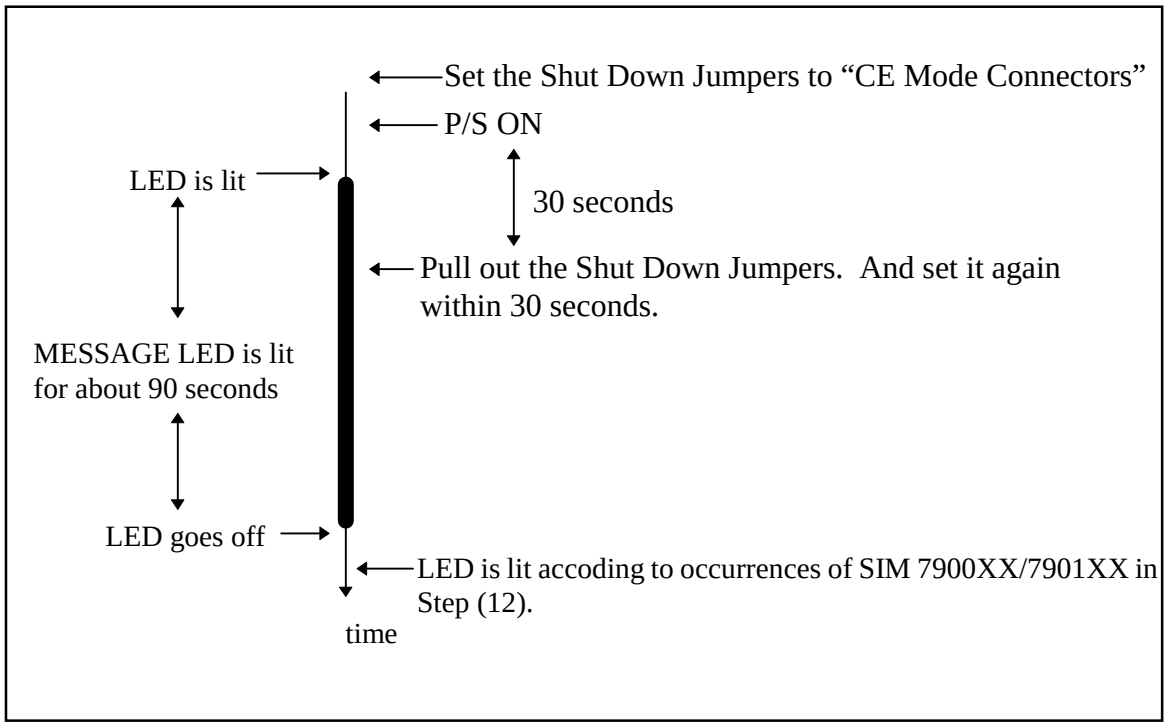
Note *2 : Even if the “IP Address” displays “126.255.255.15” and the “Subnet Mask” is “255.0.0.0” on the screen of “Set IP Address”, you never fail to select “OK” and reply “OK” to the message “This will reboot SVP.”.

Note *3 : It’s necessary to execute the procedure of “SIM Log Complete” before deleting SIM data.

Note *4 : Refer to “INST02-40 Note *1” about the Shut Down Jumpers.

Note *5 : The detail of the jumper operation is as follows.

(1) Turn on P/S ON switch.
(2) At 30 seconds latter after (1), pull out the Shut Down Jumpers from the CSW PCBs. Then, MESSAGE LED must be burning. The LED is lighting for about 90 seconds.
(3) Insert the Shut Down Jumpers to CE Mode connectors (J9) on the CSW PCBs again quickly (within 30 seconds) after pulling out them at (2).
Operation (2) and (3) must be executed during the Message LED is lighting.



Note *6 : For SSB Logs (Error Code = 3309), count them. Its number is same as the number of the installed MPs.

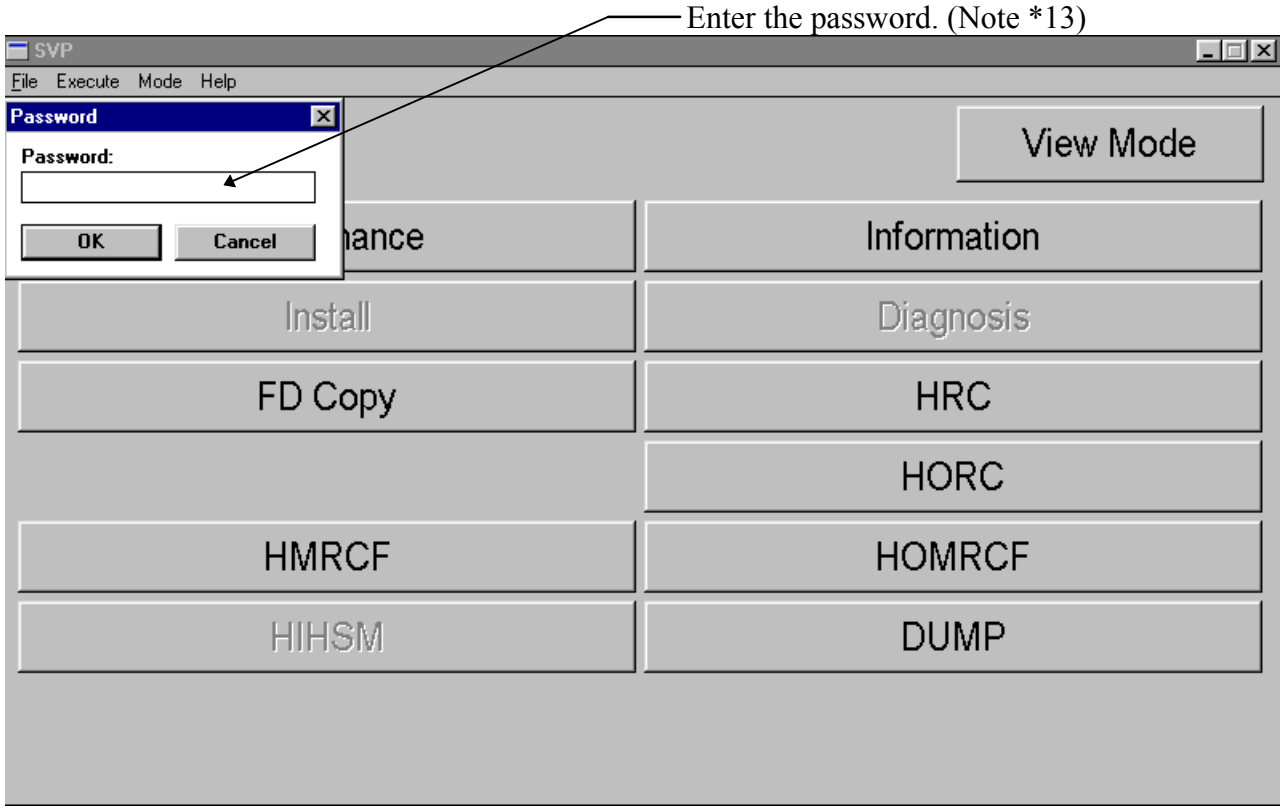
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Note *7 : The procedures of "New Installation" are as follows.

(1) Return to the SVP window.

(2) Press the following keys at the same time to change the mode to "Initial Setting".
[SHIFT], [CTRL], [I]

(3) Enter the password.
This password must be used only for this procedure. Don't use for other purposes without approval by the technical support center or the factory.



(4) Select "Install".

(5) <Install Window>
Select "Micro Program Install".

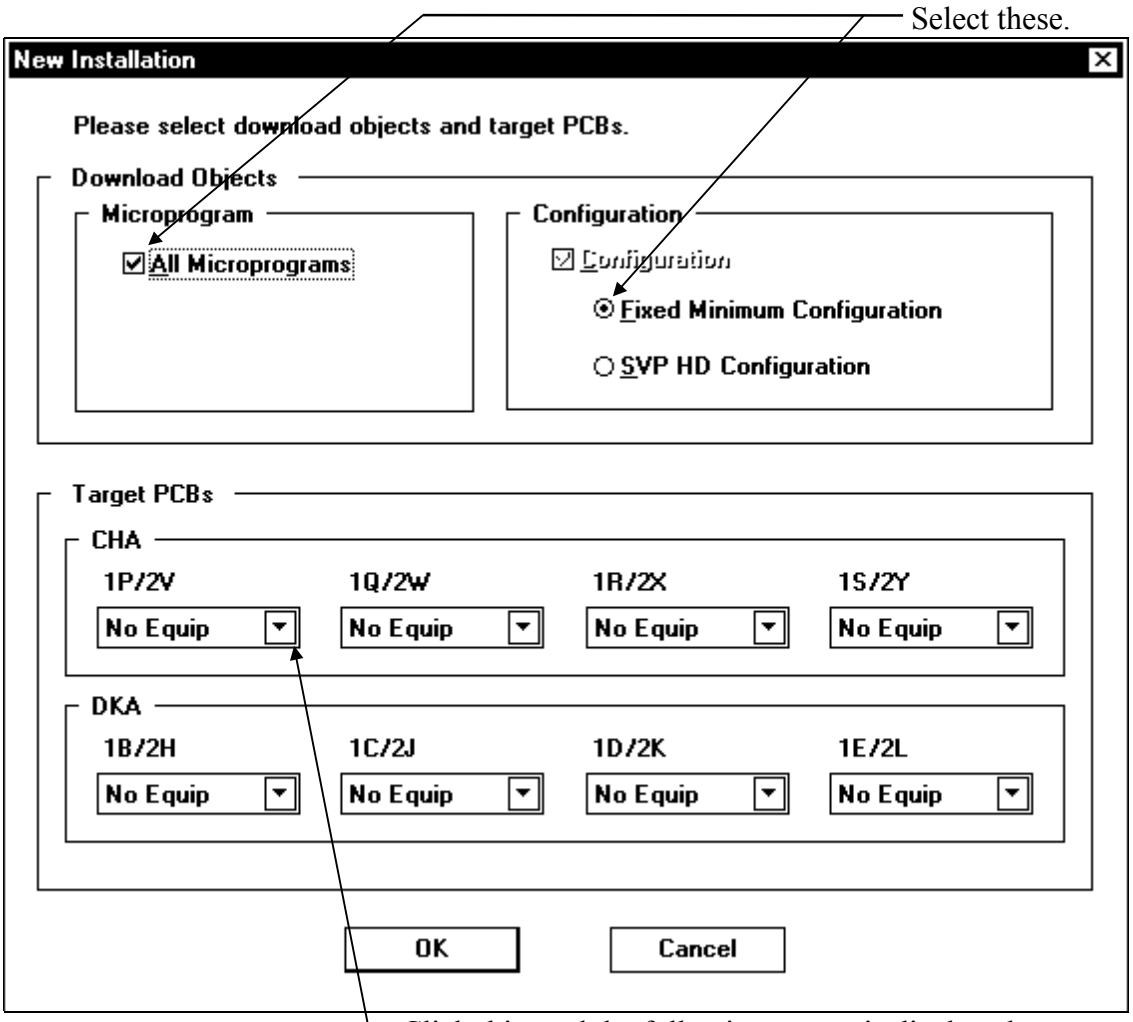
(6) <Menu Dialog Window>
Select "New Installation".

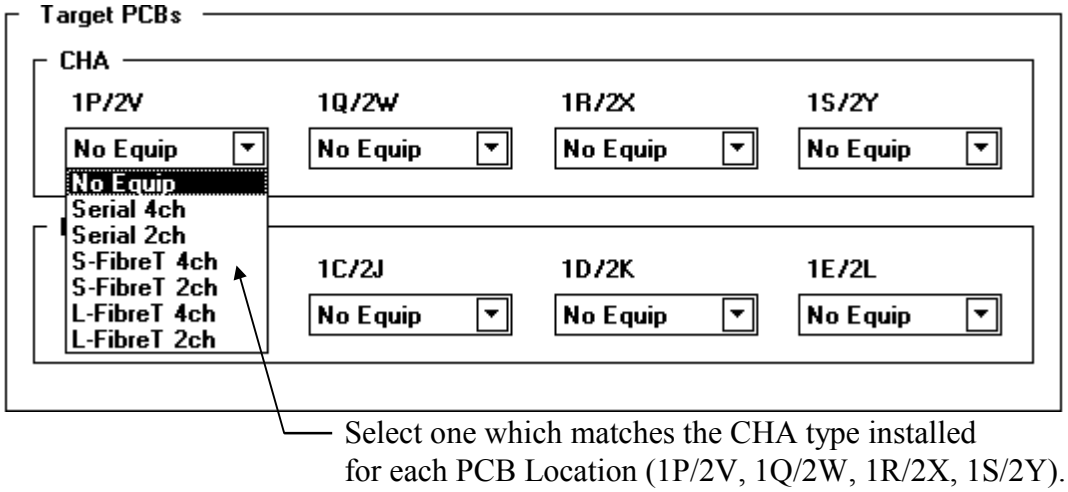
(7) Reply "Yes" to the following message.
"Are you sure you want to execute new installation?"

(8) <New Installation PCB configuration Window>
After (7), the following window is displayed. At the window, specify as follows.
① Select "All microprograms" and "Fixed Minimum Configuration". (Note *14)
② Select the package type (host interface) according to the current setting packages for their locations of "CHA". And select "equip" for the DKA to be installed.
③ Select "OK" after finishing the above specifications.

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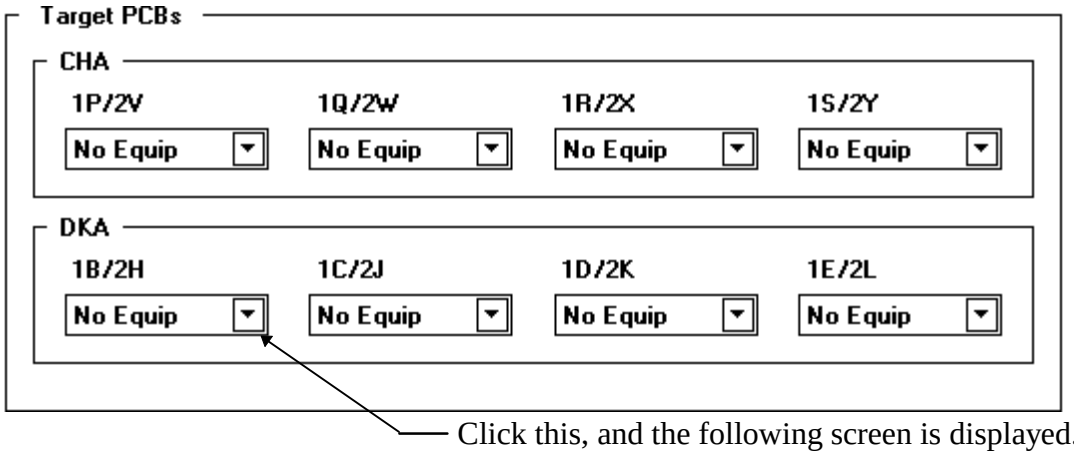
[Example of operations]

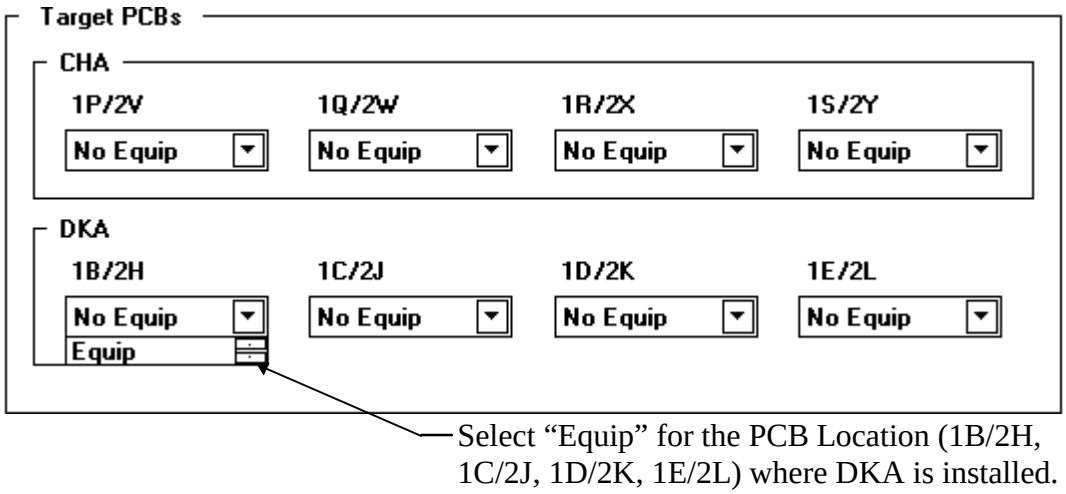




Note: “SVP HD Configuration” Please do not select this usually.

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(9) The message, "[INS1105] This will reboot SVP", is output.
Then, click "OK", and the SVP is rebooted.

(10) After the SVP was rebooted, "New Installation" is activated and "Shell batch" screen is displayed. You must not select "Cancel" as long as you want to continue this process. If "Cancel" is selected, this process is interrupted.
If "Cancel" is selected by a mistake operation, try again from (6) of "INST02-540".

(11) The message, "[INS1105] This will reboot SVP", is output again.
Click "OK" , and the SVP will be rebooted again.

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Note *8 : The following SIM Logs are output by pulling out the jumper connectors in the BATCTR PCBs.
SIM Logs: bf5010, bf5210, bf5020, bf5220
But you can neglect them.

Note *9 : This standing-up is performed by using the minimum configuration. So, the READY LED is not burned. Also, the SIM Log (3073XX, 3173XX, 3990XX, 3D90XX and FFE800) may be output if the current configuration is different from the "Fixed Minimum Configuration". But they should be neglected.

Note *10: Press the following keys at the same time to change the mode to "Initial Setting".
[SHIFT], [CTRL], [I]
And reply the password. (Note *13)

Note *11: In this definition, specify the actual DKC Serial Number.
Also, "IP Address" should be specified as follows.
① Specifying it according to the DKC Serial Number
Select "Based on Serial Number", and the IP Address will be calculated automatically.
② Specifying it according to the magic number
Select "Based on Magic Number" and specify a magic number. Then, the IP Address will be calculated automatically.
③ Specifying in option
Select "Specified" and specify the optional address for the IP Address.
And, the defined value for the size of the Cache and SM SIMM should be equal to the value that was confirmed at (1) in the processing flow. After finishing to define the configuration information, P/S OFF of the DKC and the reboot of the SVP is executed.

Note *12: Surely, confirm the following status.
(1) the condition of each PCB status.----- PCB Kind/Normal or not/etc
(2) the micro-program version

Note *13: For the password, ask the technical support center. And use it with their approval.

Note *14: The "Fixed Minimum configuration" is the temporary configuration to unity the condition of the power-on processing in Step (23) and is not concerned with the current configuration. It is used only in "New Installation" procedure.
The following information is defined in the "Fixed Minimum Configuration".
① Basic DKC Configuration (1P/2V for "CHA", 1B/2H for "DKA")
IP Address = 126.255.255.xx
Serial 4ch for Host interface configuration
"equip" for "1B/2H" only
② Option PCBs Configuration (1Q/2W, 1R/2X, 1S/2Y, 1C/2J, 1D/2K, 1E/2L)
: None (No equip)
③ Cache size : 512 MB for each side.
④ SM size : 256 MB for each side.
(SIMM : 128 MB × 2)
⑤ LDEV/PDEV/LCP Configuration : None

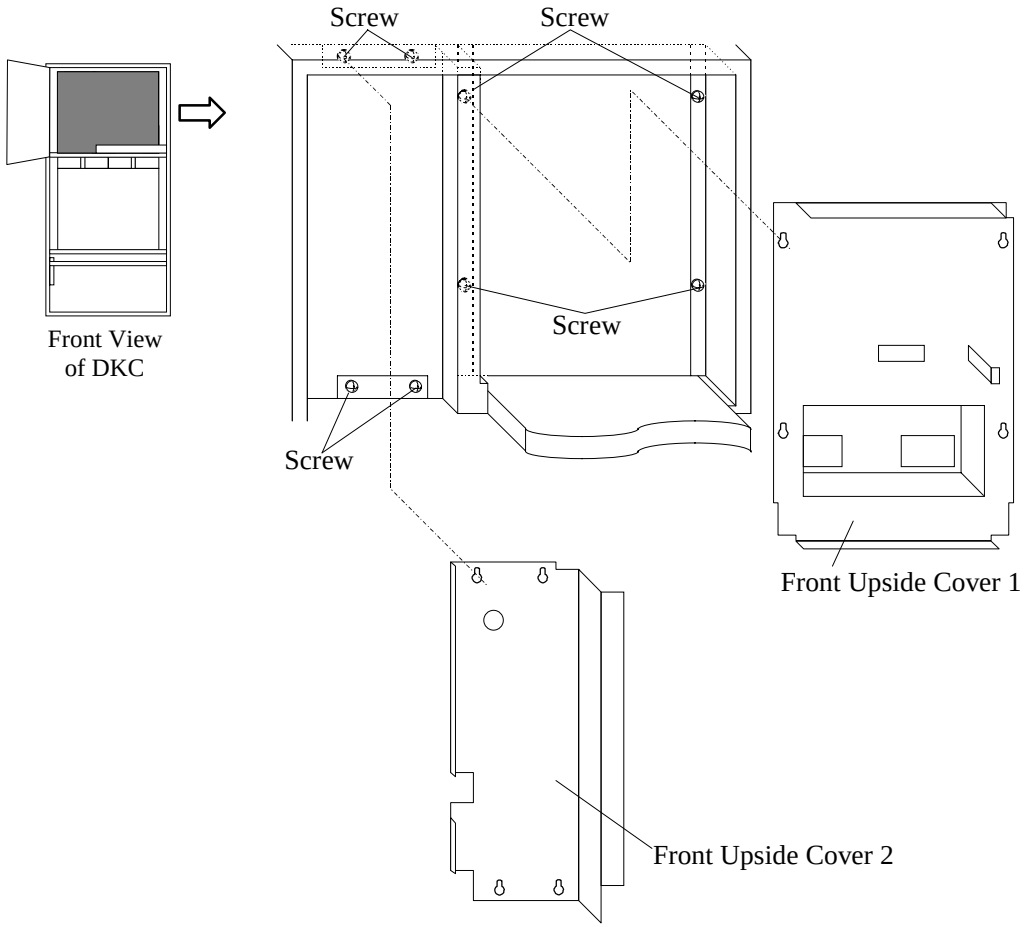
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3. Hardware Installation

3.1 Common Item of Installation and De-Installation

3.1.1 How to open/close the cover

1. Front Upside Cover 1
   Attachment
   a. Attach the Front Upside Cover 1.
   b. Tighten the four screws.
   Removal
   a. Loosen the four screws.
   b. Remove the Front Upside Cover 1.
2. Front Upside Cover 2
   Attachment
   a. Attach the Front Upside Cover 2.
   b. Tighten the four screws.
   Removal
   a. Loosen the four screws.
   b. Remove the Front Upside Cover 2.



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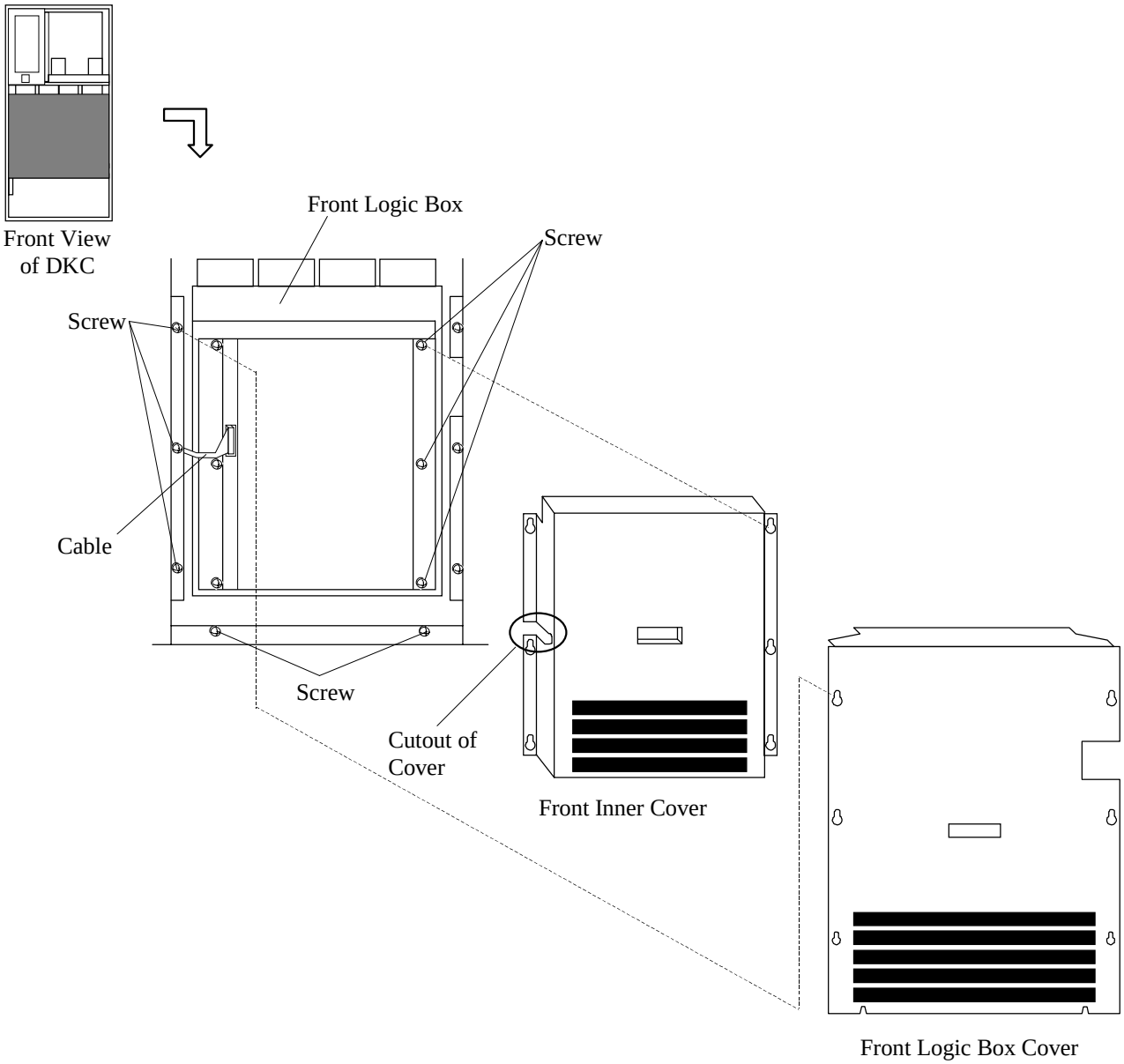
3. Front Logic Box Cover

Attachment

a. Pass the cable through the cutout of the cover and attach the Inner Cover to the Front Logic Box.
b. Tighten the six screws.
c. Attach the Front Logic Box Cover to the Frame.
d. Tighten the eight screws.

Removal

a. Loosen the eight screws.
b. Remove the Front Logic Box Cover from the Frame.
c. Loosen the six screws.
d. Remove the Front Inner Cover from the Front Logic Box.



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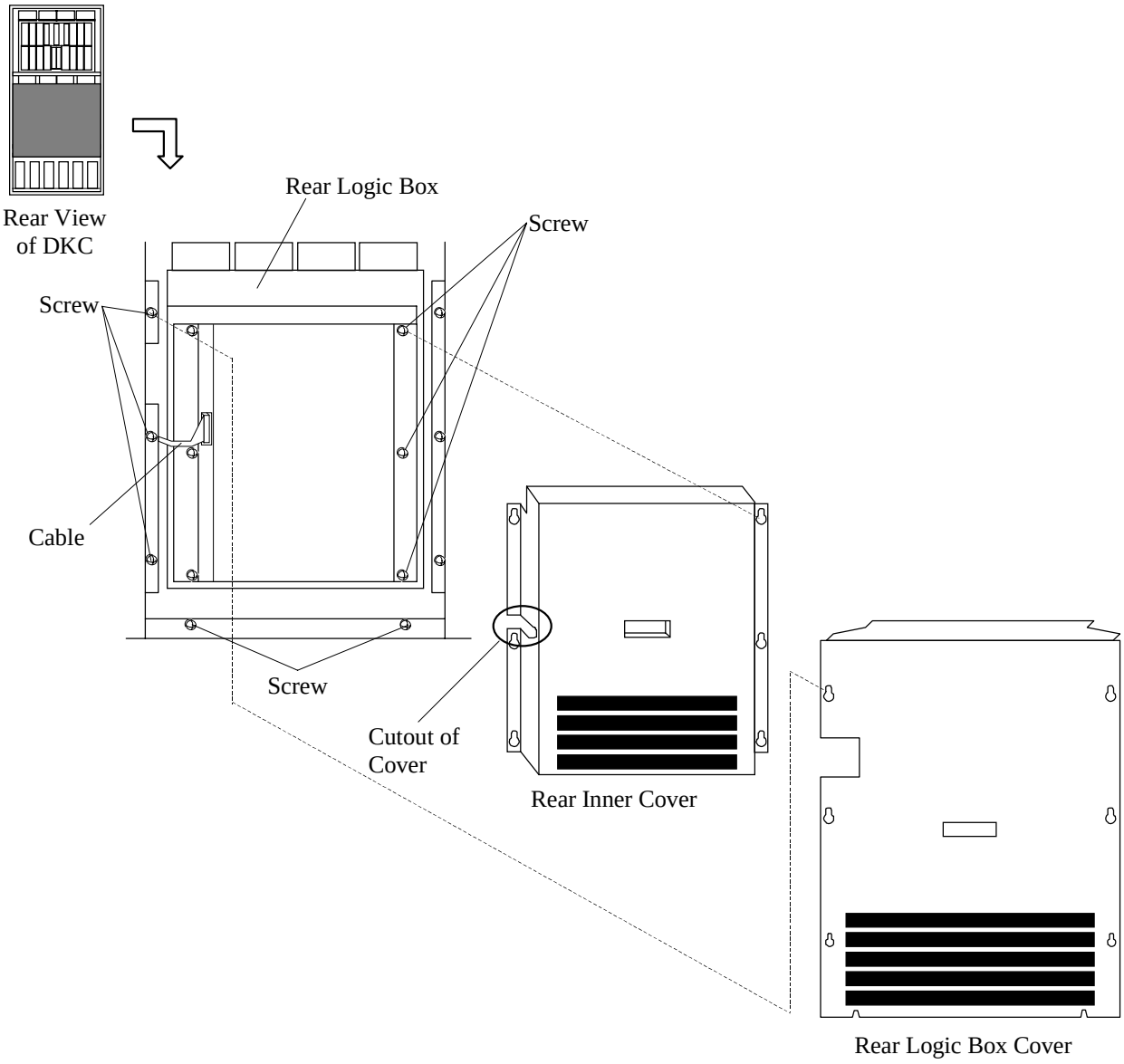
4. Rear Logic Box Cover

Attachment

a. Pass the cable through the cutout of the cover and attach the Rear Inner Cover to the Rear Logic Box .
b. Tighten the six screws.
c. Attach the Rear Logic Box Cover to the Frame.
d. Tighten the eight screws.

Removal

a. Loosen the eight screws.
b. Remove the Rear Logic Box Cover from the Frame.
c. Loosen the six screws.
d. Remove the Rear inner Cover from the Rear Logic Box.



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3.1.2 Attaching the Wrist Strap

(1) To protect the IC and LSI on the PCB from static electricity damage, put on the wrist straps and connect them into the ground wires on the DKU and connect them into the ground wires on the DKC before starting work (see Fig. 3.1.2-1 and 3.1.2-2).

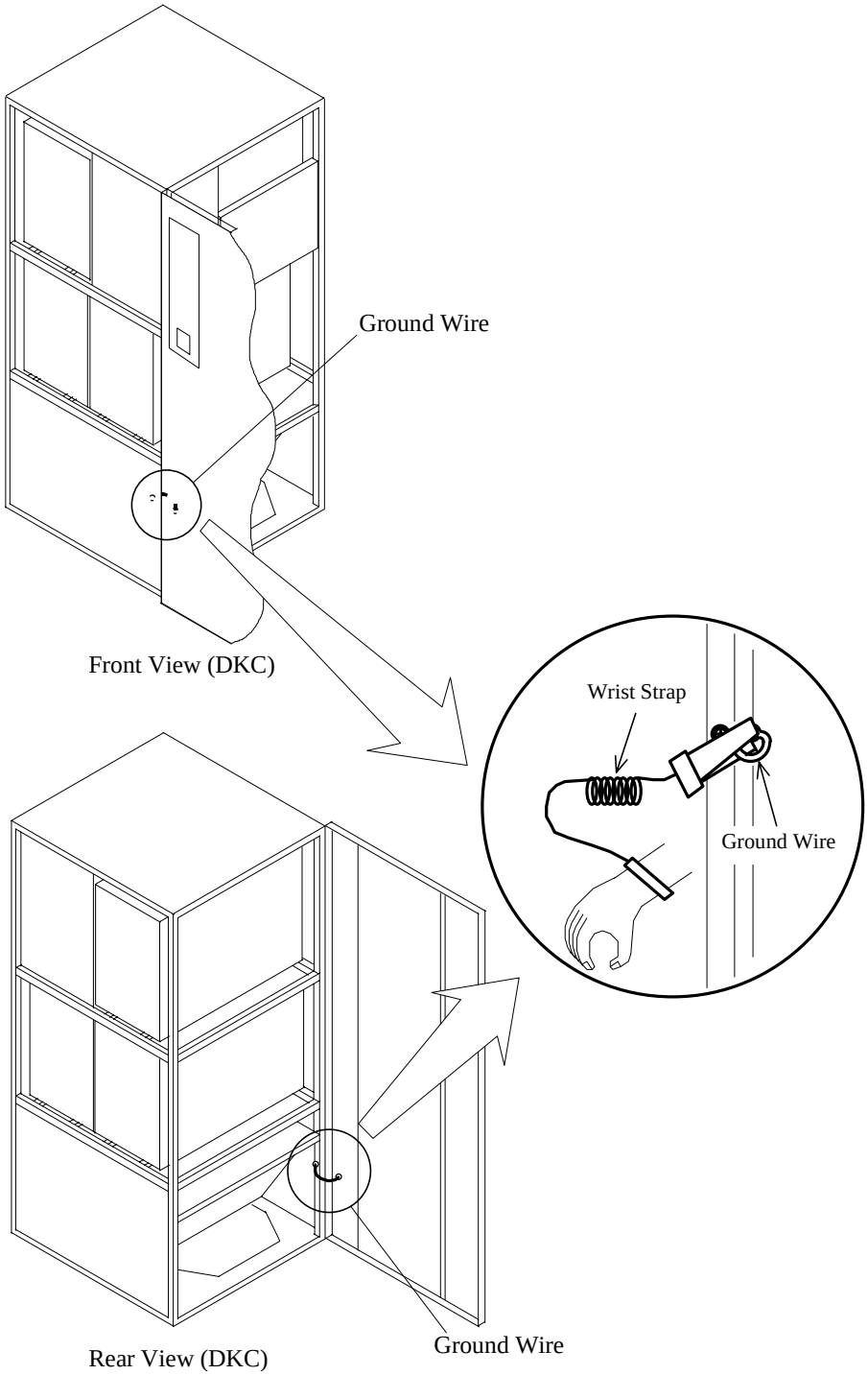
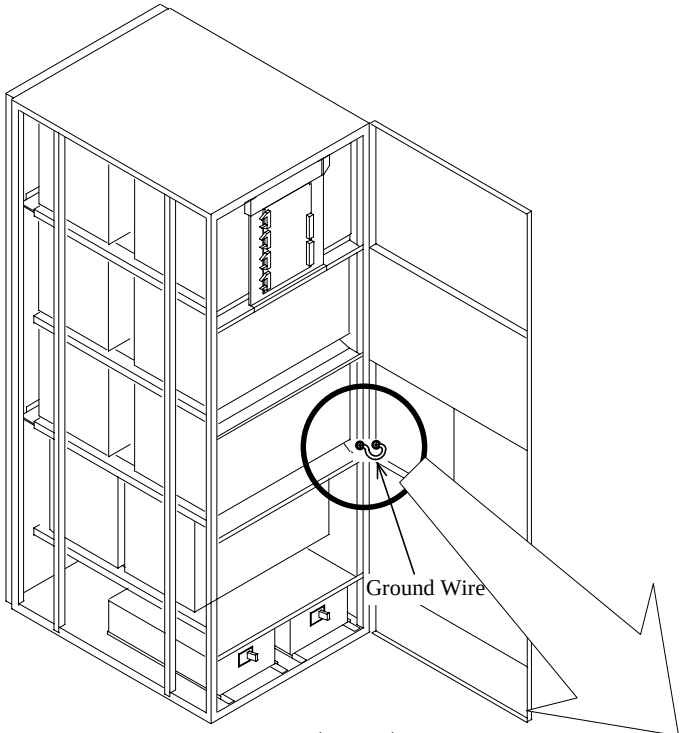
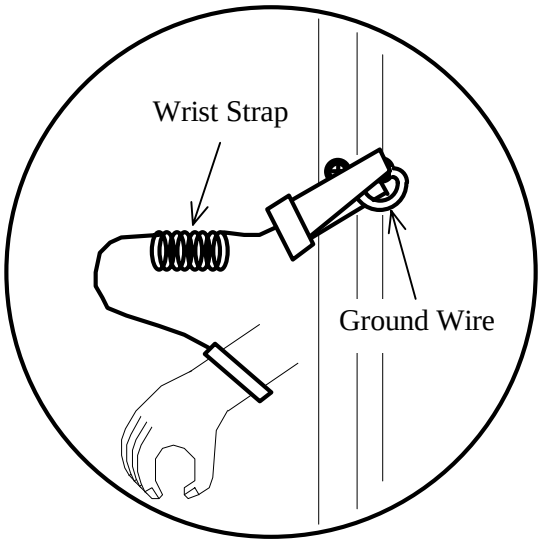


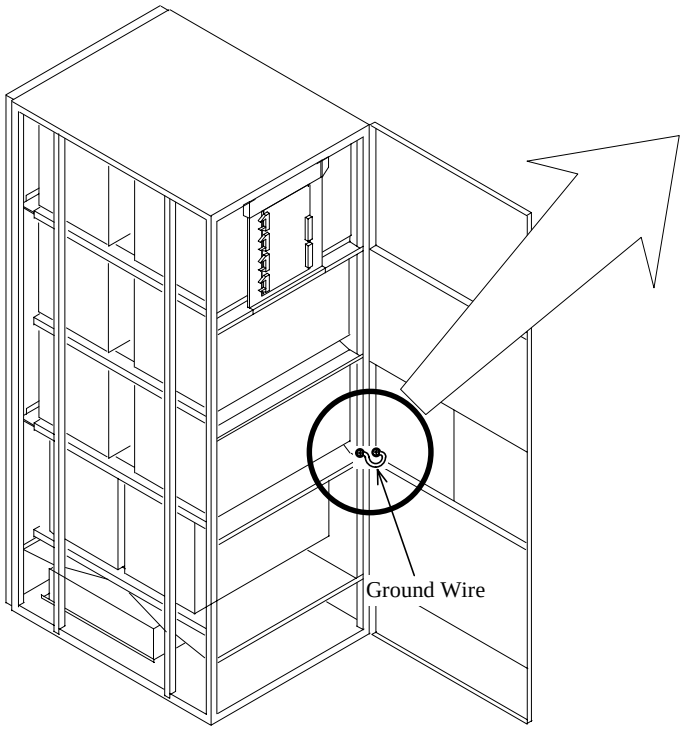
Fig. 3.1.2-1 Location of Door Pocket on the DKC

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Front View (DKU)





Rear View (DKU)

Fig. 3.1.2-2 Location of Ground Wire on the DKU

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3.2 UNPACKING AND INSPECTION

Receiving and Inspection

Before unpacking the unit, check the physical condition of the packed unit.

1. Prior to unpacking, check the container for visible damage or any indication of excessive shock, tilt or anything else abnormal during transportation and handling.

2. Obtain and check shipping manifest for missing units.

3. If anything abnormal is found, appropriate action should be taken before starting an installation.

Unpacking Procedure

NOTICE:
- Be very careful when handling the equipment.
- Do not drop the equipment from a height more than 5 mm (0.2in.) high.
- Floor unevenness must be less than 10 mm (0.4in.). Move slowly and lift the four screw jacks at the bottom of each frame to the highest position to prevent contact with the ramp.

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3.2.1 Unpacking

3.2.1.1 Disk Controller (DKC410I)

1. Card board crate overview is shown in Fig. 3.2.1.1-1.
2. Cut the polyester bands.
3. Remove the nails.

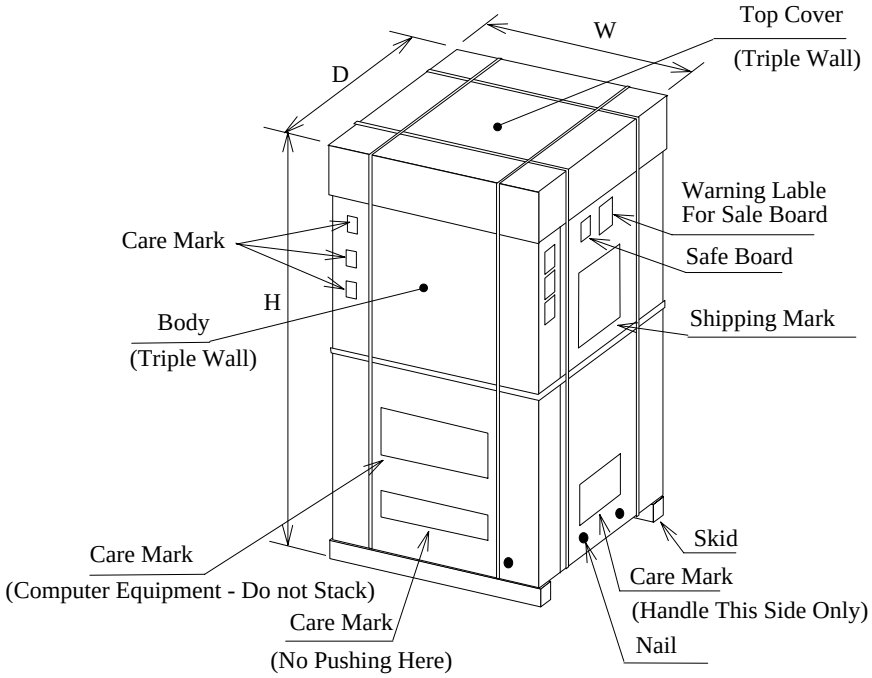


Fig. 3.2.1.1-1 Card Board Crate Overview

4. Remove Top Cover and Side Covers.

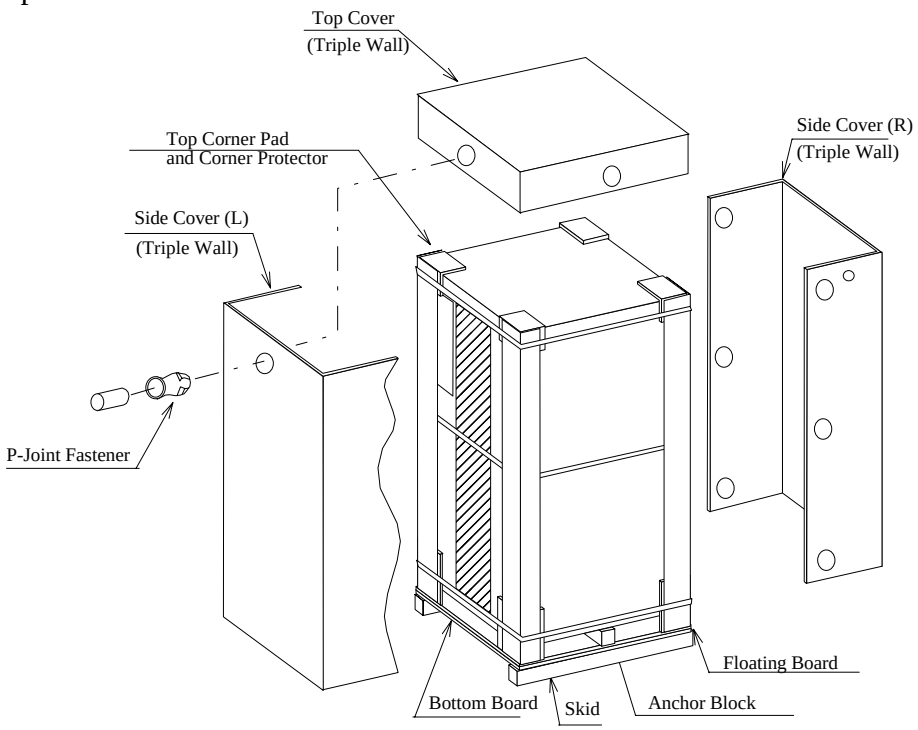


Fig. 3.2.1.1-2 Breakdown of CARD BOARD Crate

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5. Take the equipment down from FLOATER by lifting the equipment with forklift a minimum amount needed to remove the FLOATER/DECK/SKID assembly.
6. Gently lower the equipment onto floor.
7. Remove adhesive tape and corner protectors.

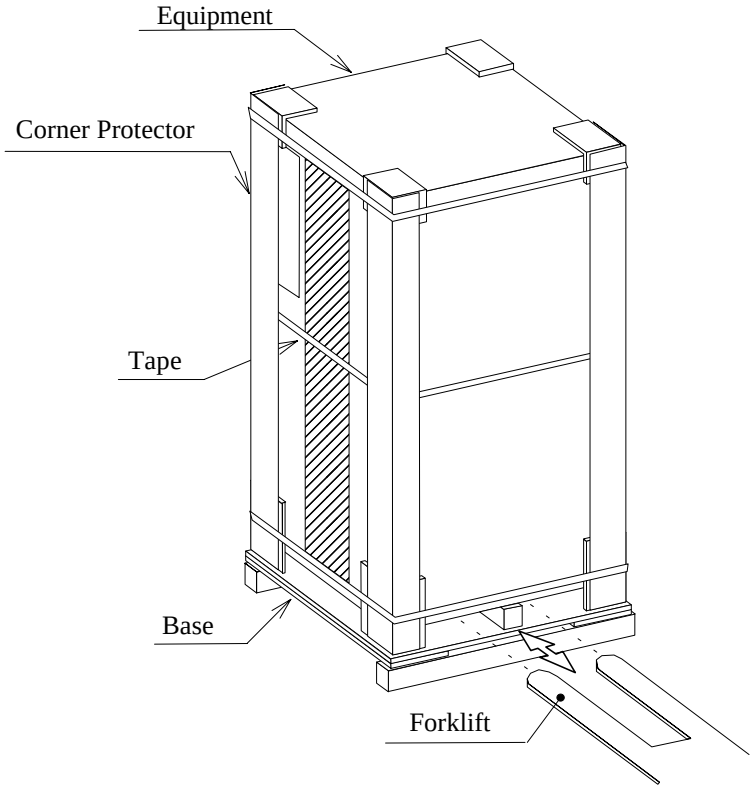


Fig. 3.2.1.1-3 Lift of Equipment

8. Remove the polyethylene bag and adhesive tape.

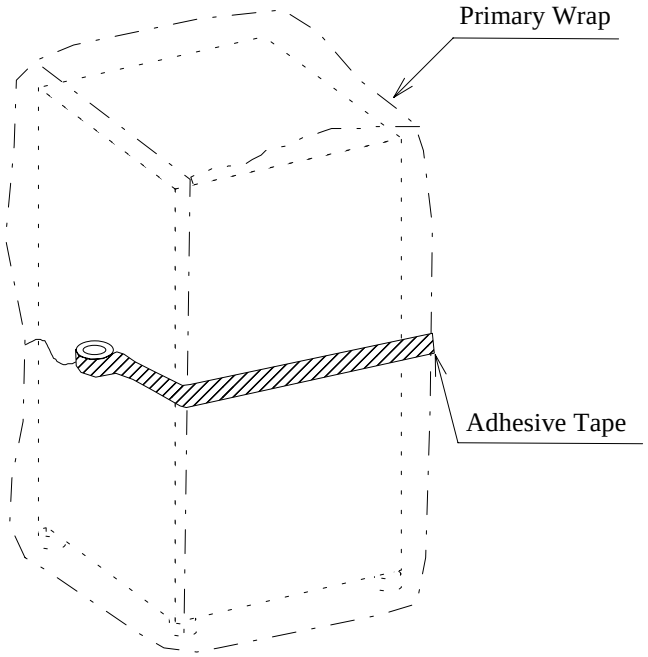


Fig. 3.2.1.1-4 Removal of Wrap Material

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9. Remove the band.
10. Remove the adhesive tape and cushions from Operator Panel Cover.

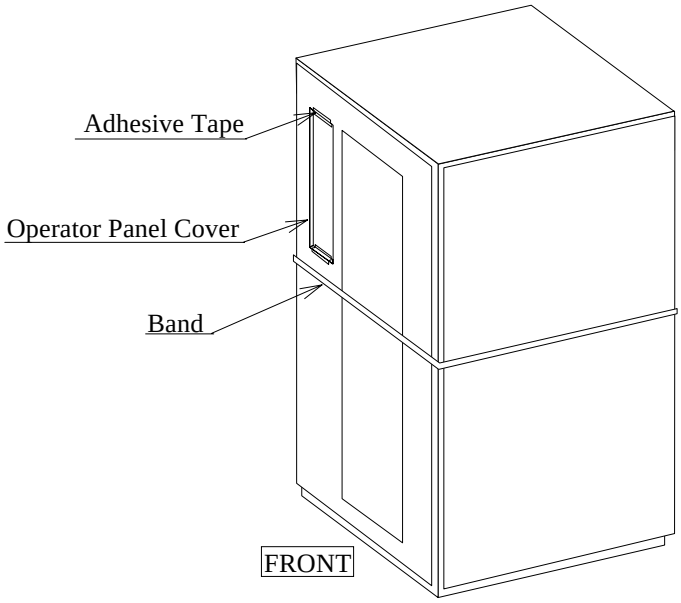


Fig. 3.2.1.1-5 Surface Unpacking

11. Open the front and rear door, remove the shipping cushions and tapes from the container.
12. Visually check the unit for any damage.

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3.2.1.2 Disk Unit (DKU405I)

1. The container overview is shown in Fig. 3.2.1.2-1.
2. Cut the polyester bands.
3. Remove the nails and washers on the lower part of the crate.
4. The container breakdown is shown in Fig. 3.2.1.2-2
5. Unfasten P-JOINT Fasteners.
6. Remove the cap by lifting.
7. Remove the sleeves.
8. Cut polypropylene tapes.
9. Remove the corner protectors.
10. Break the seal of polyethylene bag and open it.
11. Take the unit down from the FLOATER by lifting the unit with forklift a minimum amount needed to remove FLOATER/DECK/SKID assembly.
12. Gently lower the equipment onto floor.
13. Remove adhesive tape and cushions from the unit.
14. Visually check the unit for any damage.

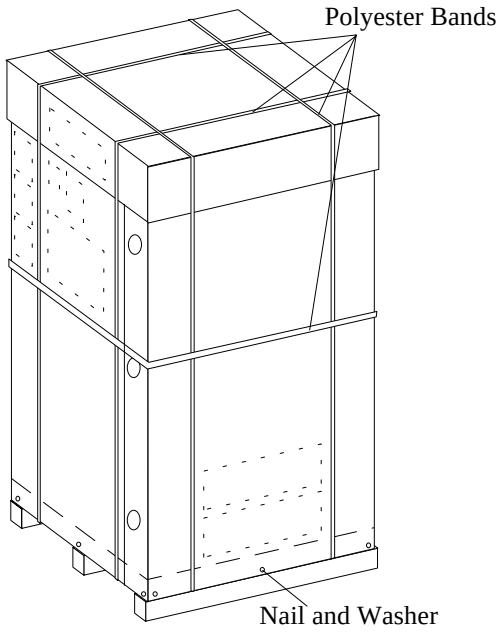


Fig. 3.2.1.2-1 Container Overview

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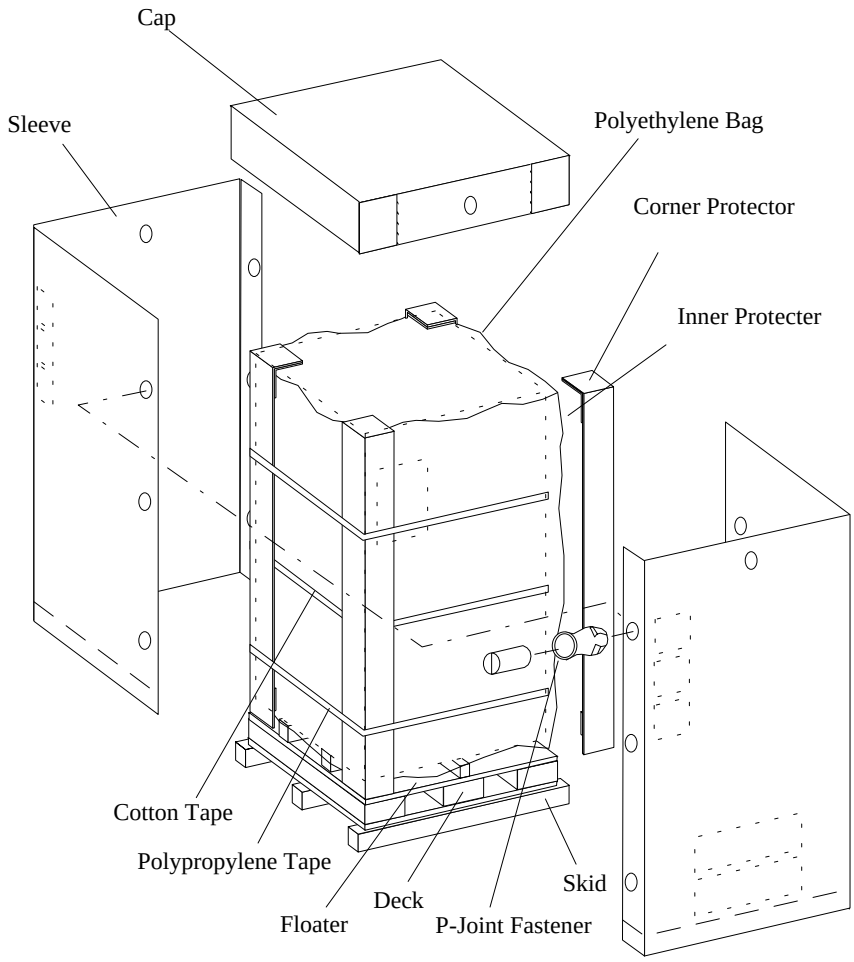


Fig. 3.2.1.2-2 Breakdown of Container

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3.2.1.3 Platform for Canister Mount (DKU-F405I-B4)

1. The container overview is shown in Fig. 3.2.1.4-1.
2. Cut the polyester bands.
3. Open the container.
4. Break the seal of polyethylene bag and open it.
5. Gently lower the equipment onto floor.
6. Visually check the unit for any damage.

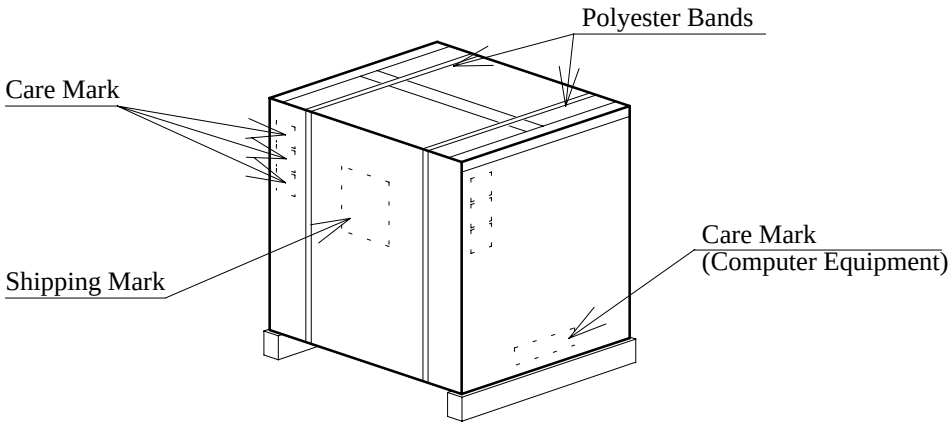


Fig. 3.2.1.4-1 Container Overview

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3.2.2 Inspection of Packaged Parts and Accessories

1. Match the unpacked parts against the parts lists in Tables 3.3.2.2-1 through 3.3.2.2-2 to verify that all parts are supplied.

DKC410I

Table 3.2.2-1 List of Packaged Parts and Accessories (Disk Controller)

(Basic)

No.	Name of parts	Parts number	Quantity/Unit	Remarks
1	Disk Controller	---------	1	
2	Kick Plate (Side)	3259598-1	2	For HDS
		3259598-3		For HP
3	Kick Plate (F/R)	3259597-1	2	For HDS
		3259597-3		For HP
4	Screw (Black)	5411531-2	4	
5	Jumper Connector	3254707-A	2	SD
6	Jumper Connector	3254707-B	1	AI
7	Jumper Connector	3254707-C	2	CE
8	Side Cover	3236770-C	1	
9	Screw (M5×36)	SB536	4	
10	LL-Washer	2051001-532	4	

DKU405I

Table 3.2.2-2 List of Packaged Parts and Accessories (Disk Unit)

No.	Name of parts	Parts number	Quantity/Unit	Remarks
1	Disk Unit	---------	1	
2	Kick Plate	3259593-1	1	Note 1
3	Kick Plate	3259593-11	1	Note 1
4	Connecting Bolt Assy	5437962-A	4	
5	Screw (Black)	5409006-1	4	
6	Connecting Screw Assy	5487372-A	2	
7	Conductive Sheet	5510501-1	10	
8	LABEL (V/HZ/PH.)	2103307-1	1	

Note 1: This is packed with drive unit.

2. Return to General Flow.
   New Installation : Go to INST02-10 step (2).
   Non-Disruptive Installation : Go to INST02-80 step (2).
   Disruptive Installation : Go to INST02-200 step (2).

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3.3 Basic Subsystem Installation

See SECTION 3.4 INSTALLATION OF DISK UNIT (DKU405I-14) when there are two or more Disk Units. [INST03-410]

3.3.1 Flowchart

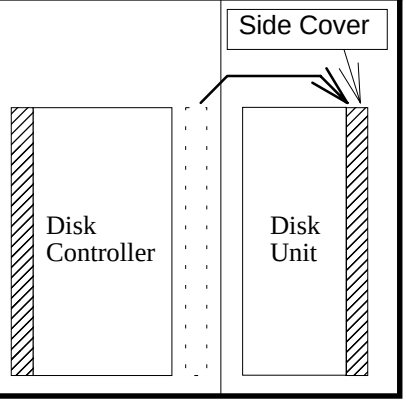
(1) Cabinet Setting [INST03-160]
↓
(2) Frame Connection [INST03-230]
↓
(3) Installation of Switches and Jumper Plugs [INST03-270]
↓
(4) Cabling [INST03-300]
↓
(5) Labeling [INST03-395]
↓
(6) Check of Jumper Settings [INST03-400]

3.3.2 Cabinet Setting

- Refer to Table 3.3.2-1 when laying out the First Disk Unit with respect to the Disk Controller and relocating the side cover.

1. Place the Disk Controller and Disk Unit in the required position.

Table 3.3.2-1 Removal and Re-installation of Side Cover

Configuration	Disk Controller	First Disk Unit
Disk Controller (DKC410I) and Disk Unit (DKU405I-14)		

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2. Open the front and rear doors on the Disk Controller and the Disk Unit.
3. Remove the screw for transporting the movable rack, and then fasten the screw.

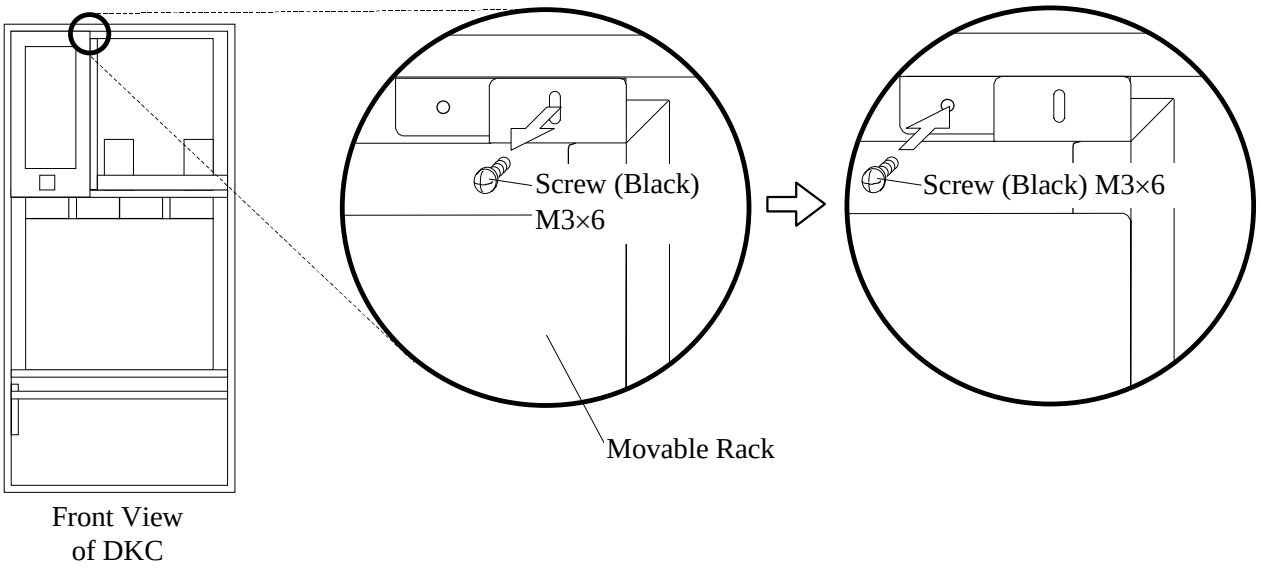


Fig. 3.3.2-1 Removal of Screw for Transporting the Movable Rack

4. Loosen the repeat binders which secure the DKUMN cables, the DEV interface cables and the AC power cables for the Disk Controller.

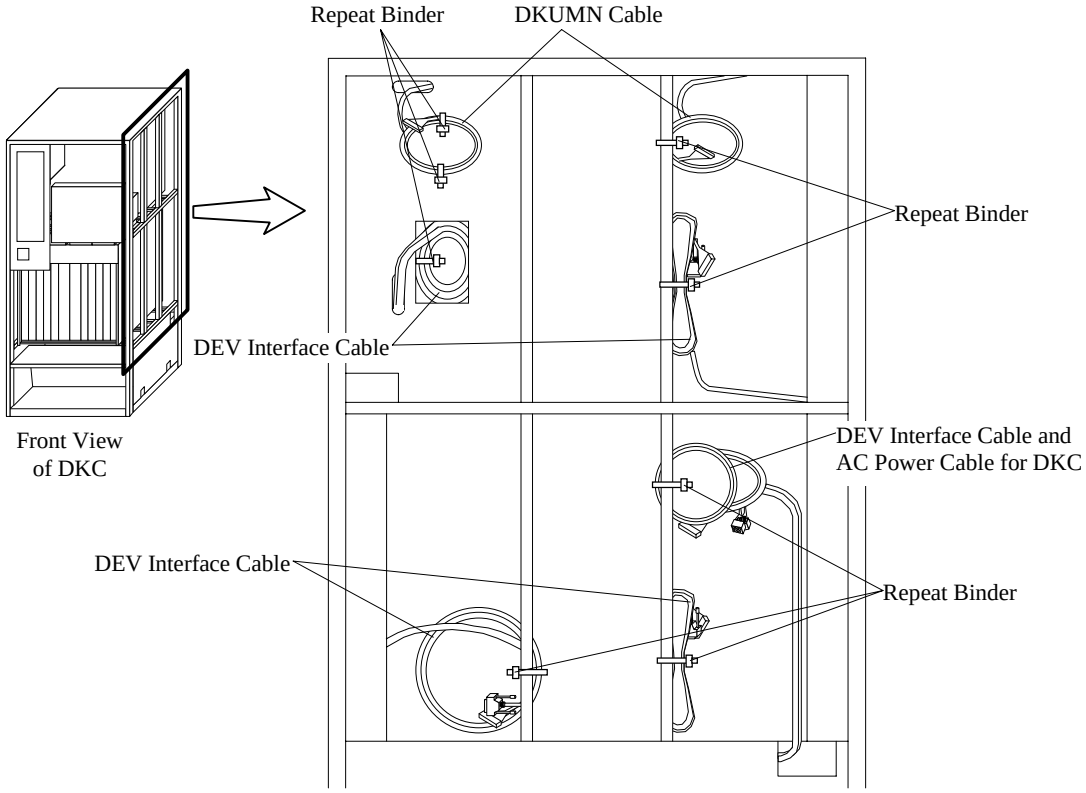


Fig. 3.3.2-2 Removal of Cables

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5. Loosen the screws and remove the cable covers ① and ②.

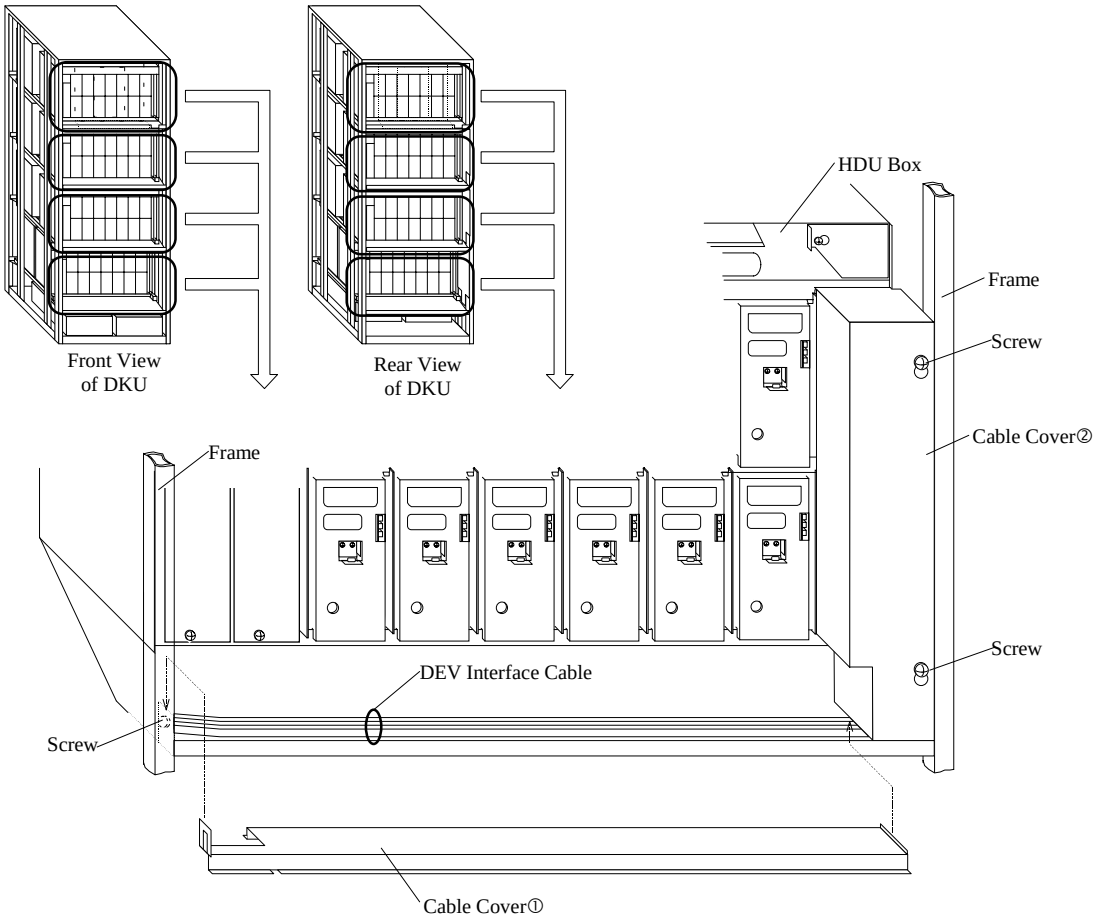


Fig. 3.3.2-3 Removal of Cable Covers

6. Loosen the screws and remove the side plates.

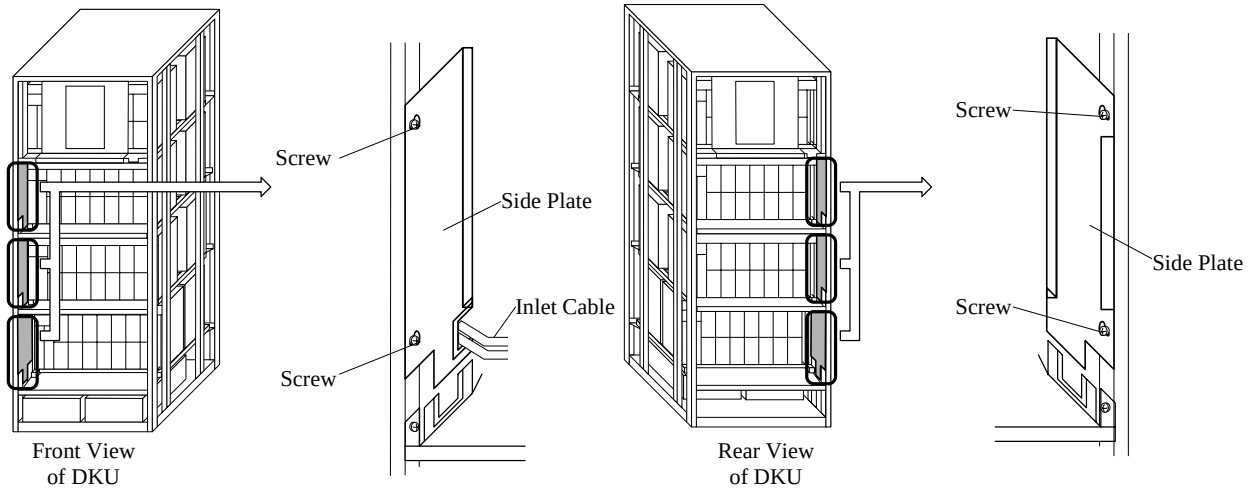


Fig. 3.3.2-4 Removal of Side Covers

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7. Attach the conductive sheets to the DKU frame referring to Fig. 3.3.2-5 and Fig. 3.3.2-6.

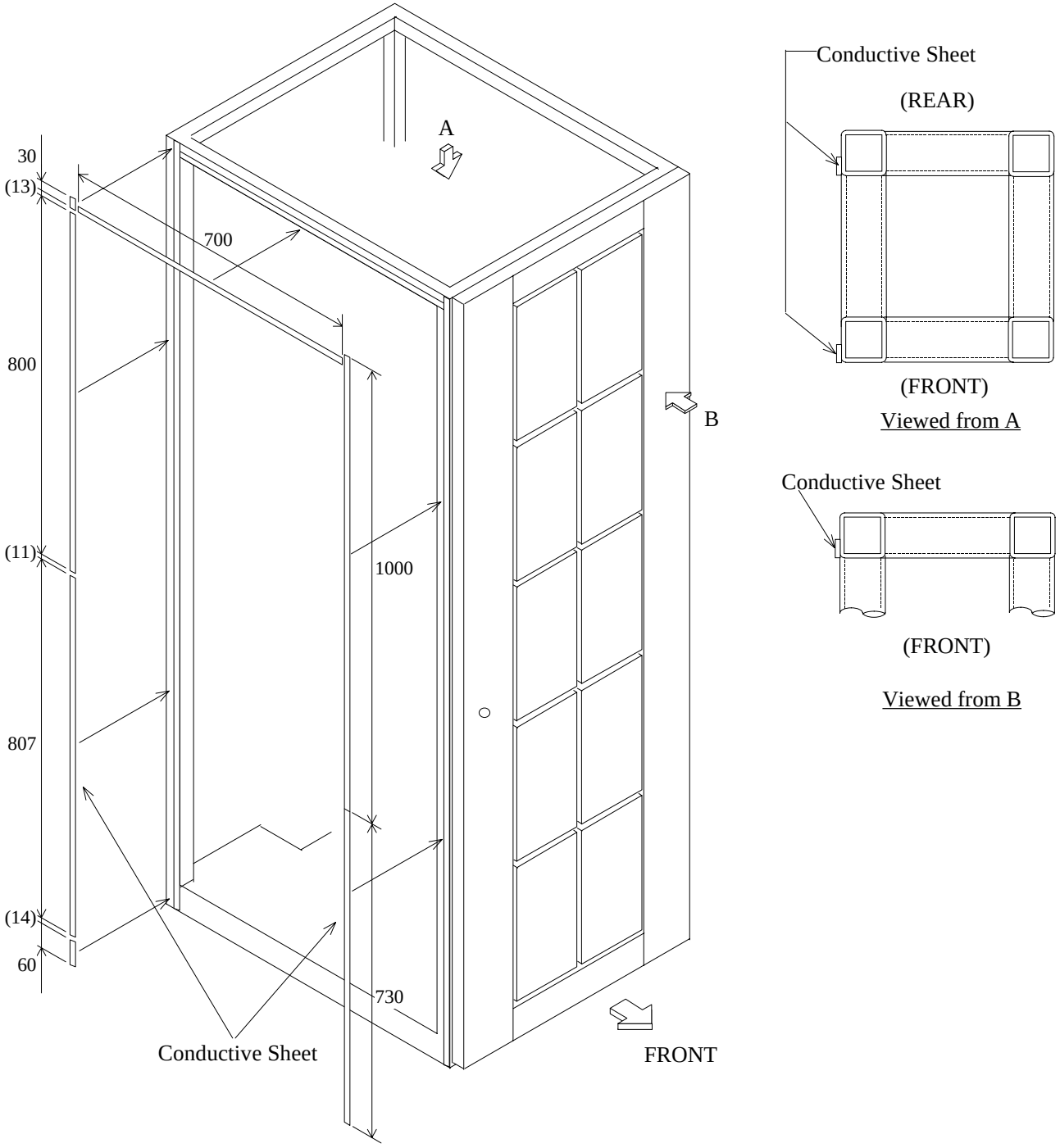


Fig. 3.3.2-5 Attachment of Conductive Sheets

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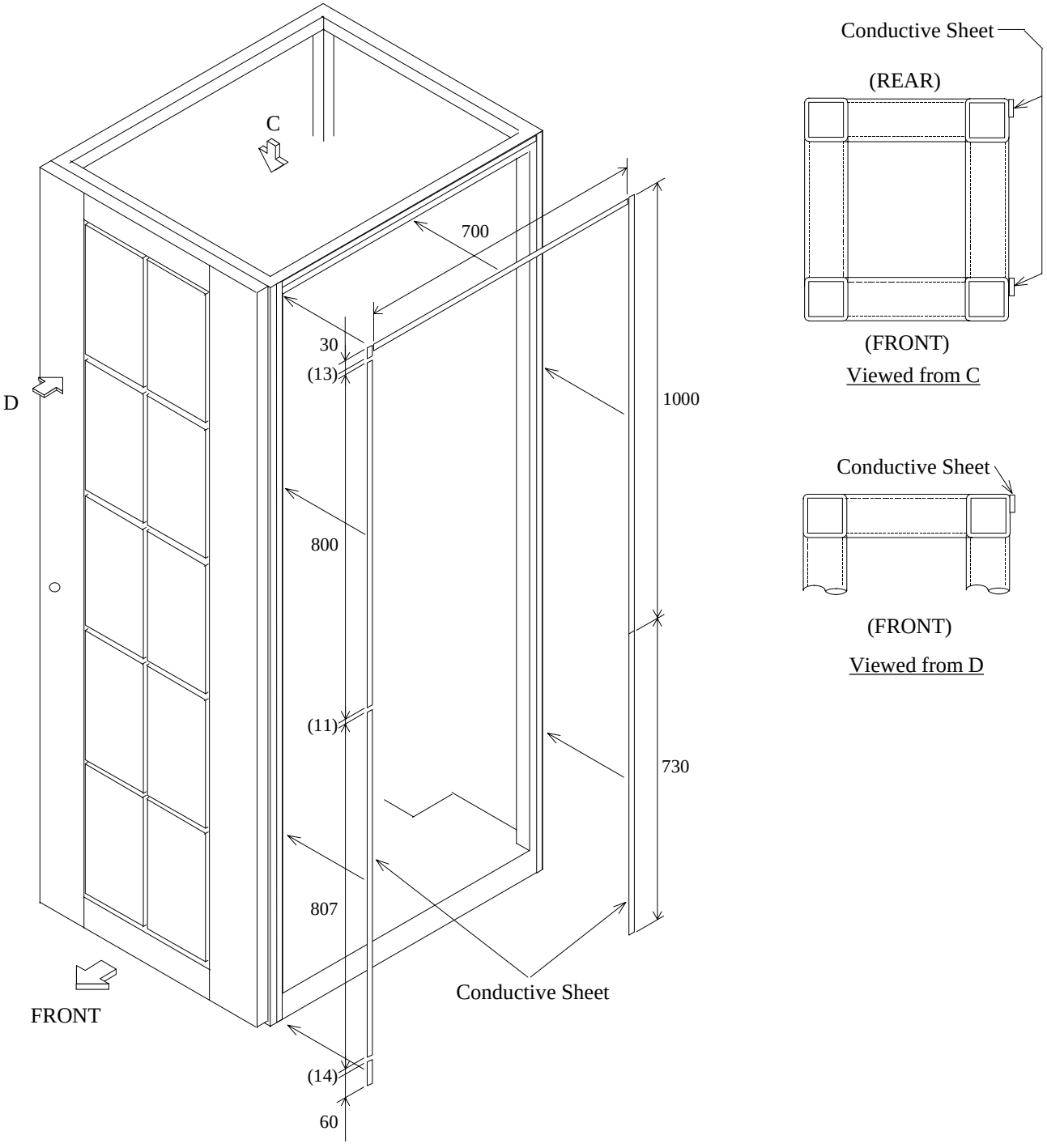


Fig. 3.3.2-6 Attachment of Conductive Sheets

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8. Pass the DKUMN cables, the DEV interface cables and the AC power cables for the Disk Controller through the Basic Disk Unit frame. Refer to Fig. 3.3.2-7. Be extremely careful not to pinch the inter-frame cable when coupling the frames to each other.

Note: For Locations of FSW PCBs and DEV interface cables, refer to the labels inside the DKU doors.

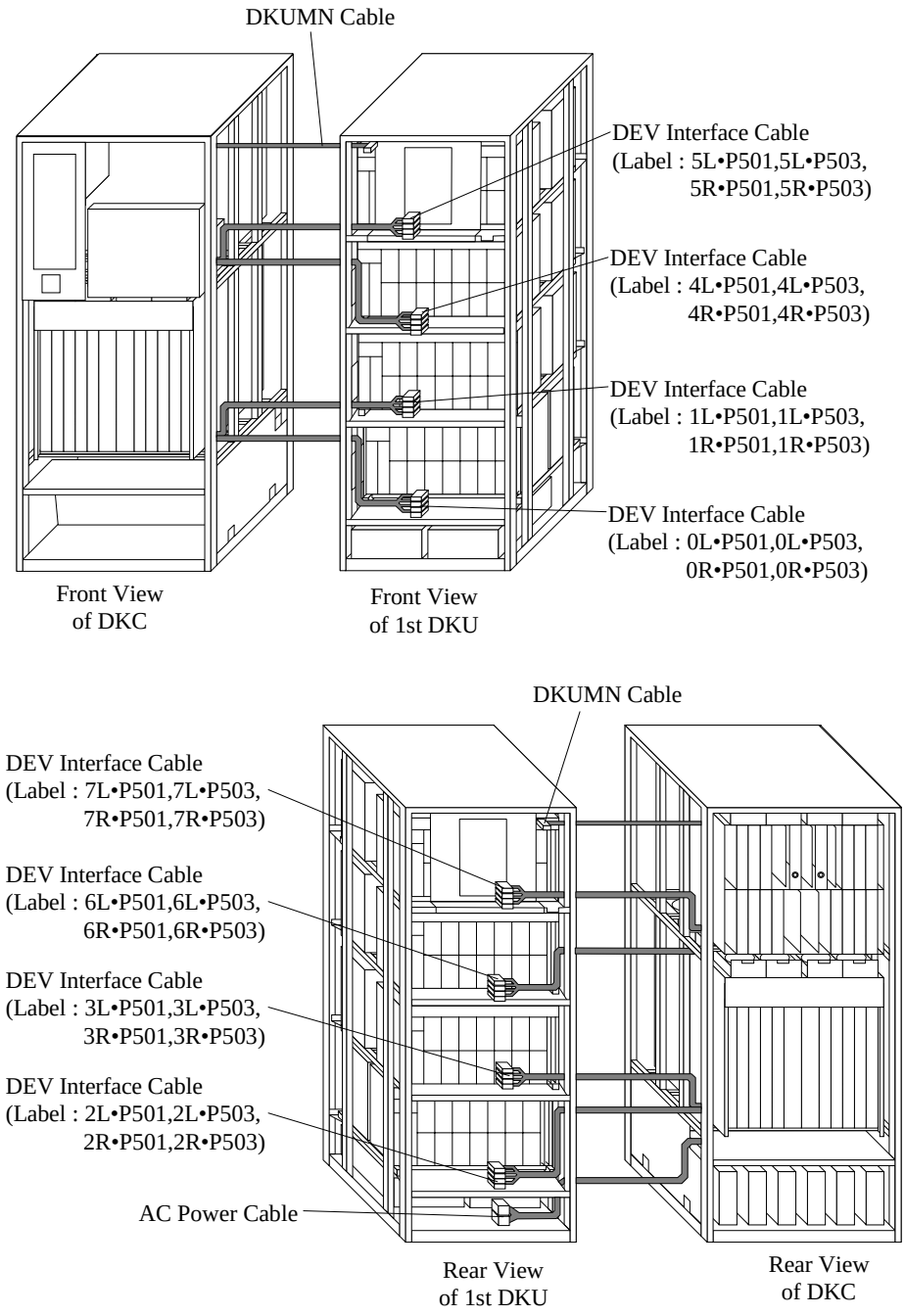


Fig. 3.3.2-7 Attachment of Cables

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9. Attach the side plates and fasten the screws.

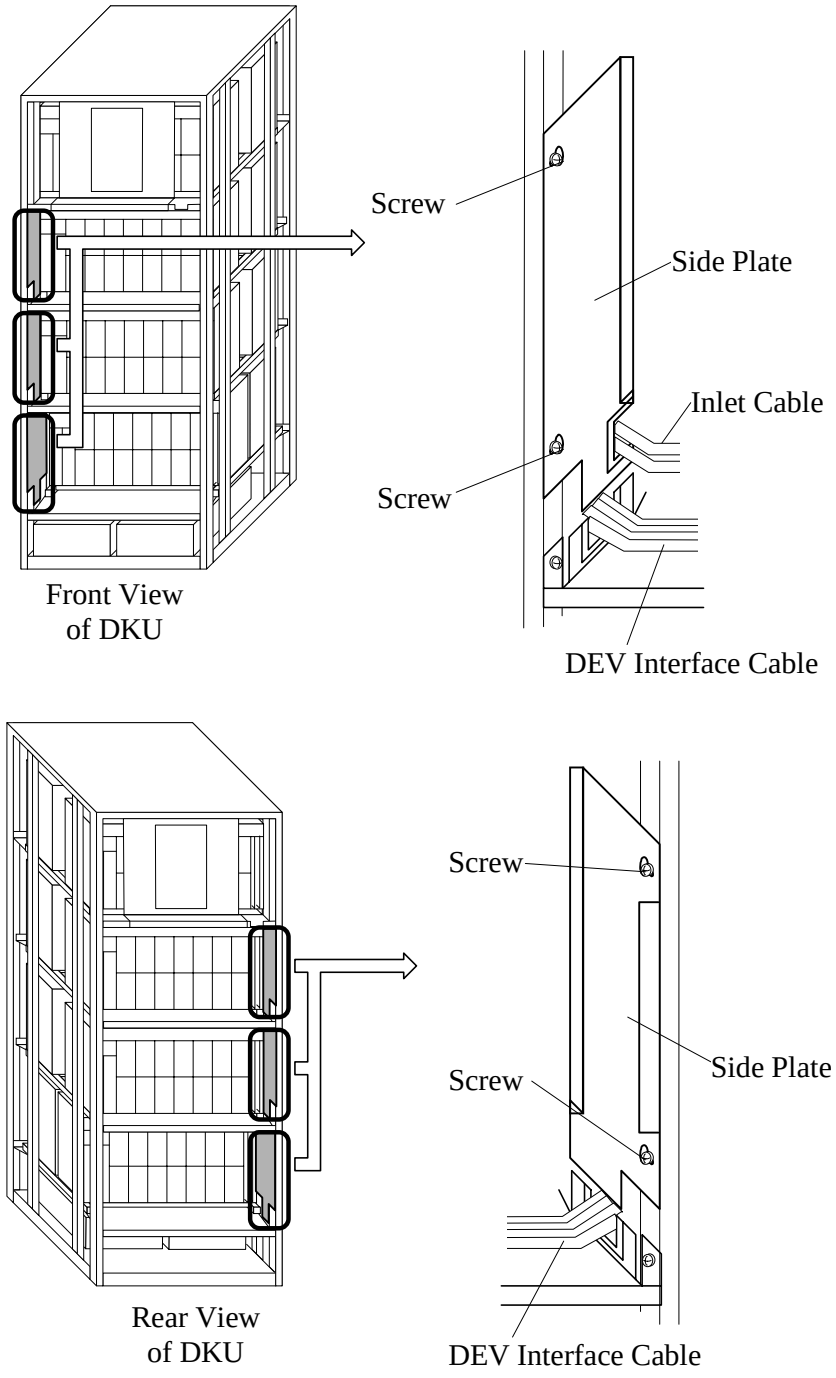


Fig. 3.3.2-8 Attachment of Side Plate

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10. Lower the screw jacks until frame is 57mm (2.25in.) from the floor before connecting frames.
11. Level the device as shown Fig. 3.3.2-9.

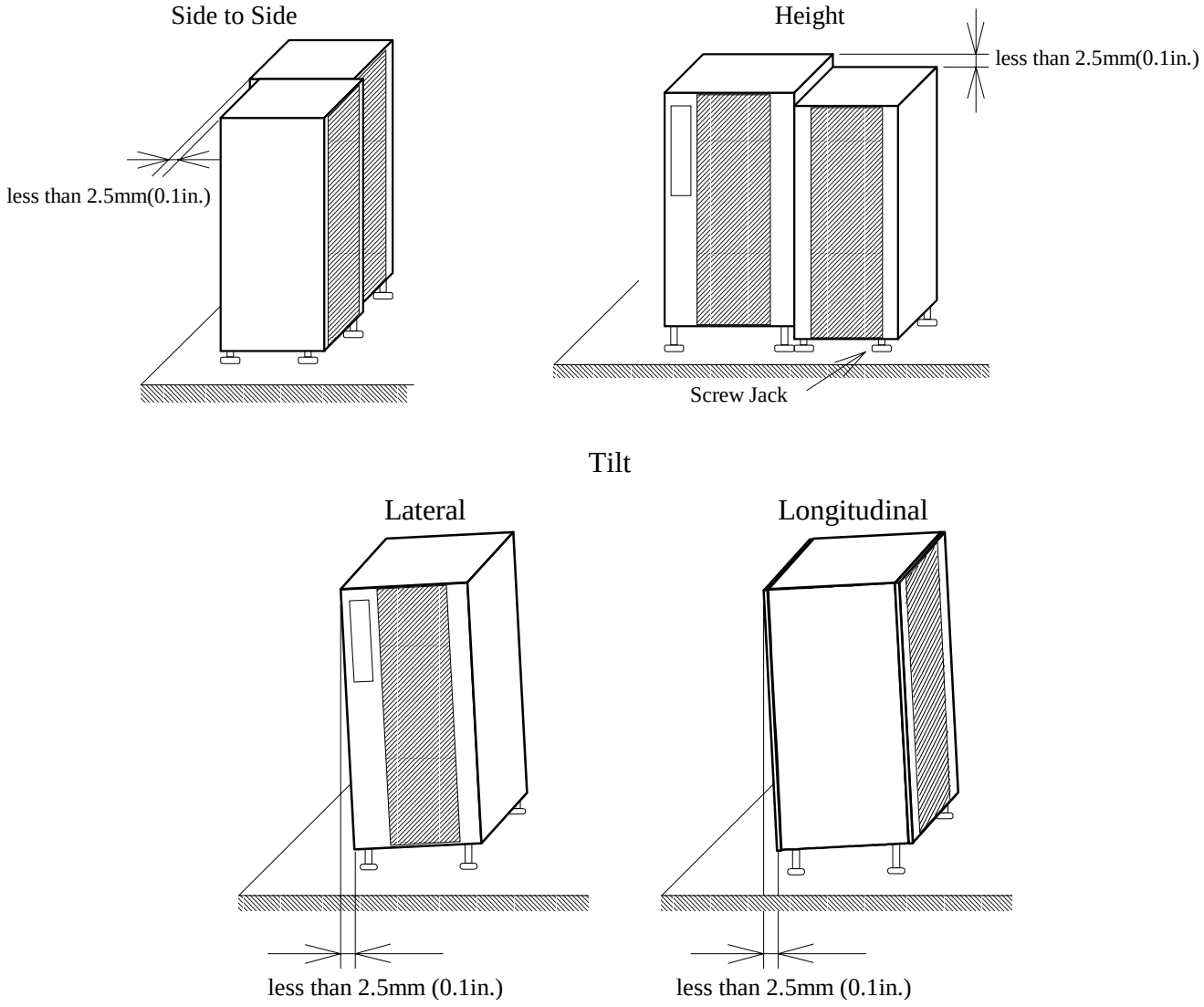


Fig. 3.3.2-9 Unit Layout, Height, and Tilt

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12. Remove the Front Logic Box cover and Front Inner cover from the DKC. (Refer to INST03-20.)
13. Remove the two screws and open the Cable Cover.

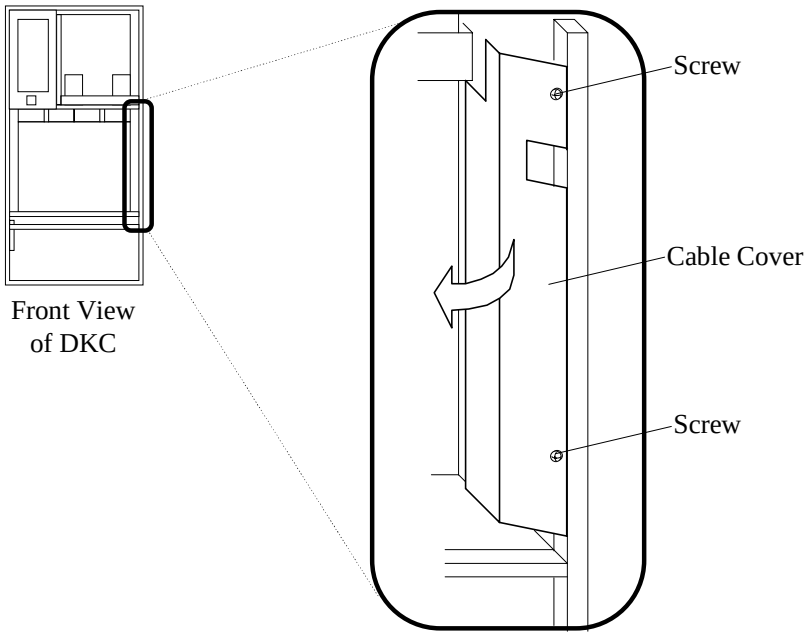


Fig. 3.3.2-10 How to open the Cover (DKC front side)

14. Remove the Rear Logic Box cover and Rear Inner cover. (Refer to INST03-30.)

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3.3.3 Frame Connection

3.3.3.1 Frame Connection

Connect the devices together using six of connecting bolt assemblies, three in front and three in rear. See Fig. 3.3.3.1-1.
The direction of hexagon socket head bolts, binding screws and connecting nuts must be the same as shown in the figure.

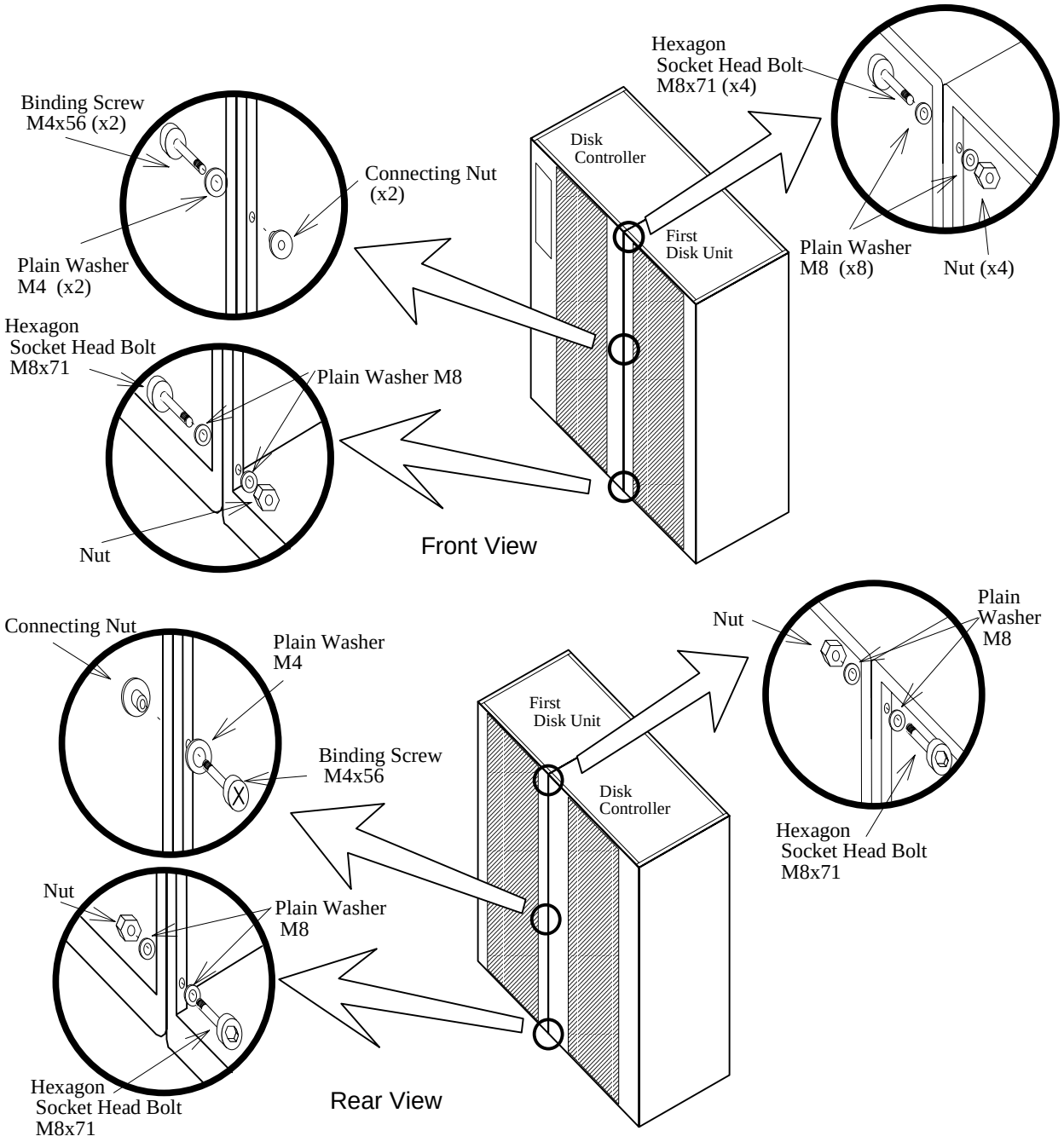
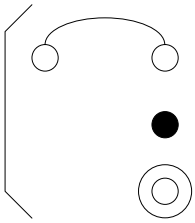


Fig. 3.3.3.1-1 Frame Connection

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3.3.3.2 Frame Ground Cable Attachment

Note

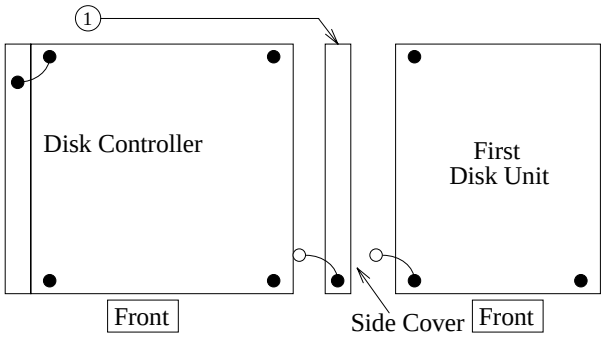


: Frame ground cable

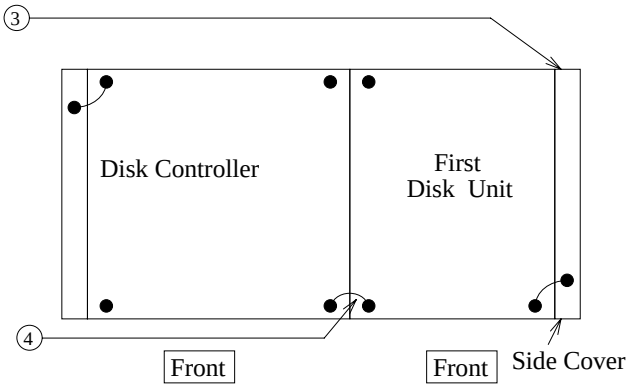
: Screw and washer (lock washer)

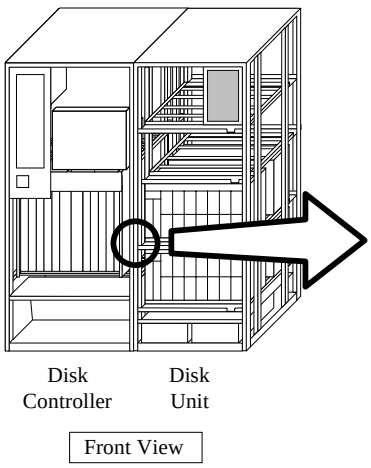
: Thread

1. Remove the right side cover of the Disk Controller.
2. Connect the cabinets.



3. Attach the side cover to the Disk Unit. Refer to SECTION 3.3.3.3.3 Side Cover Re-installation.
4. Attach the frame ground cable with the screw and lock washer.
5. Attach the front and rear logic box covers to the Disk Controller Unit in the reverse order of SECTION 3.3.2 item 12 through 14 [INST03-220].





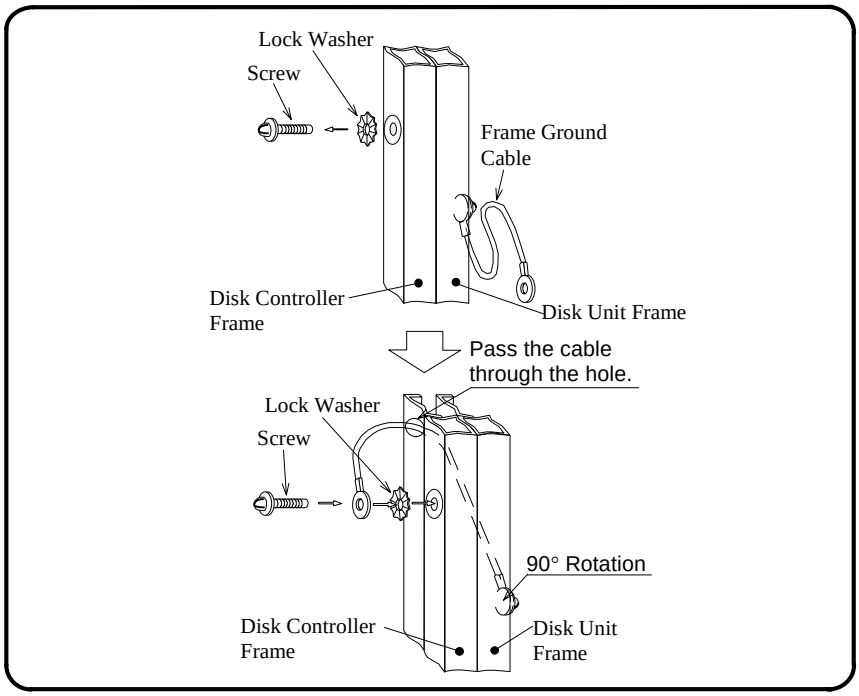


Fig. 3.3.3.2-1 Attachment of Frame Ground Cable

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3.3.3.3 Side Cover Re-installation

Attach the side cover to the end of the string with the four binding screws and washers.

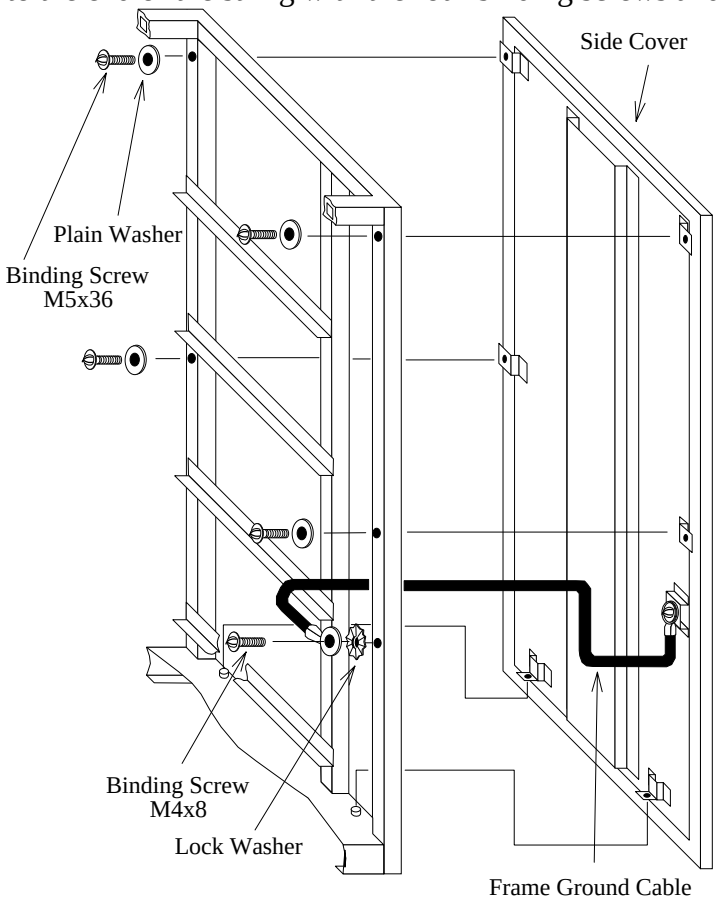


Fig. 3.3.3.3-1 Re-installation of Side Cover

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3.3.3.4 Installation of Kick Plate

Attach the kick plates with the binding screws. See Figs. 3.3.3.4-1 and 3.3.3.4-2.

NOTICE: Contact the kick plate to the floor to prevent static electricity.

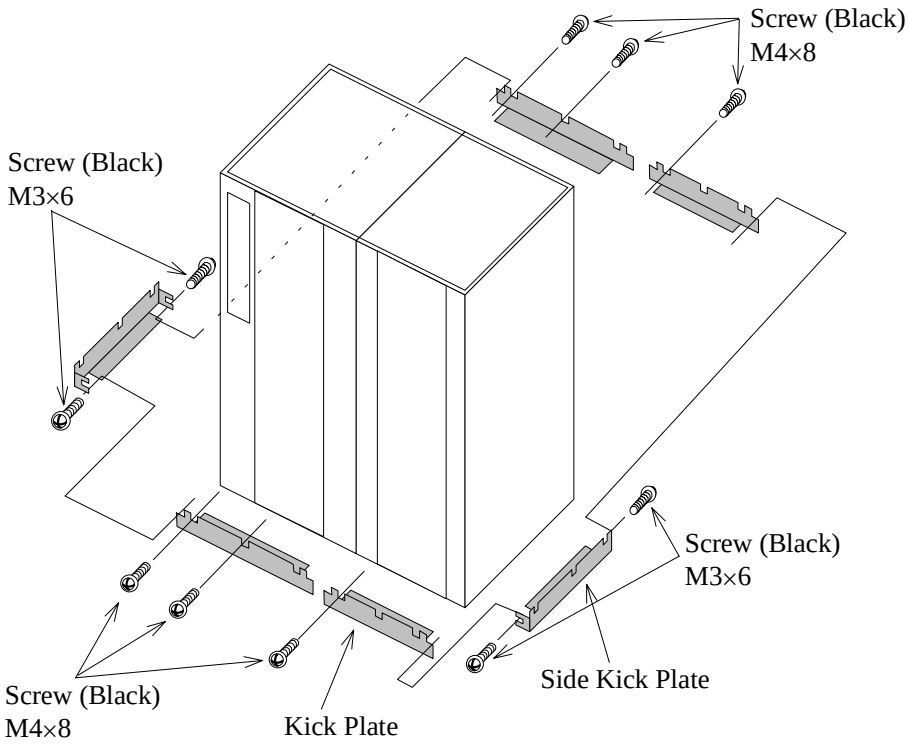
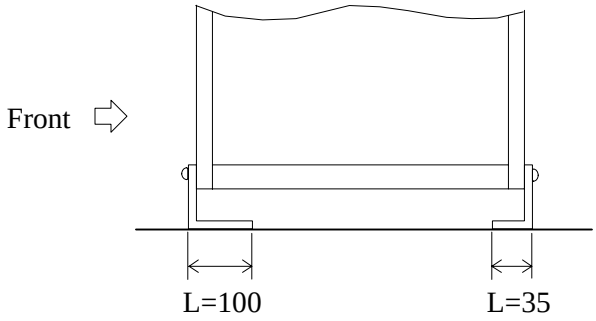


Fig. 3.3.3.4-1 Installation of Kick Plate

Care should be taken when installing the kick plates of the DKU, because the front and rear kick plates are not the same.
Install the kick plate with the dimension L of 100 mm to the front side of the subsystem and that with the dimension L of 35 mm to the rear side.



Side View of DKU

Fig. 3.3.3.4-2 Kick Plates of DKU

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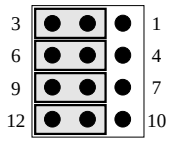
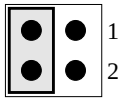
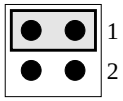
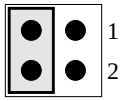
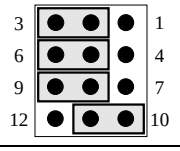
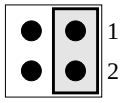
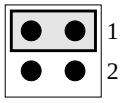
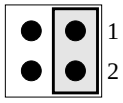
3.3.4 Installation of Switches and Jumper Plugs

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.

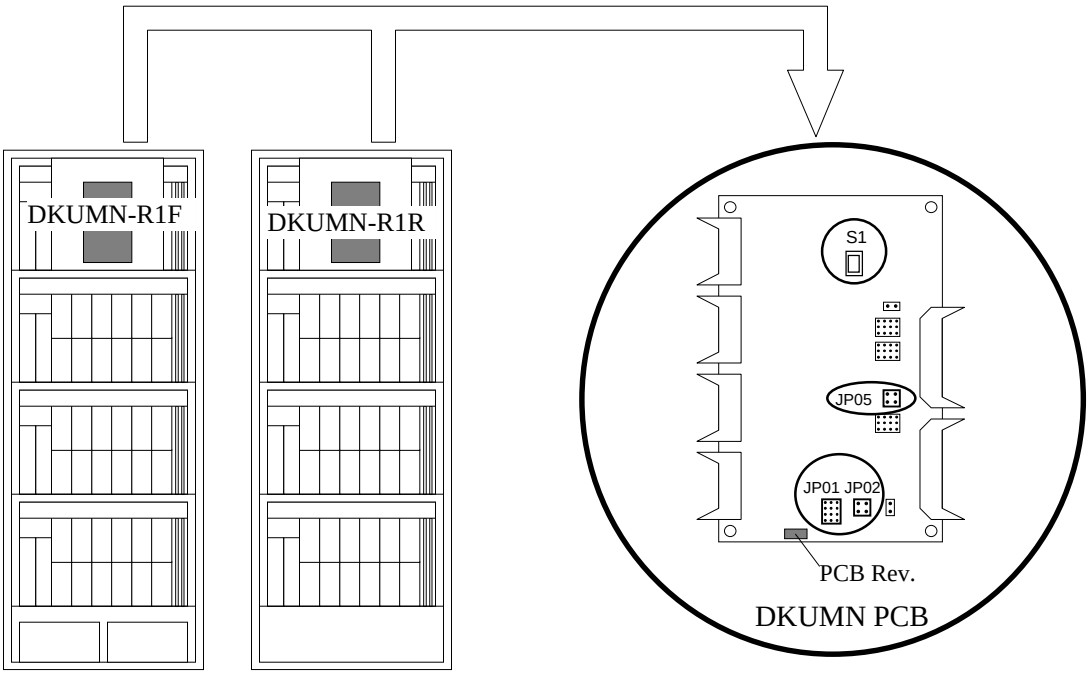
3.3.4.1 Installation of Switches and Jumper Plugs in DKUMN PCB

Set the switches and install the jumper plugs in the DKUMN PCBs as indicated in the table below.

Table 3.3.4.1-1 SWITCH and JUMPER PLUG installation of the DKUMN PCB

Location No.	S1	JP01	JP02		JP05	Remarks
			Note 1	**Note 2**	**Note 3**	
DKUMN-R1F	Enable					
DKUMN-R1R	Enable					

Note 1 : No Platform for Canister Mount (DKU-F405I-B4) Installed (Four HDU Boxes)
Note 2 : Platform for Canister Mount (DKU-F405I-B4) Installed (Eight HDU Boxes)
Note 3 : In the DKUMN PCB Rev. A/E and later A/E, jumper plugs setting are not require, because jumper connector (JP05) is not located on the DKUMN PCB.



Front View of DKU

Rear View of DKU

Note: In the DKUMN PCB Rev. A/E and later A/E, jumper plugs setting are not require because, jumper connector (JP05) is not located on the DKUMN PCB.

Fig. 3.3.4.1-1 Installation of Switches and Jumper Plugs in DKUMN PCB

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3.3.4.2 Installation of Jumper Plugs in PCI CON PCB

Install the jumper plugs in the PCI CON PCB as indicated in the table below.

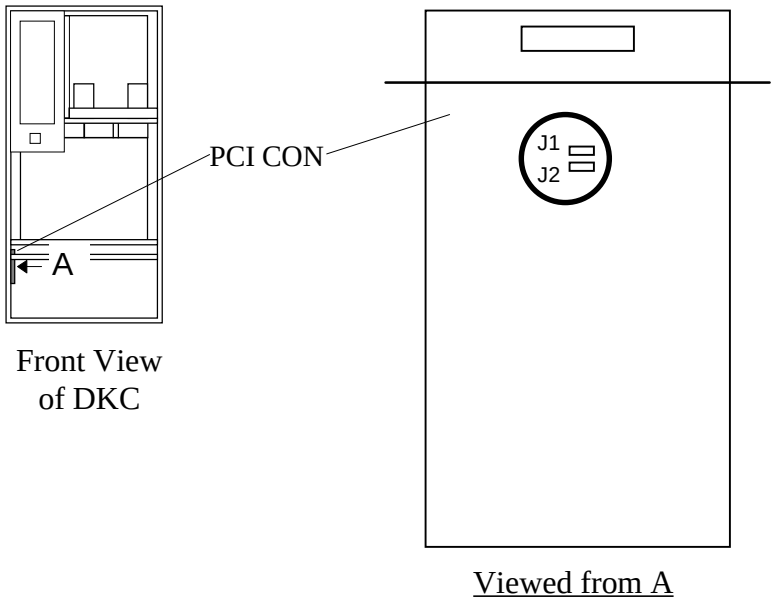
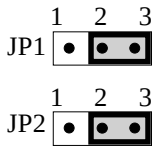
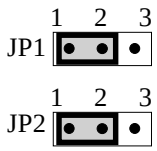


Fig. 3.3.4.2-1 Installation of Jumper Plugs in PCI CON PCB

Table 3.3.4.2-1 Installation of Jumper Plugs in PCI CON PCB

No.	Description	Installing status JP1 and JP2
1	When power is controlled from the host(at least one PCI cable attached to JP1-JP8 on PCI CON PCB), set the jumpers as shown.	
2	When power is not controlled from the host, no PCI cable attached to JP1-JP8 PCI CON PCB or to disable the EPO of host, set the jumpers as shown.	

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3.3.4.3 Installation of Jumper Connectors in BAT CTR PCB

This following shows the settings for the unit containing no Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22). For the settings for the unit containing the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22), see [INST03-1230].

1. Open the four locking clamps and remove the two jumper connectors.

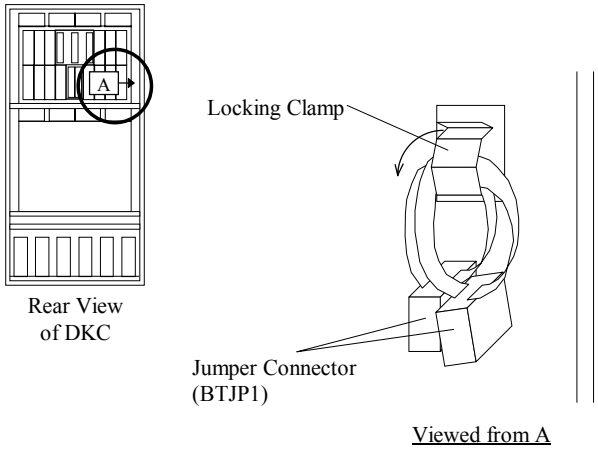


Fig. 3.3.4.3-1 Removal of Jumper Connectors

2. Install the jumper connectors in the BAT CTR PCBs as indicated in the figure below.

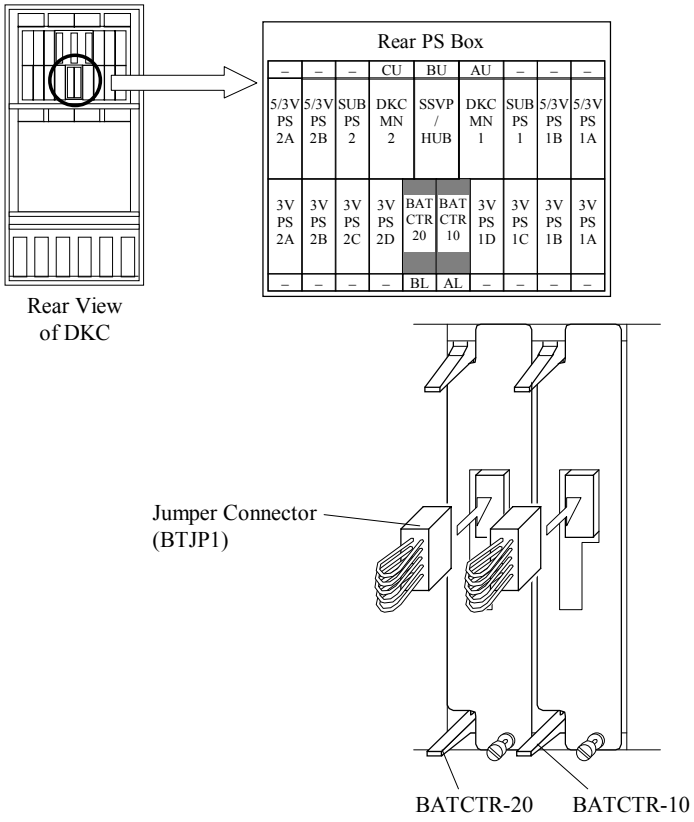


Fig. 3.3.4.3-2 Installation of Jumper Connectors in BATT CTR PCB

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3.3.5 Cabling

Table 3.3.5-1 Cabling Index

No.	Description	Reference Page	Remarks
1	AC Power Cable for Disk Controller	INST03-300	First Disk Unit only
2	DKUMN cable	INST03-350	
3	DEV Interface cable	INST03-370	

3.3.5.1 Cabling Procedure of AC Power Cables for Disk Controller

Connect the AC power cables for Disk Controller. Refer to Table 3.3.5.1-1 and Fig. 3.3.5.1-1.

Table 3.3.5.1-1 Connection of AC Power Cables (3 Phase Model)

No.	First Disk Unit			Disk Controller			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	AC Box-R10	J103	P103-1	Breaker Box-1	J200	P200-1	
2	AC Box-R11	J103	P103-2	Breaker Box-2	J200	P200-2	

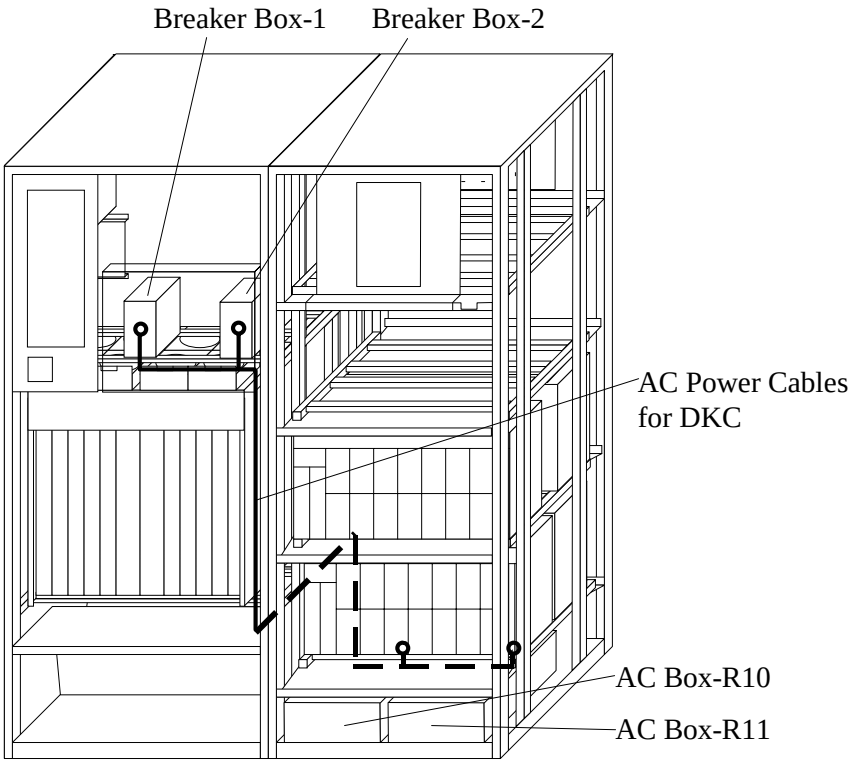
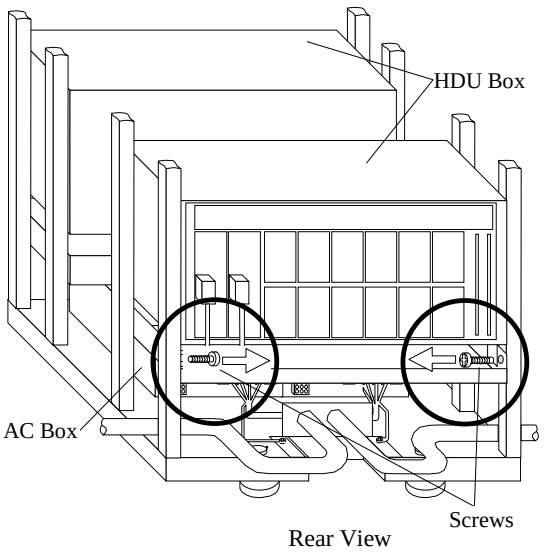


Fig. 3.3.5.1-1 Connection of AC Power Cables for Disk Controller (3 Phase Model)

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1. Remove the plate. Refer to Fig. 3.3.5.1-2.

a. Loosen the two screws.



b. Remove the plate.

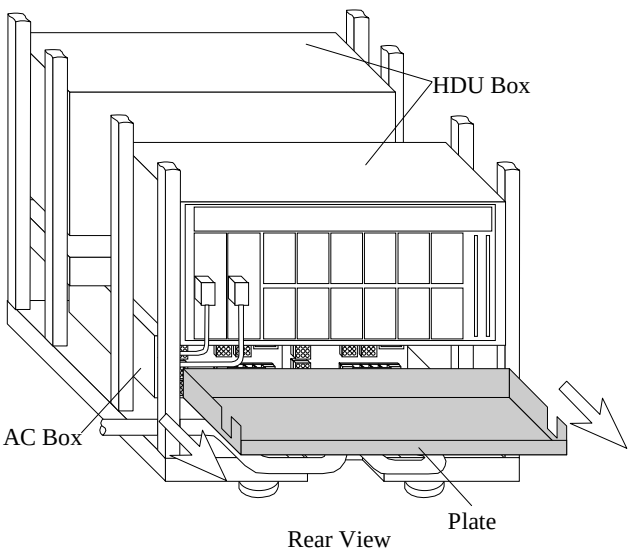


Fig. 3.3.5.1-2 Removal of Plate

2. Fix the power cable assy.
   a. Loose the four screws

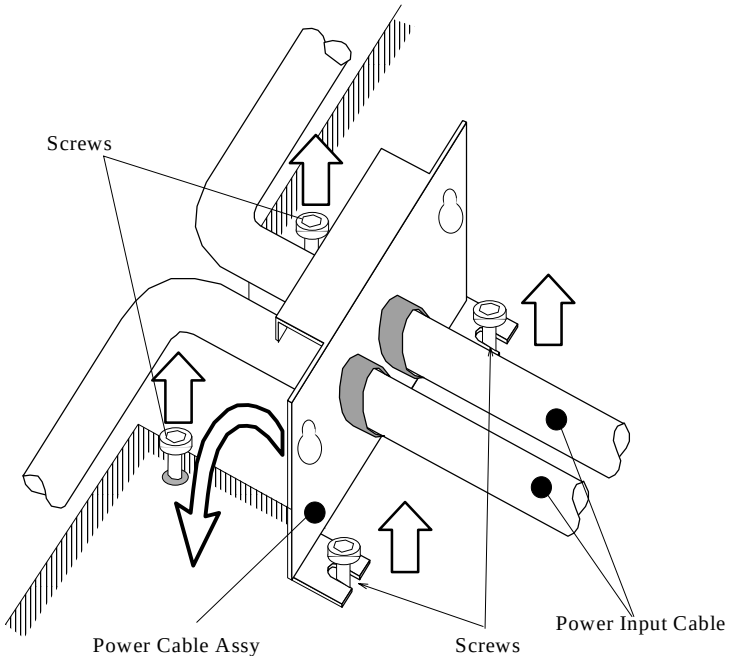


Fig. 3.3.5.1-3 Fixation of Power Cable Assy

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b. Fix the power cable Assy with screws.

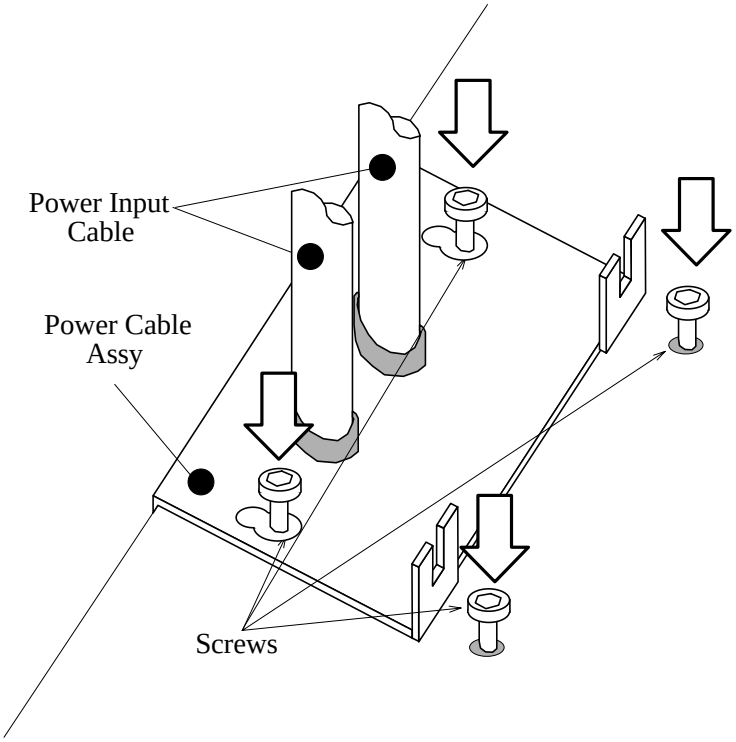
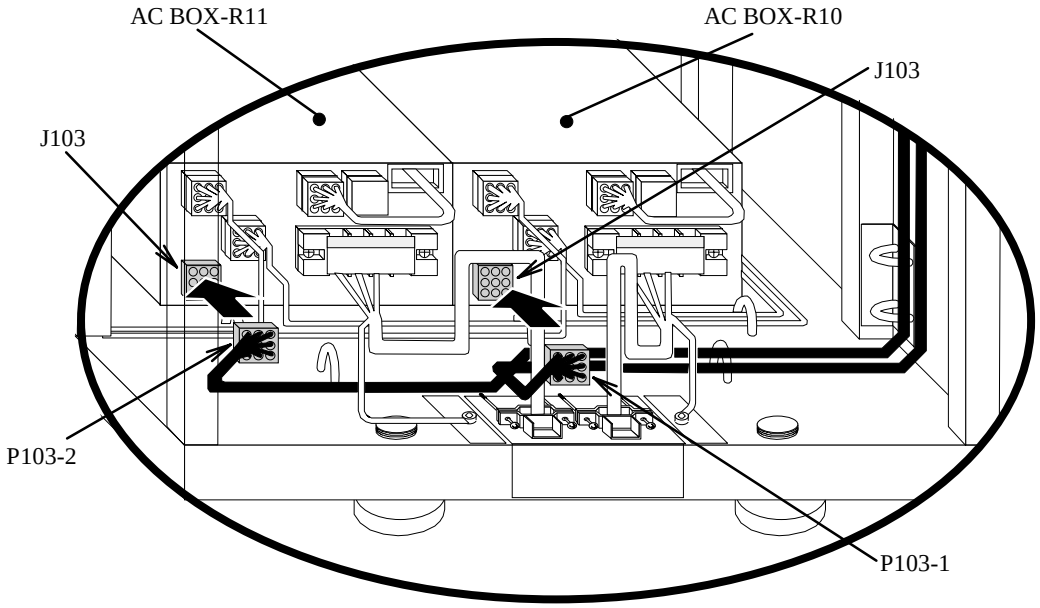


Fig. 3.3.5.1-4 Fixation of Power Cable Assy

3. When the AC Box Kit for 3 Phase (DKU-F405I-3PS) is installed, connect the AC power cables for Disk Controller.



Rear View
of DKU

Fig. 3.3.5.1-5 Connection of AC Power Cables for Disk Controller

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4. Bind the cables with the repeat binders. Refer to Fig. 3.3.5.1-6.

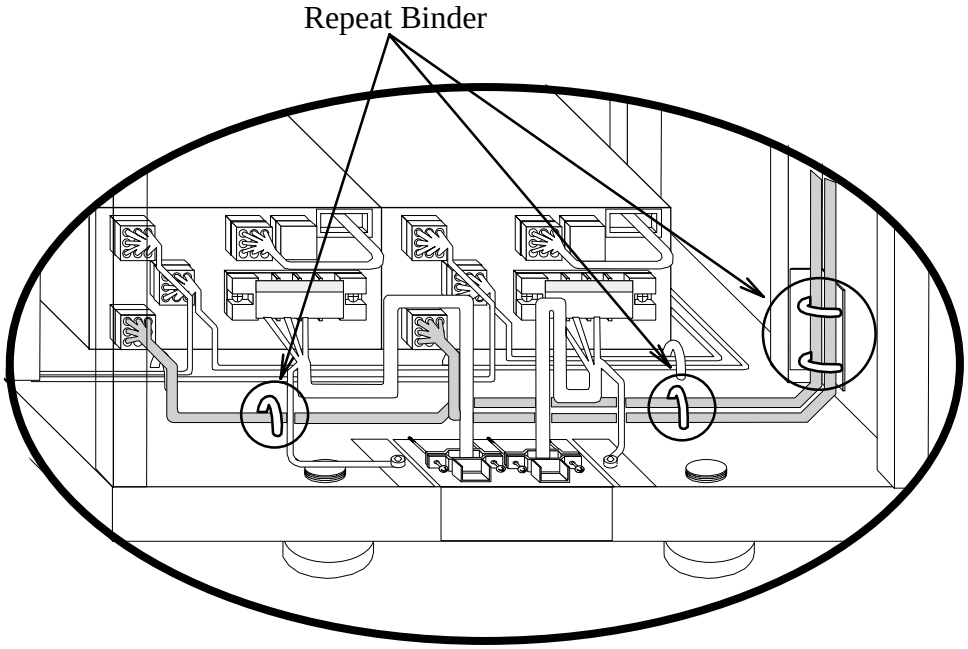


Fig. 3.3.5.1-6 Fastening of AC Power Cables for the Disk Controller

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5. Re-Install the plate. Refer to Fig. 3.3.5.1-7

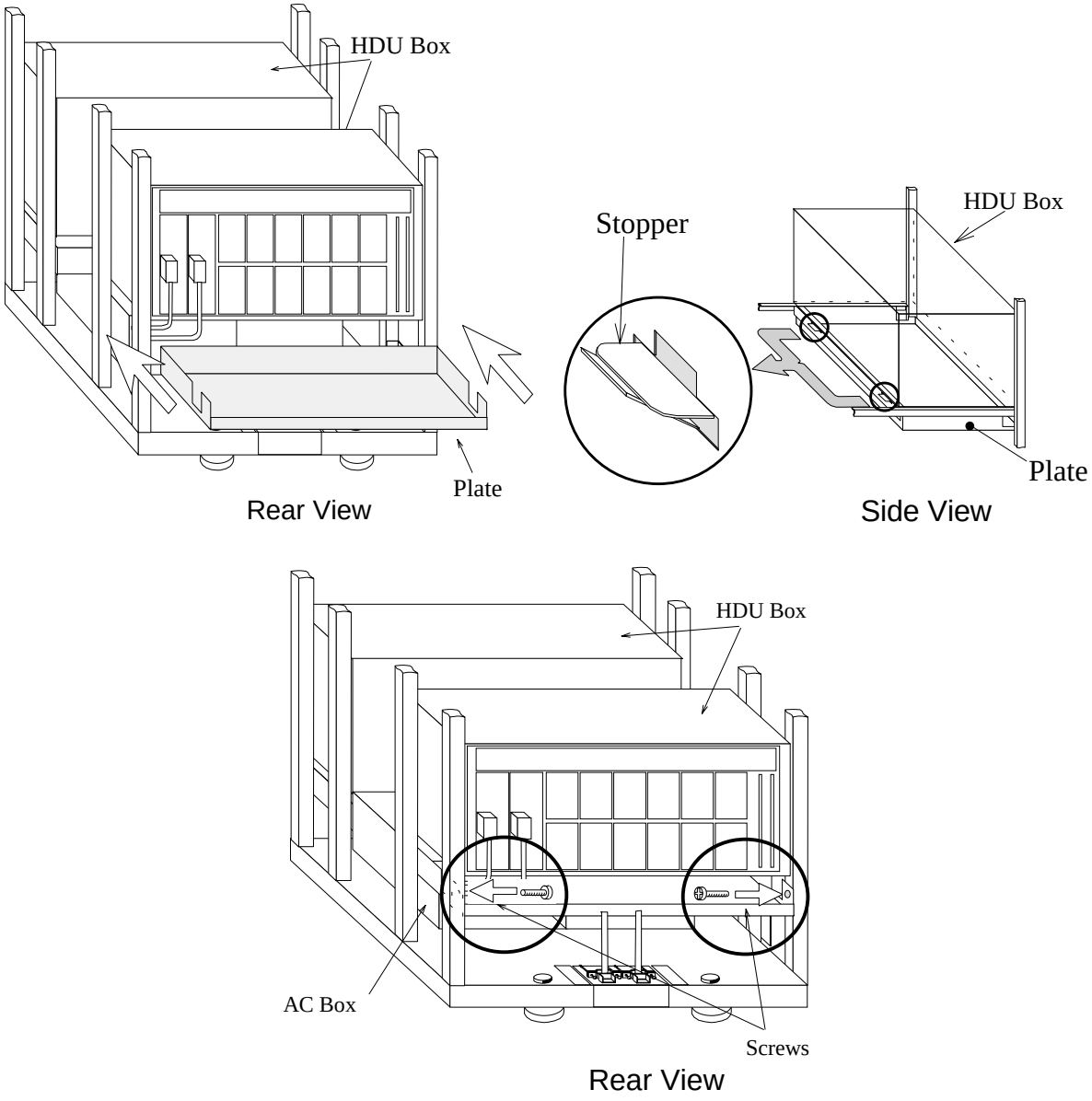


Fig. 3.3.5.1-7 Re-Installation of Plate

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3.3.5.2 Cabling Procedure of the DKUMN Cables

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.

1. Connect the PS Back Board (PL) and the DKUMN PCBs as summarized in the table below.

Table 3.3.5.2-1 Connection of DKUMN Cables

No.	Disk Controller			First Disk Unit			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	PS PL (BB)	E02	PS-E02	DKUMN-R1F	J04	P4-1R	
2	PS PL (BB)	J02	PS-J02	DKUMN-R1R	J04	P4-2R	

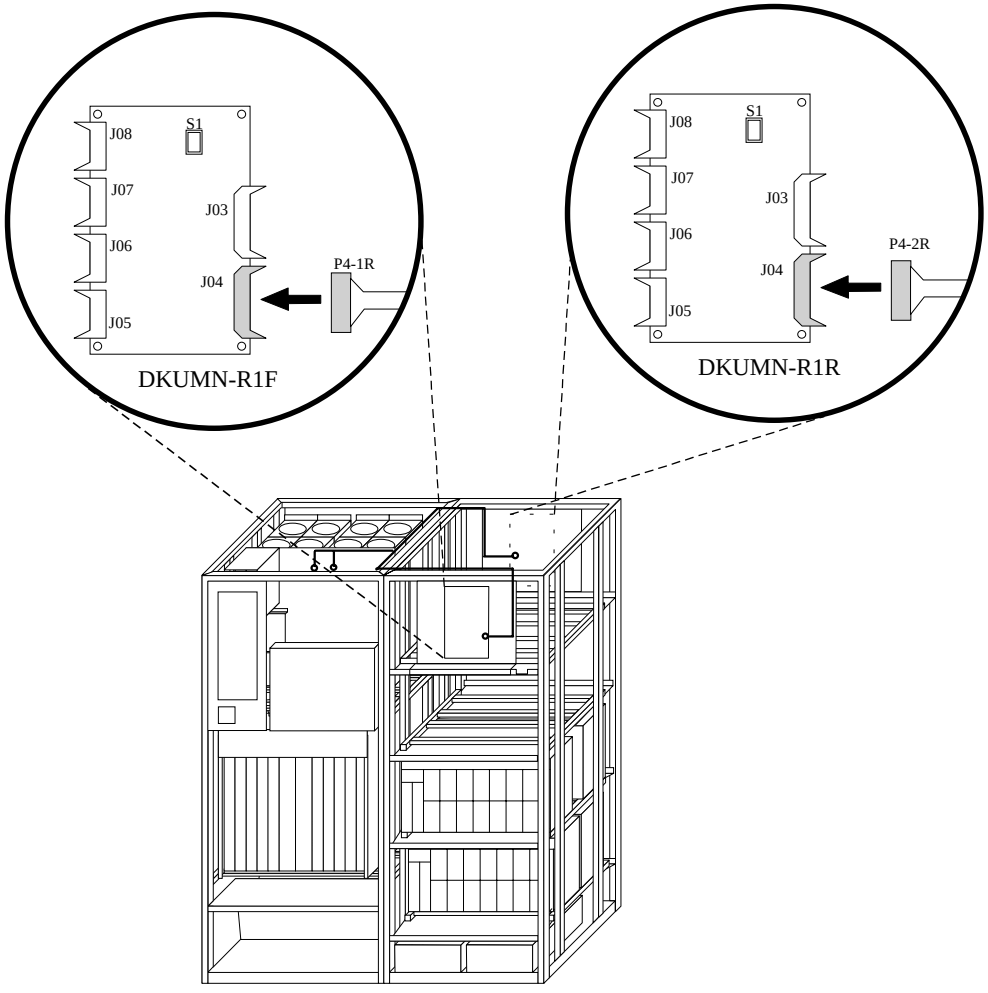


Fig. 3.3.5.2-1 Connection of DKUMN Cables

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2. Bind the cables with binders.

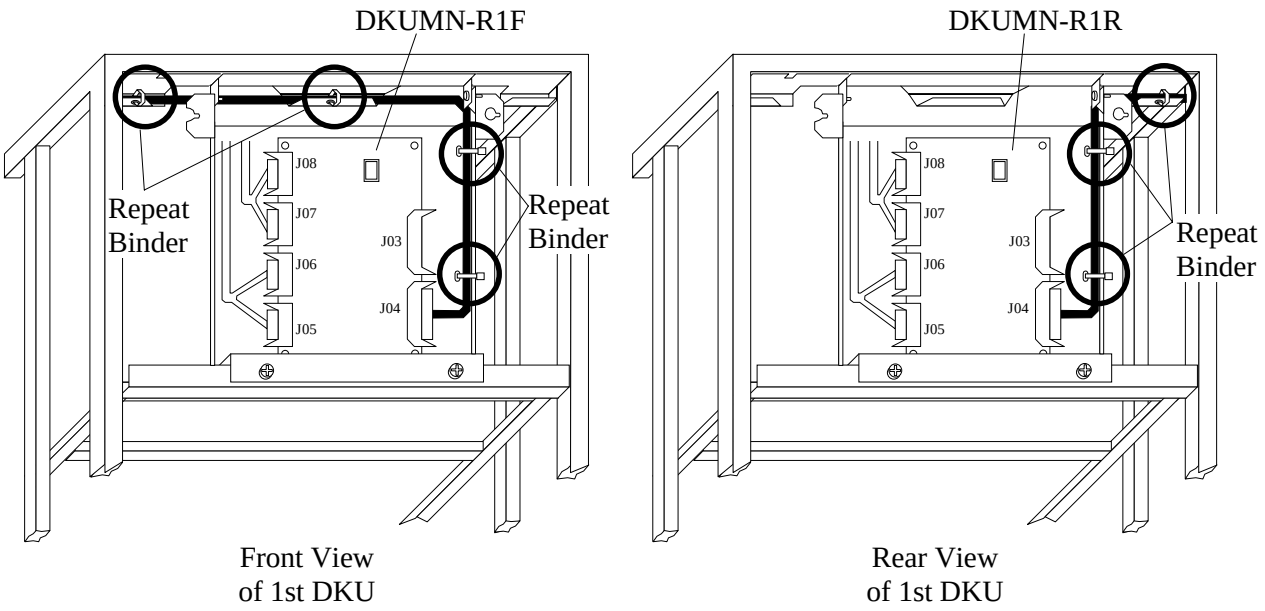


Fig. 3.3.5.2-2 Binding of DKUMN Cables

3. Lift the DKUMN PCB.
   a. Loosen the two screws.
   b. Lift the DKUMN PCB.
   c. Slide and secure the DKUMN PCB

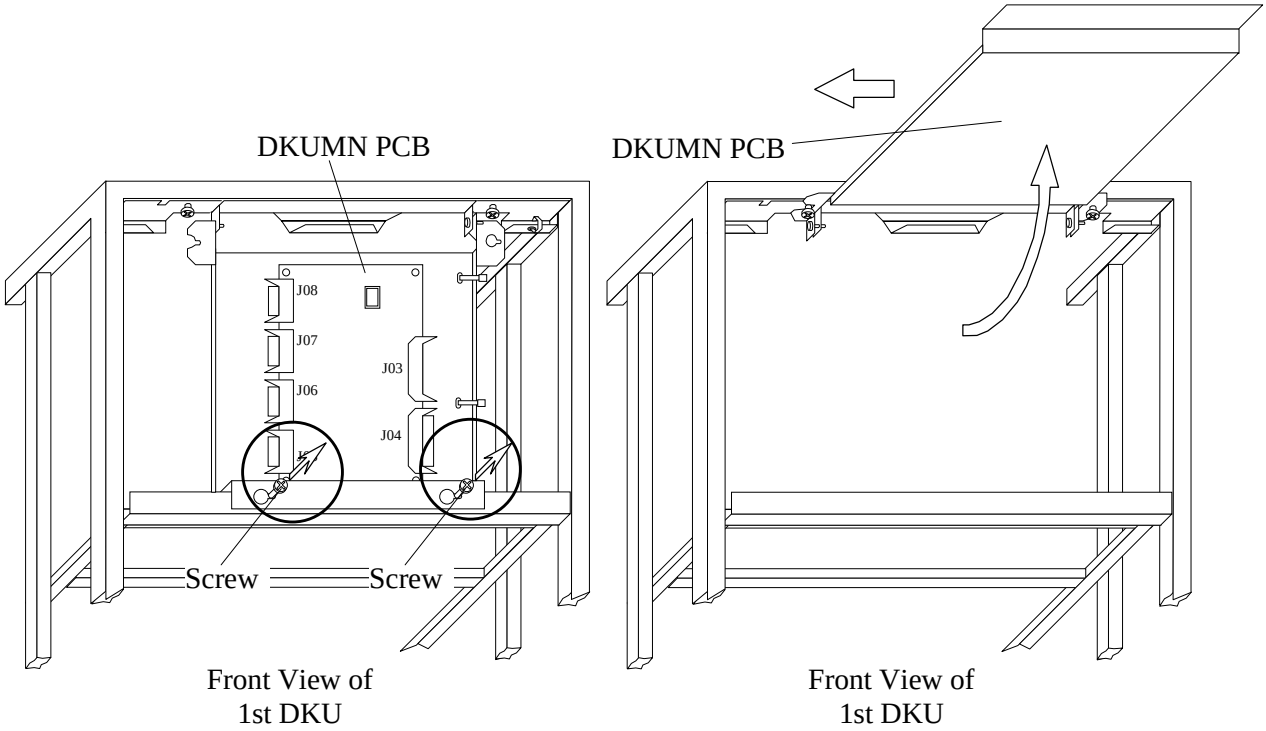


Fig. 3.3.5.2-3 Lift of DKUMN PCB

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3.3.5.3 Cabling Procedure of DEV Interface Cables

1. Remove the connector covers from each connector of DEV interface cables and connect the DEV interface cables to the sub-edges on the FSW PCBs located in the HDU box.

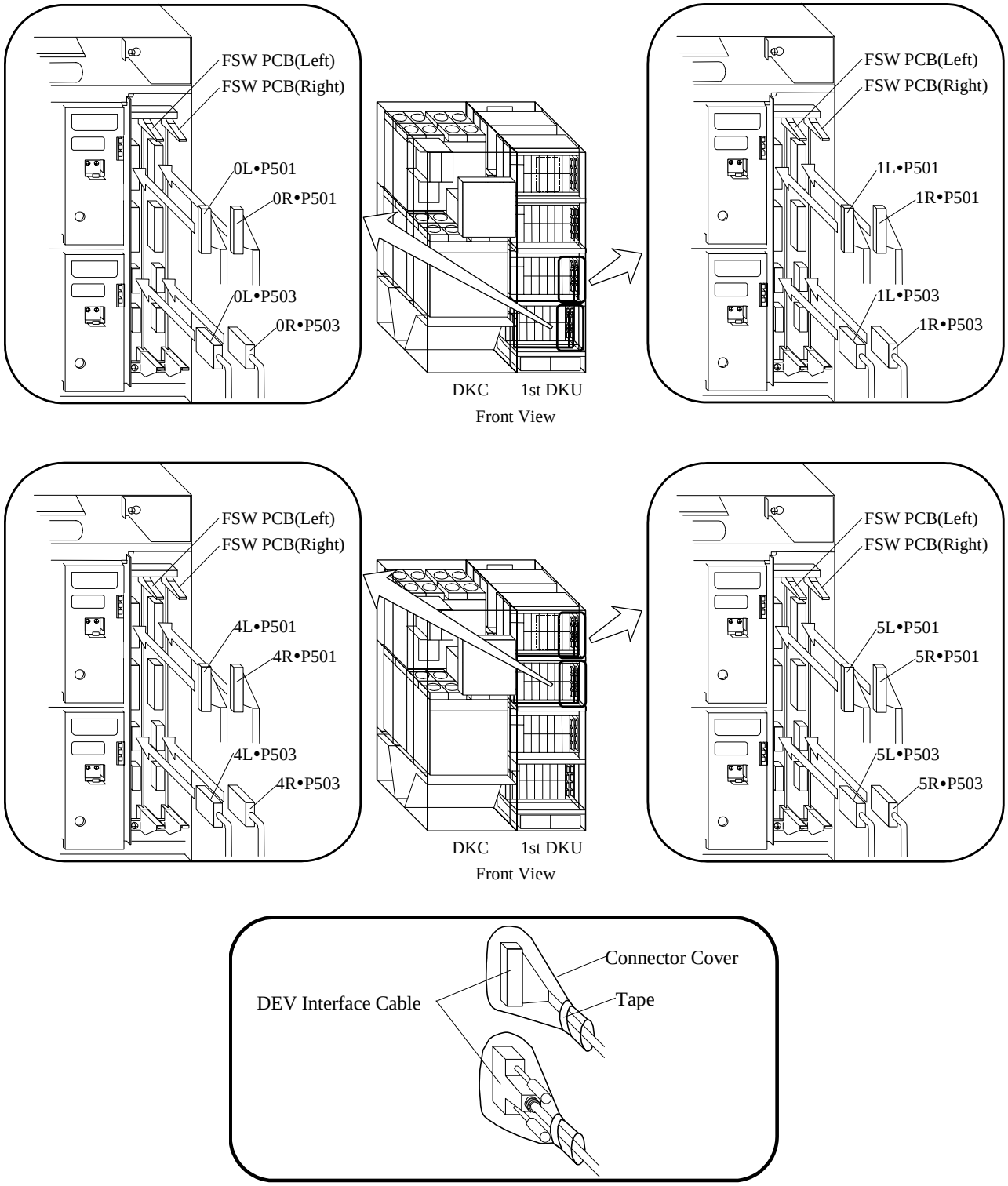
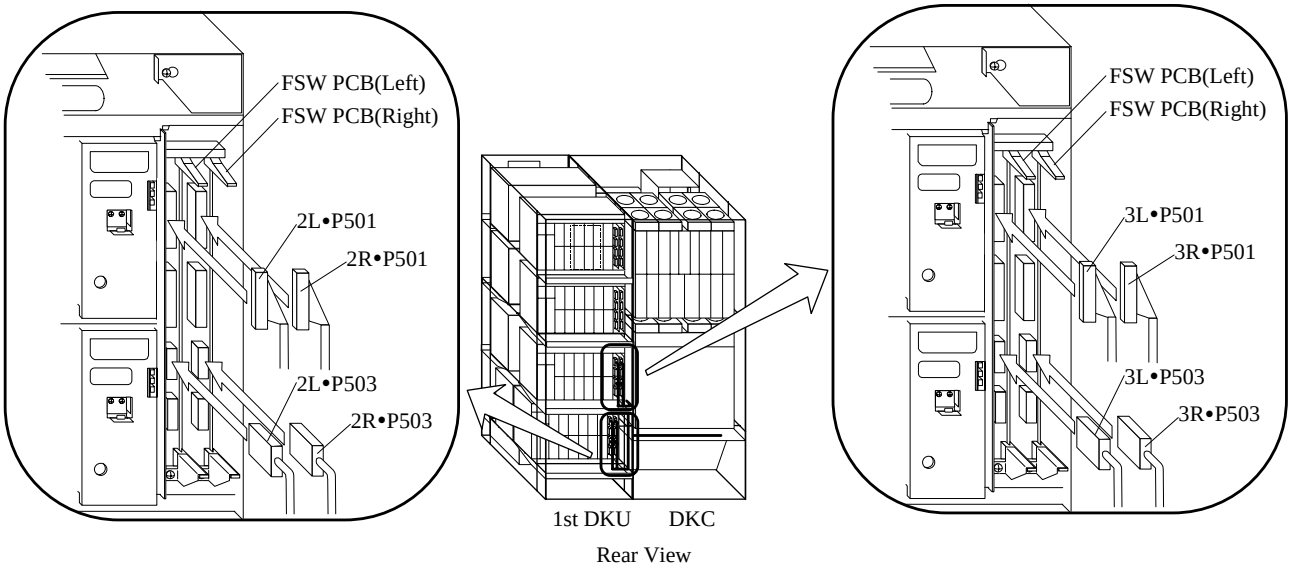
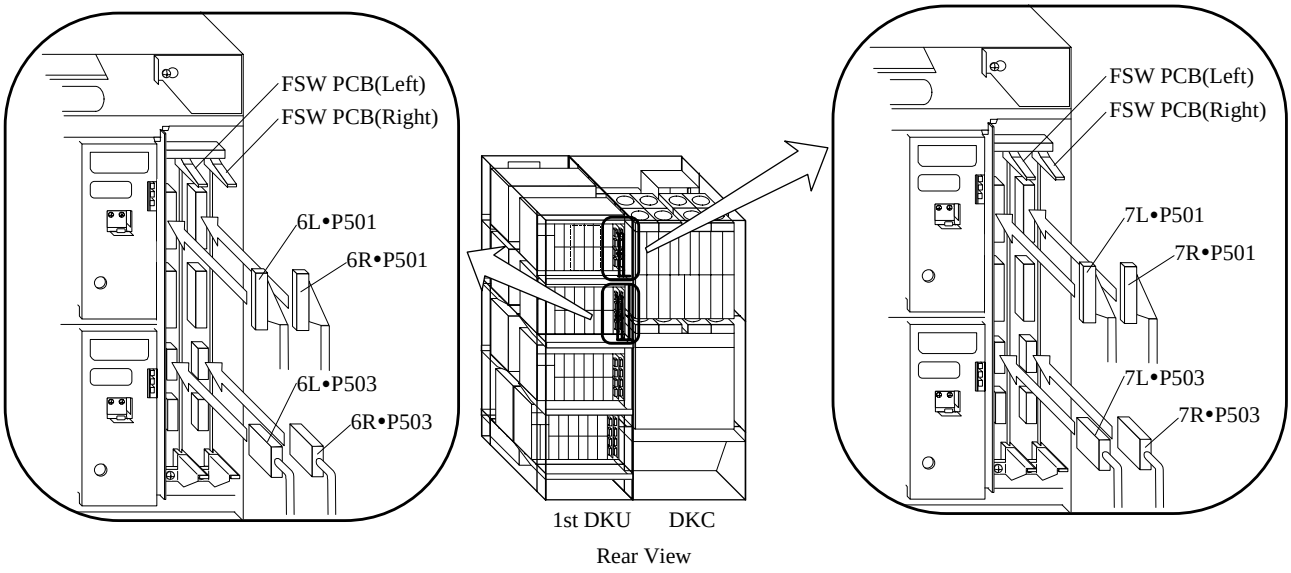


Fig. 3.3.5.3-1 Connection of DEV Interface Cables

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Rear View



Rear View

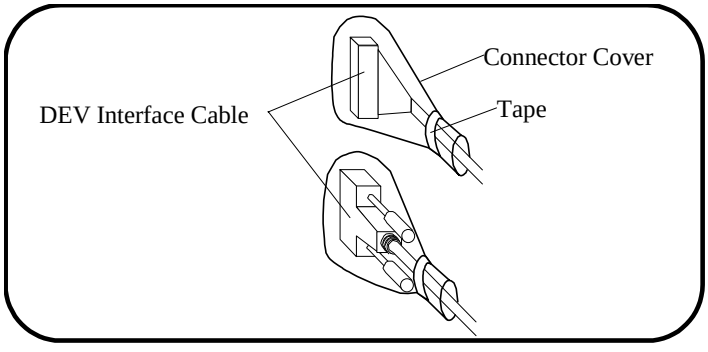


Fig. 3.3.5.3-2 Connection of DEV Interface Cables

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2. Attach the cable covers ① and ② with the screws.

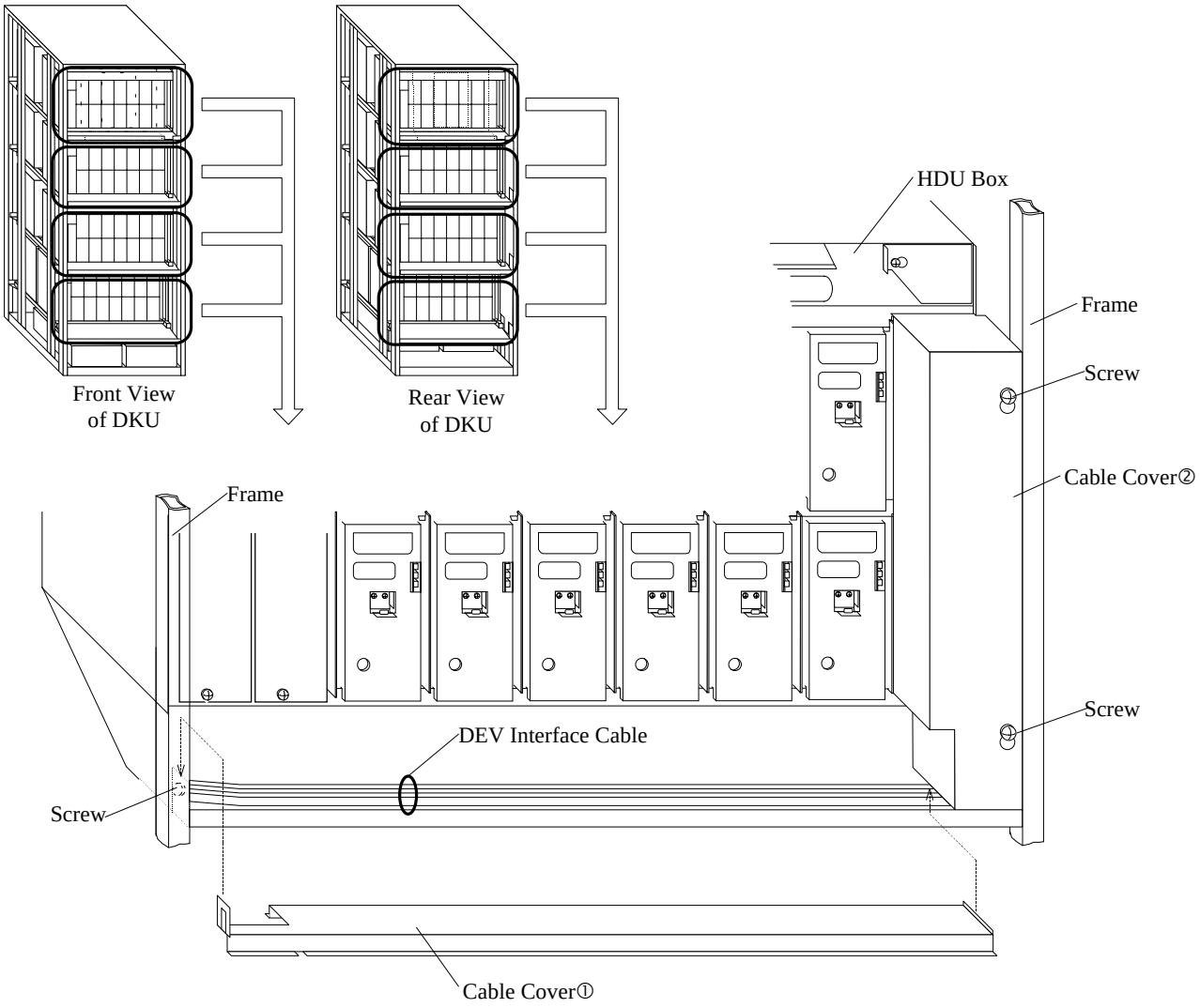


Fig. 3.3.5.3-3 Attachment of Cable Covers

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3.3.6 Labeling

1. Attach the Label (V/Hz/PH.) to the DKU bottom base of Rear side.

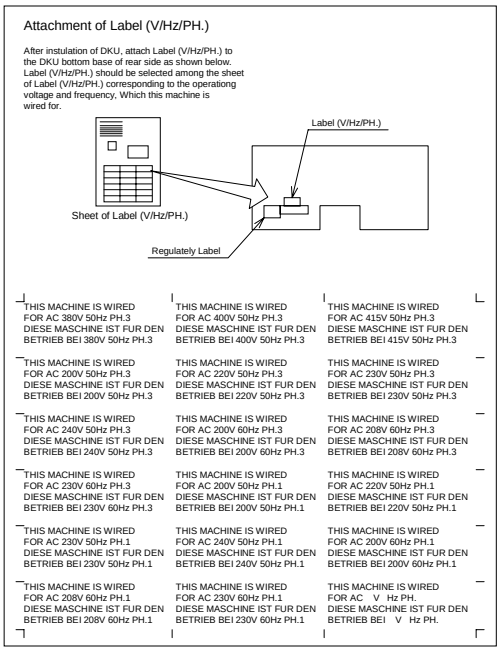


Fig. 3.3.6-1 Label (V/Hz/PH.)

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3.3.7 Check of Jumper Settings

1. Check the jumper settings (JP1, JP2 and JP3) on the DKUMN PCBs. Refer to Section 3.3.4.1 Installation of Switches and Jumper Plugs in DKUMN PCB [INST03-270].
   When the jumper plugs are not installed to the correct sockets, install the jumper plugs to the correct sockets.
2. Loosen the screws and remove the covers referring to Fig. 3.3.7-1.
   Check the PL ID jumpers on the PL ID PCBs referring to Fig. 3.3.7-2.
   When the PL ID jumpers are not installed to the correct sockets, install the PL ID jumpers to the correct sockets.
   And then attach the covers with the screws.

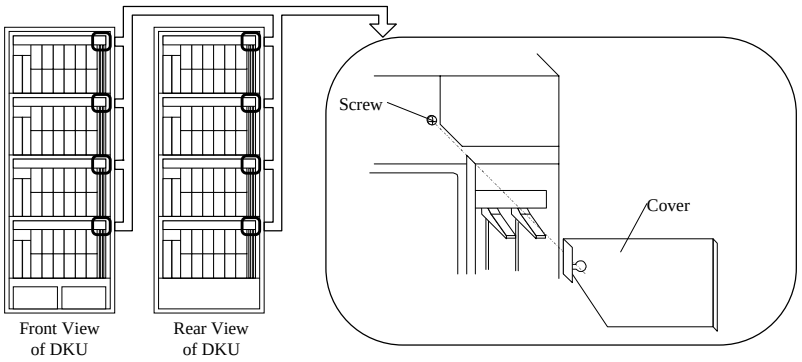


Fig. 3.3.7-1 Removal of Covers

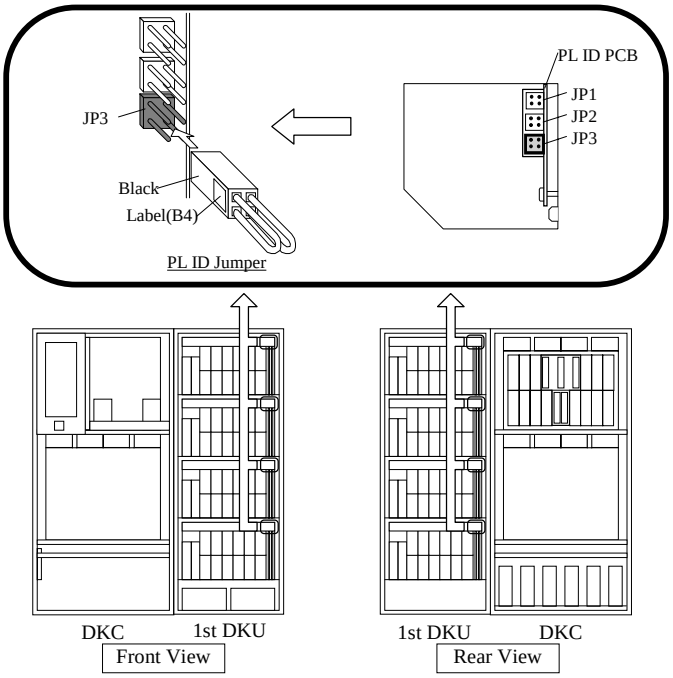


Fig. 3.3.7-2 Setting the PL ID Jumpers

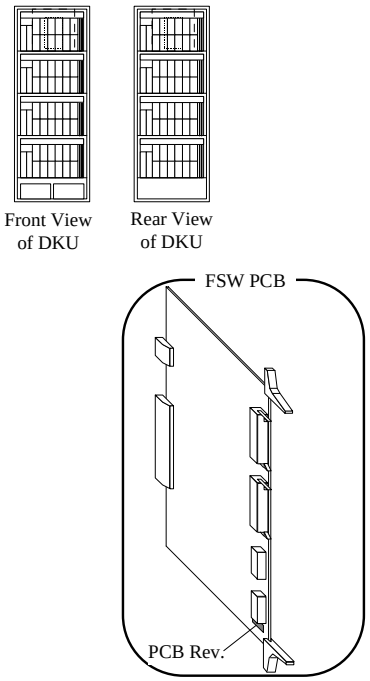
3. Return to General Flow.
   New Installation : Go to INST02-10 step (3).

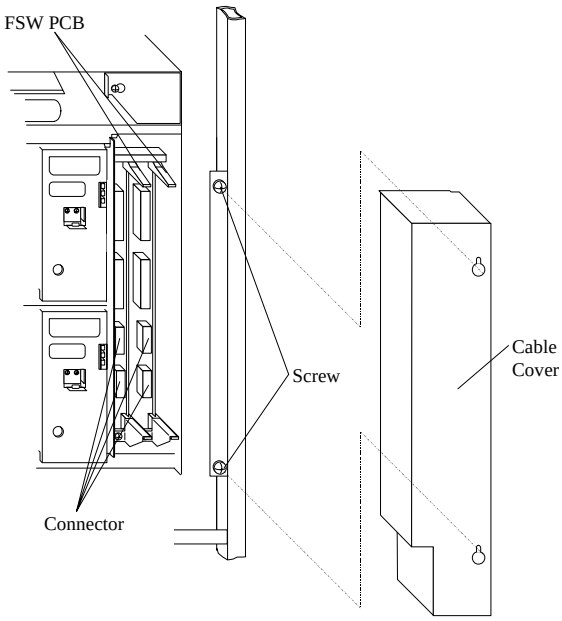
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3.4 Installation of Disk Unit (DKU405I-14)

> **⚠ CAUTION**
>
> Check the FSW PCB Rev. firstly when additional DKU installation. The FSW PCB Rev. should be upper than **A/F31**. If Not, you should perform the PCB Rev. before starting DKU additional installation work.

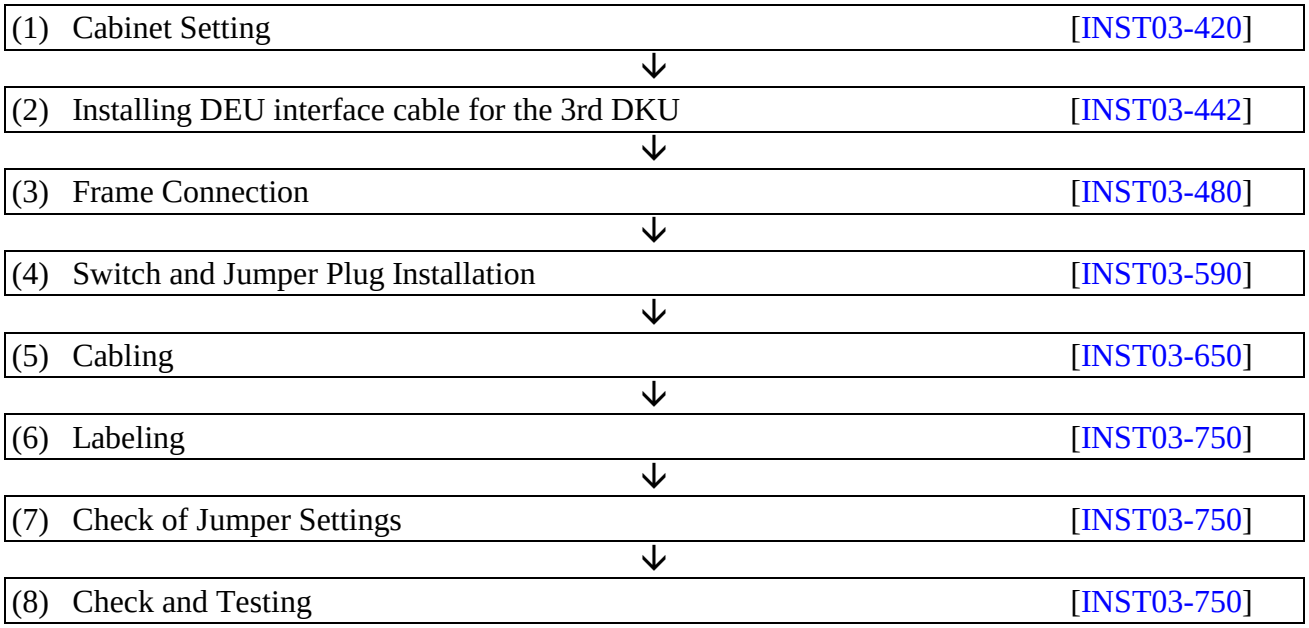
1. Loosen the screws then remove the Cable cover.
2. Check the FSW PCB Rev. of all DKUs refer to following Item 3.
3. If the FSW PCB Connector color is BLACK, Rev. up is Not required.
   If the FSW PCB Connector color is WHITE, the PCB Rev. Up is required.





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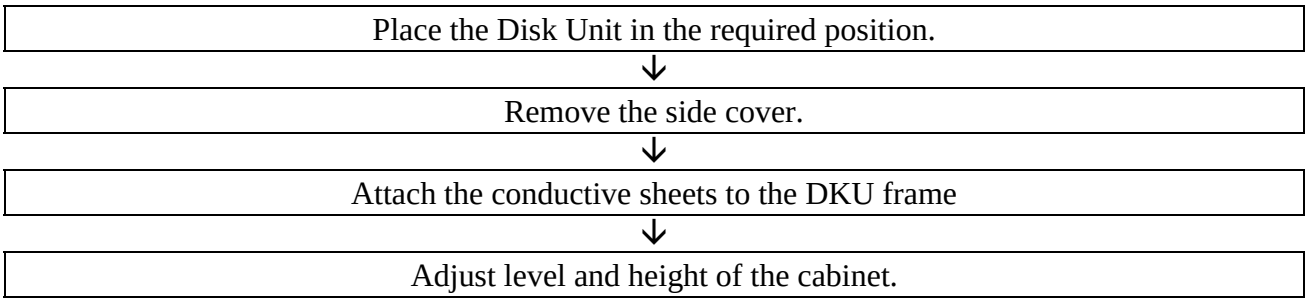
3.4.1 Flowchart



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3.4.2 Cabinet Setting (Adjusting the Cabinet Height)

3.4.2.1 Flowchart

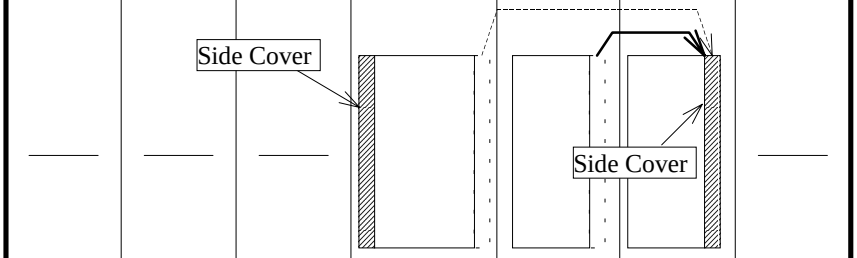
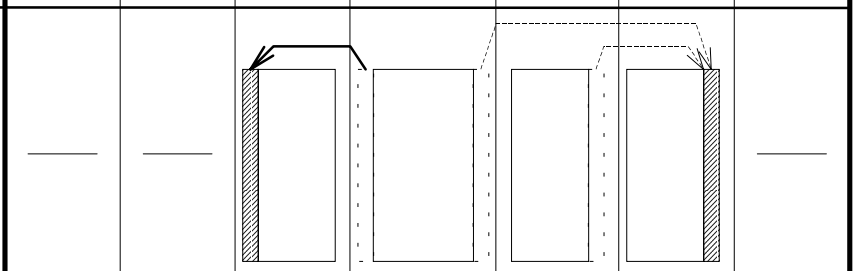
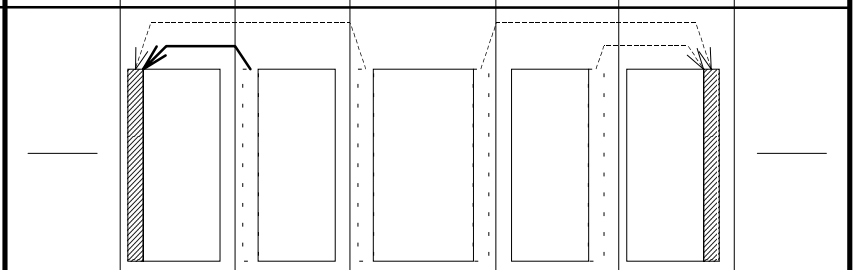
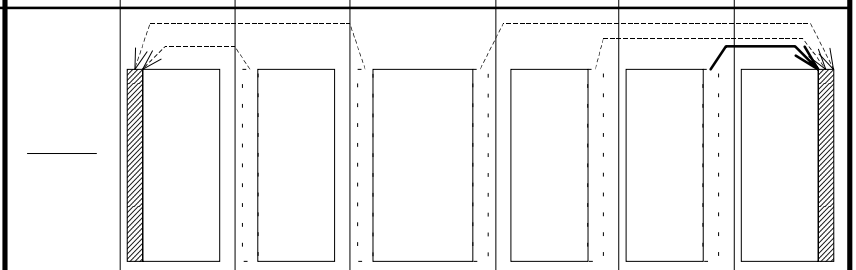
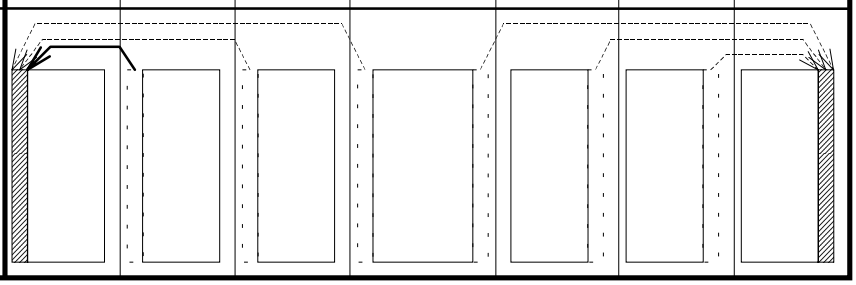


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3.4.2.2 Disk Unit(s) Layout

Refer to Table 3.3.2-1 when laying out the First Disk Unit with respect to the Disk Controller and relocating the side cover.
Install the Disk Unit(s) in one of the locations shown in Table 3.4.2.2-1.

Table 3.4.2.2-1 Removal and Re-installation of Side Cover

Configuration	Sixth Disk Unit	Fourth Disk Unit	Third Disk Unit	Disk Controller	First Disk Unit	Second Disk Unit	Fifth Disk Unit
Disk Controller and Two Disk Units	———	———	———				———
Disk Controller and Three Disk Units	———	———					———
Disk Controller and Four Disk Units	———						———
Disk Controller and Five Disk Units	———						
Disk Controller and Six Disk Units							

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3.4.2.3 Side Cover Removal

Remove the side covers shown in Table 3.4.2.2-1 from the installed Disk Controller or Disk Unit(s).

Note: When the left side cover is removed from the Disk Controller Unit, must be removed the Front and Rear Logic Box Covers beforehand. Refer to SECTION 3.4.2.6 Logic Box Covers Removal.

3.4.2.4 Conductive Sheets Attachment

1. Attach the conductive sheets to the DKU frame referring to Fig. 3.4.2.4-1 and Fig. 3.4.2.4-2.

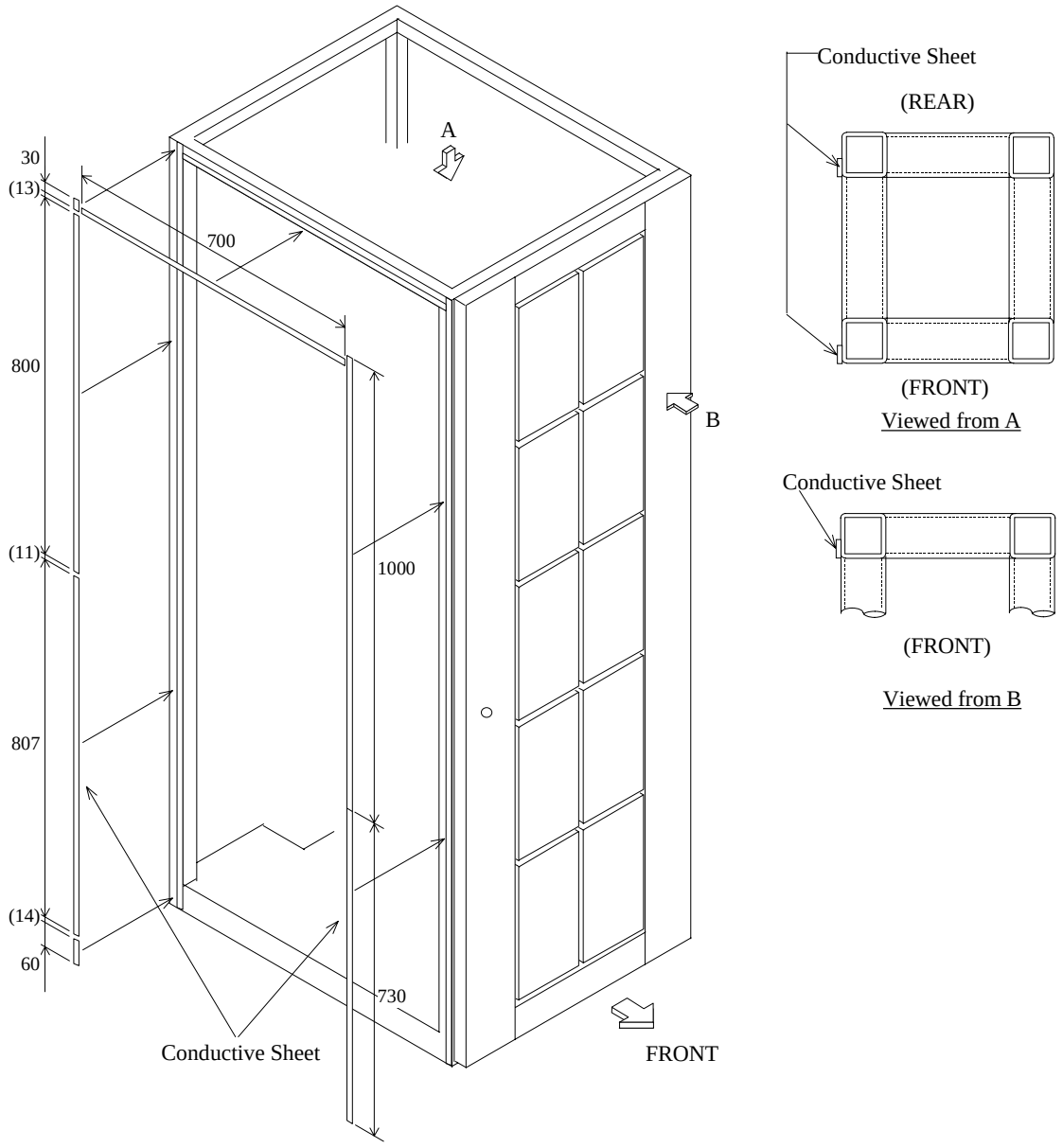


Fig. 3.4.2.4-1 Attachment of Conductive Sheets

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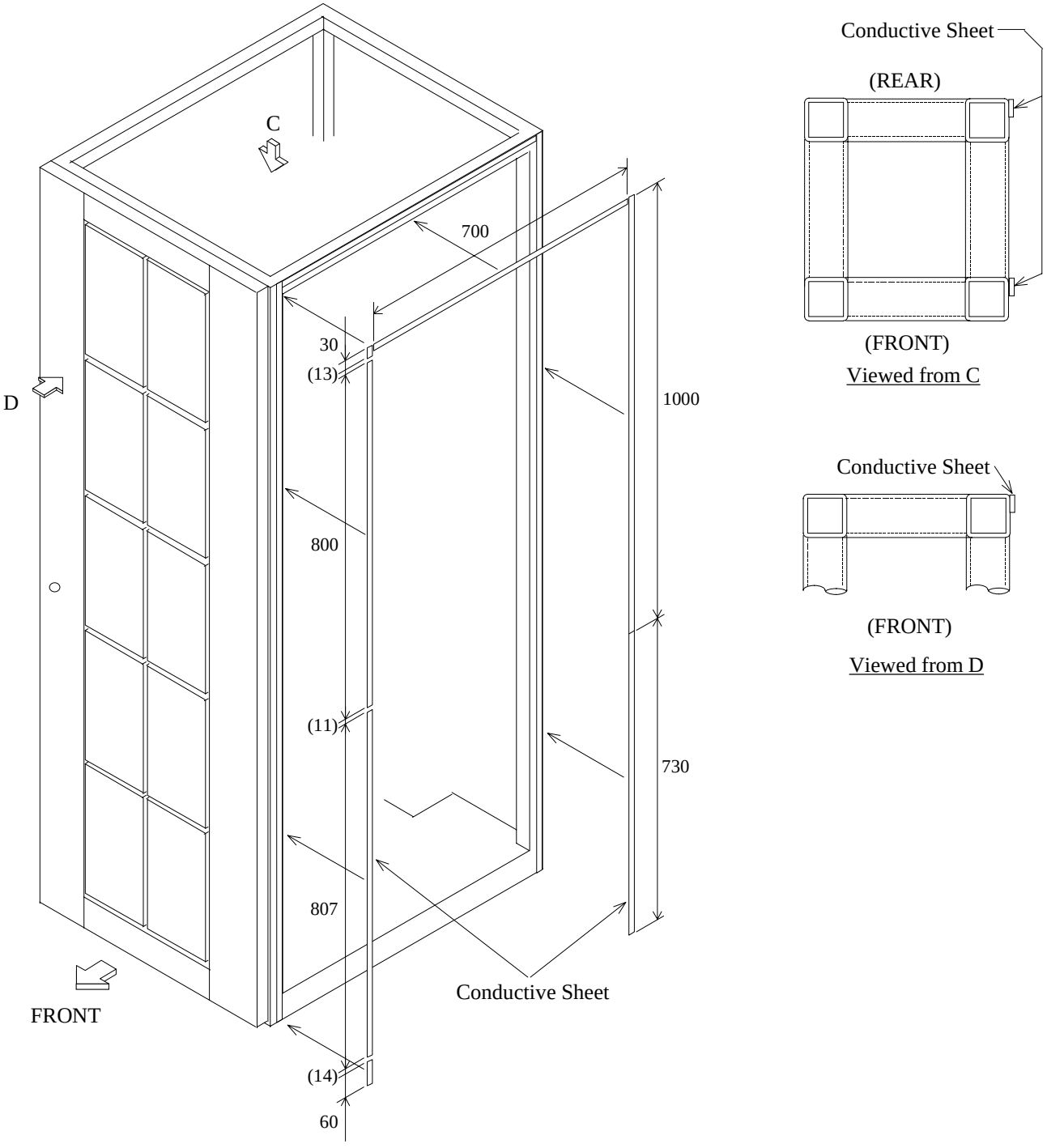


Fig. 3.4.2.4-2 Attachment of Conductive Sheets

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3.4.2.5 Installing DEV interface cable for the 3rd DKU

Note: When the third Disk Unit is connected to the Disk Controller Unit, must be removed the following covers.

1. Loosen the four screws and remove the Front Logic Box Cover from the Disk Controller.
2. Remove the two screws and open the cable cover.

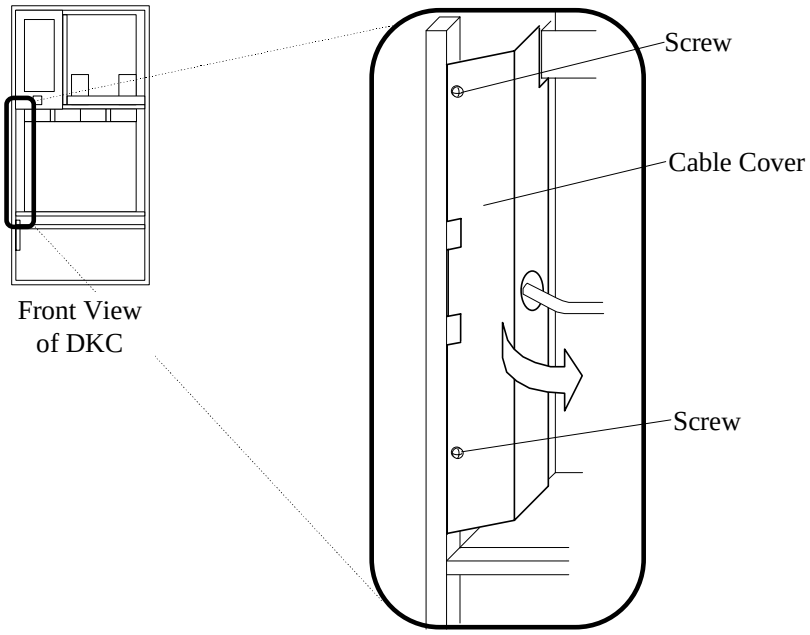


Fig. 3.4.2.5-1 How to open the Cover (DKC front side)

3. Loosen the four screws and remove the Rear Logic Box Cover.
4. Remove the two screws and open the cable cover.

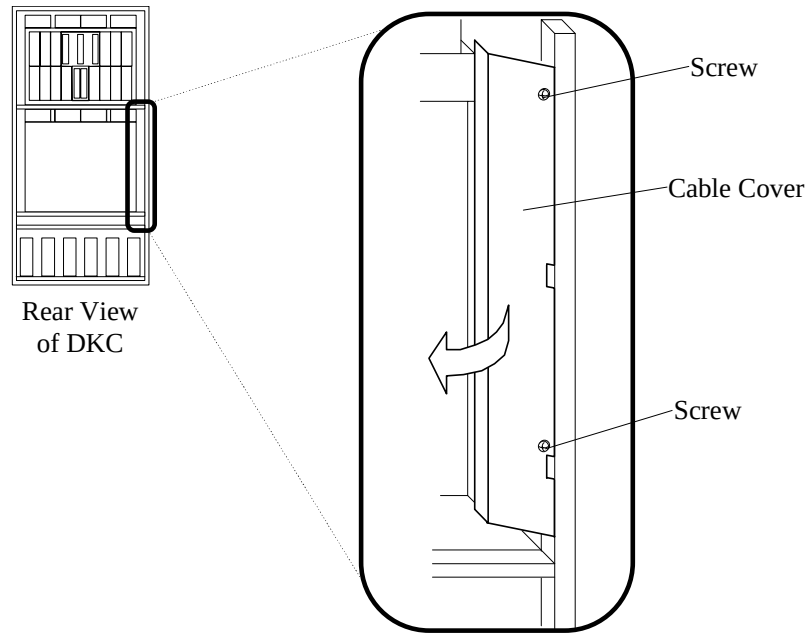


Fig. 3.4.2.5-2 How to open the Cover (DKC rear side)

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5. Refer to Table 3.4.2.5-1 and Table 3.4.2.5-2. Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers. If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.

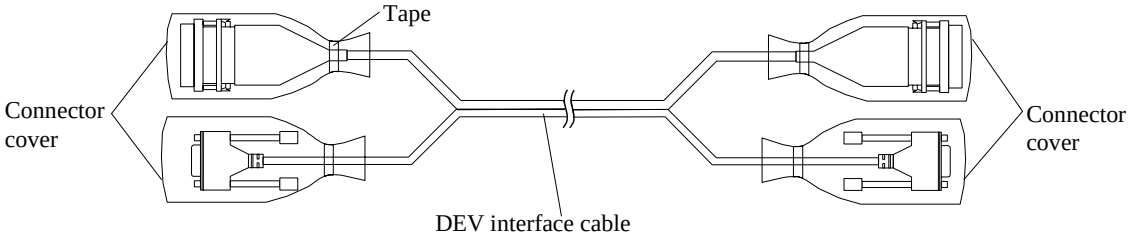


Fig. 3.4.2.5-3 Checking the Connector Covers

6. Refer to Fig. 3.4.2.5-4. Route the eight DEV interface cables listed in Table 3.4.2.5-1 from the front to the rear of the disk controller.

Table 3.4.2.5-1 Parts List for Additional DEV Interface Cable

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•D11	0R•P501	5509233-A
2	1R•D12	0R•P503	
3	1R•D21	1R•P501	5509233-B
4	1R•D22	1R•P503	
5	2R•K11	0L•P501	5509233-E
6	2R•K12	0L•P503	
7	2R•K21	1L•P501	5509233-F
8	2R•K22	1L•P503	

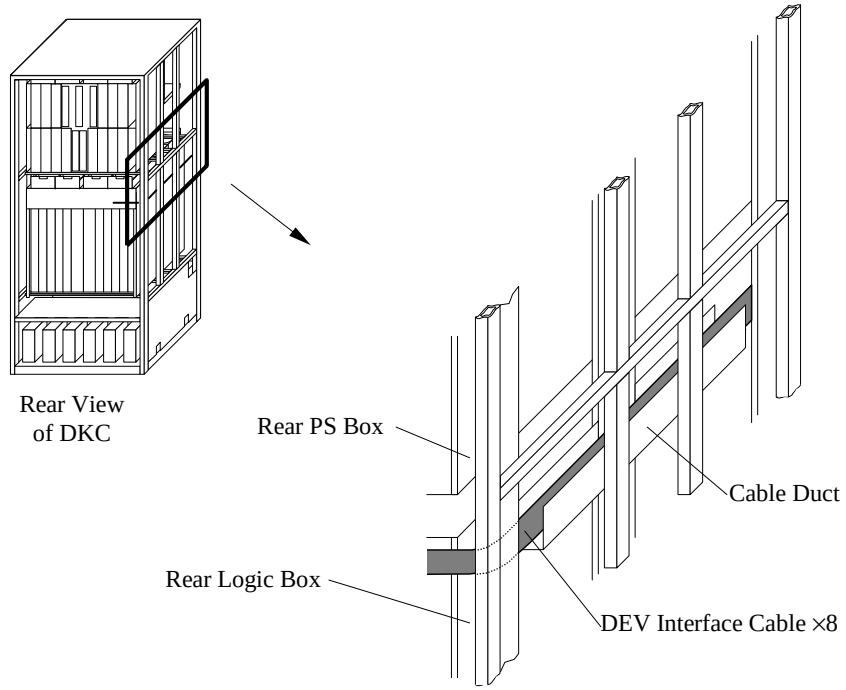


Fig. 3.4.2.5-4 Attachment of DEV Interface Cable

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7. Refer to Fig. 3.4.2.5-5. Route the eight DEV interface cables listed in Table 3.4.2.5-2 from the front to the rear of the disk controller.

Table 3.4.2.5-2 Parts List for Additional DEV Interface Cable

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•E11	4R•P501	5509233-J
2	1R•E12	4R•P503	
3	1R•E21	5R•P501	5509233-K
4	1R•E22	5R•P503	
5	2R•L11	4L•P501	5509233-N
6	2R•L12	4L•P503	
7	2R•L21	5L•P501	5509233-P
8	2R•L22	5L•P503	

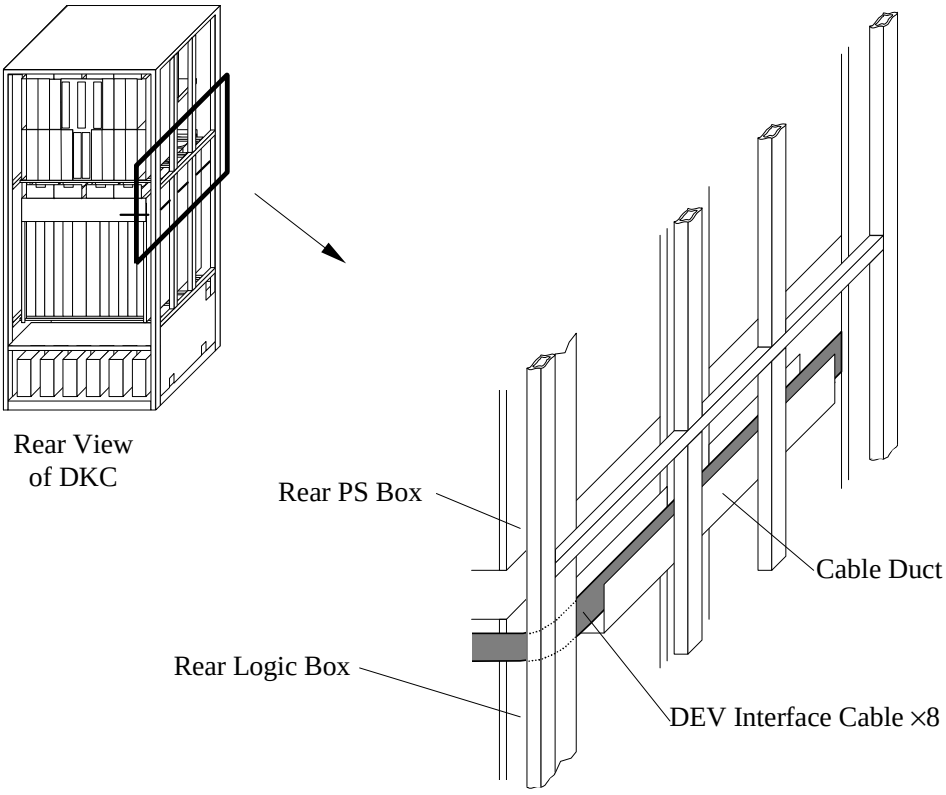


Fig. 3.4.2.5-5 Attachment of DEV Interface Cables

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3.4.2.6 Adjusting the Cabinet Height and Level

1. Lower the screw jacks until the frame is 57 mm (2.25 in.) from the floor before connecting the frames.
2. Level the device as shown on Fig. 3.4.2.6-1.
3. When adjusting the cabinet height, make sure that there is a clearance of approximately 2.5 mm (0.1 in.) between the casters and the floor.

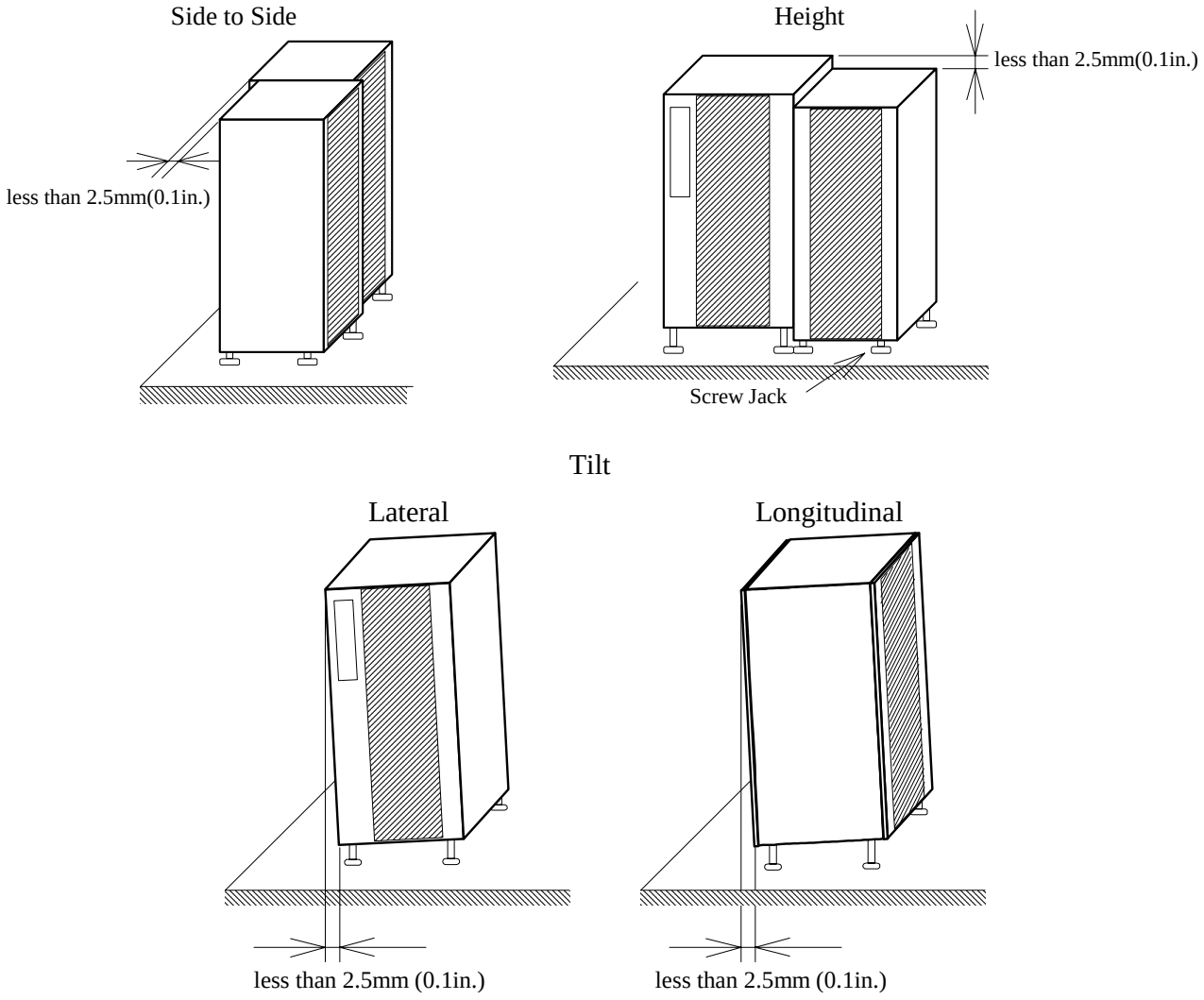


Fig. 3.4.2.6-1 Cabinet Setting

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3.4.2.7 DKU Cable Covers Removal

Remove the cable cover which located connecting bolt attach position, when connected frames.

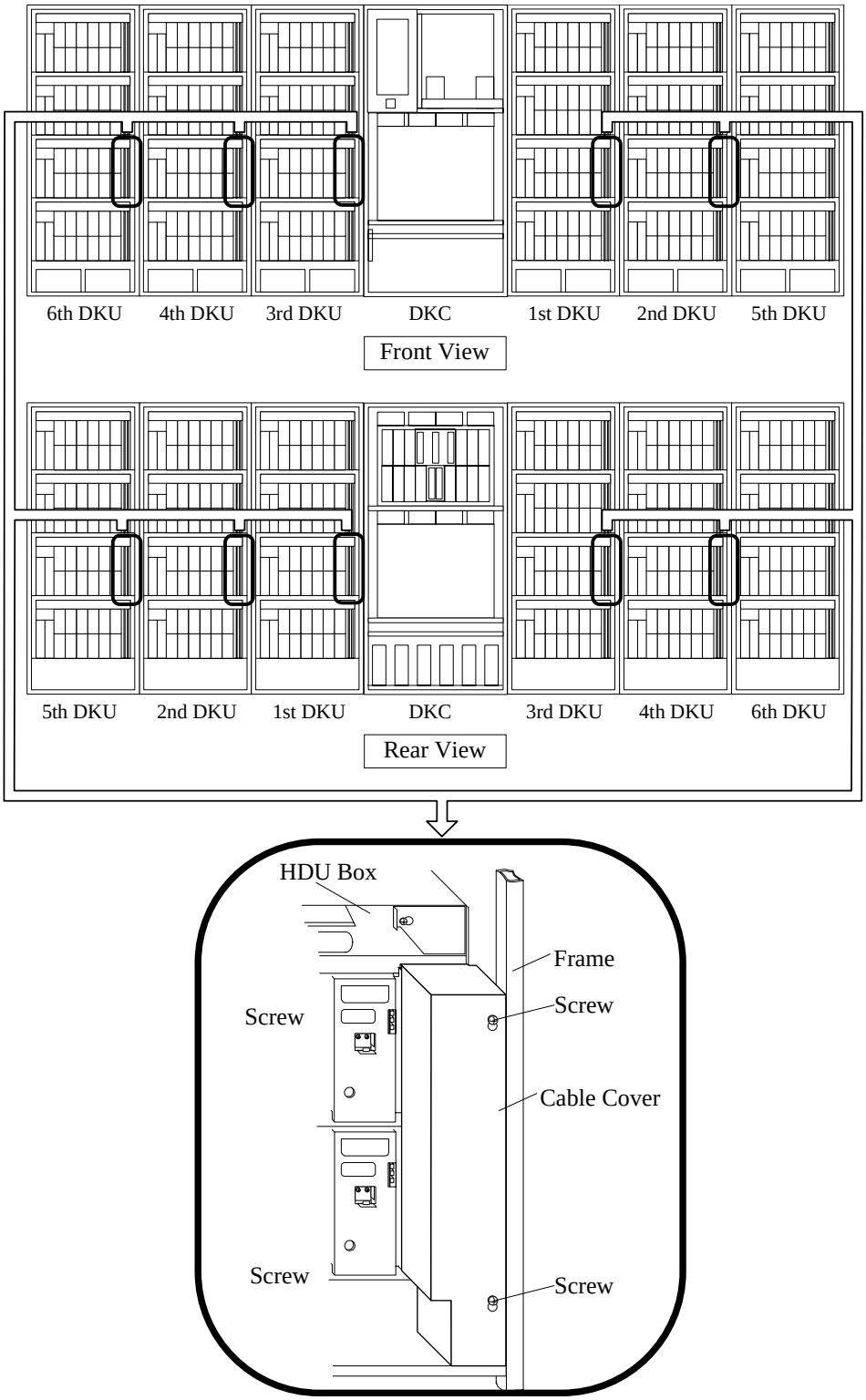
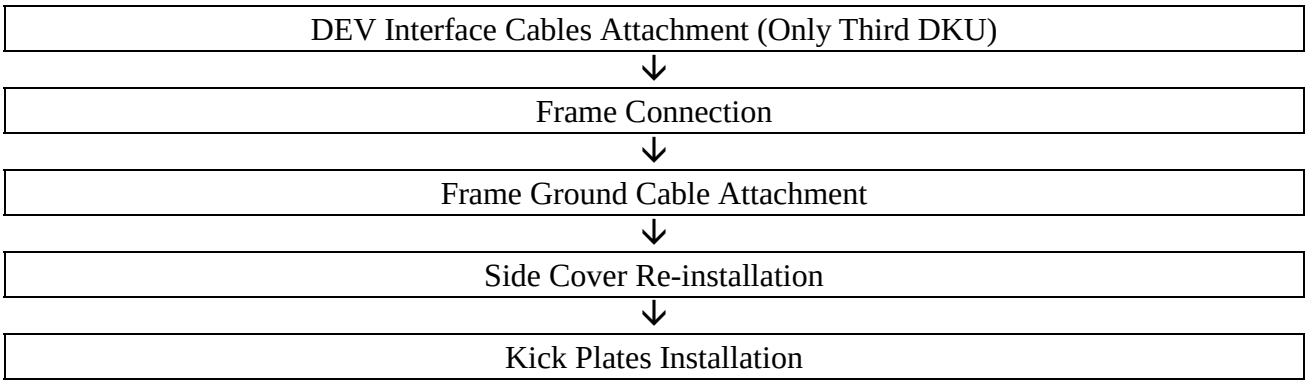


Fig. 3.4.2.7-1 Removal of Cable Covers

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3.4.3 Frame Connection

3.4.3.1 Flowchart



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3.4.3.2 Frame Connection

Connect the devices together using four of the Connecting Bolt Assy. Place two at the front and two at the rear . See figures 3.4.3.2-1 and 3.4.3.2-2. The direction of the hexagon socket head bolts must be the same as shown in the figure.

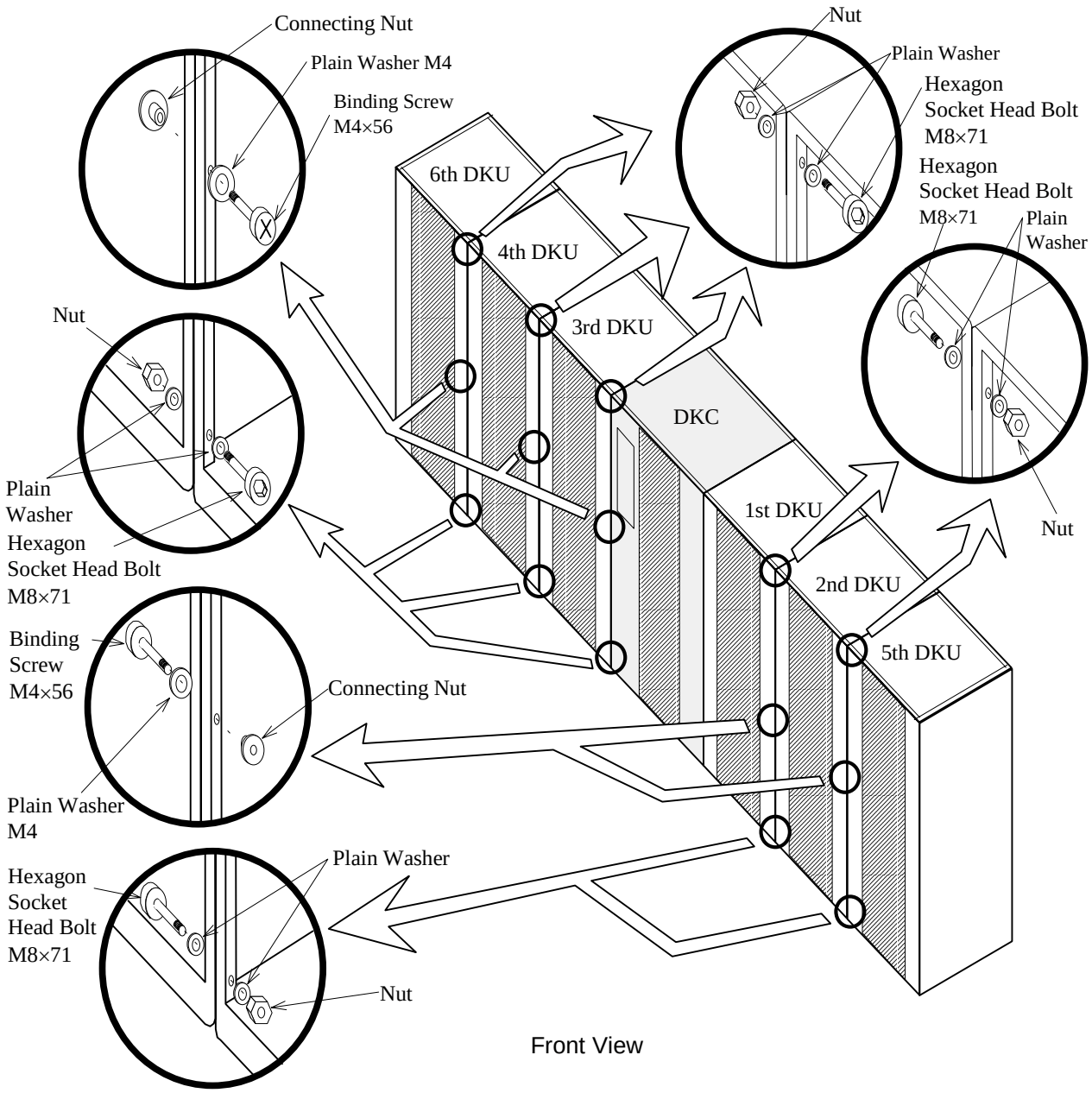


Fig. 3.4.3.2-1 Connection of Frame

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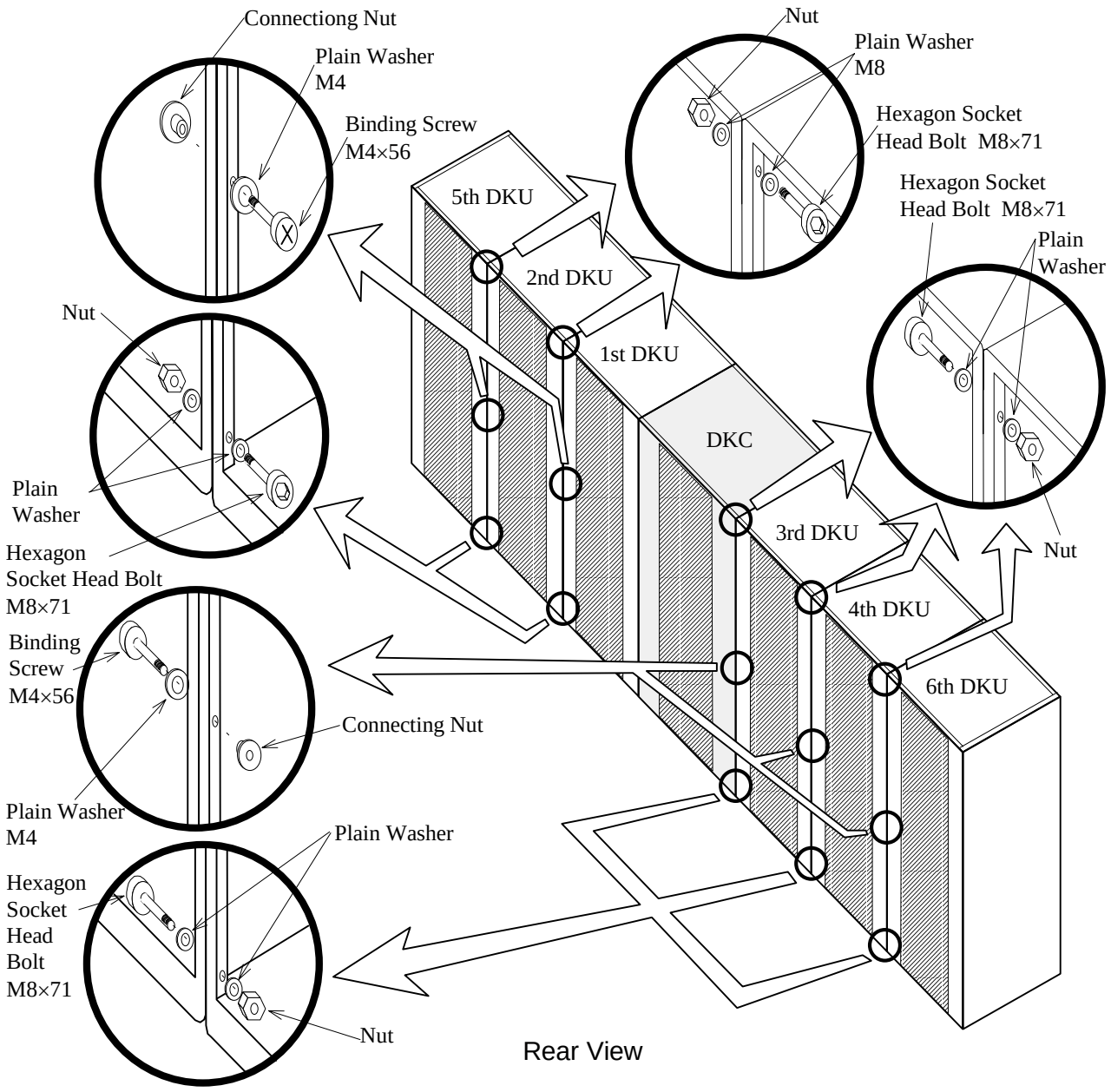
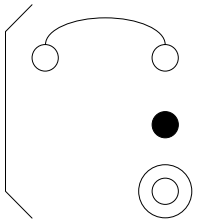


Fig. 3.4.3.2-2 Connection of Frame

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3.4.3.3 Frame Ground Cable Attachment

Note



Frame ground cable

: Screw and washer (lock washer)

: Thread

Second Disk Unit

1. Remove the right side cover together with the frame ground cable from the Disk Controller or First Disk Unit.
2. Connect the cabinet.
3. Attach the side cover to the Second Disk Unit. Refer to SECTION 3.4.3.4 Side Cover Re-Installation [INST03-550].
4. Attach the frame ground cable with the screw and lock washer.

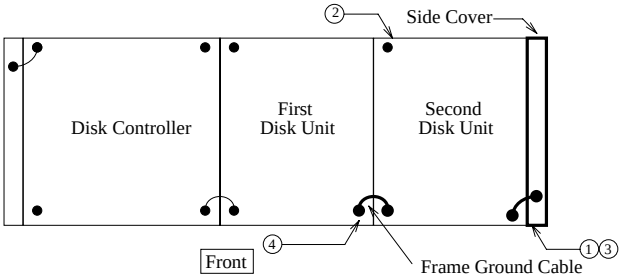
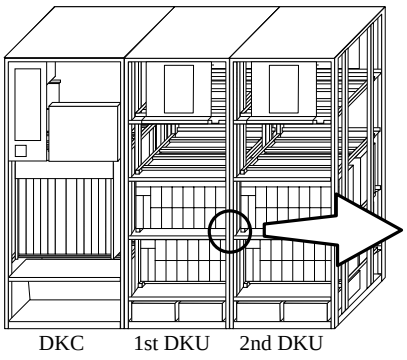


Fig. 3.4.3.3-1 Attachment of Frame Ground Cable



Front View

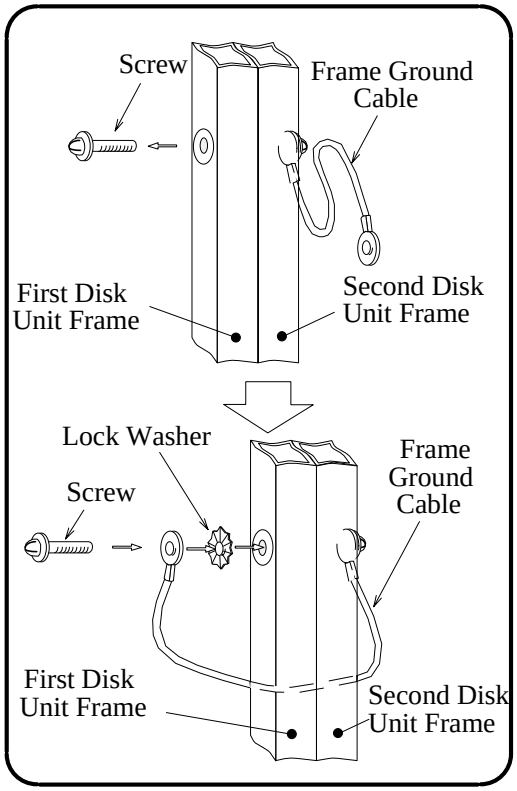


Fig. 3.4.3.3-2 Attachment of Frame Ground Cable

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Third Disk Unit

1. Remove the left side cover of the Disk Controller with the frame ground cable.
2. Attach the eight DEV Interface Cables to the Disk Controller. Refer to Section 3.12.1.3 Connection Procedure of DEV Interface Cable 1 (In case of HDU-L13 from L10) step 1 [INST03-1760 through 1770].
3. Remove the frame ground cable from the Third Disk Unit.
4. Connect the cabinets.
5. Attach the side cover to the Third Disk Unit. Refer to Section 3.4.3.4 Side Cover Re-Installation [INST03-550].
6. Attach frame ground cable with the screw and lock washer.
7. Attach the Front and Rear Logic Box Covers to the Disk Controller Unit in the reverse order of SECTION 3.4.2.5 Logic Box Covers Removal [INST03-450].

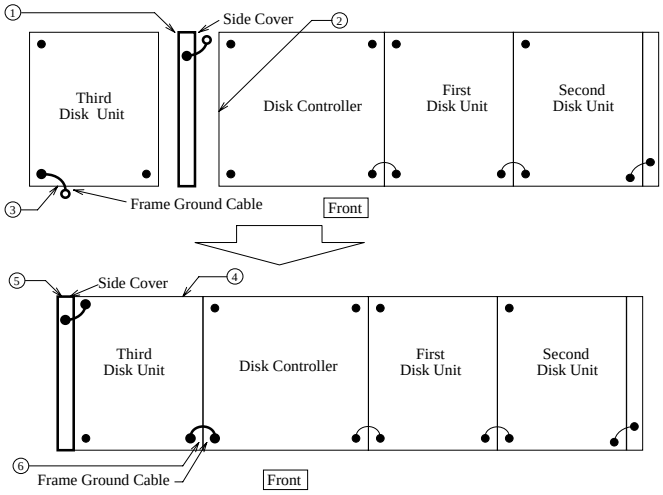


Fig. 3.4.3.3-3 Attachment of Frame Ground Cable

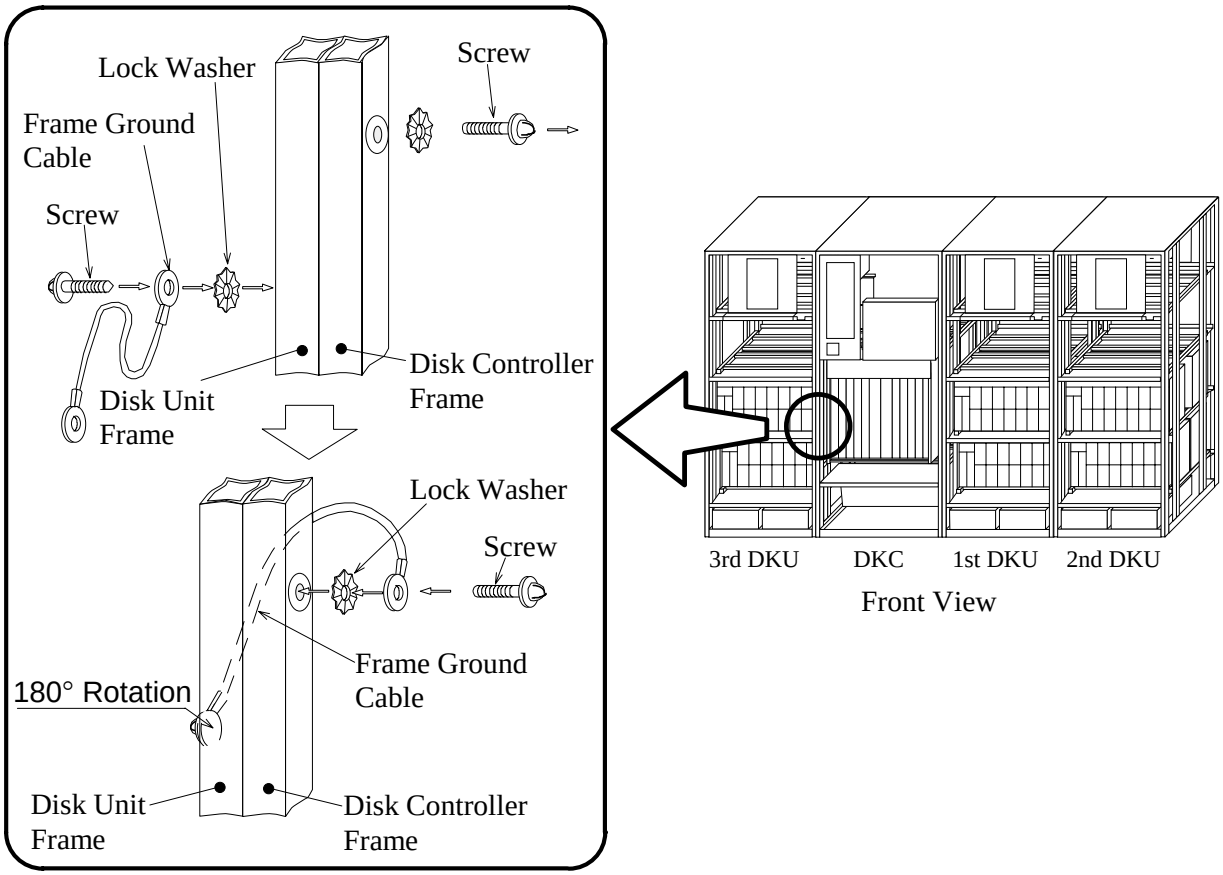


Fig. 3.4.3.3-4 Attachment of Frame Ground Cable

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Fourth Disk Unit

1. Remove the left side cover together with the frame ground cable from the Disk Controller or Third Disk Unit.
2. Remove the frame ground cable from the Fourth Disk Unit.
3. Connect the cabinet.
4. Attach the side cover to the Fourth Disk Unit. Refer To Section 3.4.3.4 Side Cover Re-Installation [INST03-550].
5. Attach the frame ground cable with the screw and lock washer.

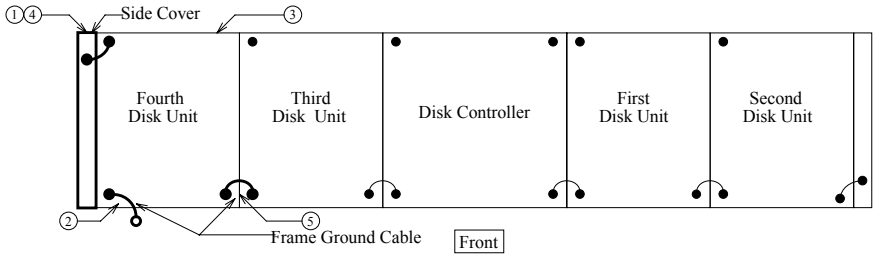


Fig. 3.4.3.3-5 Attachment of Frame Ground Cable

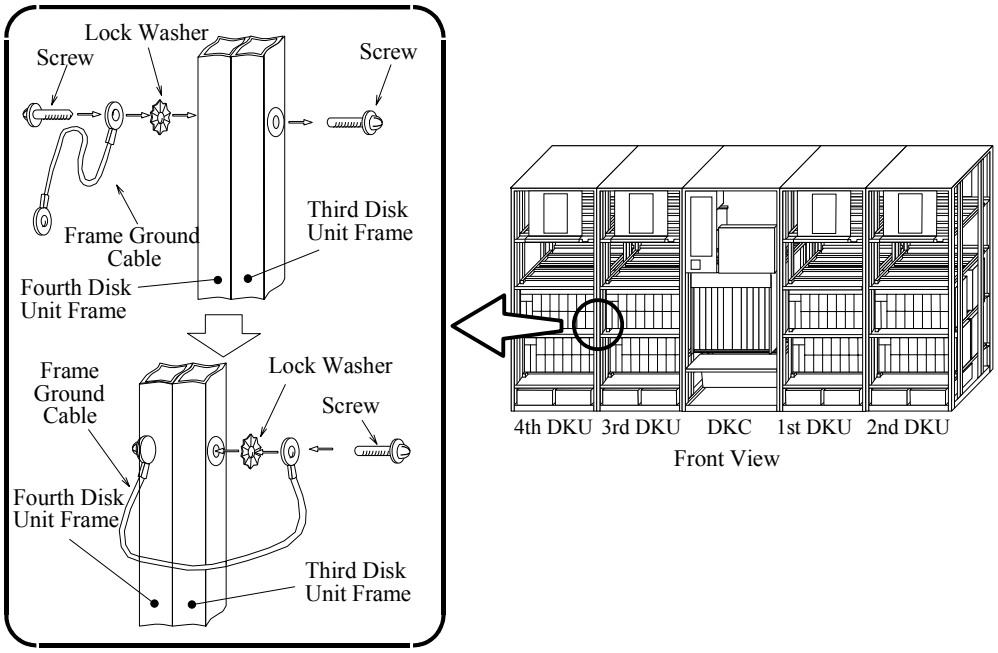


Fig. 3.4.3.3-6 Attachment of Frame Ground Cable

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Fifth Disk Unit

1. Remove the right side cover together with the frame ground cable from the Disk Controller, First Disk Unit or Second Disk Unit.
2. Connect the cabinet.
3. Attach the side cover to the Second Disk Unit. Refer to SECTION 3.4.3.4 Side Cover Re-Installation [INST03-550].
4. Attach the frame ground cable with the screw and lock washer.

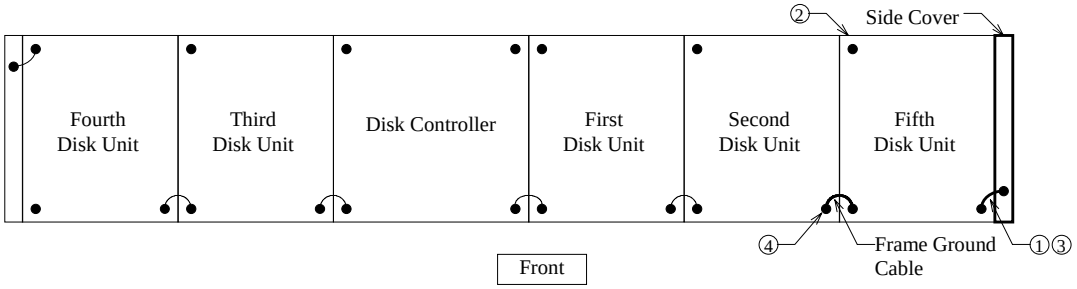


Fig. 3.4.3.3-7 Attachment of Frame Ground Cable

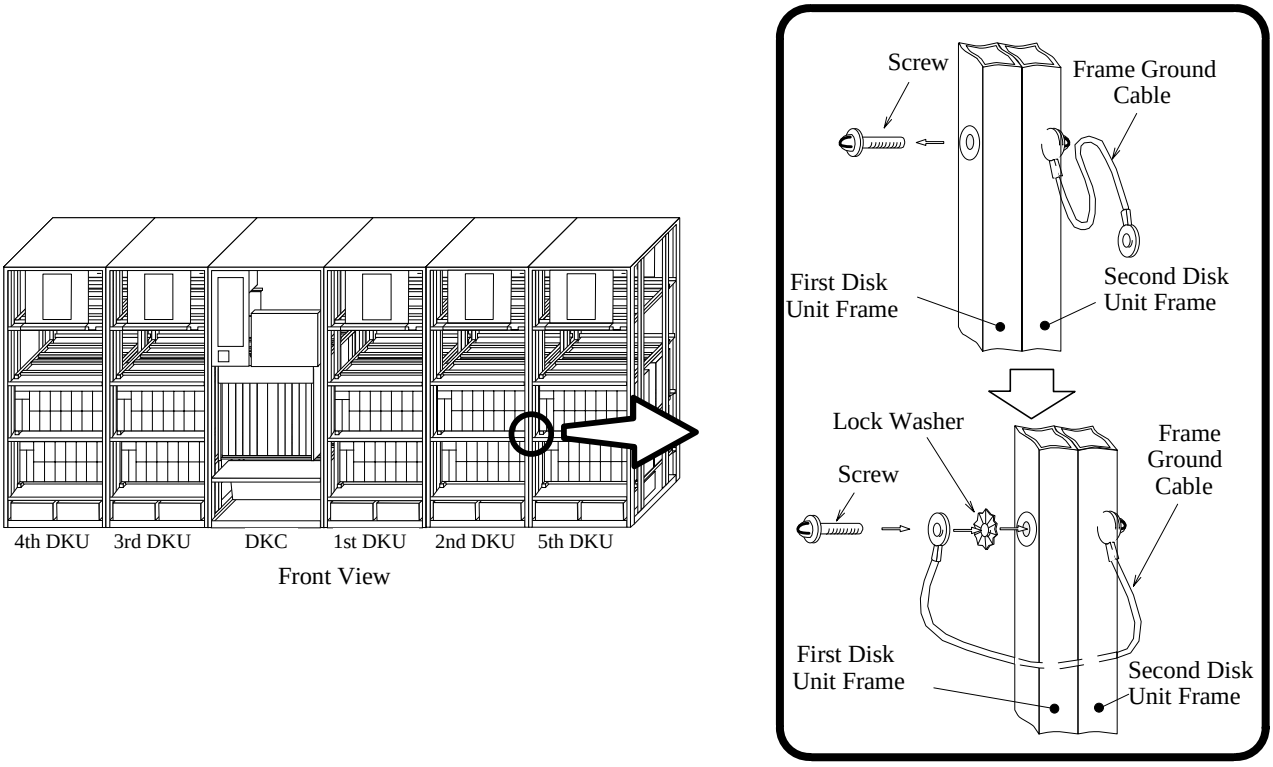


Fig. 3.4.3.3-8 Attachment of Frame Ground Cable

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Sixth Disk Unit

1. Remove the left side cover together with the frame ground cable from the Disk Controller, Third Disk Unit or Fourth Disk Unit.
2. Remove the frame ground cable from the Fourth Disk Unit.
3. Connect the cabinet.
4. Attach the side cover to the Fourth Disk Unit. Refer To Section 3.4.3.4 Side Cover Re-Installation [INST03-550].
5. Attach the frame ground cable with the screw and lock washer.

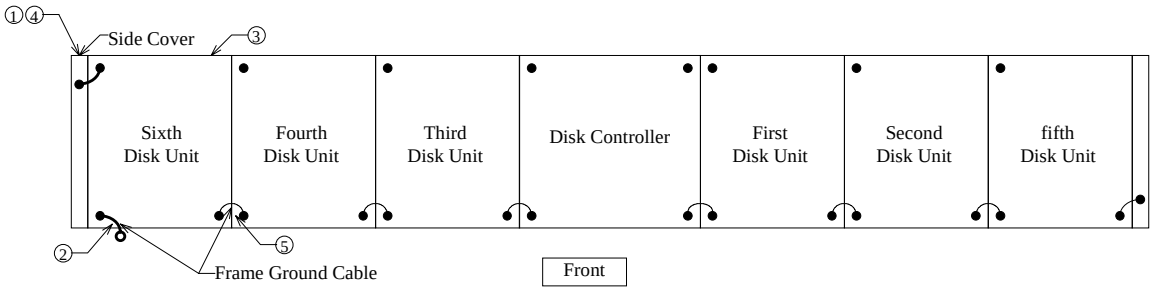


Fig. 3.4.3.3-9 Attachment of Frame Ground Cable

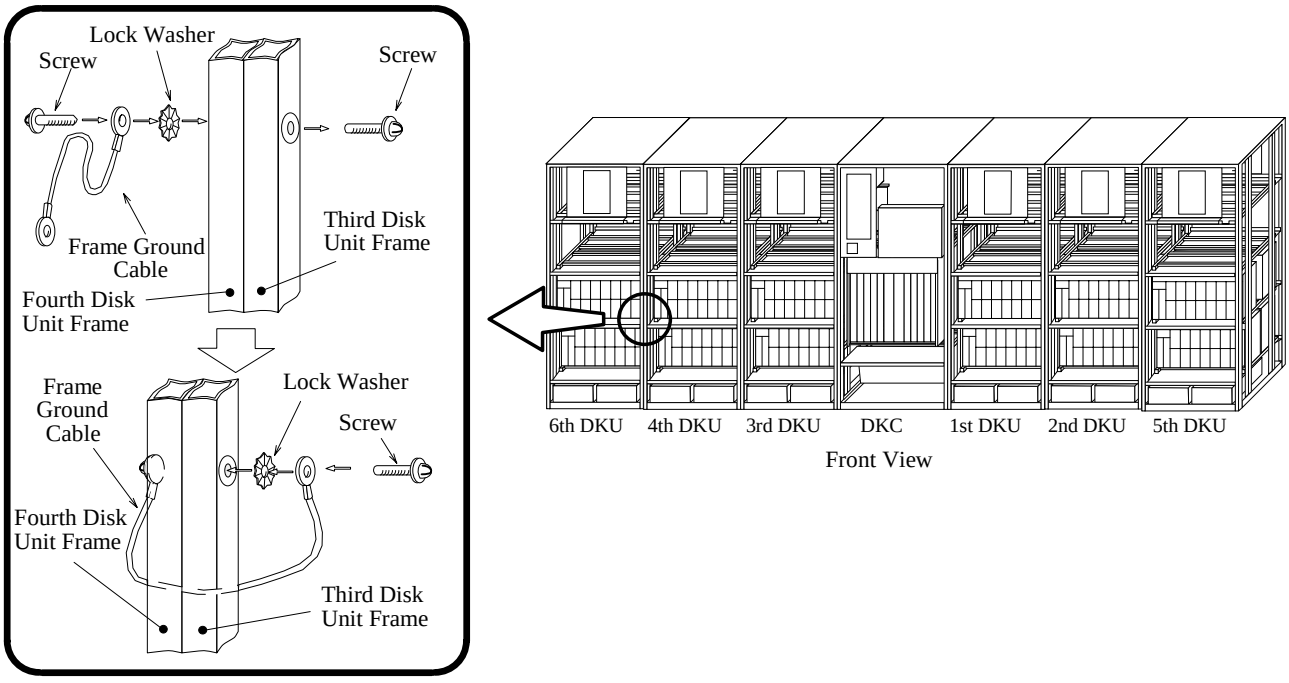


Fig. 3.4.3.3-10 Attachment of Frame Ground Cable

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3.4.3.4 Side Cover Re-Installation

Attach the side cover to the end of the string with the four binding screws and washers. See Fig. 3.4.3.4-1 and Table 3.4.2.2-1.

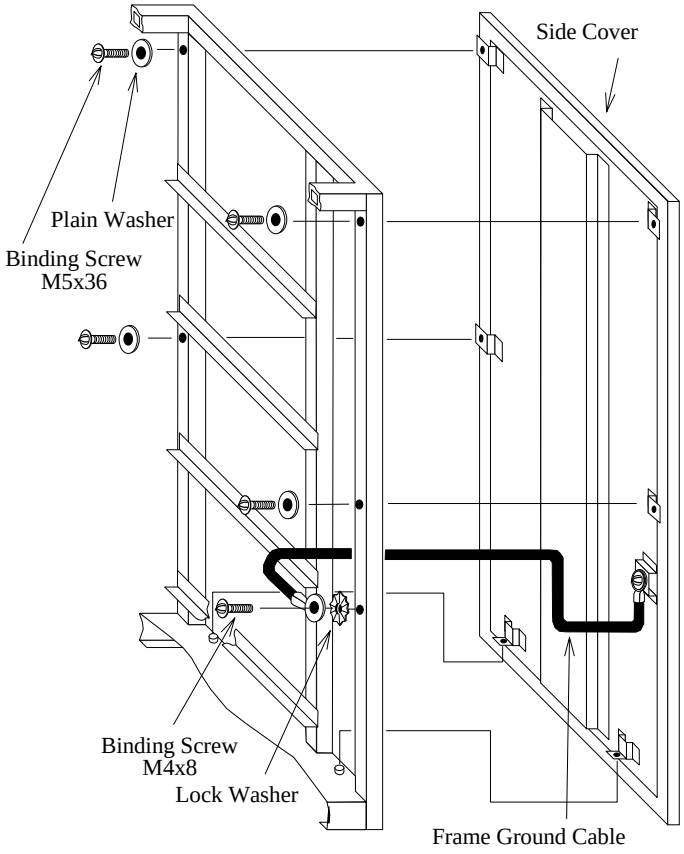


Fig. 3.4.3.4-1 Re-Installation of Side Cover

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3.4.3.5 Kick Plate Installation

Secure the kick plates with screws, as shown in figures. 3.4.3.5-1 through 3.4.3.5-6.
Remove the side kick plates from the Disk Controller and replace them on the cabinets at both ends.

NOTICE: Contact the Kick Plate to the floor to prevent static electricity.

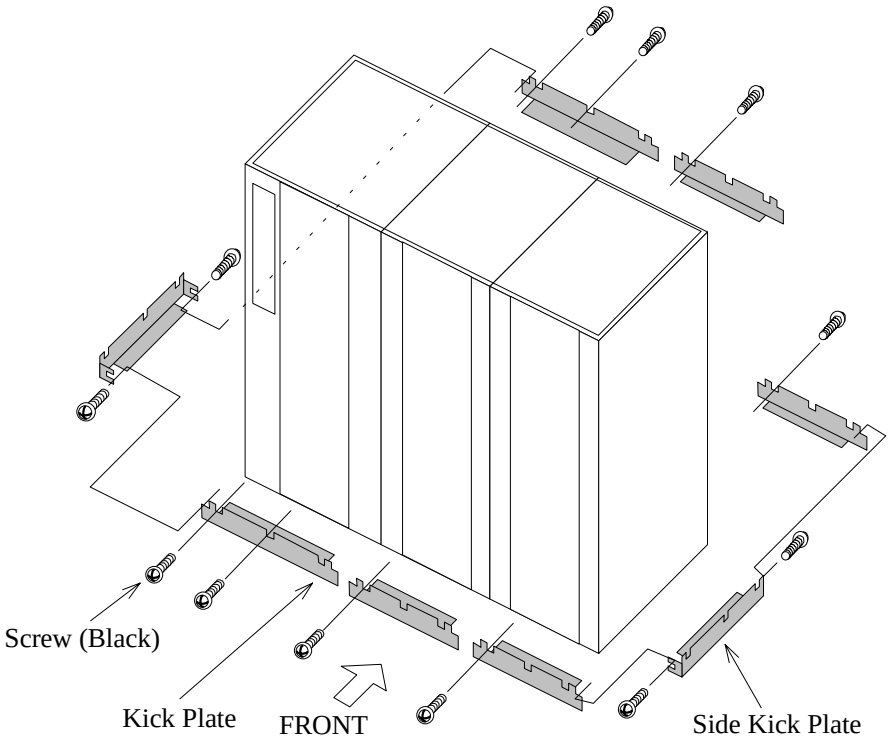
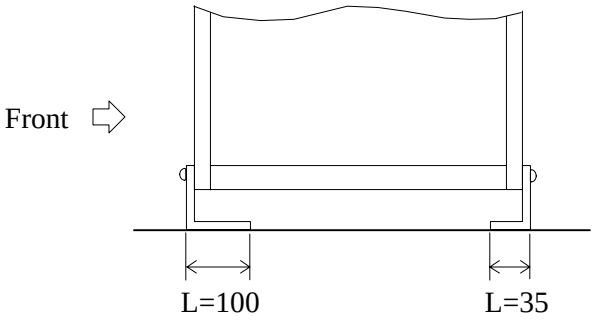


Fig. 3.4.3.5-1 Installation of Kick Plate (Two Disk Units)

Care should be taken when installing the kick plates of the DKU, because the front and rear kick plates are not the same.
Install the kick plate with the dimension L of 100 mm to the front side of the subsystem and that with the dimension L of 35 mm to the rear side.



Side View of DKU

Fig. 3.3.3.4-2 Kick Plates of DKU

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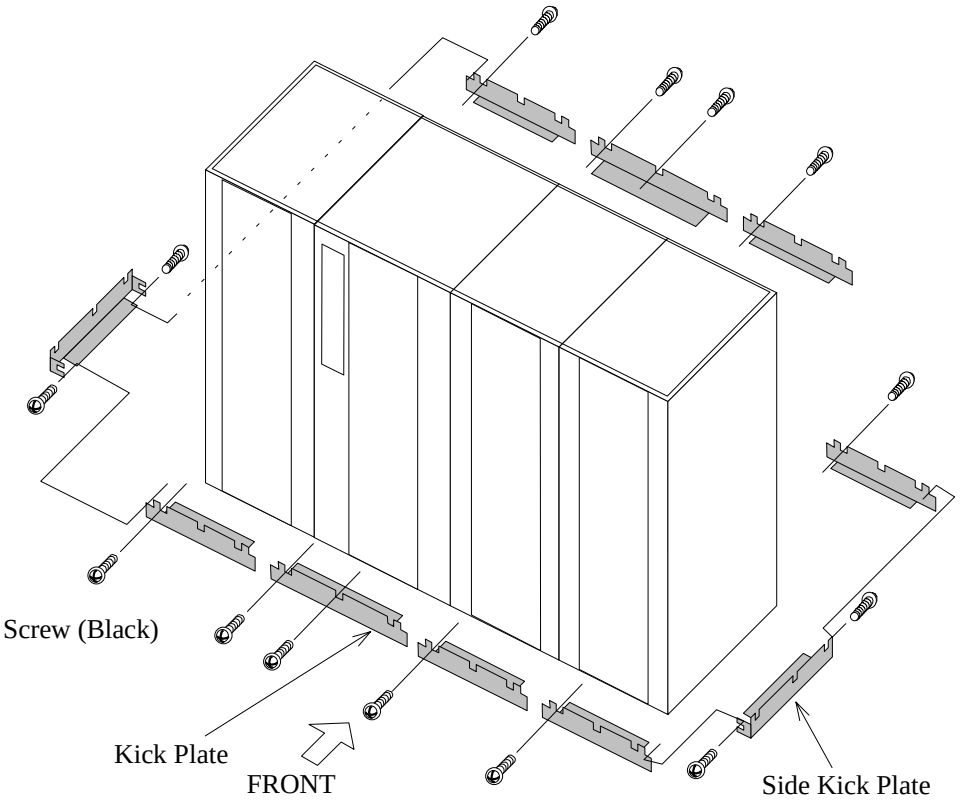


Fig. 3.4.3.5-3 Installation of Kick Plate(Three Disk Units)

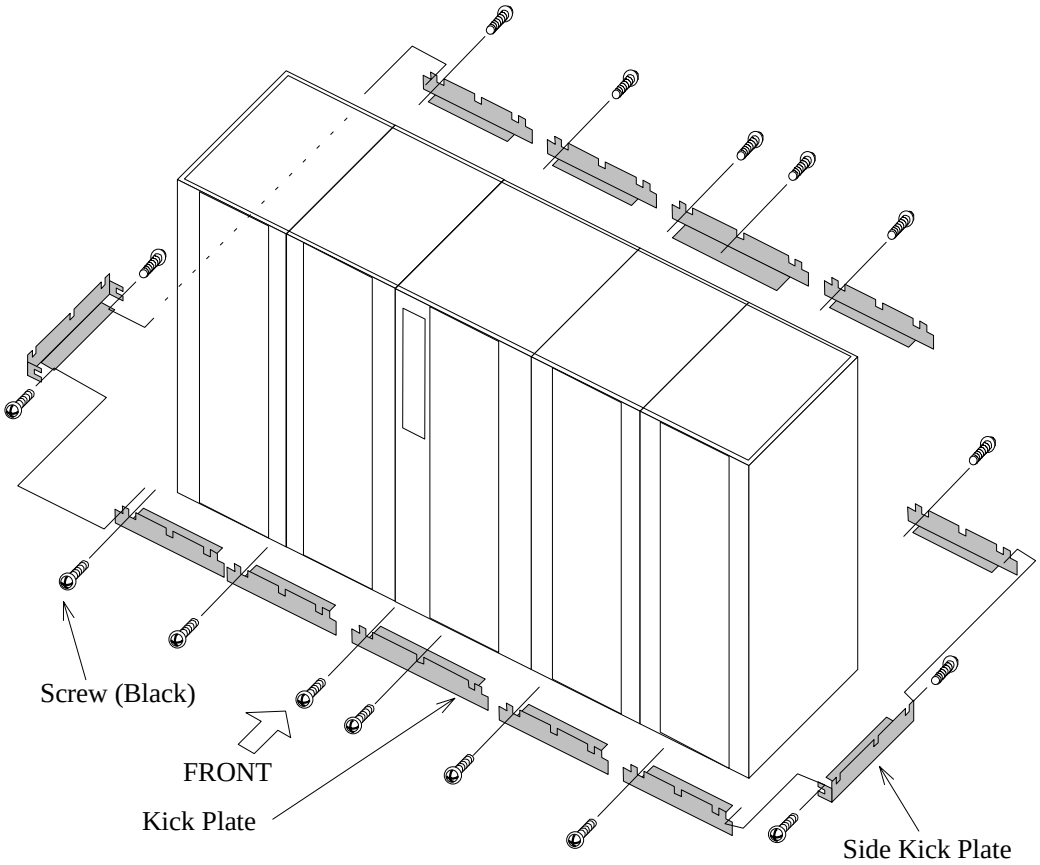


Fig. 3.4.3.5-4 Installation of Kick Plate (Four Disk Units)

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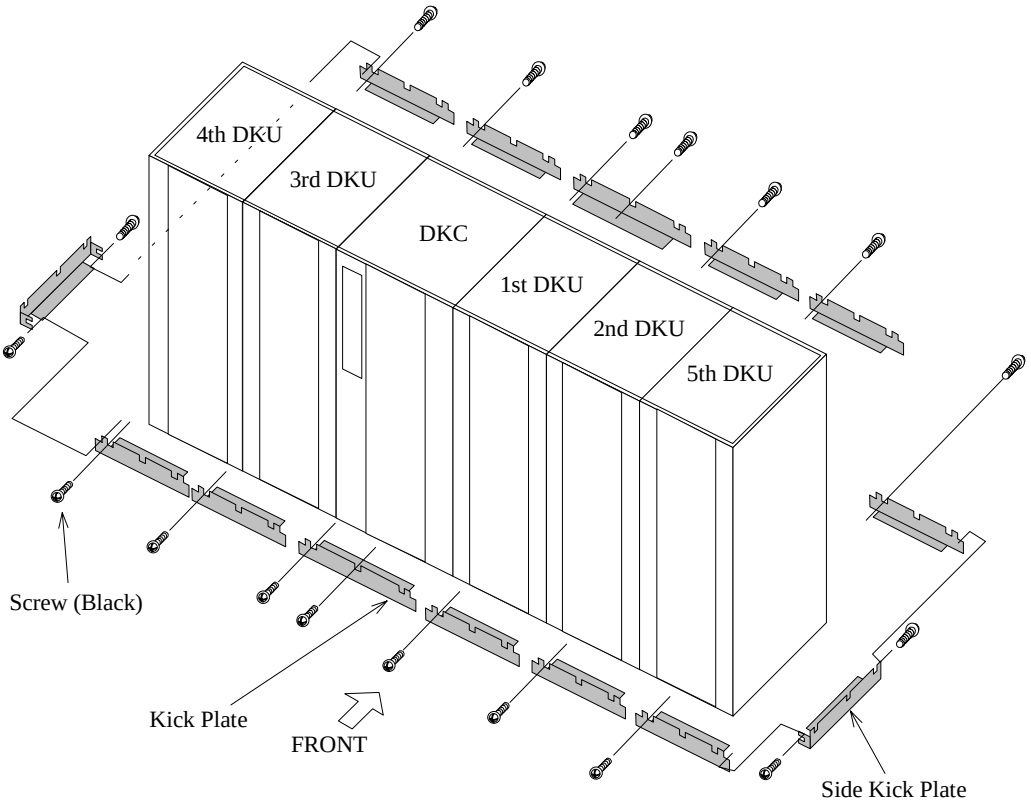


Fig. 3.4.3.5-5 Installation of Kick Plate(Five Disk Units)

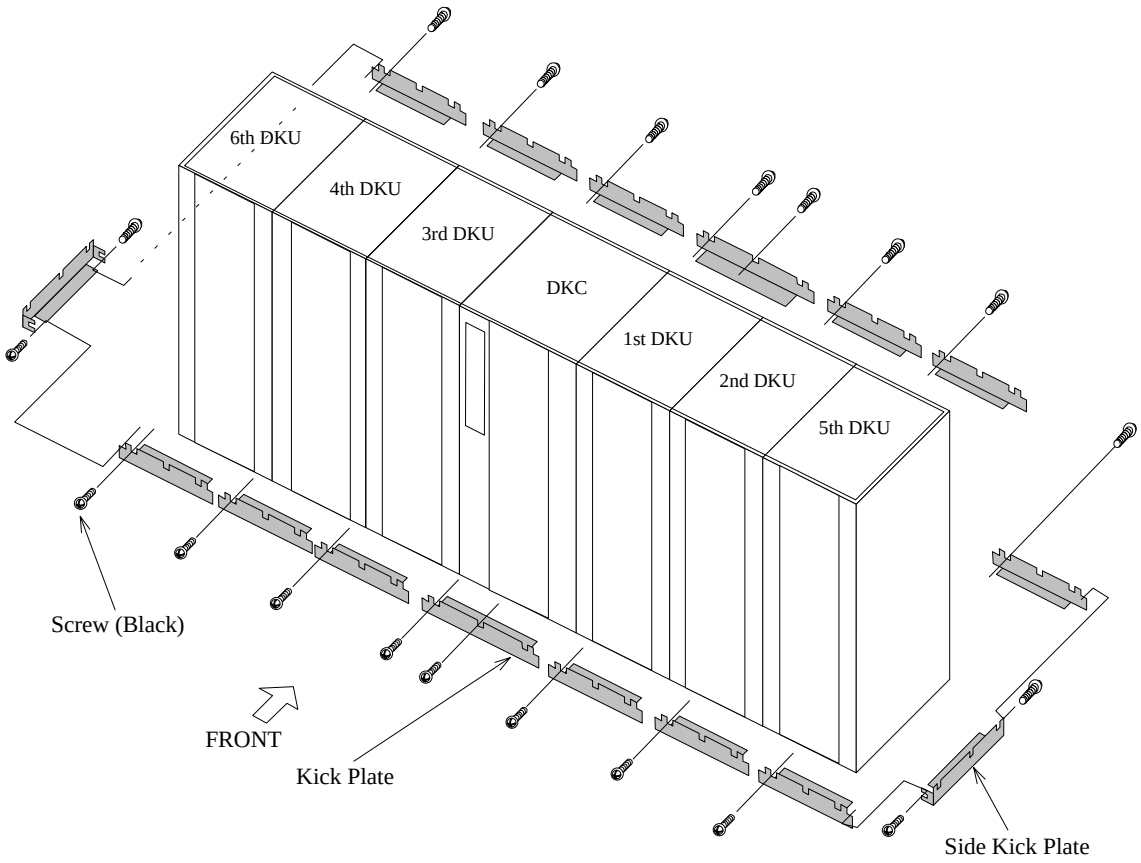


Fig. 3.4.3.5-6 Installation of Kick Plate (Six Disk Units)

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3.4.4 Switch and Jumper Plug Installation

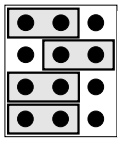
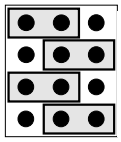
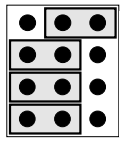
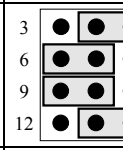
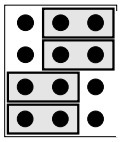
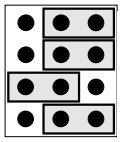
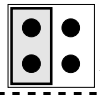
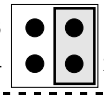
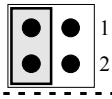
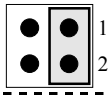
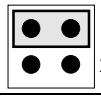
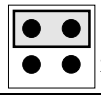
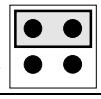
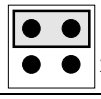
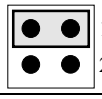
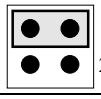
Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

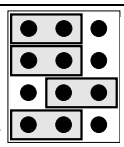
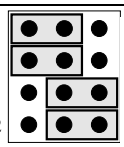
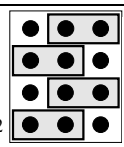
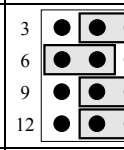
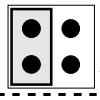
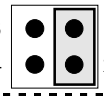
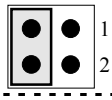
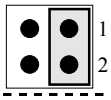
3.4.4.1 DKUMN Setting

NOTICE : Set Enable/Disable switch to Disable on DKUMN PCB.

Set the switches and install the jumper plugs in the DKUMN PCBs as indicated in the table below.

Table 3.4.4.1-1 DKUMN PCB Jumper Plug Positions

	1	2	3	4	5	6	Remarks
	DKUMN-R2F	DKUMN-R2R	DKUMN-L1F	DKUMN-L1R	DKUMN-L2F	DKUMN-L2R	
	Front	Rear	Front	Rear	Front	Rear	
S1	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE	
JP01							
JP02 **Note 1**							
JP02 **Note 2**							
JP05 **Note 3**							
	2nd DKU		3rd DKU		4th DKU		

	7	8	9	10	Remarks
	DKUMN-R3F	DKUMN-R3R	DKUMN-L3F	DKUMN-L3R	
	Front	Rear	Front	Rear	
S1	DISABLE	DISABLE	DISABLE	DISABLE	
JP01					
JP02 **Note 1**					
JP02 **Note 2**					
JP05 **Note 3**					
	5th DKU		6th DKU		

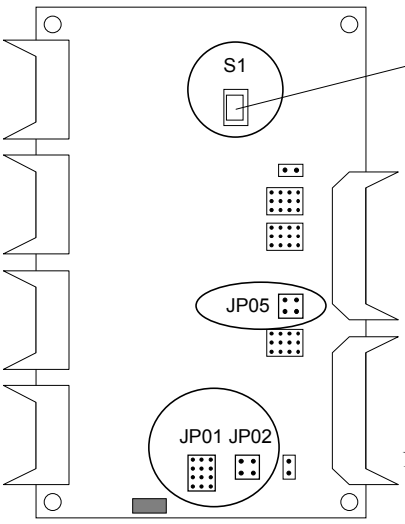
Note 1 : No Platform for Canister Mount (DKU-F405I-B4) Installed (Four HDU Boxes)

Note 2 : Platform for Canister Mount (DKU-F405I-B4) Installed (Eight HDU Boxes)

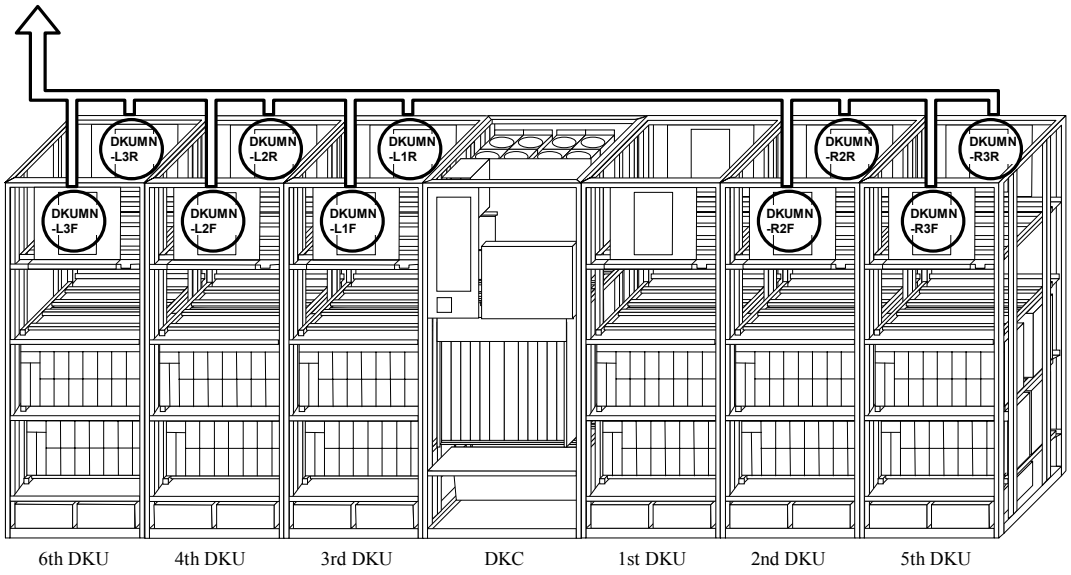
Note 3 : In the DKUMN PCB Rev. A/E and later A/E, jumper plugs setting are not require, because jumper connector (JP05) is not located on the DKUMN PCB.

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DKUMN PCB



Note: In the DKUMN PCB Rev. A/E and later A/E, jumper plugs setting are not require, because jumper connector (JP05) is not located on the DKUMN PCB.



Front View

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3.4.4.2 PL ID Setting

1. Loosen the screw and remove the cover. Refer to Fig. 3.4.4.2-1.

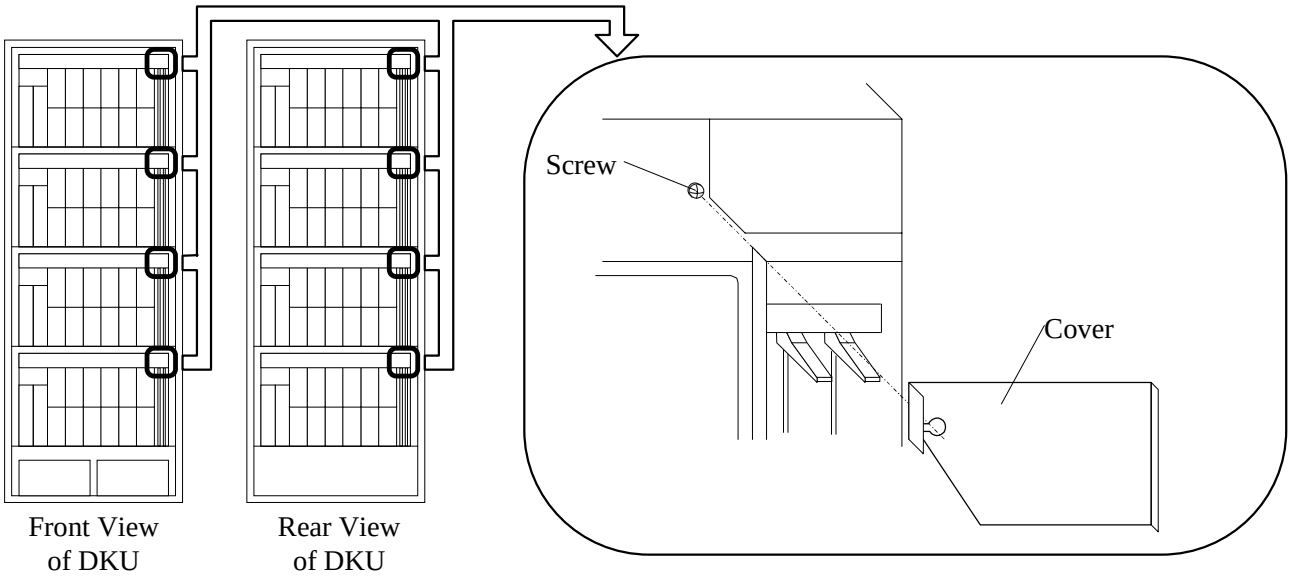


Fig. 3.4.4.2-1 Removal of Covers

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NOTICE:
Wrong setting of PL ID jumpers may cause DKU failures during operation. Be extremely careful in setting the PL ID jumpers.

2. Seeing Fig. 3.4.4.2-2, 3.4.4.2-3 or 3.4.4.2-4, set the PL ID Jumpers on HDU box.

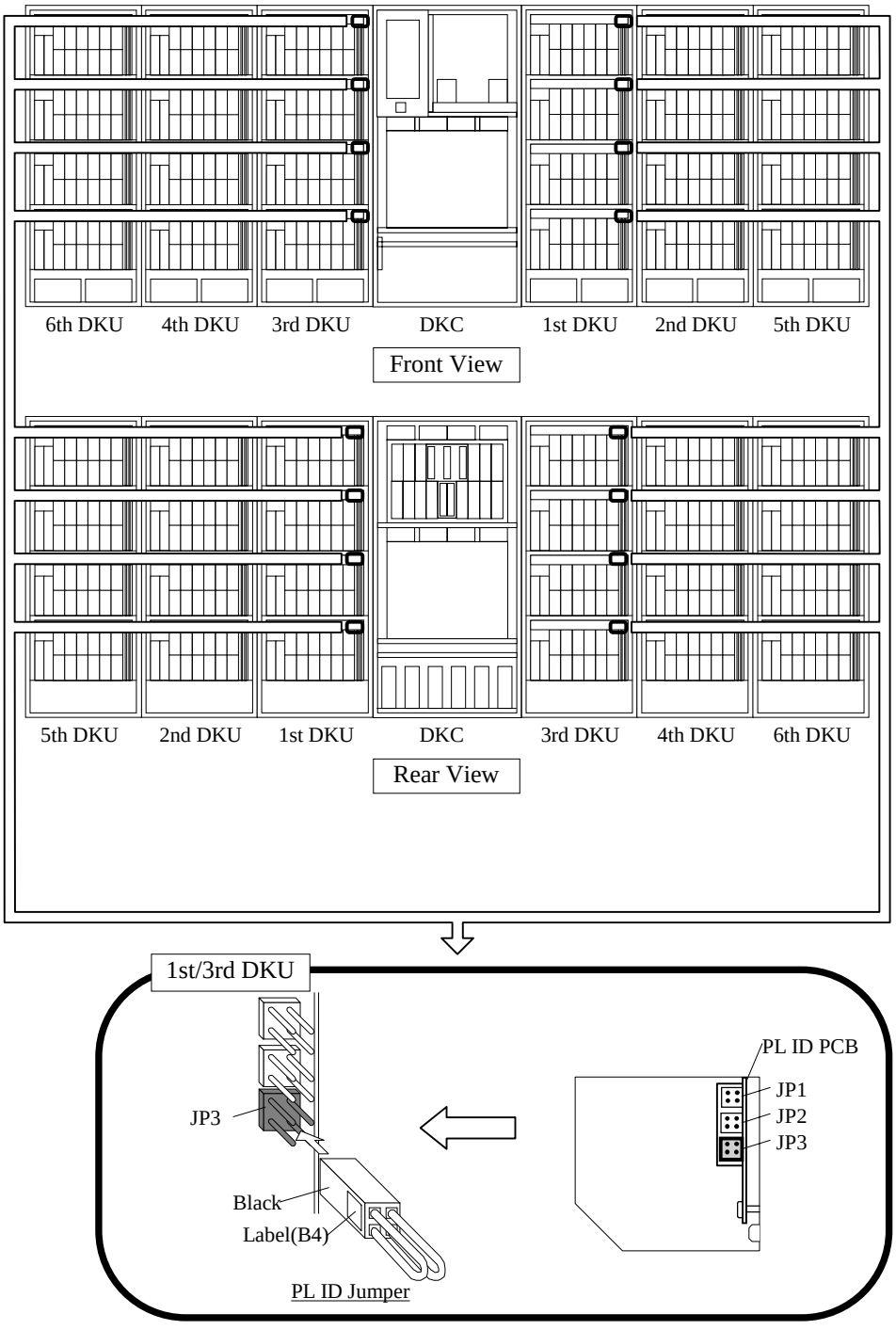


Fig. 3.4.4.2-2 Setting the PL ID Jumpers

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NOTICE:
Wrong setting of PL ID jumpers may cause DKU failures during operation. Be extremely careful in setting the PL ID jumpers.

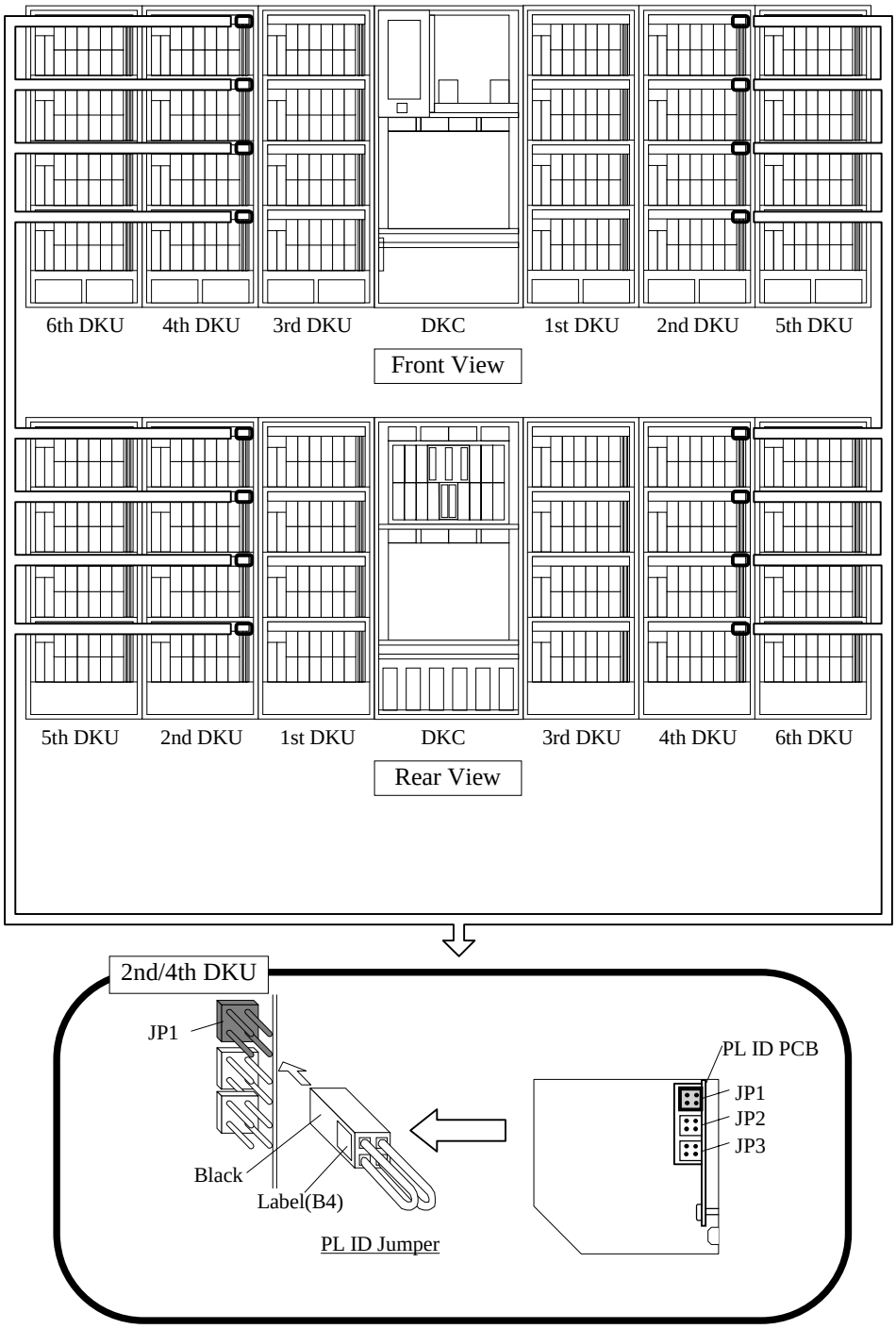


Fig. 3.4.4.2-3 Setting the PL ID Jumpers

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NOTICE:
Wrong setting of PL ID jumpers may cause DKU failures during operation. Be extremely careful in setting the PL ID jumpers.

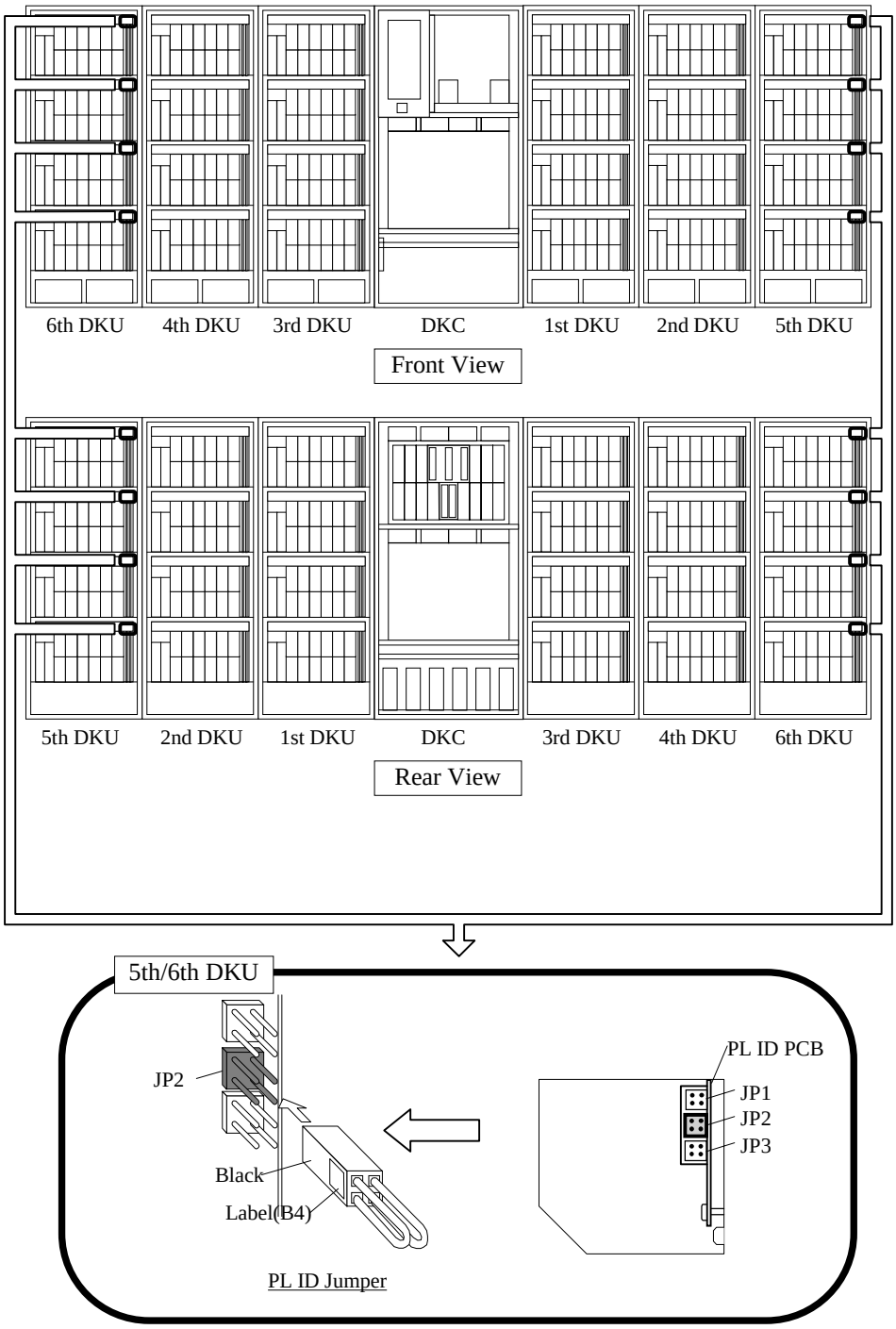


Fig. 3.4.4.2-4 Settings the PL ID Jumpers

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3.4.5 Cabling

3.4.5.1 Connection of DKUMN Cable

1. Loosen the repeat binders which secure the DKUMN cables.

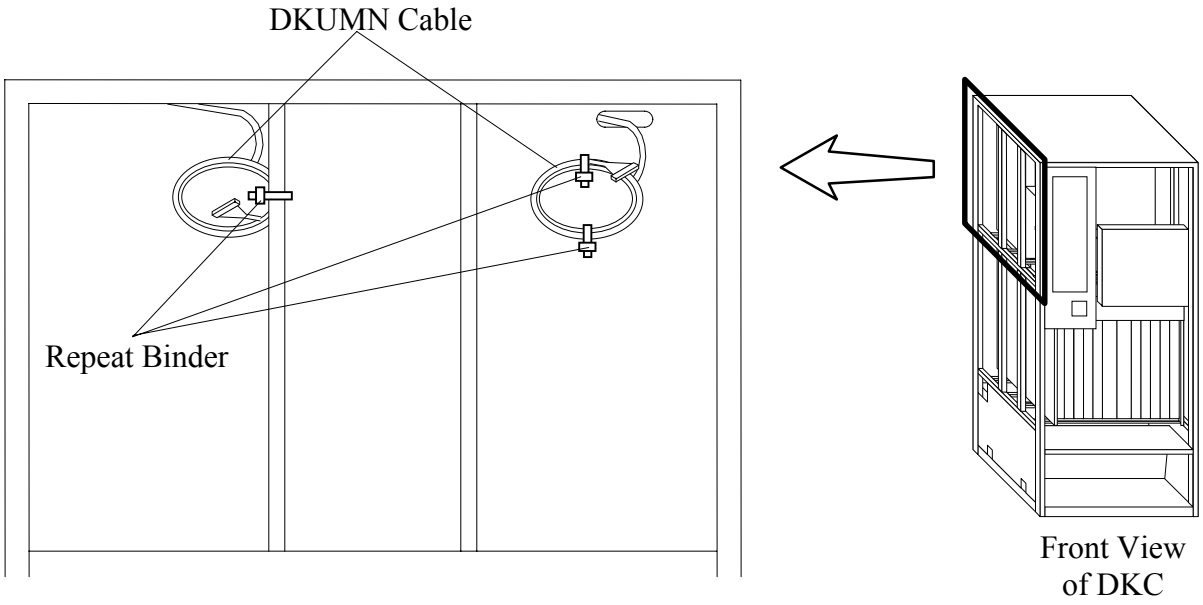
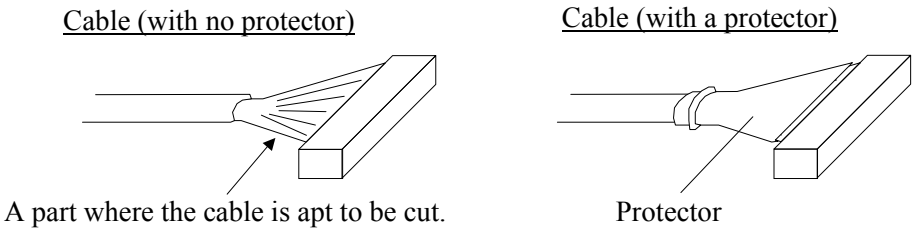


Fig. 3.4.5.1-1 Binding of DKUMN Cables

⚠ CAUTION

Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.



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Second Disk Unit

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.

1. Connect the DKUMN cables between the First Disk Unit and the second Disk Unit as indicated in the table below.
2. Bind the cables with repeat binders.

Table 3.4.5.1-1 Connection of DKUMN Cables

No.	First Disk Unit			Second Disk Unit			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-R1F	J03	P3-1	DKUMN-R2F	J04	P4-1	
2	DKUMN-R1R	J03	P3-2	DKUMN-R2R	J04	P4-2	

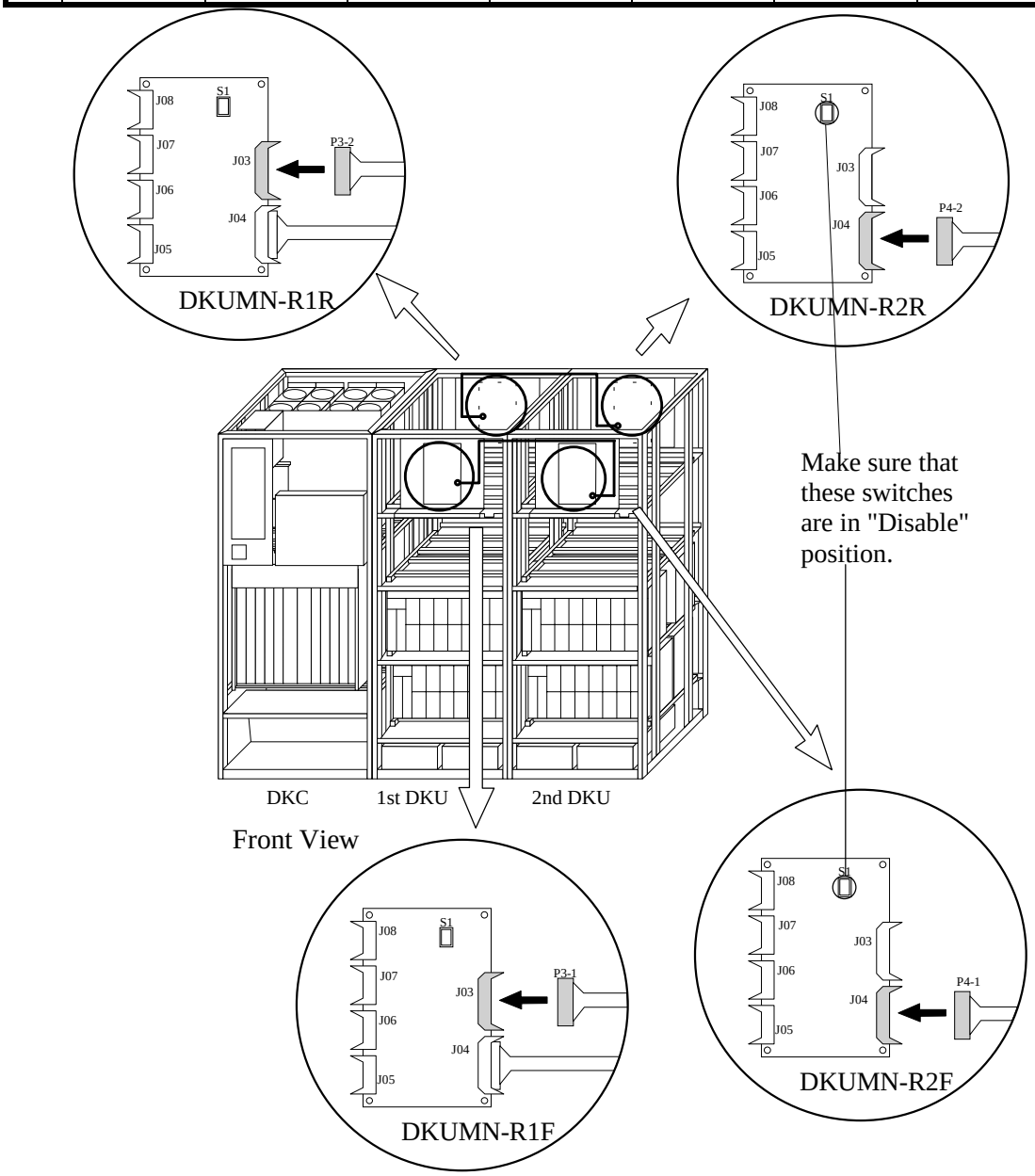


Fig. 3.4.5.1-2 Connection of DKUMN Cables

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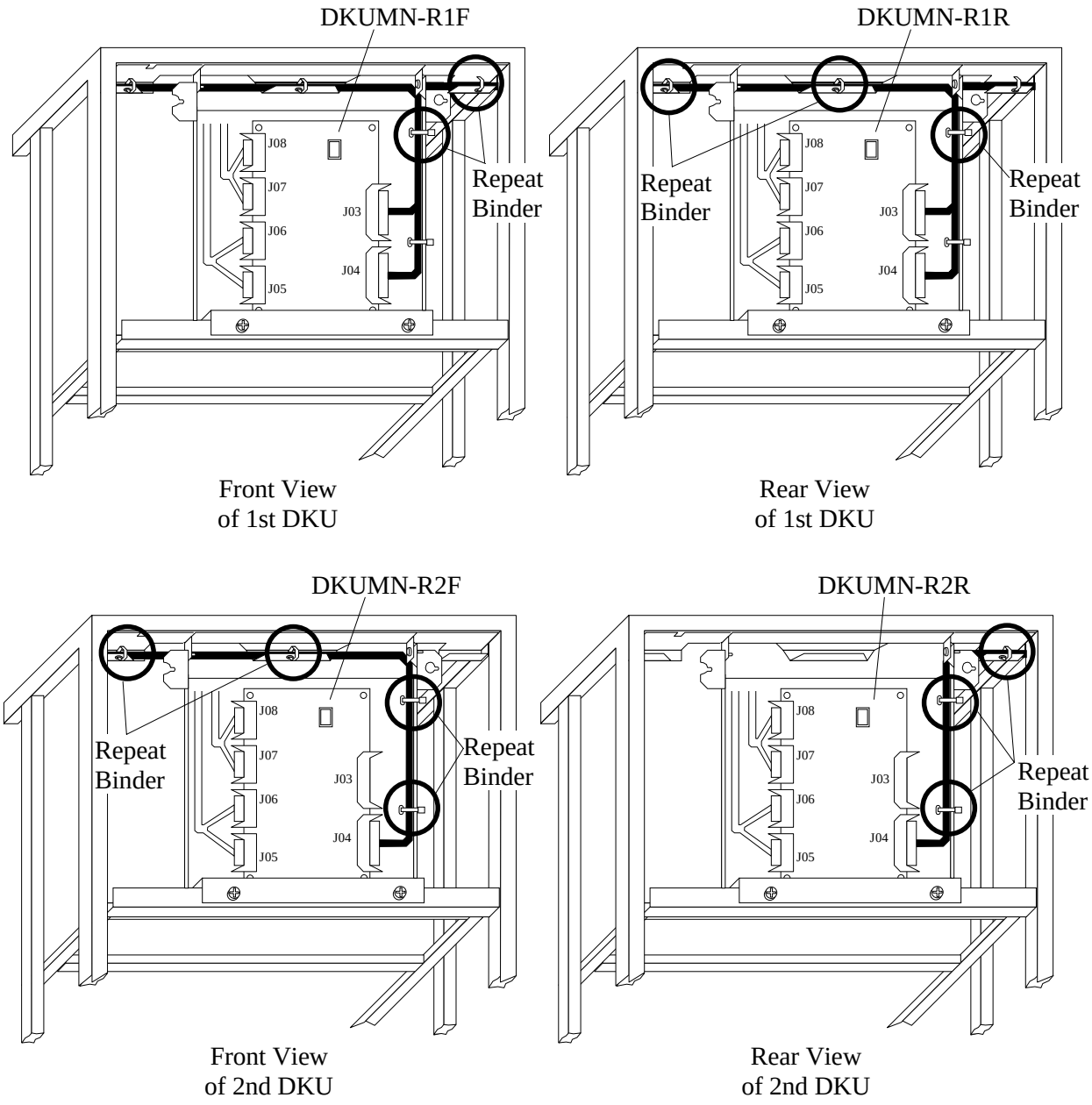


Fig. 3.4.5.1-3 Binding of DKUMN Cables

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Third Disk Unit

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.

1. Connect the PS Back Board (PL) and DKUMN PCBs as summarized in the table below.
2. Bind the cables with repeat binders.

Table 3.4.5.1-2 Connection of DKUMN Cable

No.	Disk Controller			Third Disk Unit			REMARKS
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	PS BB (PL)	F02	PS-F02	DKUMN-L1F	J04	P4-1L	
2	PS BB (PL)	K02	PS-K02	DKUMN-L1R	J04	P4-2L	

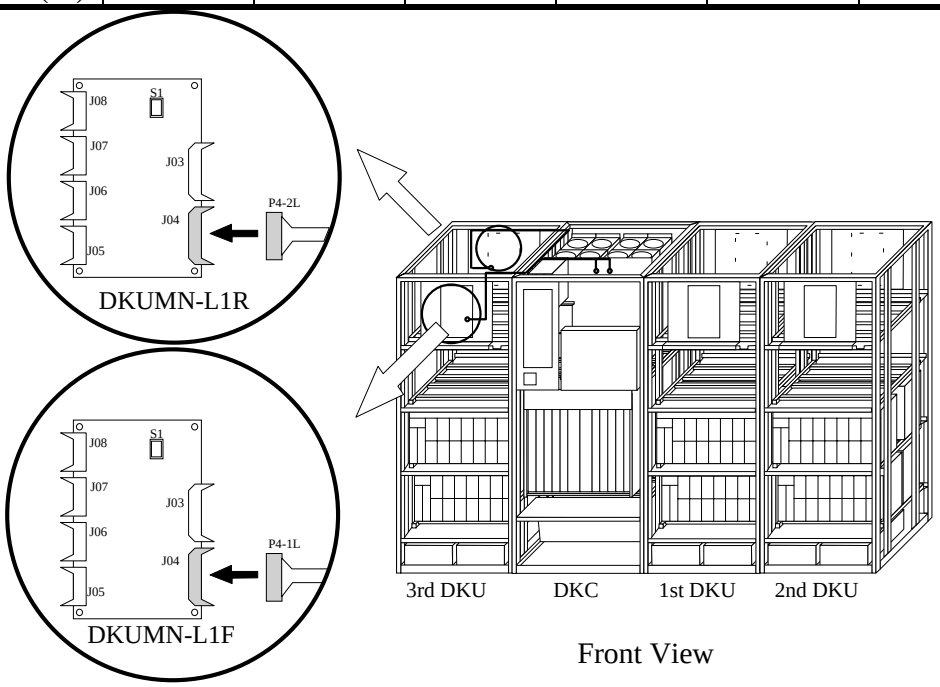


Fig. 3.4.5.1-4 Connection of DKUMN Cables

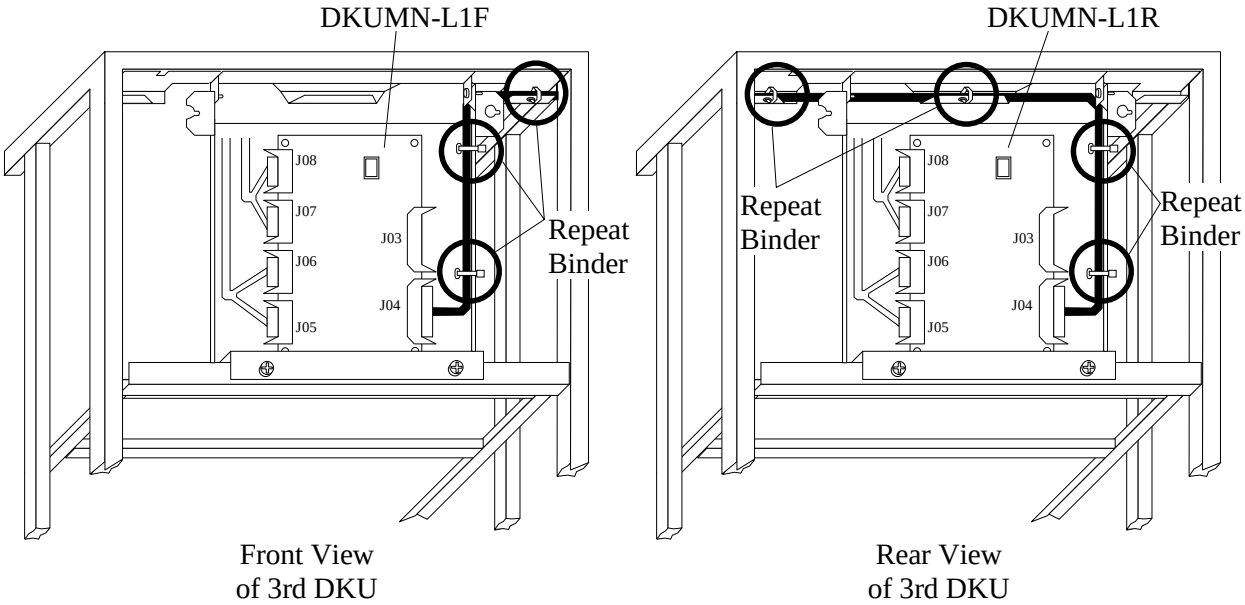


Fig. 3.4.5.1-5 Binding of DKUMN Cables

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Fourth Disk Unit

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.

1. Connect the DKUMN cables between the Third Disk Unit and the Fourth Disk Unit as indicated in the table below.
2. Bind the cables with repeat binders.

Table 3.4.5.1-3 Connection of DKUMN Cables

No.	Third Disk Unit			Fourth Disk Unit			REMARKS
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-L1F	J03	P3-1	DKUMN-L2F	J04	P4-1	
2	DKUMN-L1R	J03	P3-2	DKUMN-L2R	J04	P4-2	

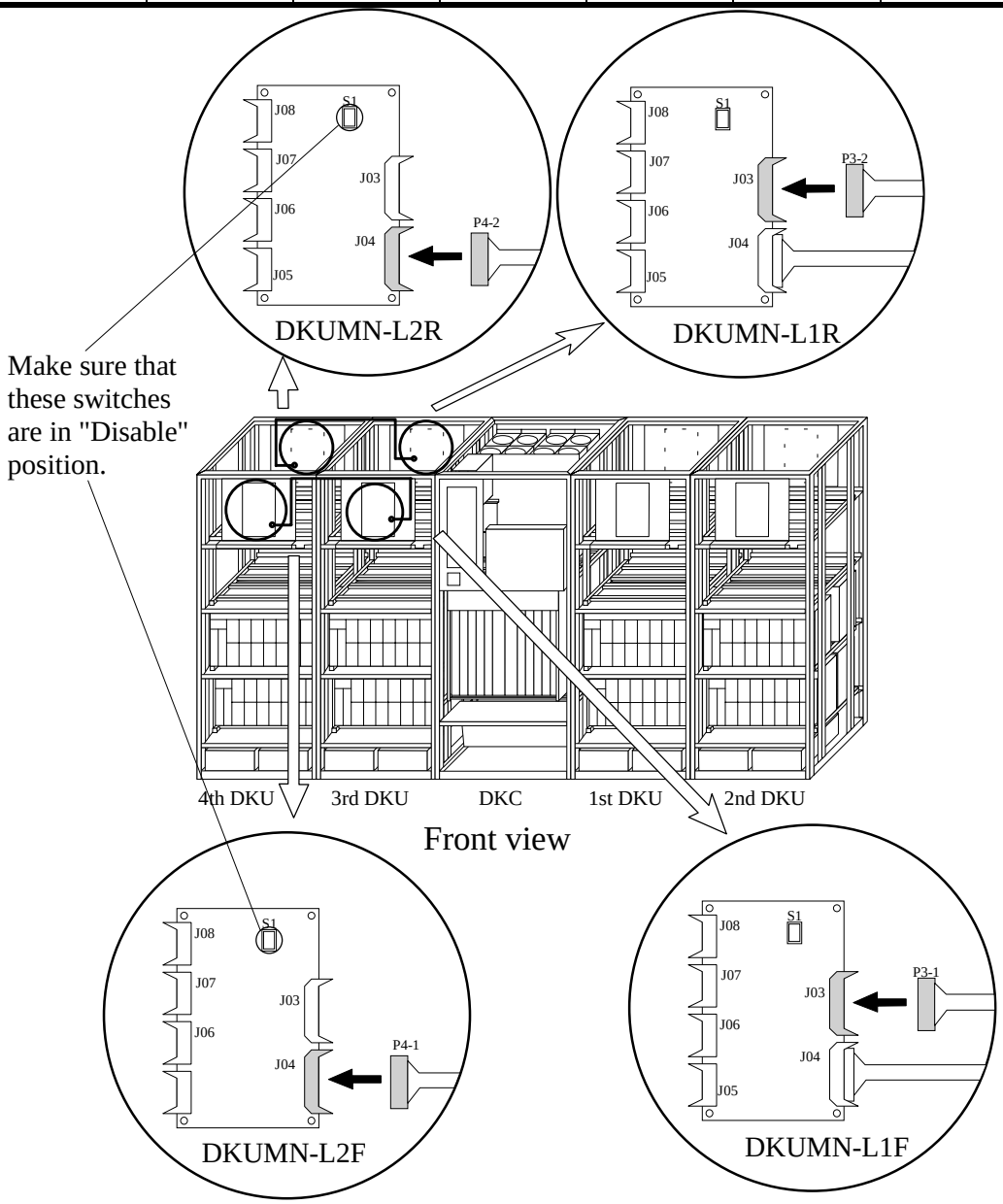


Fig. 3.4.5.1-6 Connection of DKUMN cables

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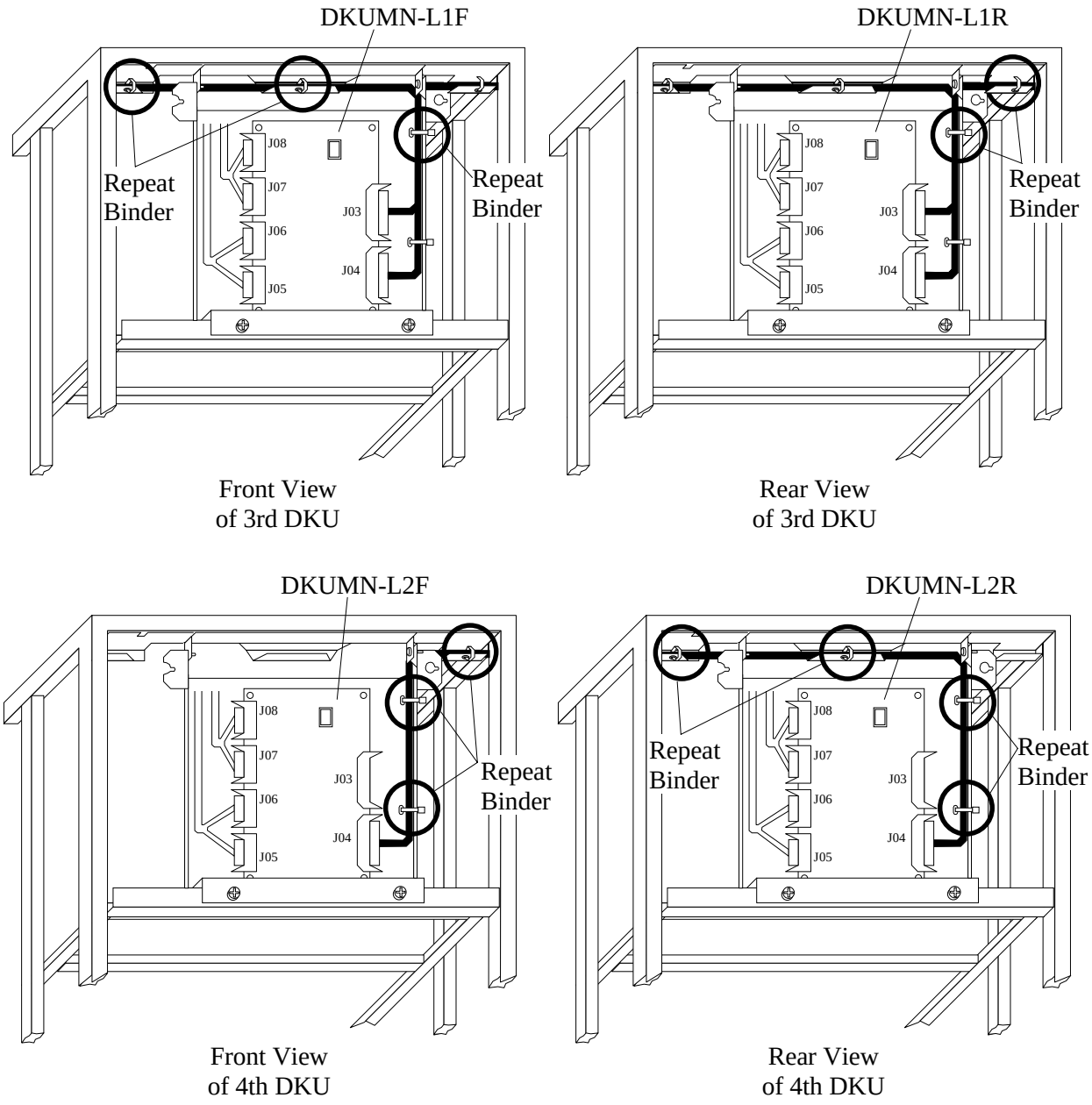


Fig. 3.4.5.1-7 Binding of DKUMN Cables

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Fifth Disk Unit

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.

1. Connect the DKUMN cables between the Second Disk Unit and the Fifth Disk Unit as indicated in the table below.
2. Bind the cables with repeat binders.

Table 3.4.5.1-4 Connection of DKUMN Cables

No.	First Disk Unit			Second Disk Unit			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-R2F	J03	P3-1	DKUMN-R3F	J04	P4-1	
2	DKUMN-R2R	J03	P3-2	DKUMN-R3R	J04	P4-2	

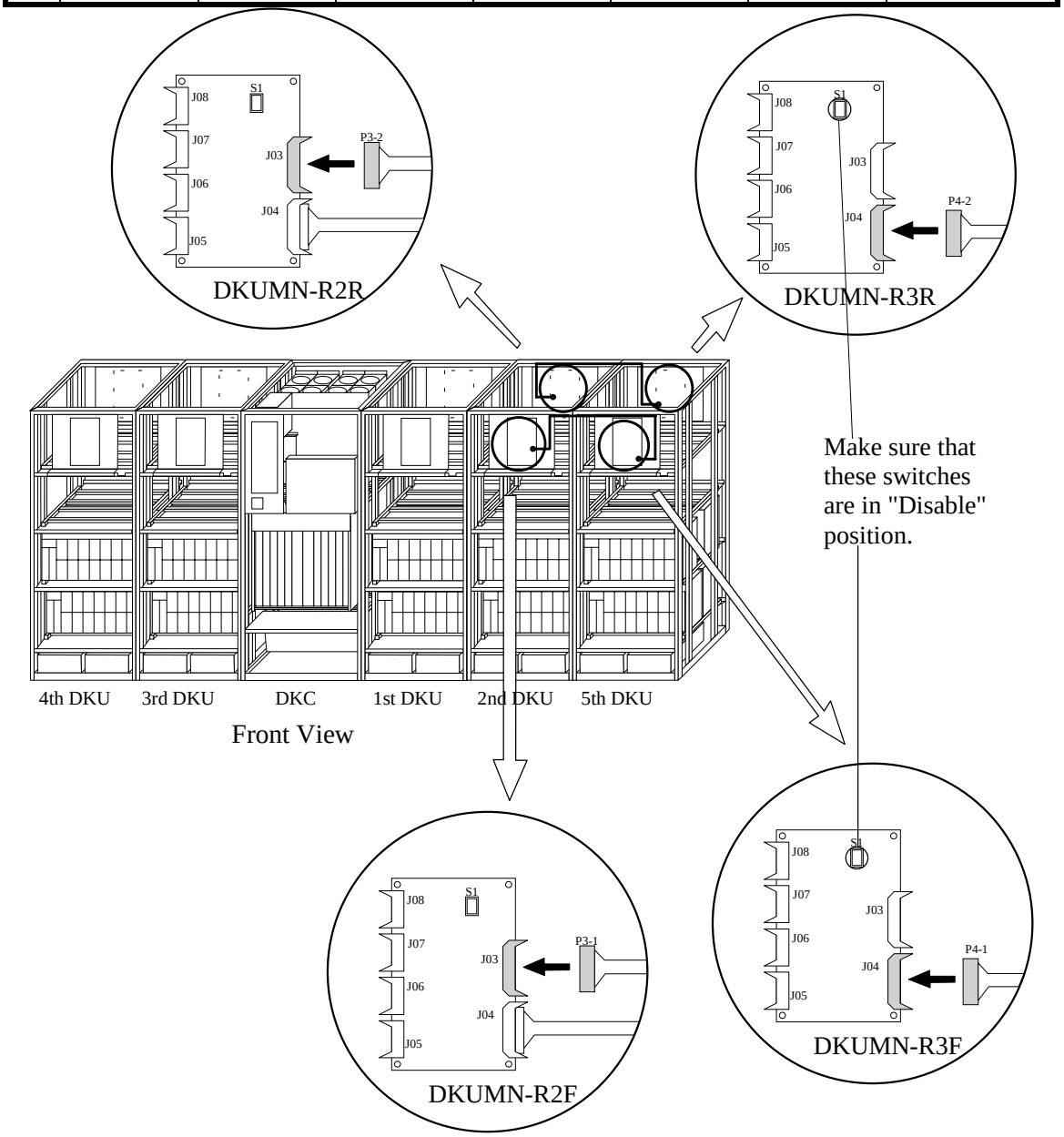


Fig. 3.4.5.1-8 Connection of DKUMN Cables

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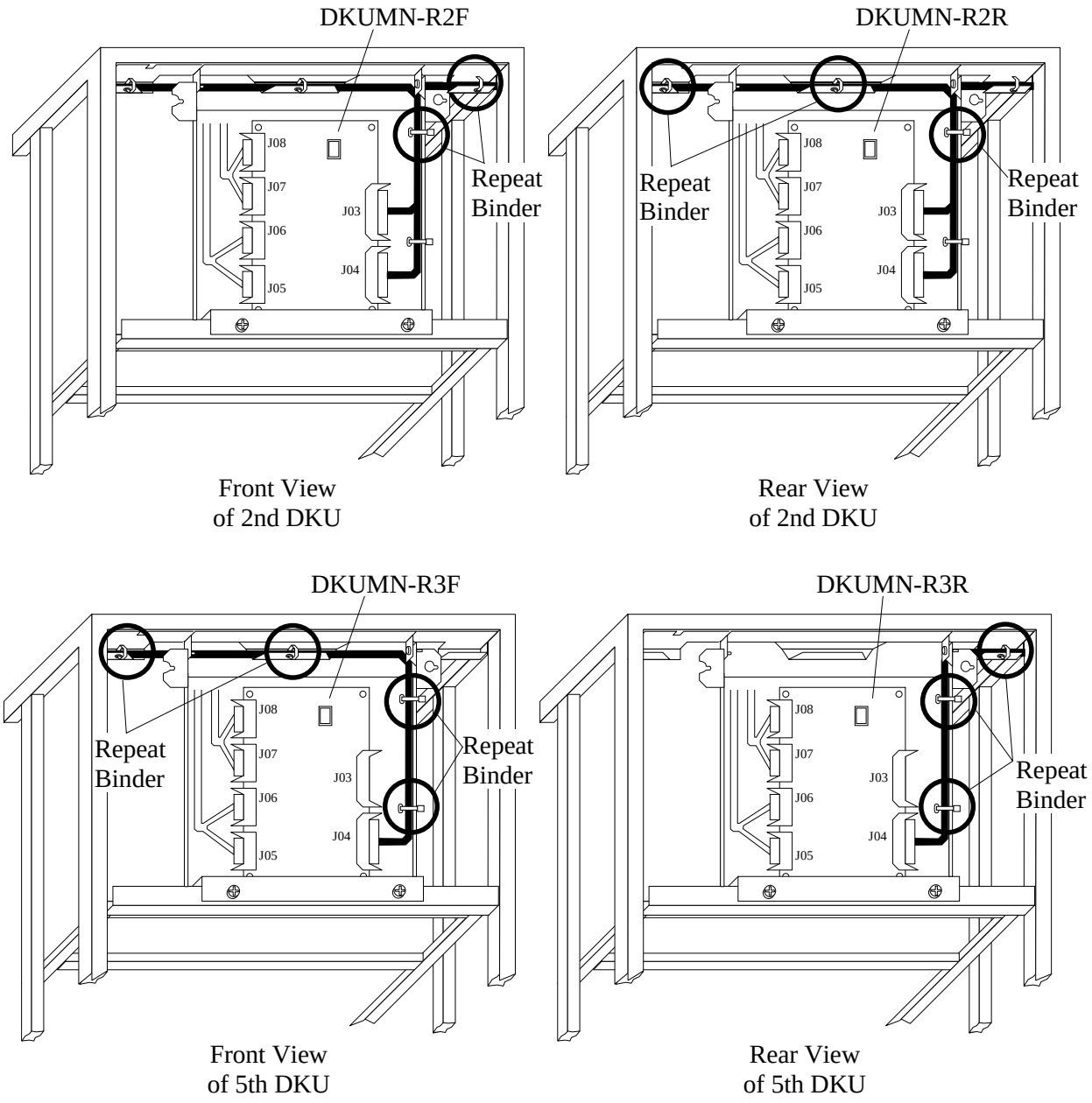


Fig. 3.4.5.1-9 Binding of DKUMN Cables

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Sixth Disk Unit

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.

1. Connect the DKUMN cables between the Fourth Disk Unit and the Sixth Disk Unit as indicated in the table below.
2. Bind the cables with repeat binders.

Table 3.4.5.1-5 Connection of DKUMN Cables

No.	Third Disk Unit			Fourth Disk Unit			REMARKS
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-L2F	J03	P3-1	DKUMN-L3F	J04	P4-1	
2	DKUMN-L2R	J03	P3-2	DKUMN-L3R	J04	P4-2	

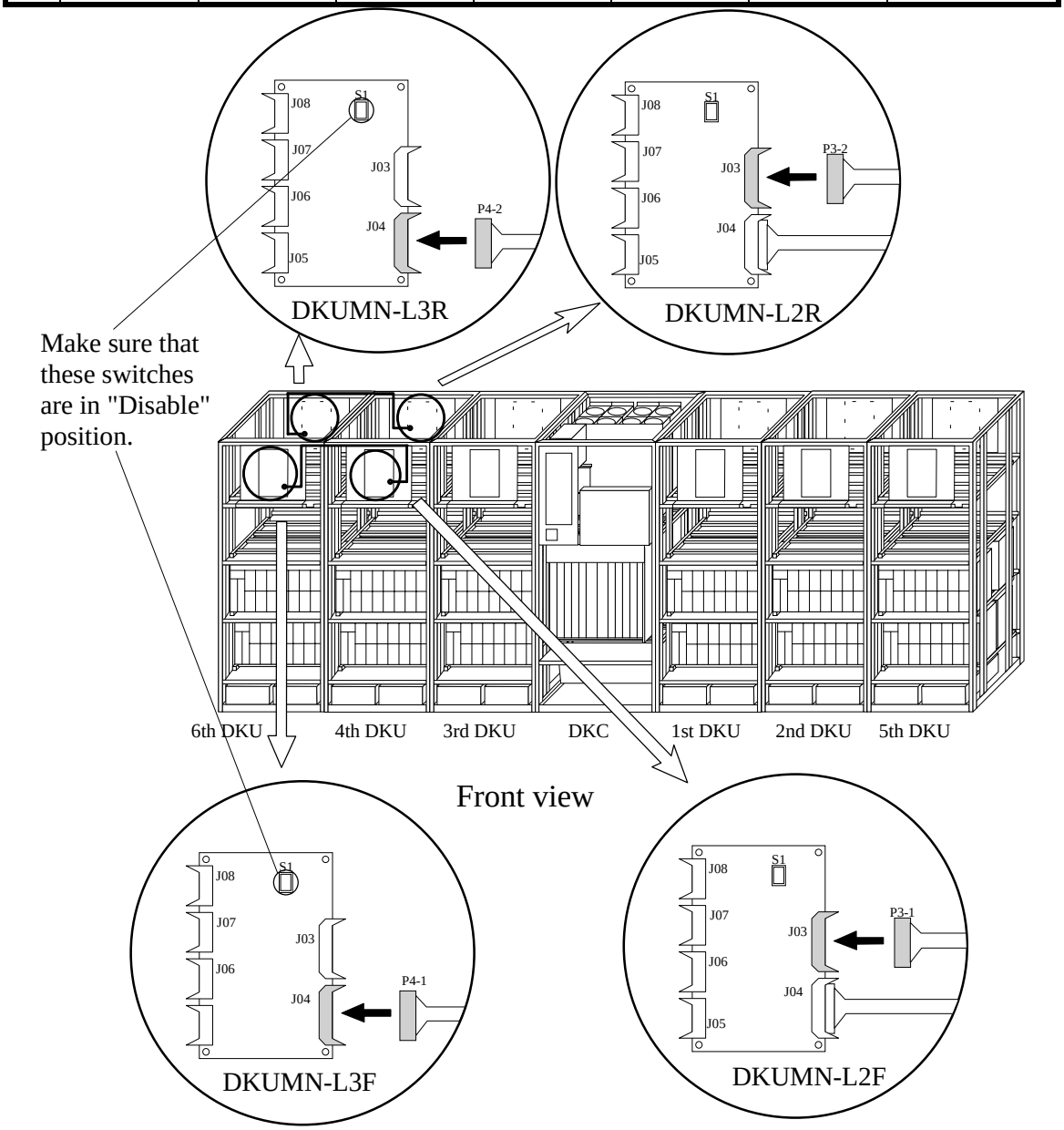


Fig. 3.4.5.1-10 Connection of DKUMN cables

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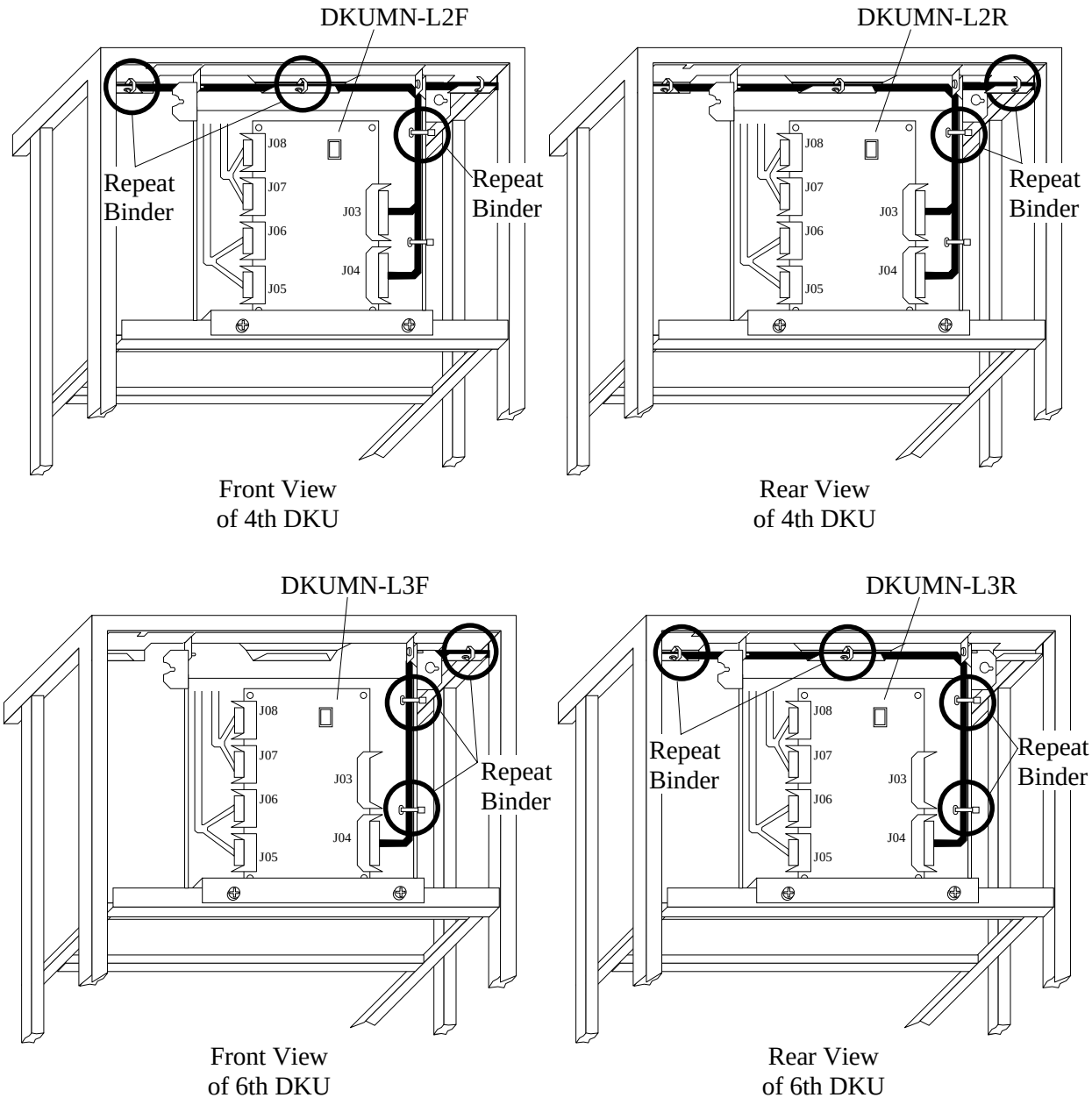


Fig. 3.4.5.1-11 Binding of DKUMN Cables

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3.4.6 Labeling

1. Attach the Label (V/Hz/PH.) to the DKU bottom base of Rear side.

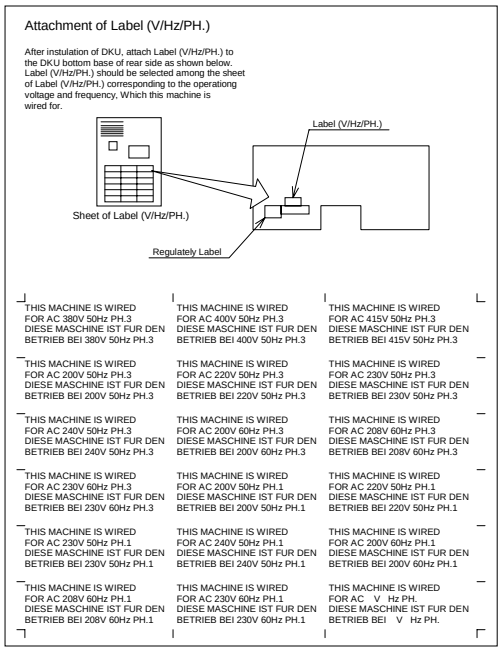


Fig. 3.4.6-1 Label (V/Hz/PH.)

3.4.7 Check of Jumper Settings

1. Check the jumper settings (JP1, JP2 and JP3) on the DKUMN PCBs. Refer to Section 3.4.4.1 DKUMN Setting [INST03-590].
   When the jumper plugs are not installed to the correct sockets, install the jumper plugs to the correct sockets.

2. Check the ID jumpers on the HDD back boards. Refer to Section 3.4.4.2 ID Setting step 2 [INST03-620 through 640].
   When the ID jumpers are not installed to the correct sockets, install the ID jumpers to the correct sockets.

3.4.8 Check and Testing

3.4.8.1 AC Input Voltage Check

> **⚠WARNING**
> Do not touch the internal parts of the AC power cable, the AC Box, or the Breaker Box.
> Line voltage is present even if the circuit breaker is off.

1. Check the AC input voltage using a voltmeter at the customer's AC power source (at the distribution board or receptacle for R & S connectors).

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3.4.8.2 Checking the AC Input Cable, and AC Input Voltage Select Jumper Cable

3 Phase Model

1. Check the input power cable and jumper cable (P104) at the AC Boxes in Disk Units. See Table 3.4.8.2-1, Fig. 3.4.8.2-1, and Fig. 3.4.8.2-2 for items.

Table 3.4.8.2-1 AC Input Cable Conditions and Jumper Cable (P104) Positions

Input Voltage	AC Input Cable Conditions	Jumper Cable (P104) Position	Remarks
200-240Vac	4 conductors (R,S,T,FG)	J104-1	J104-2 dummy connector
380-415Vac	5 conductors (R,S,T,N,FG)	J104-2	J104-1 dummy connector

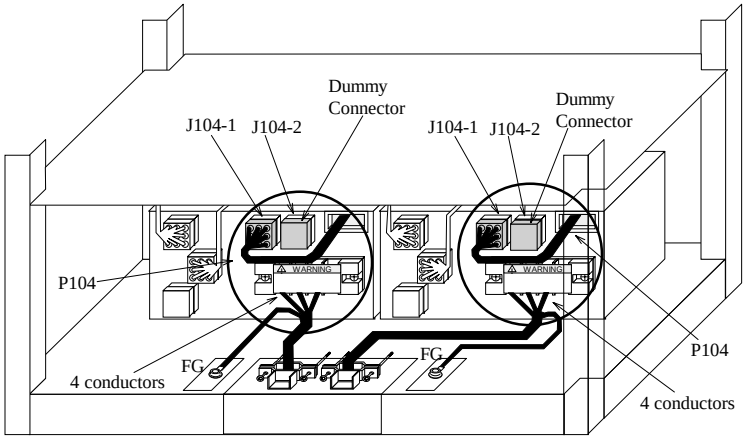


Fig. 3.4.8.2-1 AC Input Cable Conductors and Jumper Cable (P104) Positions 200-240Vac

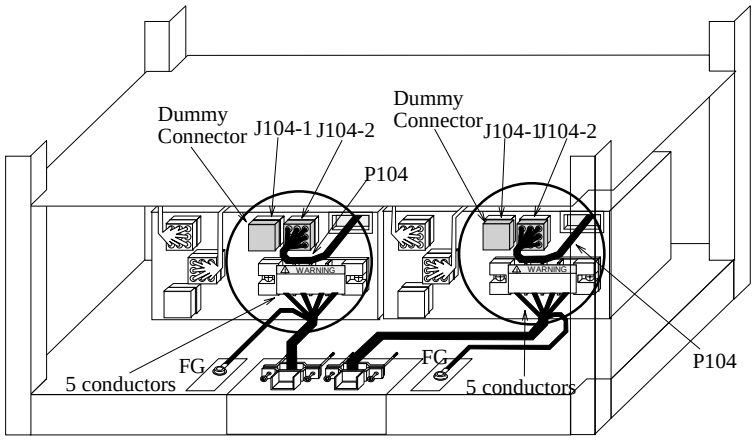


Fig. 3.4.8.2-2 AC Input Cable Conductors and Jumper Cable (P104) Positions 380-415Vac

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Single Phase Model

1. Check the input power cable at the AC BOXes in the DKC and DKU. See table 3.4.8.2-2 and figures 3.4.8.2-3 and 3.4.8.2-4 for check items.

Table 3.4.8.2-2 AC Input Cable Conductors

UNIT	AC BOX	Input Voltage	AC Input Cable Conductors	Remarks
DKC	DKC AC BOX (AC BOX-C1, C2)	200-240Vac	3 conductors (U, V, FG)	
DKU	DKU AC BOX (AC BOX-##0, ##1)	200-240Vac	3 conductors (U, V, FG)	

(Note) ## : DKU Location No. (R1, R2, R3, L1, L2, L3)

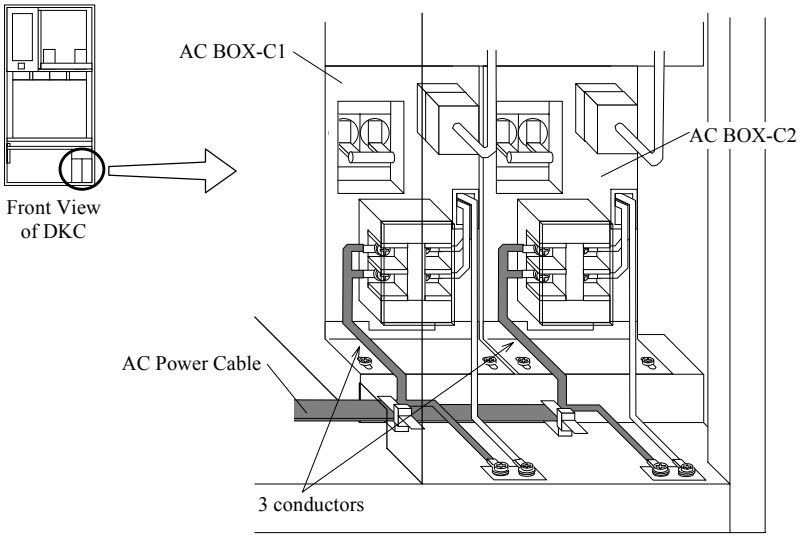


Fig. 3.4.8.2-3 AC Input Cable Conductors (DKC)

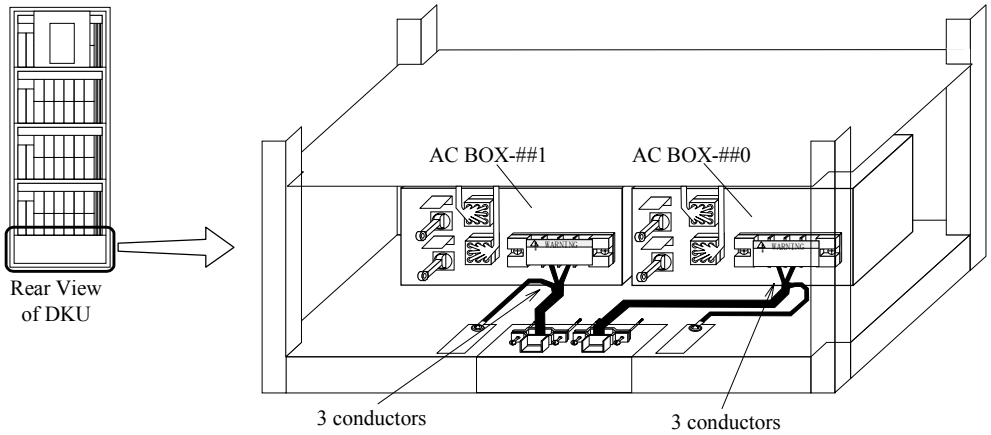


Fig. 3.4.8.2-4 AC Input Cable Conductors (DKU)

2. Return to General Flow.
   New Installation : Go to INST02-20 step(7)-4.
   Non-Disruptive Installation : Go to INST02-90 step(5)-4.
   Disruptive Installation : Go to INST02-210 step(8)-4.

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3.5 Installation of Power Cable Kit

3.5.1 Installation of Power Cable Kit for Disk Unit (DKU-F405I-3EC/3UC/1EC/1UC)

⚠ CAUTION

Perform The Power Cable Kit with care.
This Power Cable Kit is concerned with Primary Circuit.
Perform this procedure before connecting the Power Cable Assy.
(Turn off the circuit breakers on the power distribution panel)
Turn off the main circuit breaker CB101 located in the AC Box.

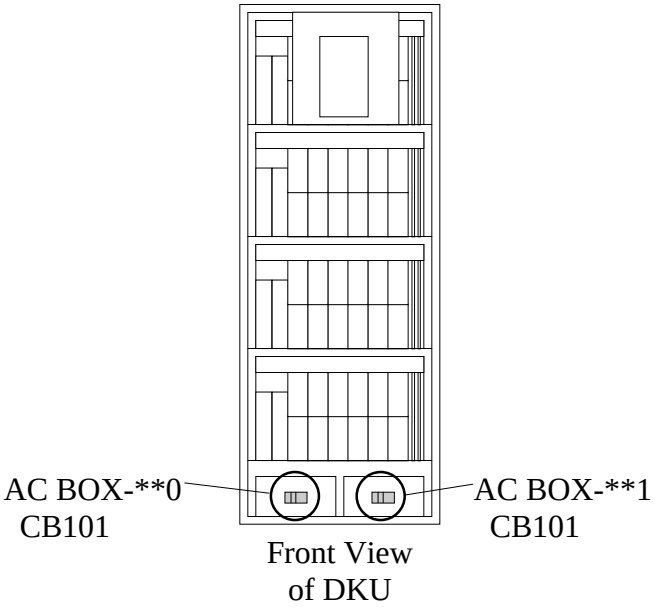


Fig. 3.5.1-1 Location of the Disk Unit Circuit Breakers

Table 3.5.1-1 Disk Unit Circuit Breakers

No.	Location No.	Breaker No.	Remarks
1	AC BOX-**0	CB101	
2	AC BOX-**1	CB101	

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3.5.1.1 Flowchart

1. Remove Terminal Block Cover
↓
2. Attach the Nameplate.
↓
3. Install Power Cable Assy
↓
4. Reset Jumper Cable (P104) Setting

3.5.1.2 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-3UC	Power Cable Assy (IU)	3239396-A	1	
		Nameplate	2103308-1	1	
			3259626-1	1	
2	DKU-F405I-3EC	Power Cable Assy (IE)	3239396-B	1	
		Nameplate	2103308-2	1	
			3259626-2	1	
3	DKU-F405I-1UC	Power Cable Assy (IU)	3255667-A	1	
		Nameplate	2103308-7	1	
			3259626-7	1	
4	DKU-F405I-1EC	Power Cable Assy (IE)	3255667-B	1	
		Nameplate	2103308-8	1	
			3259626-8	1	

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3.5.1.3 Installation Procedure of Power Cable Kit

1. Remove the terminal block covers.
   a. Remove the two screws.
   b. Slide the plate toward the rear side to remove.

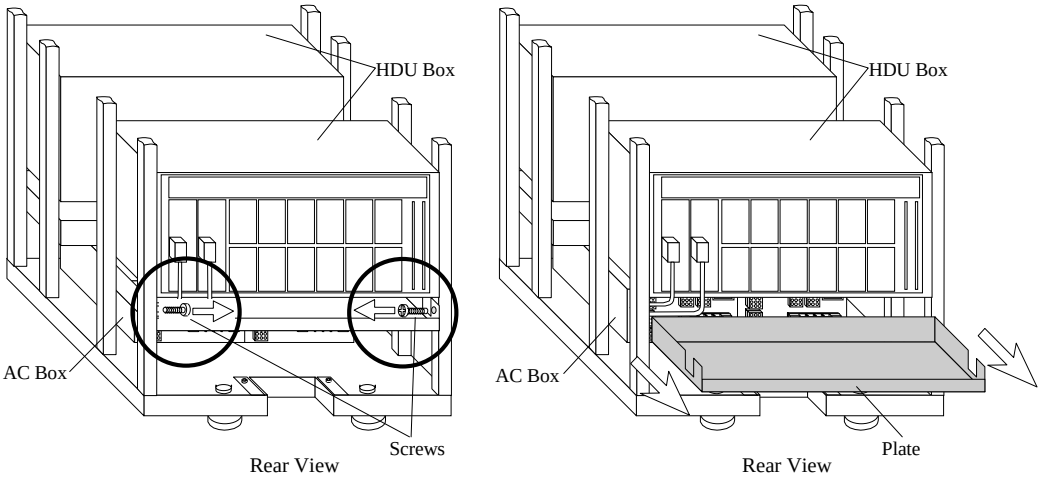


Fig. 3.5.1.3-1 Removal of Plate

   c. Remove the terminal block covers and the screws.

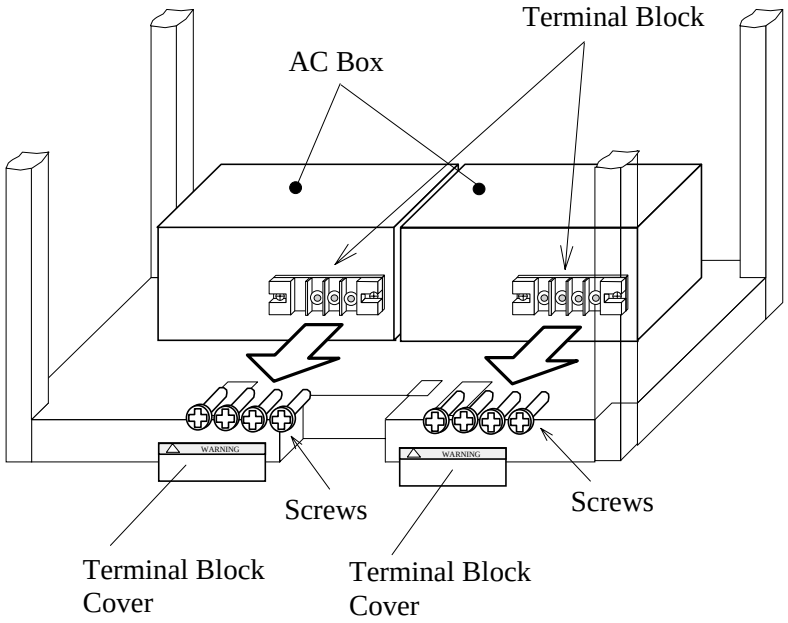


Fig. 3.5.1.3-2 Removal of Power Cable Assy (DKU-F405I-3EC)

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2. Attach the Nameplate.
   a. Attach the corresponding nameplate to the Power Cable Assy.

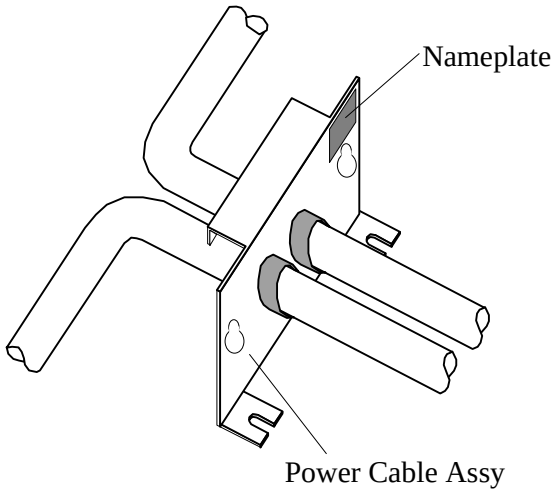


Fig. 3.5.1.3-3 Attachment of Nameplate

3. Install the Power Cable Assy.
   a. Attach the Power Cable Assy and secure two screws.

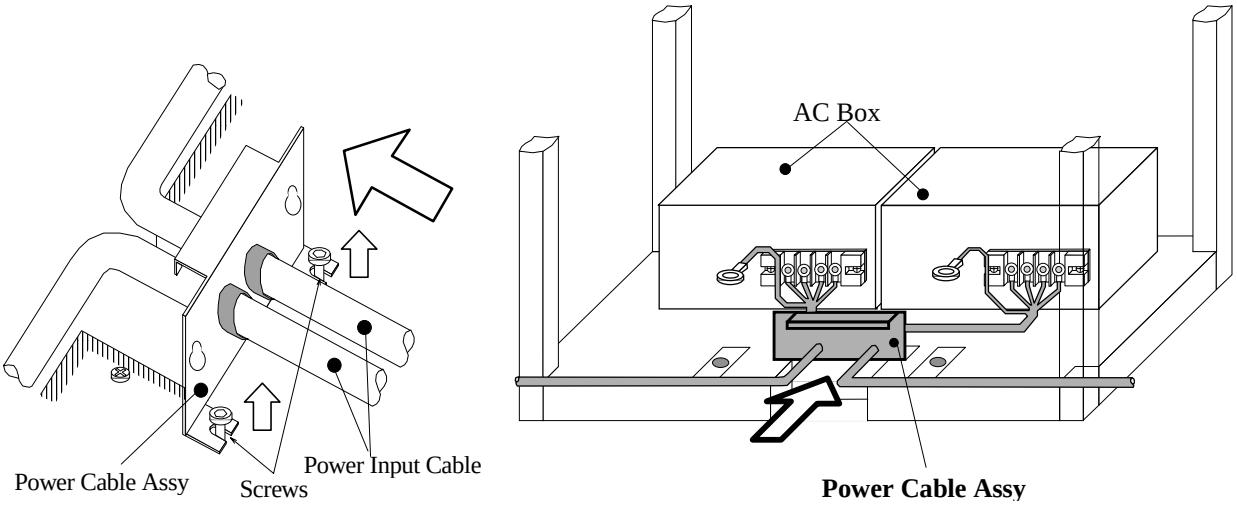


Fig. 3.5.1.3-4 Installation of Power Cable Assy (DKU-F405I-3EC)

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b. Attach frame ground cable with the screw and lock washer.

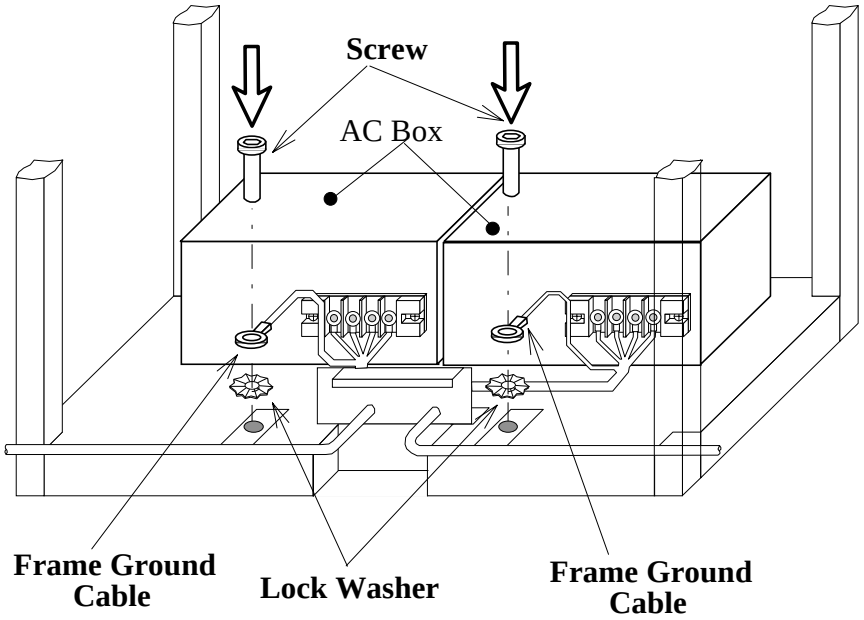


Fig. 3.5.1.3-5 Attachment of Frame Ground Cable (DKU-F405I-3EC)

c. Connect the AC power cables to the terminal block and attach terminal block cover. Refer to Fig 3.5.1.3-6, Fig.3.5.1.3-7 and Table 3.5.1.3-2.

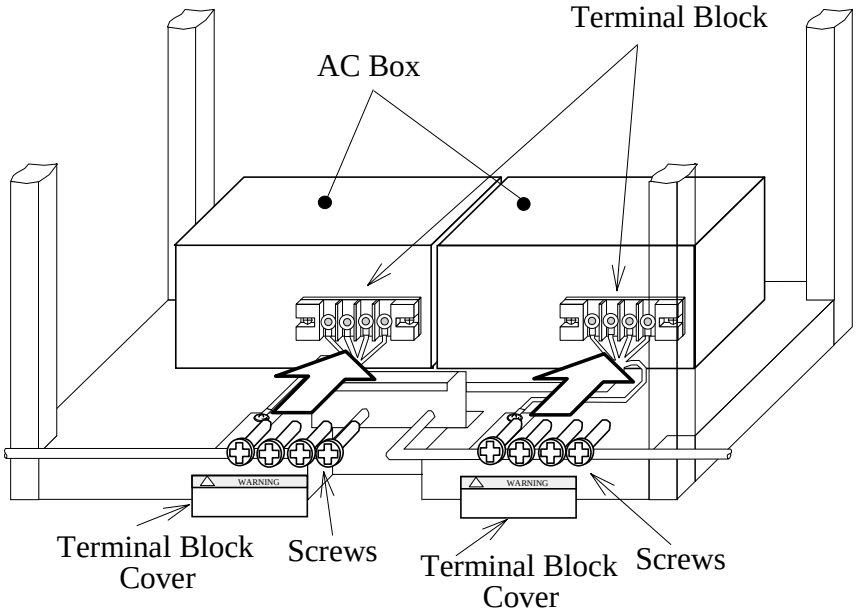
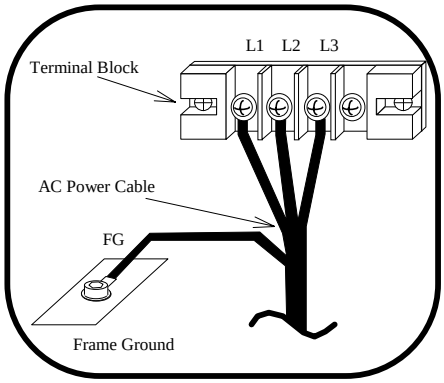


Fig. 3.5.1.3-6 Connection of AC Power Cable (DKU-F405I-3EC)

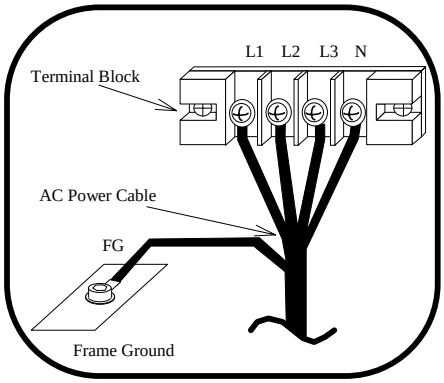
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Table 3.5.1.3-2 AC Power Cable Conductors Numbers

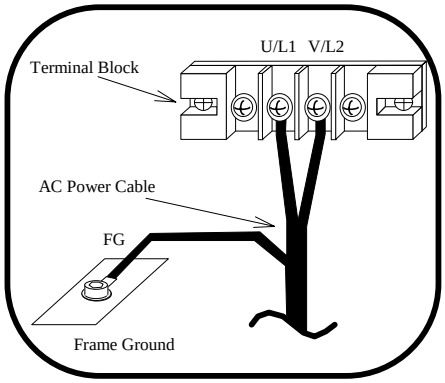
No.	Model Number	Input Voltage	AC Power Cable Conductors	Remarks
1	DKU-F405I-3UC	200-240Vac	4 conductors (L1, L2, L3, FG)	
2	DKU-F405I-3EC	380-415Vac	5 conductors (L1, L2, L3, N, FG)	
3	DKU-F405I-1UC	200-230Vac	3 conductors (U/L1, V/L2, FG)	
4	DKU-F405I-1EC	200-240Vac	3 conductors (U/L1, V/L2, FG)	



DKU-F405I-3UC



DKU-F405I-3EC



DKU-F405I-1UC/1EC

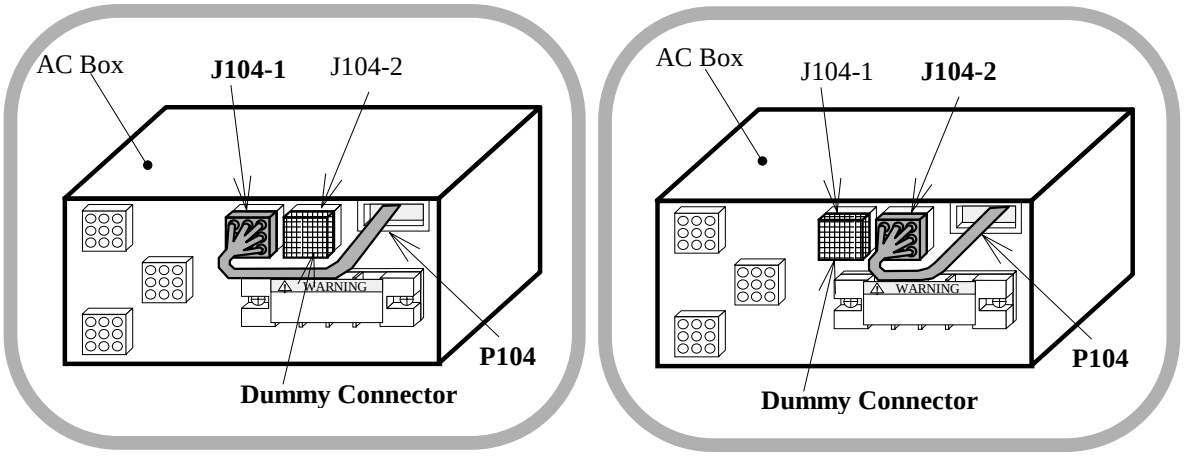
Fig. 3.5.1.3-7 Connection of AC Power Cables to the Terminal Block

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4. Reset the Jumper Cable Setting
   a. When the 3 Phase Model (DKU-F405I-3UC/3EC) is installed, connect the jumper cable (P104) as indicated in the table below.
   When the Single Phase Model (DKU-F405I-1UC/1EC) is installed, go to step b.

Table 3.5.1.3-3 Jumper Cable (P104) Locations

No.	Model Number	Input Voltage	Jumper Cable (P104) Location	Remarks
1	DKU-F405I-3UC	200-240Vac	J104-1	(J104-2: Dummy Connector)
2	DKU-F405I-3EC	380-415Vac	J104-2	(J104-1: Dummy Connector)



DKU-F405I-3UC DKU-F405I-3EC

Fig. 3.5.1.3-8 Jumper Cable P104 Setting

b. Re-Install the plate.

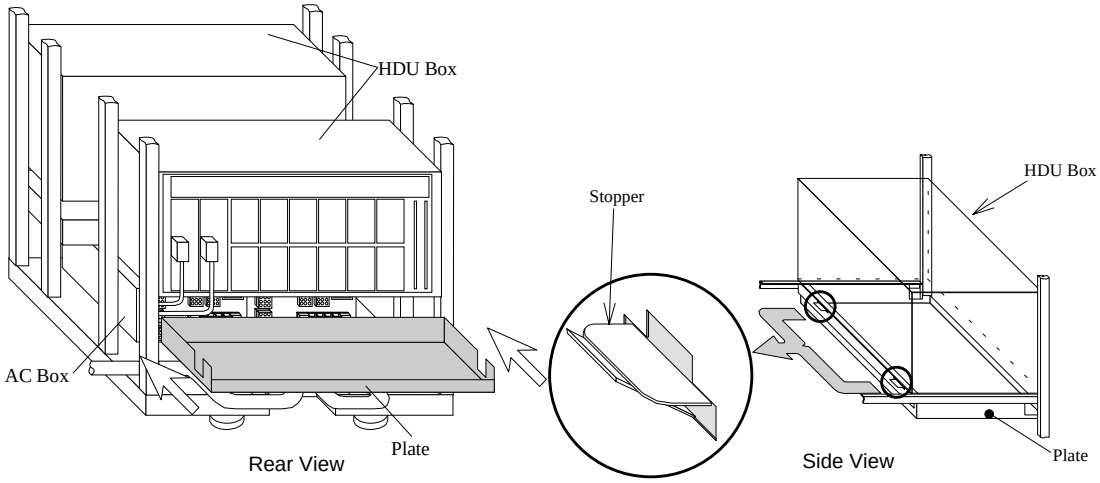


Fig. 3.5.1.3-9 Attachment of Plate

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c. Secure the plate with screws.

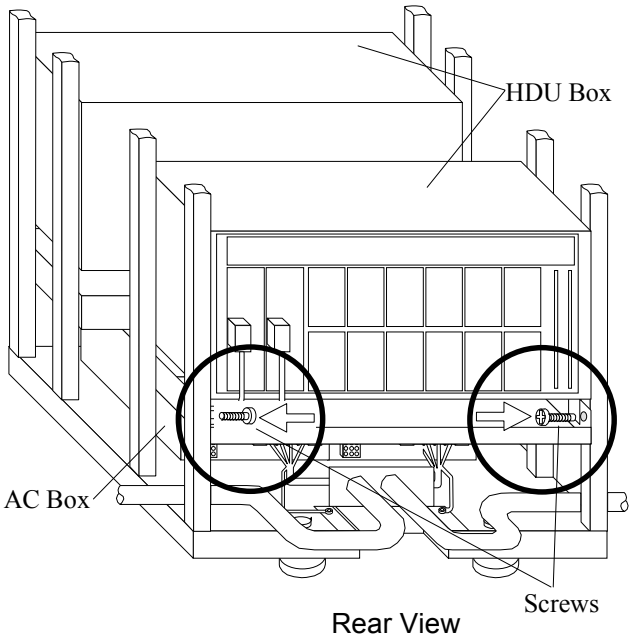


Fig. 3.5.1.3-10 Attachment of Plate

5. Return to General Flow.
   New Installation
      Basic Disk Unit Installation : Go to INST02-10 step (2)-4.
      Additional Disk Units : Go to INST02-20 step (7)-3.
   Non-Disruptive Installation : Go to INST02-90 step (5)-3.
   Disruptive Installation : Go to INST02-210 step (8)-3.

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3.5.2 Installation of Power Cable Kit (DKC-F410I-1EC/1UC)

3.5.2.1 Flowchart

1. Attach the Power Cable Unit.
↓
2. Attach the Nameplate.
↓
3. Fix the AC Power Cable
(Note: Limited work when transporting equipment.)

3.5.2.2 Parts list

Table 3.5.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-1UC	Power Cable ASSY	3259716-A	1	
		Screw	SB408	2	
		Repeat Binder	5409042-3	4	
		Nameplate	2103342-2	1	DKC-F410I-1UC
		Nameplate	3259765-2	1	A5951-60003
2	DKC-F410I-1EC	Power Cable ASSY	3259716-B	1	
		Screw	SB408	2	
		Repeat Binder	5409042-3	4	
		Nameplate	2103342-1	1	DKC-F410I-1EC
		Nameplate	3259765-3	1	A5951-60004

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3.5.2.3 Installation Procedure of Power Cable Kit

1. Attach the Power Cable ASSY.
   a. Loosen the two screws and remove the cover form the Power Cable Unit.

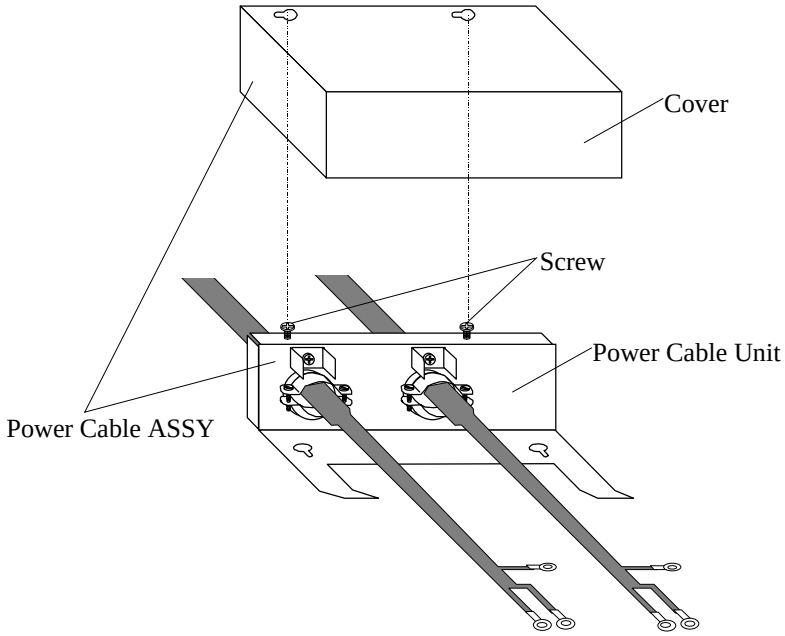


Fig. 3.5.2.3-1 Removal of Cover

   b. Attach the Power Cable Unit with the two screws.

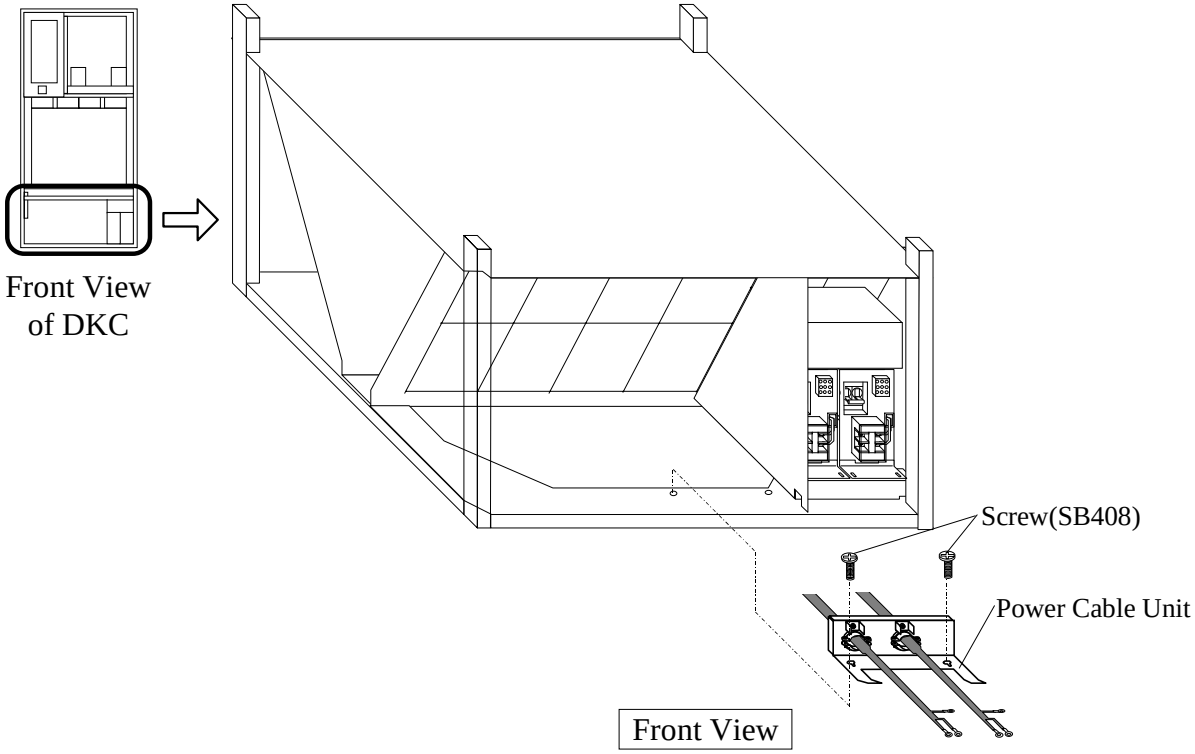
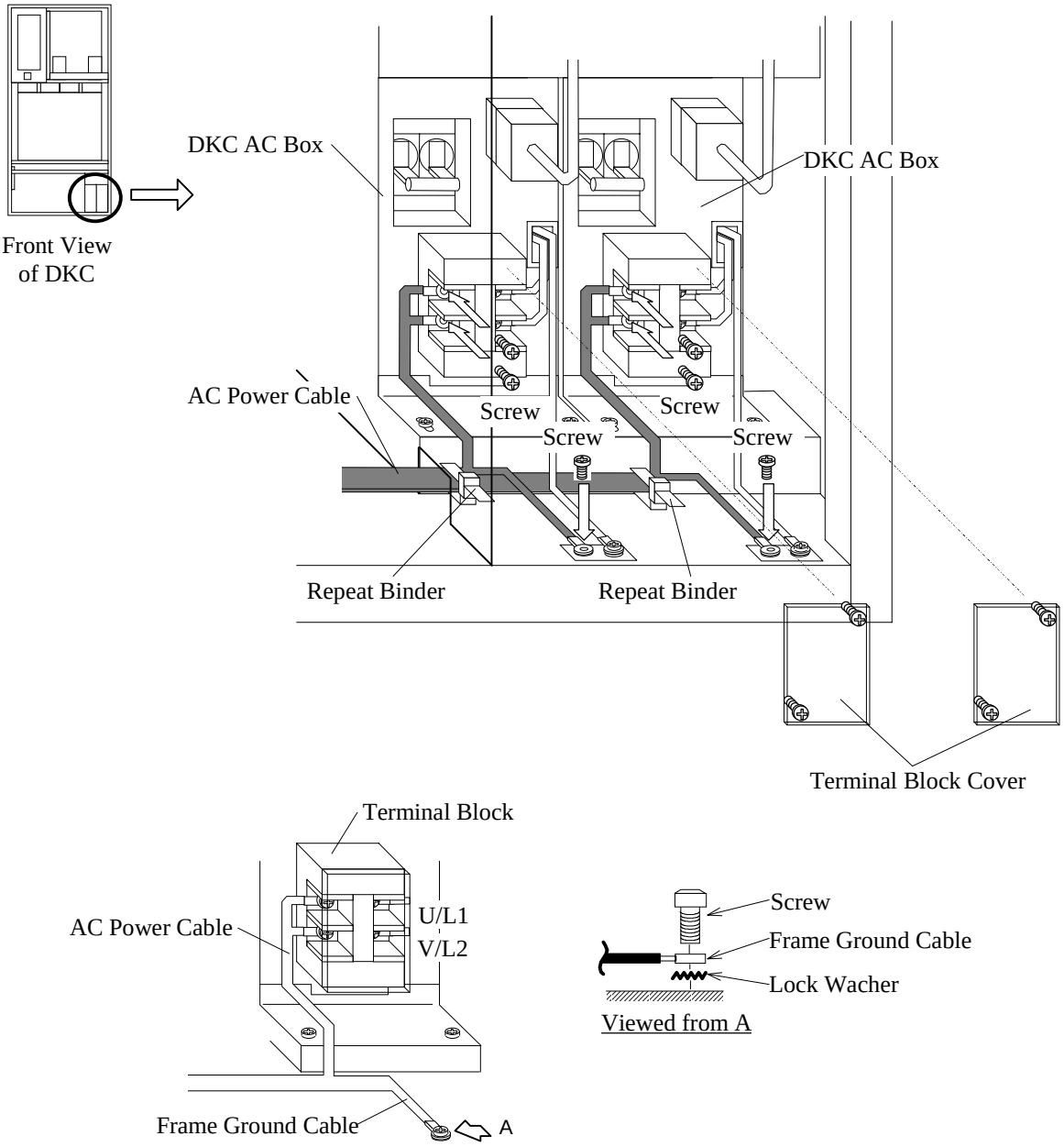


Fig. 3.5.2.3-2 Attachment of Power Cable Unit

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c. Loosen the four screws and remove terminal block covers.
d. Attach the AC power cables to AC Boxes and fasten the six screws.
e. Attach the terminal block covers to AC Boxes and fasten the four screws.
f. Fasten the two repeat binders.



Connection of AC Power Cable

Letters indicated on the terminal block	Connecting LINE	Cable Color	
		DKC-F410I-1UC	DKC-F410I-1EC
U/L1	Phase U	White	Brown
V/L2	Phase V	Black	Blue

Fig. 3.5.2.3-3 Attachment of AC Power Cables

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g. Attach the cover with the two screws.

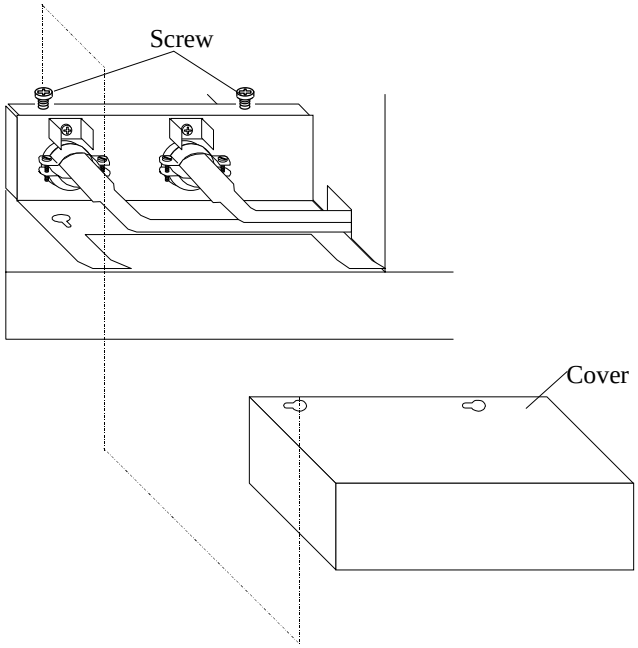


Fig. 3.5.2.3-4 Attachment of Cover

2. Attach the Nameplate.
   a. Attach the nameplate to the cover.

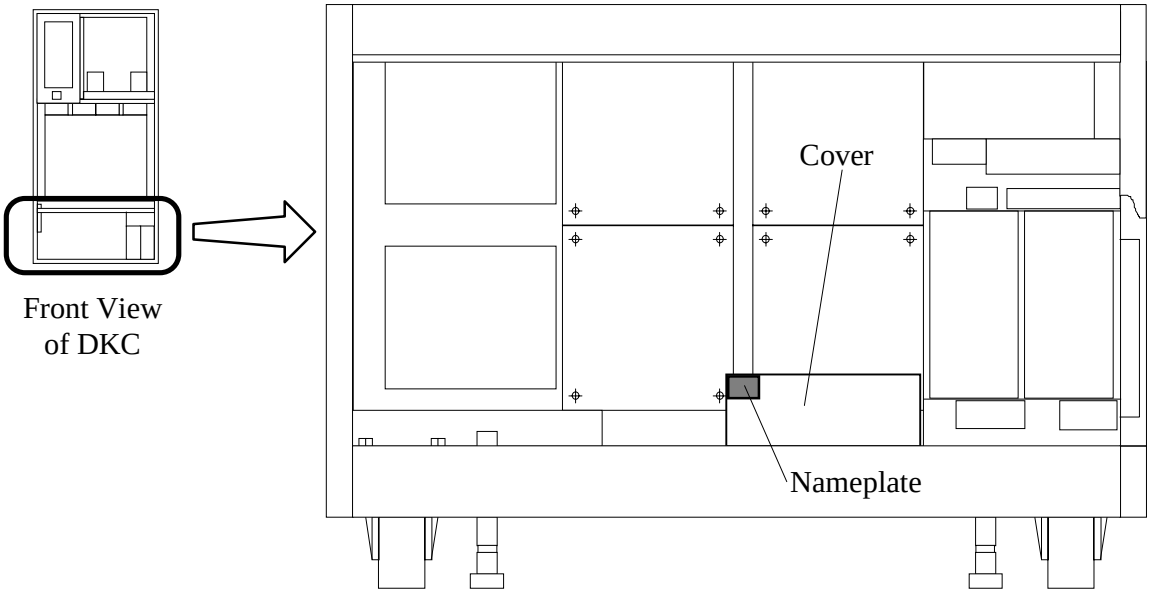


Fig. 3.5.2.3-5 Attachment of Nameplate

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Note: Limited work when transporting equipment.

3. Fix the AC Power Cable.
   a. Fix the AC Power Cable with four repeat binders.

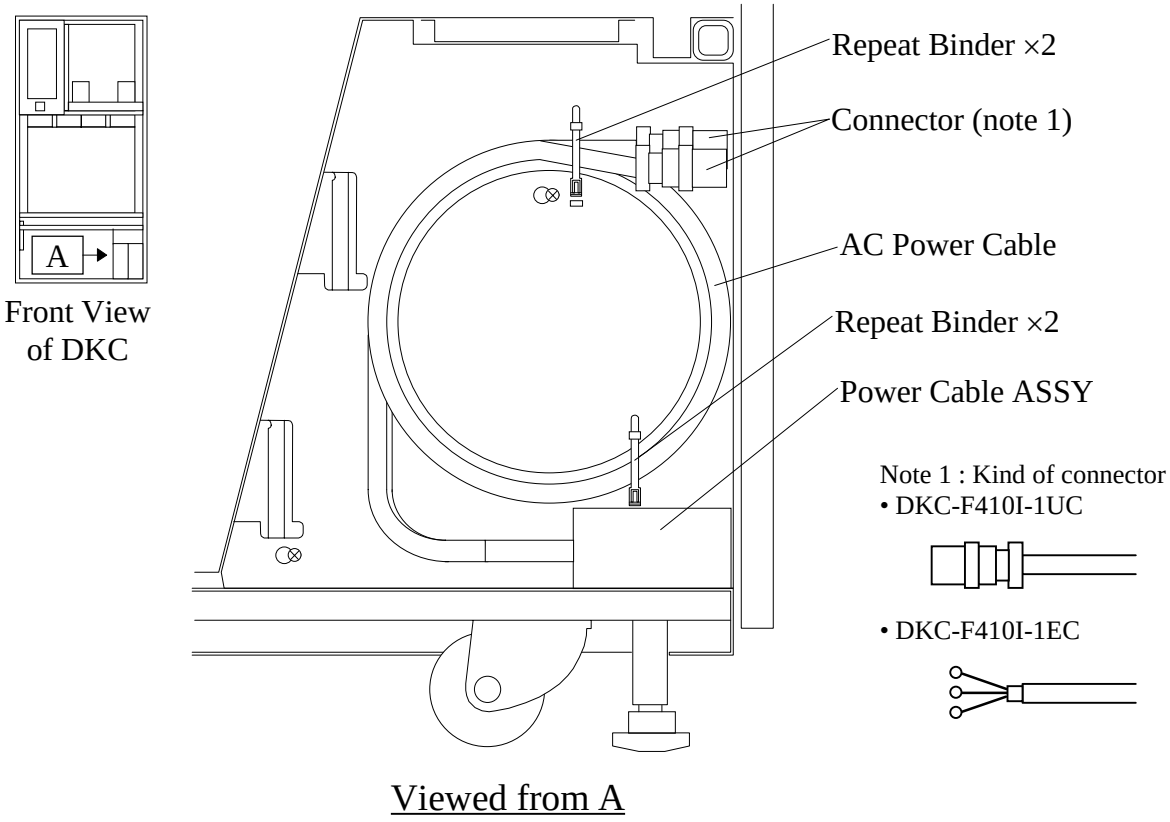


Fig. 3.5.2.3-6 Attachment of Nameplate

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3.6 Installation of Channel Adapter

3.6.1 Installation of Serial 4-port Adapter (DKC-F410I-4S)

Note: When installing three or more channel options,
the CL Additional Power Supply (DKC-F410I-80) must be installed.
In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.

3.6.1.1 Parts List

Table 3.6.1-1 Parts List for Serial 4-port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-4S	Serial 2-port Adapter PCB	5509141-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509149-1	4	For Serial
		Holder	2084816-1	4	
		Nameplate	3257216-3	1	For DKC-F410I-4S

3.6.1.2 Flowchart

(1) Insert the PCBs.
↓
(2) Install the I/F connector panel.
↓
(3) Connect the optical fiber cables.
↓
(4) Attach the labels.
↓
(5) Attach the nameplate.

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3.6.1.3 Installation Procedure of Serial 4-port Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.6.1-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.6.1-2.
   c. Fasten the two screws referring to Fig. 3.6.1-2.

Table 3.6.1-2 Inserting Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

Up to 4 serial 4 port adapters can be installed in the subsystem.

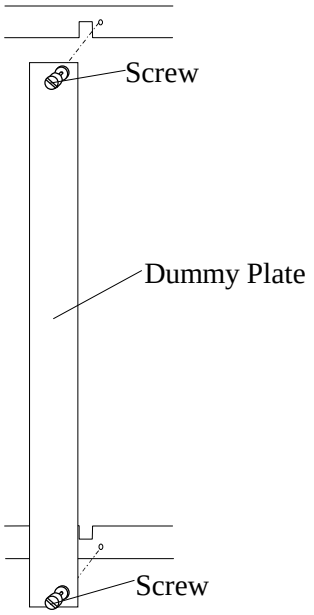


Fig. 3.6.1-1 Removal of Dummy Plate

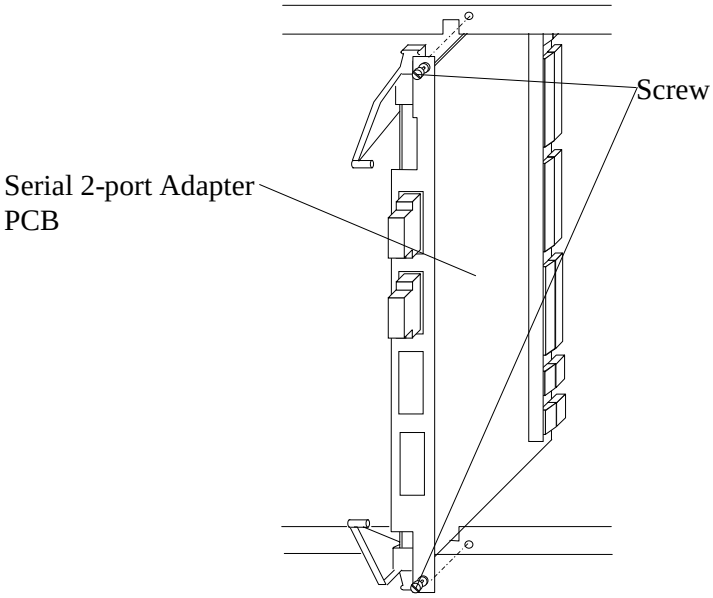
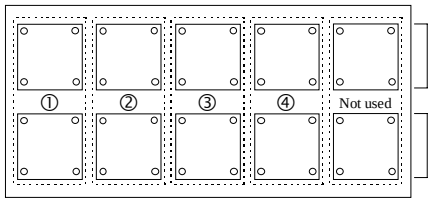


Fig. 3.6.1-2 Insertion of PCB

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2. Installation of the I/F connector panel
   Install the I/F connector panel in the order of the location number ①②③④ shown in Fig. 3.6.1-3.



①: Position for Basic installation
②: Position for Add.1 installation
③: Position for Add.2 installation
④: Position for Add.3 installation

Fig. 3.6.1-3 Location of I/F Connector Panel (Front)

   a. Remove the dummy plate referring to Fig. 3.6.1-4.
   b. Install the I/F connector panel referring to Fig. 3.6.1-5.
      (Note): Dummy plates should be stored for future use in de-installation.

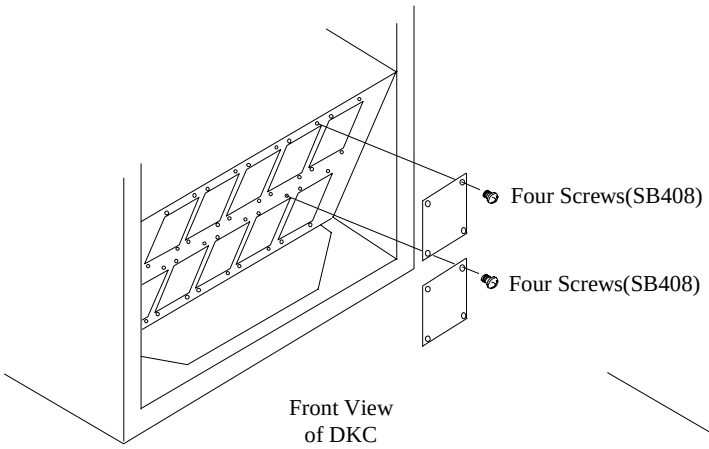


Fig. 3.6.1-4 Removal of Dummy Plate

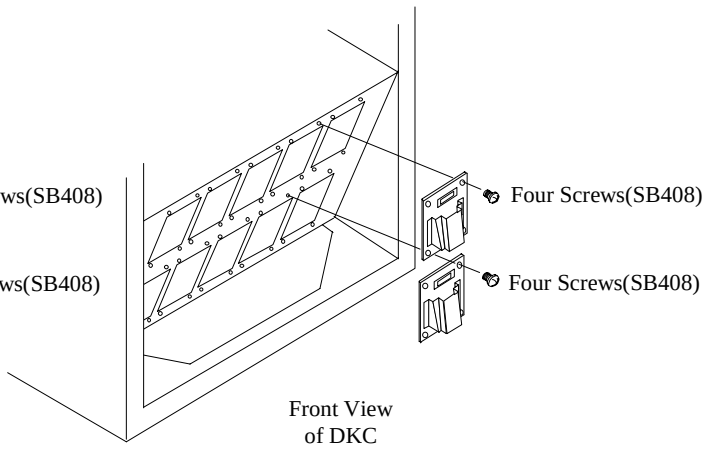


Fig. 3.6.1-5 Installation of I/F Connector Panel

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3. Connection of the optical fiber cable
   a. Pull the optical fiber cable into the DKC through the I/F connector panel. Connect the optical fiber cable to the PCB referring to Serial Channel Interface [LOCATION04-80] in LOCATION section.
   b. Fix the cable with Holder① referring to Fig. 3.6.1-6.
   c. Fix the cable to Lower Strain Relief② and attach Upper Strain Relief③ and Bracket④ referring to Fig. 3.6.1-7.

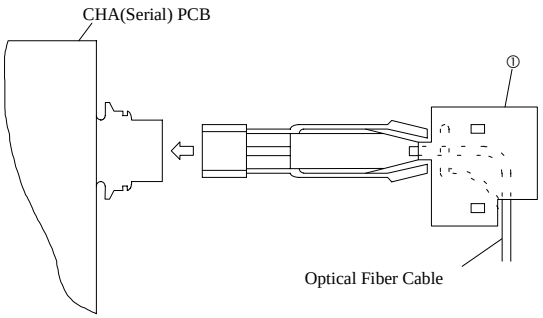


Fig. 3.6.1-6 Connection of Optical Fiber Cable

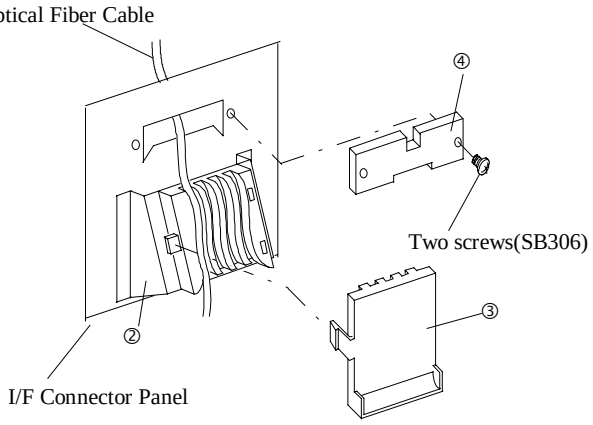


Fig. 3.6.1-7 Installation of Optical Fiber Cable

4. Labeling
   a. Attach the labels "SERIAL PORT" to ①,③,⑤, or ⑦ referring to Table. 3.6.1-3.

Table 3.6.1-3 Attachment of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	①	③	⑤	⑦
Channel No.	A,B	E,F	J,K	N,P

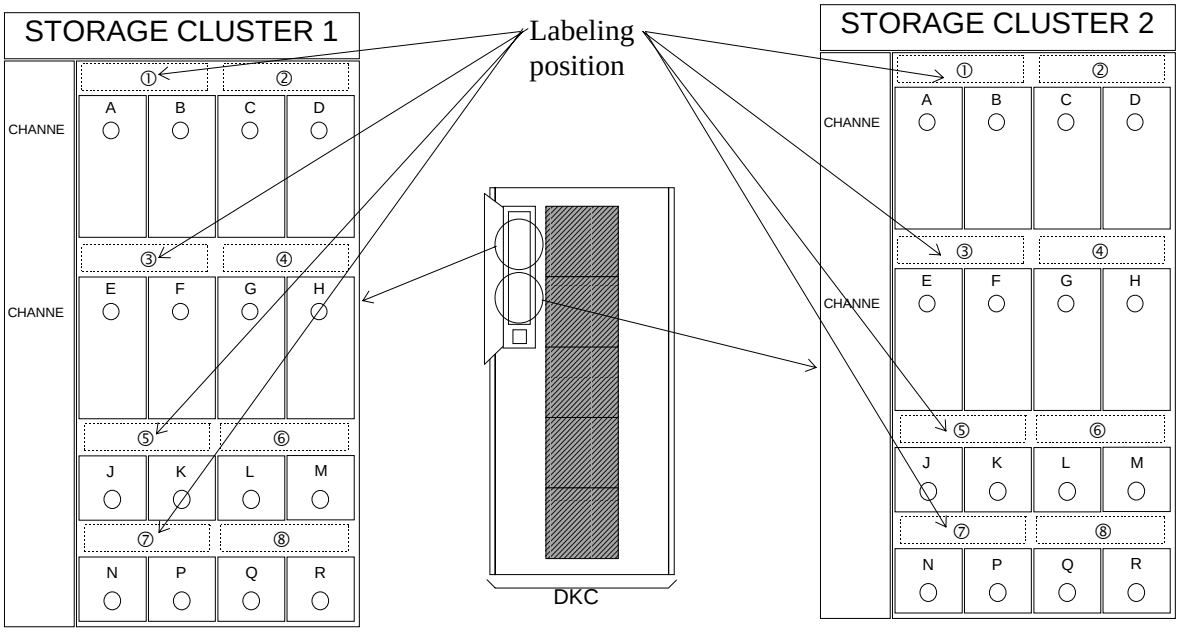


Fig. 3.6.1-8 Attachment of Labels

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5. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.6.1-9.

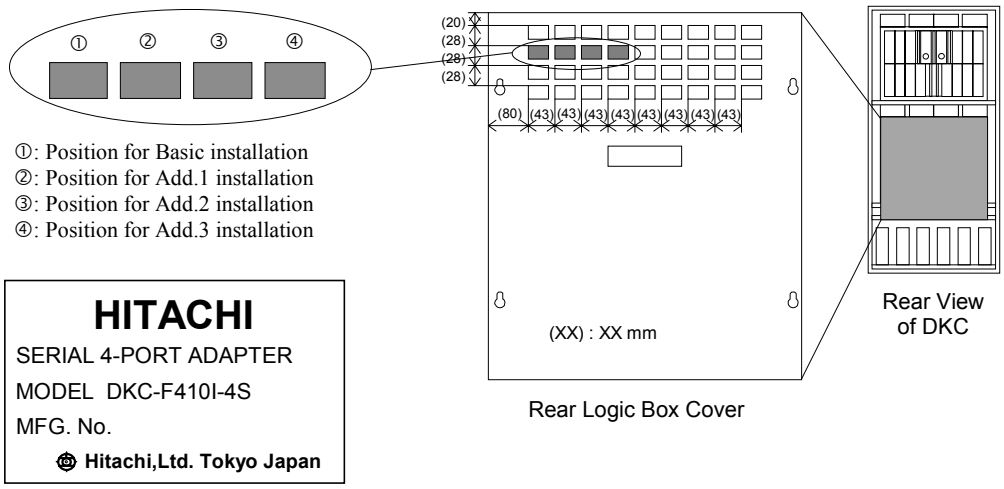


Fig. 3.6.1-9 Attachment of Nameplate

6. Return to General Flow.
   New Installation: Go to INST02-20 Step (6).
   Non-disruptive Installation: Go to INST02-90 Step (3)-5.
   Disruptive Installation: Go to INST02-210 Step (5).

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3.6.2 Installation of Serial 8-port Adapter (DKC-F410I-8S)

Note: When installing three or more channel options,
the CL Additional Power Supply (DKC-F410I-80) must be installed.
In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.

3.6.2.1 Parts List

Table 3.6.2-1 Parts List for Serial 8-port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-8S	Serial 4-port Adapter PCB	5509141-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509149-1	4	For Serial
		Holder	2084816-1	8	
		Nameplate	3257216-4	1	For DKC-F410I-8S

3.6.2.2 Flowchart

(1) Insert the PCBs.
↓
(2) Install the I/F connector panel.
↓
(3) Connect the optical fiber cables.
↓
(4) Attach the labels.
↓
(5) Attach the nameplate.

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3.6.2.3 Installation Procedure of Serial 8-port Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.6.2-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.6.2-2.
   c. Fasten the two screws referring to Fig. 3.6.2-2.

Table 3.6.2-2 Inserting Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

Up to 4 serial 8-port adapters can be installed in the subsystem.

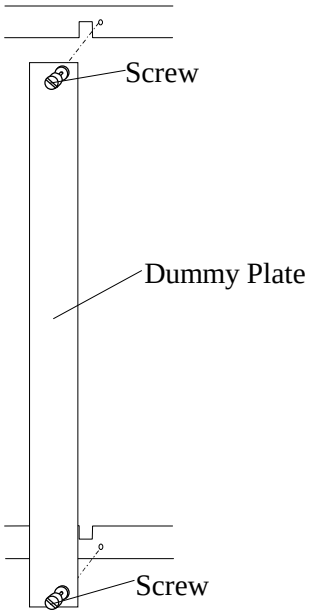


Fig. 3.6.2-1 Removal of Dummy Plate

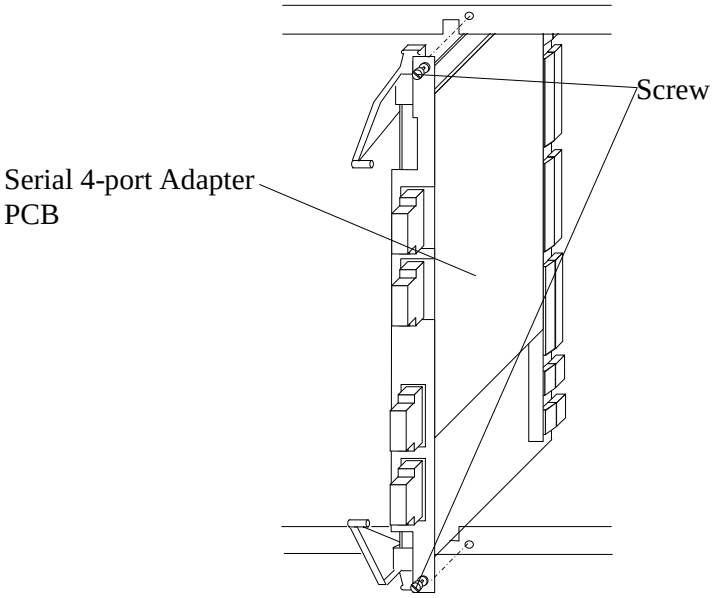
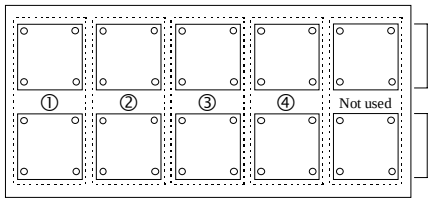


Fig. 3.6.2-2 Insertion of PCB

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2. Installation of the I/F connector panel
   Install the I/F connector panel in the order of the location number ①②③④ shown in Fig. 3.6.2-3.



①: Position for Basic installation
②: Position for Add.1 installation
③: Position for Add.2 installation
④: Position for Add.3 installation

Fig. 3.6.2-3 Location of I/F Connector Panel (Front)

   a. Remove the dummy plate referring to Fig. 3.6.2-4.
   b. Install the I/F connector panel referring to Fig. 3.6.2-5.
      (Note): Dummy plates should be stored for future use in de-installation.

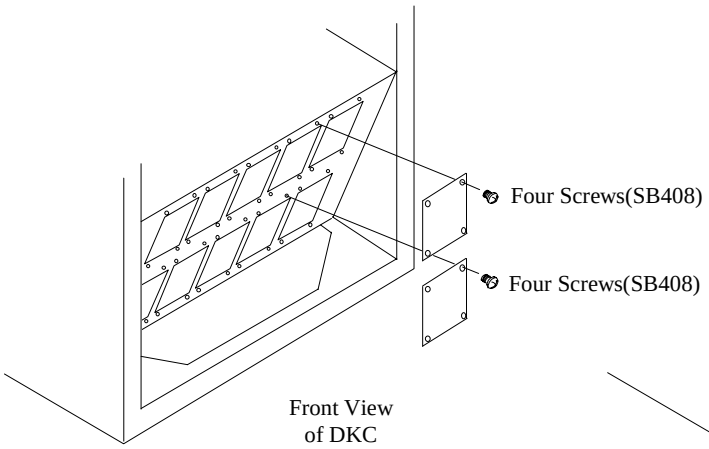


Fig. 3.6.2-4 Removal of Dummy Plate

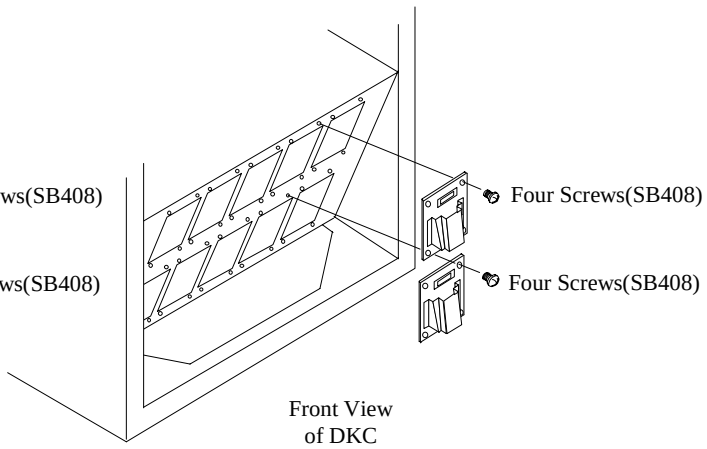


Fig. 3.6.2-5 Installation of I/F Connector Panel

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3. Connection of the optical fiber cable
   a. Pull the optical fiber cable into the DKC through the I/F connector panel. Connect the optical fiber cable to the PCB referring to Serial Channel Interface [LOCATION04-80] in LOCATION section.
   b. Fix the cable with Holder① referring to Fig. 3.6.2-6.
   c. Fix the cable to Lower Strain Relief② and attach Upper Strain Relief③ and Bracket④ referring to Fig. 3.6.2-7.

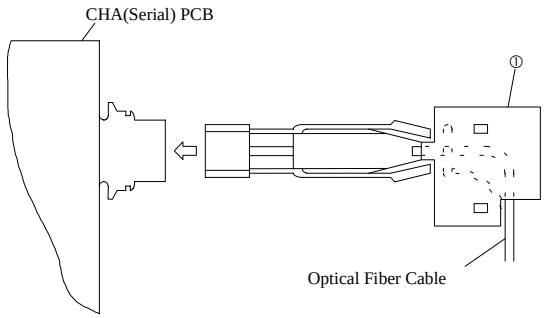


Fig. 3.6.2-6 Connection of Optical Fiber Cable

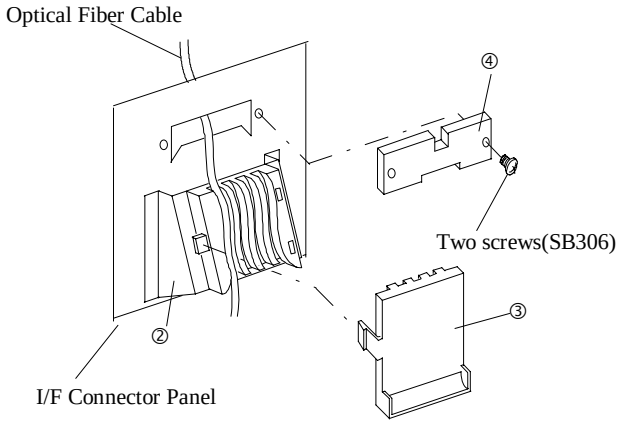


Fig. 3.6.2-7 Installation of Optical Fiber Cable

4. Labeling
   a. Attach the labels "SERIAL PORT" to ① through ⑧ referring to Table. 3.6.2-3.

Table 3.6.2-3 Attachment of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A,B,C,D	E,F,G,H	J,K,L,M	N,P,Q,R

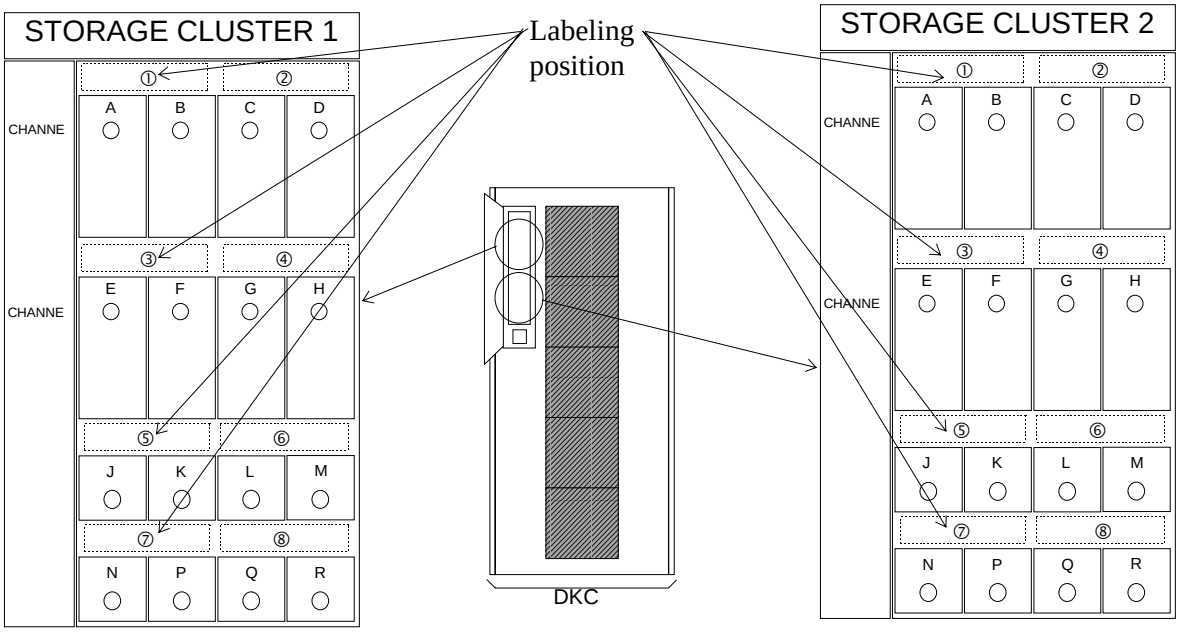


Fig. 3.6.2-8 Attachment of Labels

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5. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.6.2-9.

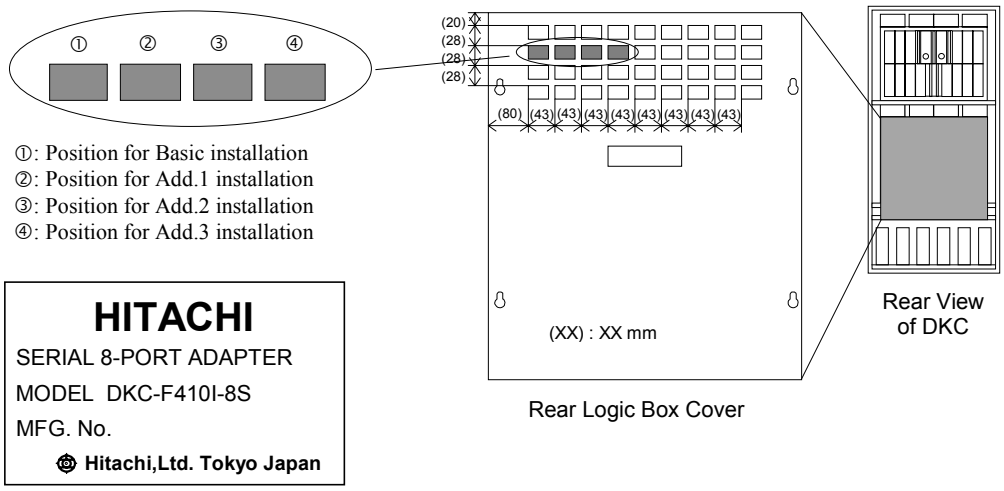


Fig. 3.6.2-9 Attachment of Nameplate

6. Return to General Flow.
   New Installation: Go to INST02-20 Step (6).
   Non-disruptive Installation: Go to INST02-90 Step (3)-5.
   Disruptive Installation: Go to INST02-210 Step (5).

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3.6.3 Installation of Fibre 4-port Adapter for Optical Cable (DKC-F410I-4GS/4GL)

Note: When installing three or more channel options,
the CL Additional Power Supply (DKC-F410I-80) must be installed.
In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.

3.6.3.1 Parts List

Table 3.6.3-1 Parts List for Fibre 4-port Adapter (Short Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-4GS (Short Wavelength)	Fibre 2-port Adapter PCB	5509143-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509217-1	4	For Fibre
		Nameplate	3257216-5	1	

Table 3.6.3-2 Parts List for Fibre 4-port Adapter (Long Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
2	DKC-F410I-4GL (Long Wavelength)	Fibre 2-port Adapter PCB	5509145-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509217-1	4	For Fibre
		Nameplate	3257216-7	1	

3.6.3.2 Flowchart

(1) Insert the PCBs.
↓
(2) Install the I/F connector panel.
↓
(3) Connect the optical fiber cables.
↓
(4) Attach the labels.
↓
(5) Attach the nameplate.

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3.6.3.3 Installation Procedure of Fibre 4-port Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.6.3-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.6.3-3.
   c. Fasten the two screws referring to Fig. 3.6.3-2.

Table 3.6.3-3 Inserting Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

Up to 4 Fibre 4-port adapters can be installed in the subsystem.

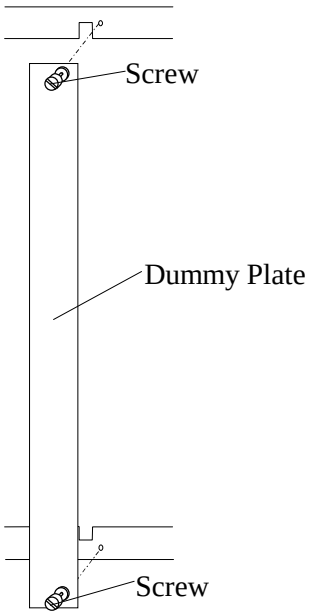


Fig. 3.6.3-1 Removal of Dummy Plate

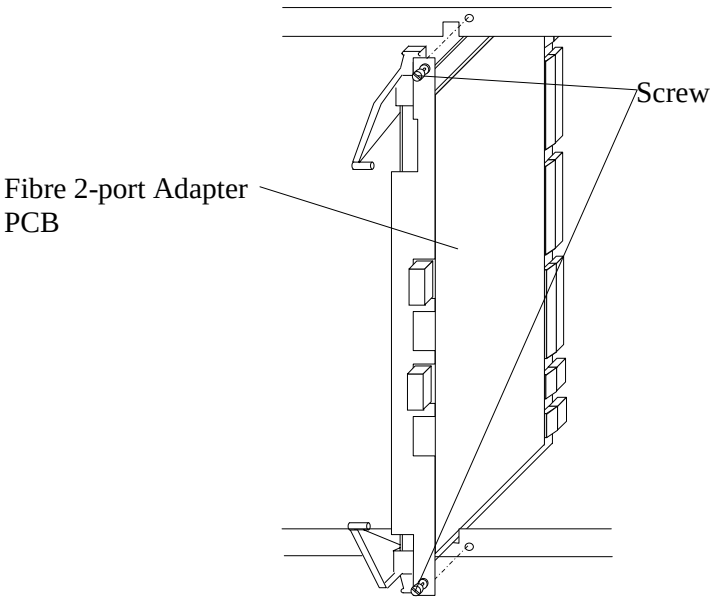
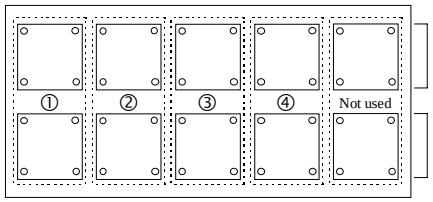


Fig. 3.6.3-2 Insertion of PCB

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2. Installation of the I/F connector panel
   Install the I/F connector panel in the order of the location number ①②③④ shown in Fig. 3.6.3-3.



①: Position for Basic installation
②: Position for Add.1 installation
③: Position for Add.2 installation
④: Position for Add.3 installation

Fig. 3.6.3-3 Location of I/F Connector Panel (Front)

   a. Remove the dummy plate referring to Fig. 3.6.3-4.
   b. Install the I/F connector panel referring to Fig. 3.6.3-5.
      (Note): Dummy plates should be stored for future use in de-installation.

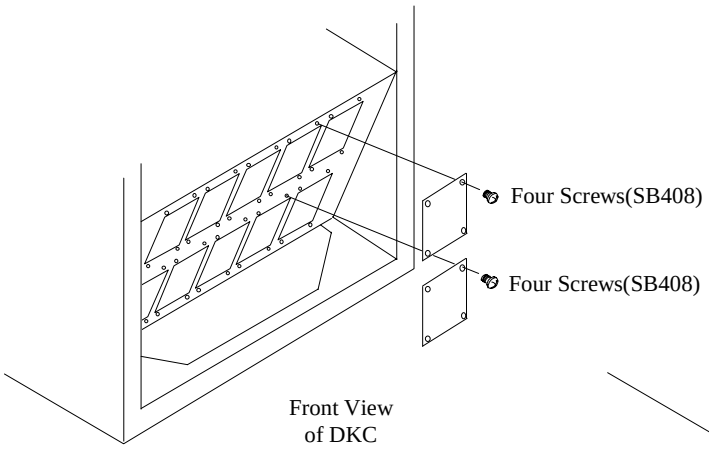


Fig. 3.6.3-4 Removal of Dummy Plate

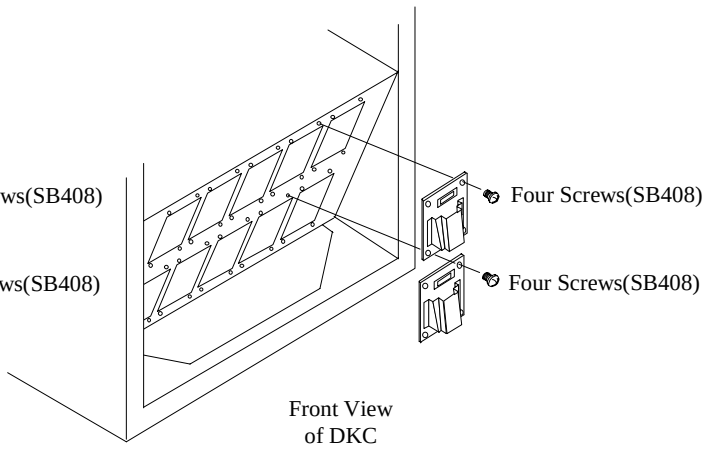


Fig. 3.6.3-5 Installation of I/F Connector Panel

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3. Connection of the optical fiber cable
   a. Pull the optical fiber cable into the DKC through the I/F connector panel referring to Fig. 3.6.3-6. Connect the optical fiber cable to the PCB. Refer to Fibre Channel Interface [LOCATION04-90] in LOCATION section.
   b. Fix the cable to Lower Strain Relief① and attach Upper Strain Relief② and Bracket③ referring to Fig. 3.6.3-7.

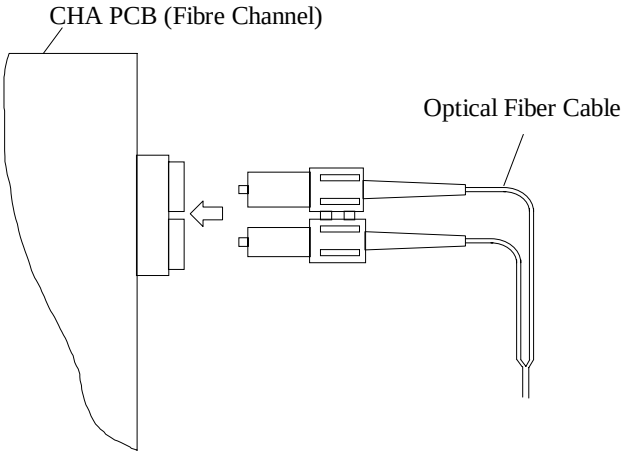


Fig. 3.6.3-6 Connection of Optical Fiber Cable

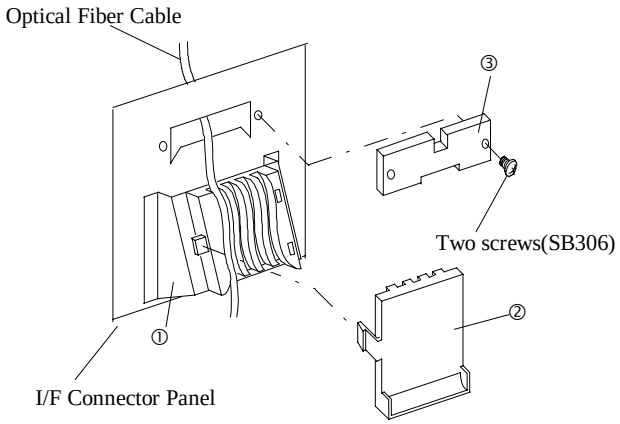


Fig. 3.6.3-7 Installation of Optical Fiber Cable

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4. Labeling
   a. Attach the labels “FIBRE PORT” to ①, ②, ③ or ④ referring to Table. 3.6.3-4 and Fig. 3.6.3-8.

Table 3.6.3-4 Attachment of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	①	②	③	④
Channel No.	A, C	E, G	J, L	N, Q

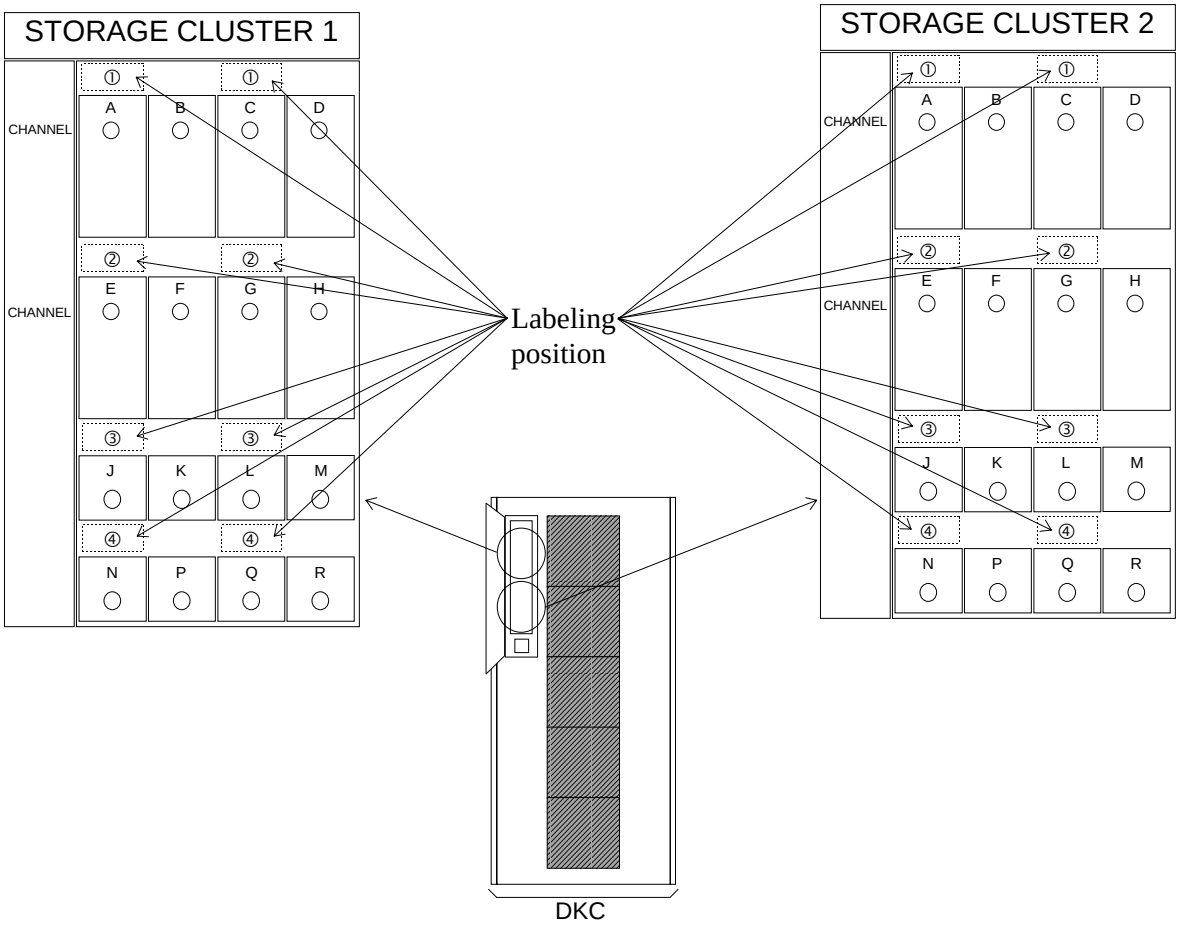


Fig. 3.6.3-8 Attachment of Labels

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5. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.6.3-9.

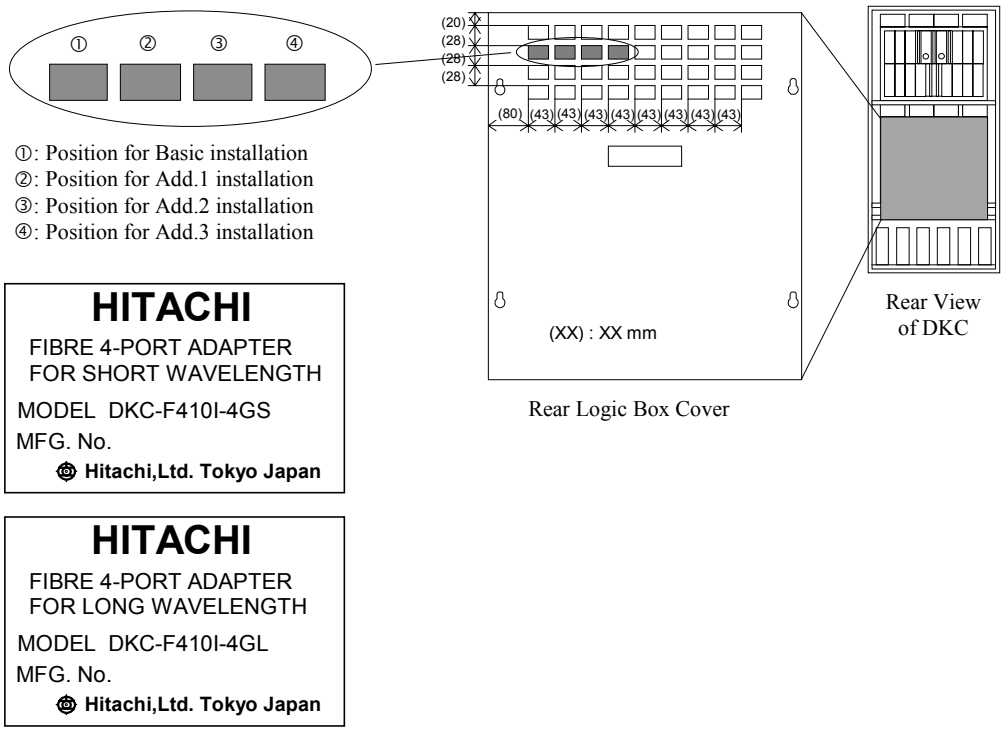


Fig. 3.6.3-9 Attachment of Nameplate

6. Return to General Flow.
   New Installation: Go to INST02-20 Step (6).
   Non-disruptive Installation: Go to INST02-90 Step (3)-5.
   Disruptive Installation: Go to INST02-210 Step (5).

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3.6.4 Installation of Fibre 8-port Adapter for Optical Cable (DKC-F410I-8GS/8GL/8GSE/8GLE)

Note: When installing three or more channel options,
the CL Additional Power Supply (DKC-F410I-80) must be installed.
In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.

3.6.4.1 Parts List

Table 3.6.4-1 Parts List for Fibre 8-port Adapter (Short Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-8GS	Fibre 4-port Adapter PCB	5509143-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-6	1	
2	DKC-F410I-8GSE	Fibre 4-port Adapter PCB	5509143-C	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-65	1	

Table 3.6.4-2 Parts List for Fibre 8-port Adapter (Long Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
3	DKC-F410I-8GL	Fibre 4-port Adapter PCB	5509145-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-8	1	
4	DKC-F410I-8GLE	Fibre 4-port Adapter PCB	5509145-C	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-67	1	

3.6.4.2 Flowchart

(1) Insert the PCBs.
↓
(2) Install the I/F connector panel.
↓
(3) Connect the optical fiber cables.
↓
(4) Attach the labels.
↓
(5) Attach the nameplate.

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3.6.4.3 Installation Procedure of Fibre 8-port Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.6.4-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.6.4-3.
   c. Fasten the two screws referring to Fig. 3.6.4-2.

Table 3.6.4-3 Inserting Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

Up to 4 Fibre 8-port adapters can be installed in the subsystem.

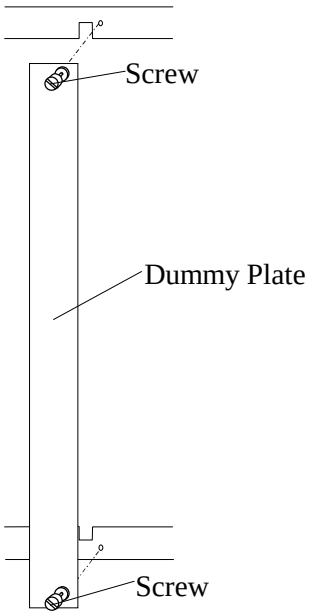


Fig. 3.6.4-1 Removal of Dummy Plate

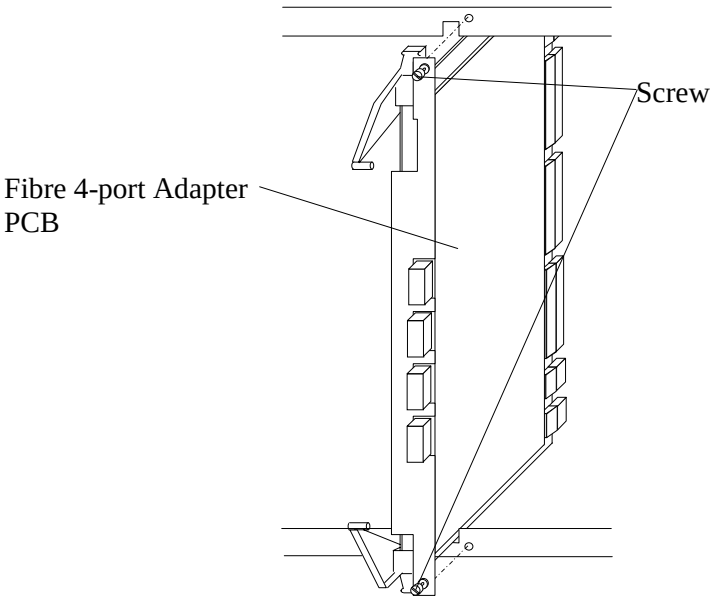
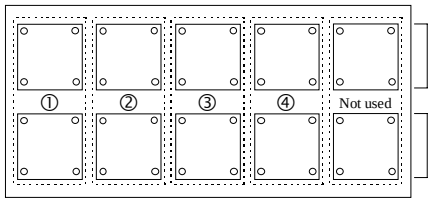


Fig. 3.6.4-2 Insertion of PCB

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2. Installation of the I/F connector panel
   Install the I/F connector panel in the order of the location number ①②③④ shown in Fig. 3.6.4-3.



①: Position for Basic installation
②: Position for Add.1 installation
③: Position for Add.2 installation
④: Position for Add.3 installation

Fig. 3.6.4-3 Location of I/F Connector Panel (Front)

   a. Remove the dummy plate referring to Fig. 3.6.4-4.
   b. Install the I/F connector panel referring to Fig. 3.6.4-5.
      (Note): Dummy plates should be stored for future use in de-installation.

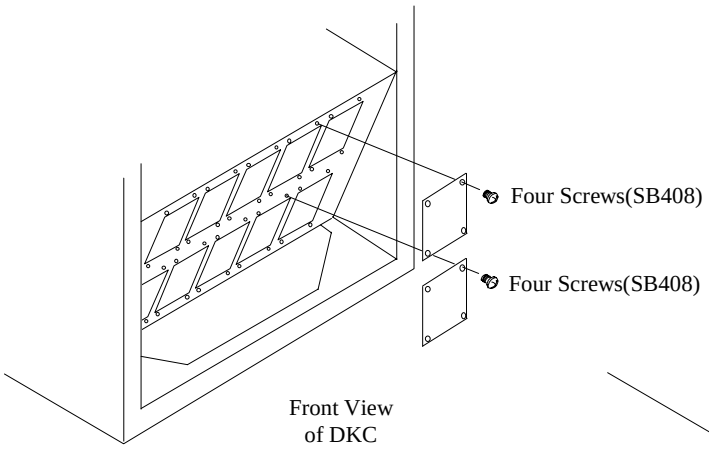


Fig. 3.6.4-4 Removal of Dummy Plate

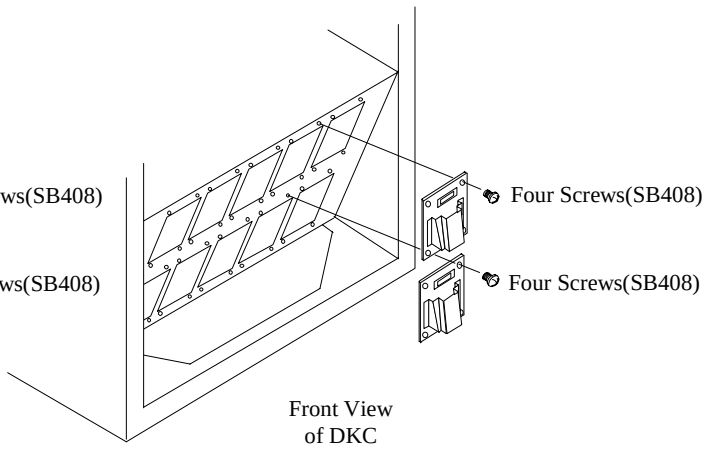


Fig. 3.6.4-5 Installation of I/F Connector Panel

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3. Connection of the optical fiber cable
   a. Pull the optical fiber cable into the DKC through the I/F connector panel referring to Fig. 3.6.4-6. Connect the optical fiber cable to the PCB. Refer to Fibre Channel Interface [LOCATION04-90] in LOCATION section.
   b. Fix the cable to Lower Strain Relief① and attach Upper Strain Relief② and Bracket③ referring to Fig. 3.6.4-7.

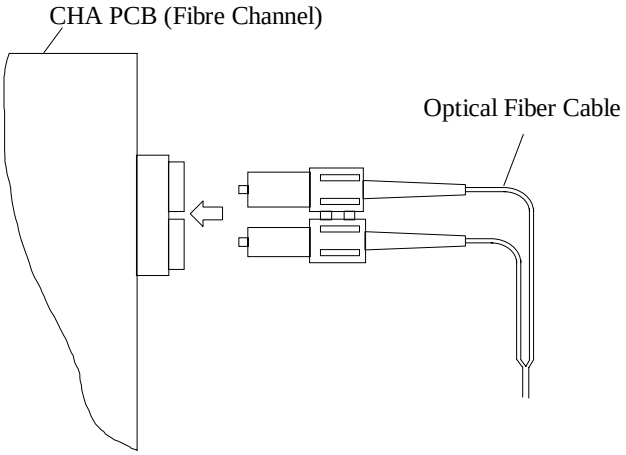


Fig. 3.6.4-6 Connection of Optical Fiber Cable

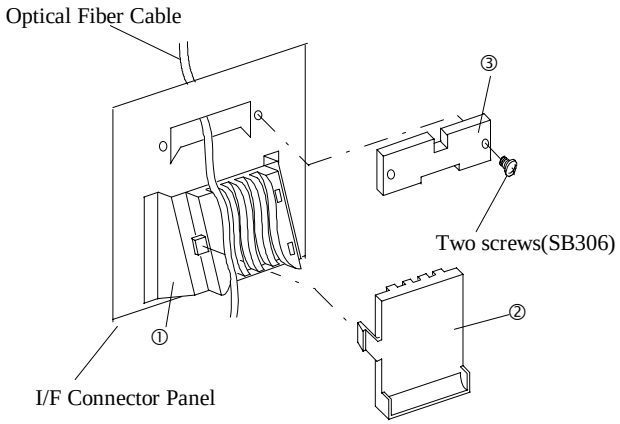


Fig. 3.6.4-7 Installation of Optical Fiber Cable

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4. Labeling
   a. Attach the labels "FIBRE PORT" to ① through ⑧ referring to Table. 3.6.4-4 and Fig. 3.6.4-8.

Table 3.6.4-4 Attachment of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A, B	E, F	J, K	N, P

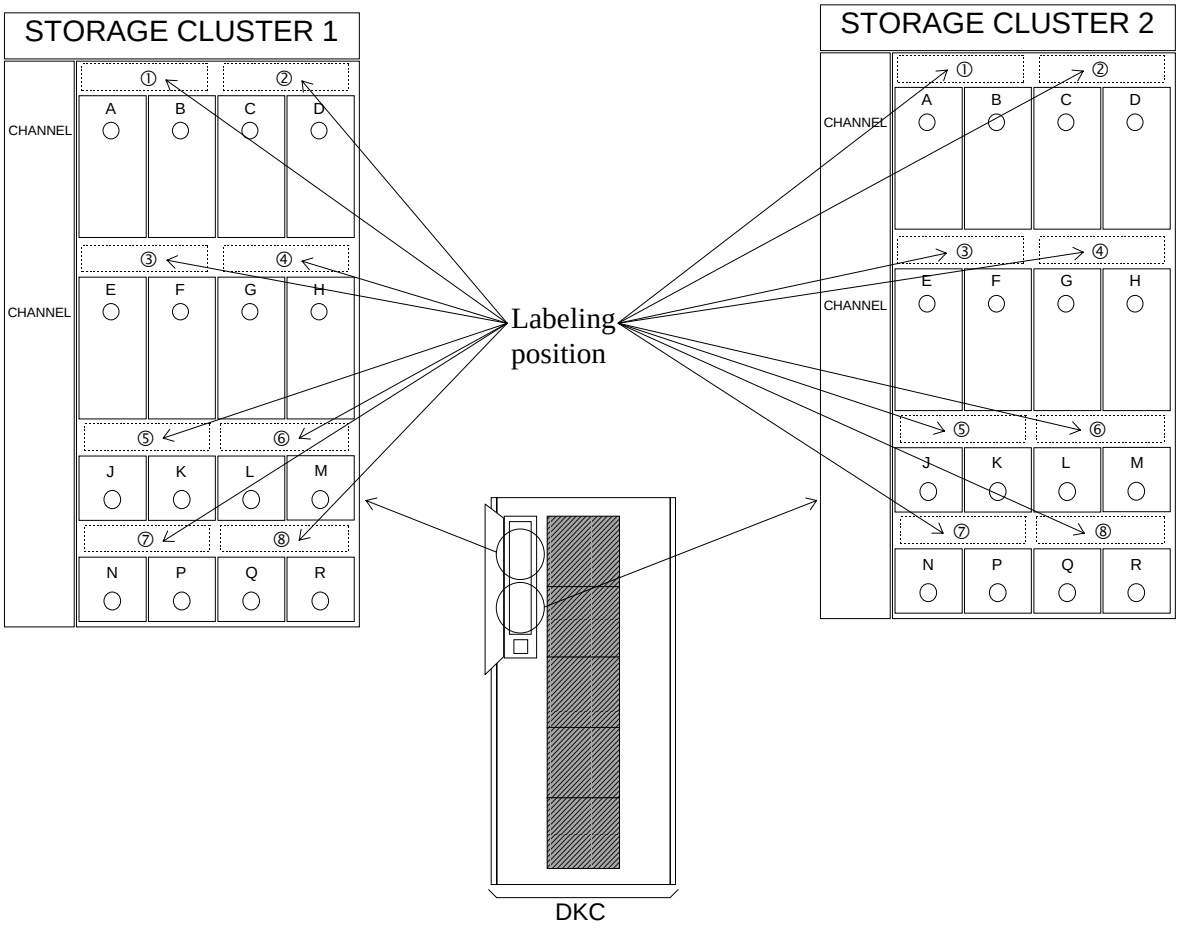


Fig. 3.6.4-8 Attachment of Labels

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5. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.6.4-9.

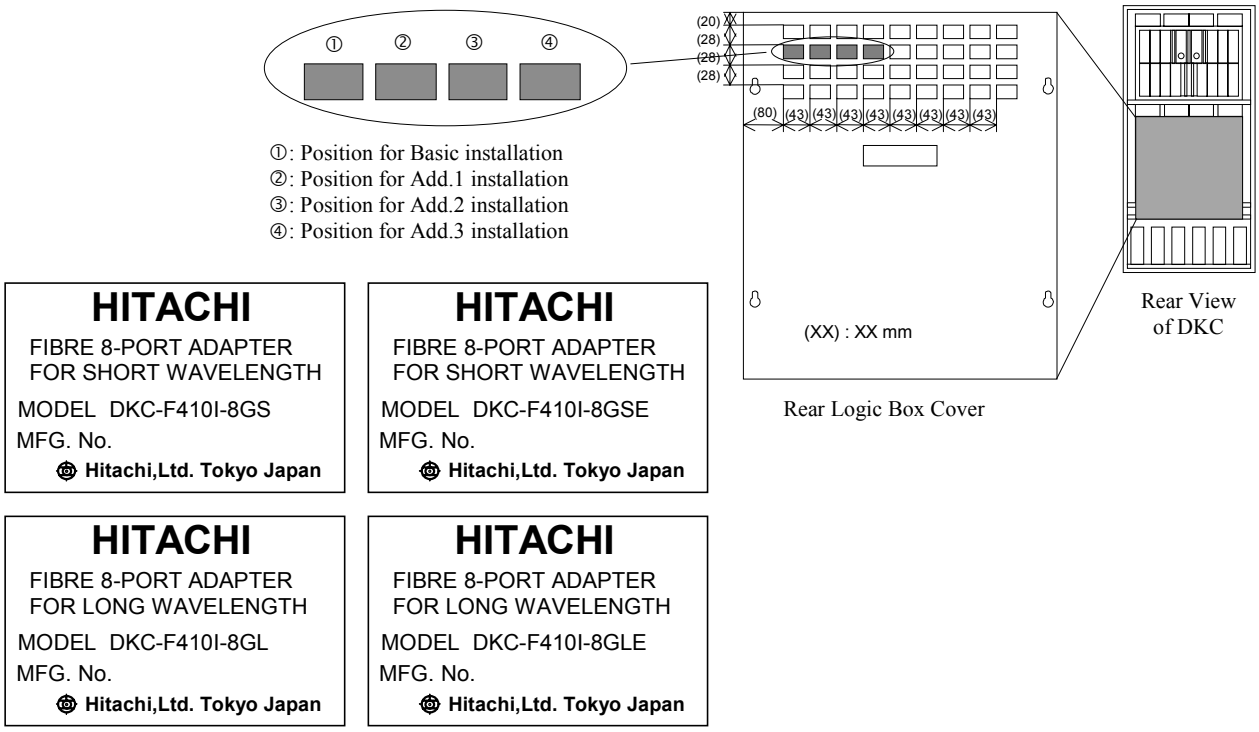


Fig. 3.6.4-9 Attachment of Nameplate

6. Return to General Flow.
   New Installation: Go to INST02-20 Step (6).
   Non-disruptive Installation: Go to INST02-90 Step (3)-5.
   Disruptive Installation: Go to INST02-210 Step (5).

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3.6.5 Installation of 2 Gbps Fibre 8-port Adapter for Short Wavelength (DKC-F410I-8HSE)

Note: When installing three or more channel options,
the CL Additional Power Supply (DKC-F410I-80) must be installed.
In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.

3.6.5.1 Parts List

Table 3.6.5-1 Parts List for 2 Gbps Fibre 8-port Adapter (Short Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-8HSE	Fibre 4-port Adapter PCB	5513742-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-79	1	

3.6.5.2 Flowchart

(1) Insert the PCBs.
↓
(2) Install the I/F connector panel.
↓
(3) Connect the optical fiber cables.
↓
(4) Attach the labels.
↓
(5) Attach the nameplate.

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3.6.5.3 Installation Procedure of 2 Gbps Fibre 8-port Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.6.5-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.6.5-2.
   c. Fasten the two screws referring to Fig. 3.6.5-2.

Table 3.6.5-2 Inserting Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

Up to 4 Fibre 8-port adapters can be installed in the subsystem.

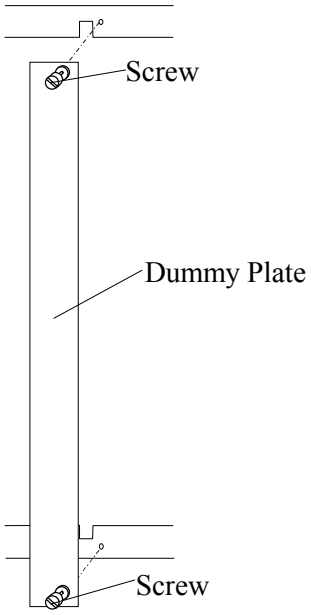


Fig. 3.6.5-1 Removal of Dummy Plate

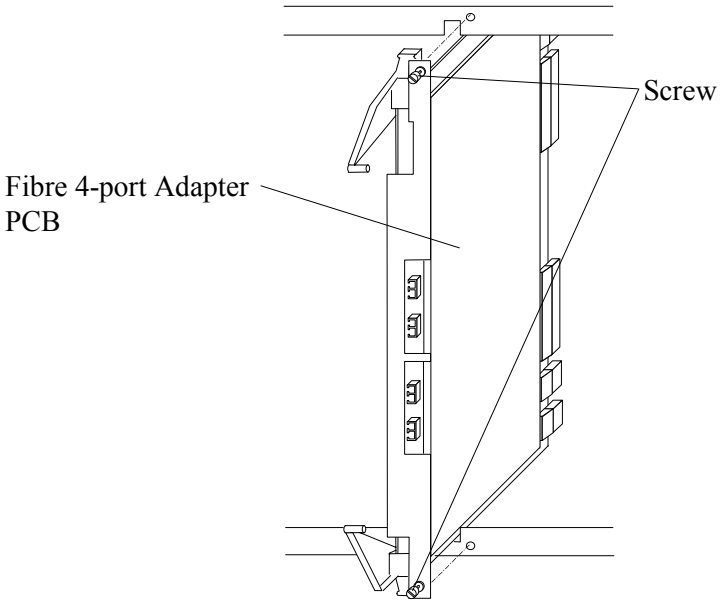
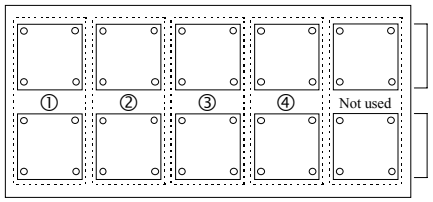


Fig. 3.6.5-2 Insertion of PCB

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2. Installation of the I/F connector panel
   Install the I/F connector panel in the order of the location number ①②③④ shown in Fig. 3.6.5-3.



①: Position for Basic installation
②: Position for Add.1 installation
③: Position for Add.2 installation
④: Position for Add.3 installation

Fig. 3.6.5-3 Location of I/F Connector Panel (Front)

a. Remove the dummy plate referring to Fig. 3.6.5-4.
b. Install the I/F connector panel referring to Fig. 3.6.5-5.
   (Note): Dummy plates should be stored for future use in de-installation.

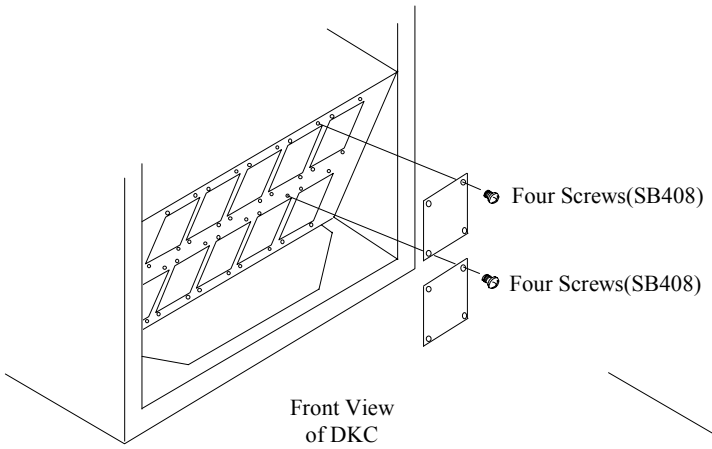


Fig. 3.6.5-4 Removal of Dummy Plate

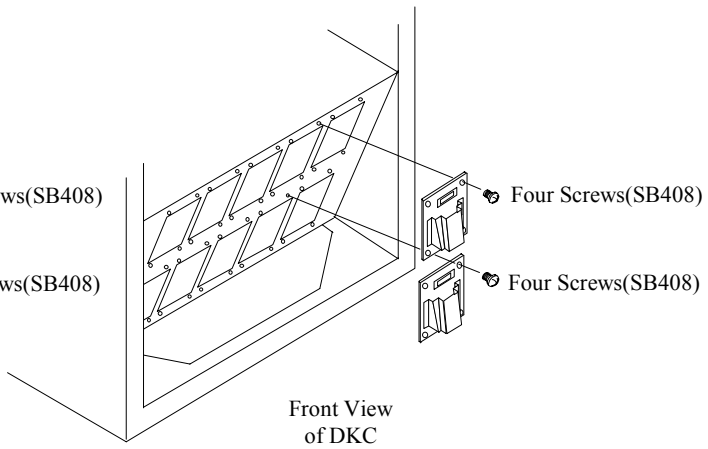


Fig. 3.6.5-5 Installation of I/F Connector Panel

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3. Connection of the optical fiber cable
   a. Pull the optical fiber cable into the DKC through the I/F connector panel referring to Fig. 3.6.5-6. Connect the optical fiber cable to the PCB. Refer to Fibre Channel Interface [LOCATION04-90] in LOCATION section.

⚠ CAUTION

When Installation of PCB in HIGH PERFORMANCE MODE, Both LOOP ID (FC_AL) values of 1st* and 2nd* may conflict. So you must operate SCSI I/F Configuration (INST05-720) to change the values, and then insert Optical Fibre cable.
If you operate in the reverse order, SIM=2190XY (ALPA conflict) will be logged on SVP.
* The both 1st and 2nd refer MULTI02-30 (Table 2-3).

   b. Fix the cable to Lower Strain Relief① and attach Upper Strain Relief② and Bracket③ referring to Fig. 3.6.5-7.

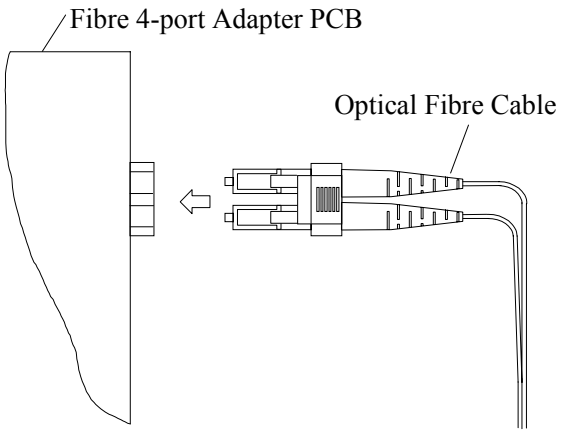


Fig. 3.6.5-6 Connection of Optical Fiber Cable

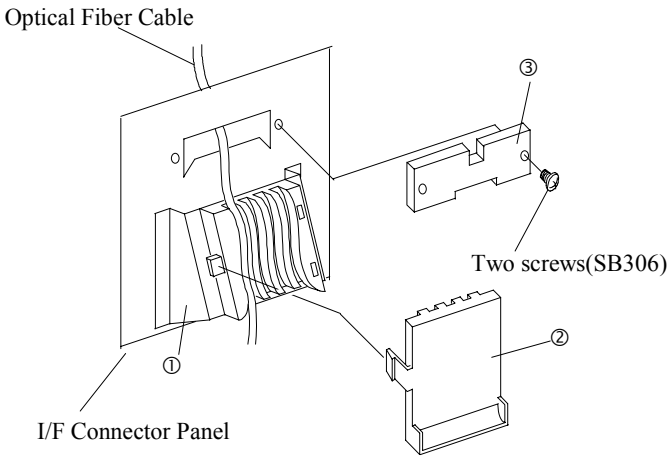


Fig. 3.6.5-7 Installation of Optical Fiber Cable

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4. Labeling
   a. Attach the labels "FIBRE PORT" to ① through ⑧ referring to Table. 3.6.5-3 and Fig. 3.6.5-8.

Table 3.6.5-3 Attachment of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A, B, C, D	E, F, G, H	J, K, L, M	N, P, Q, R

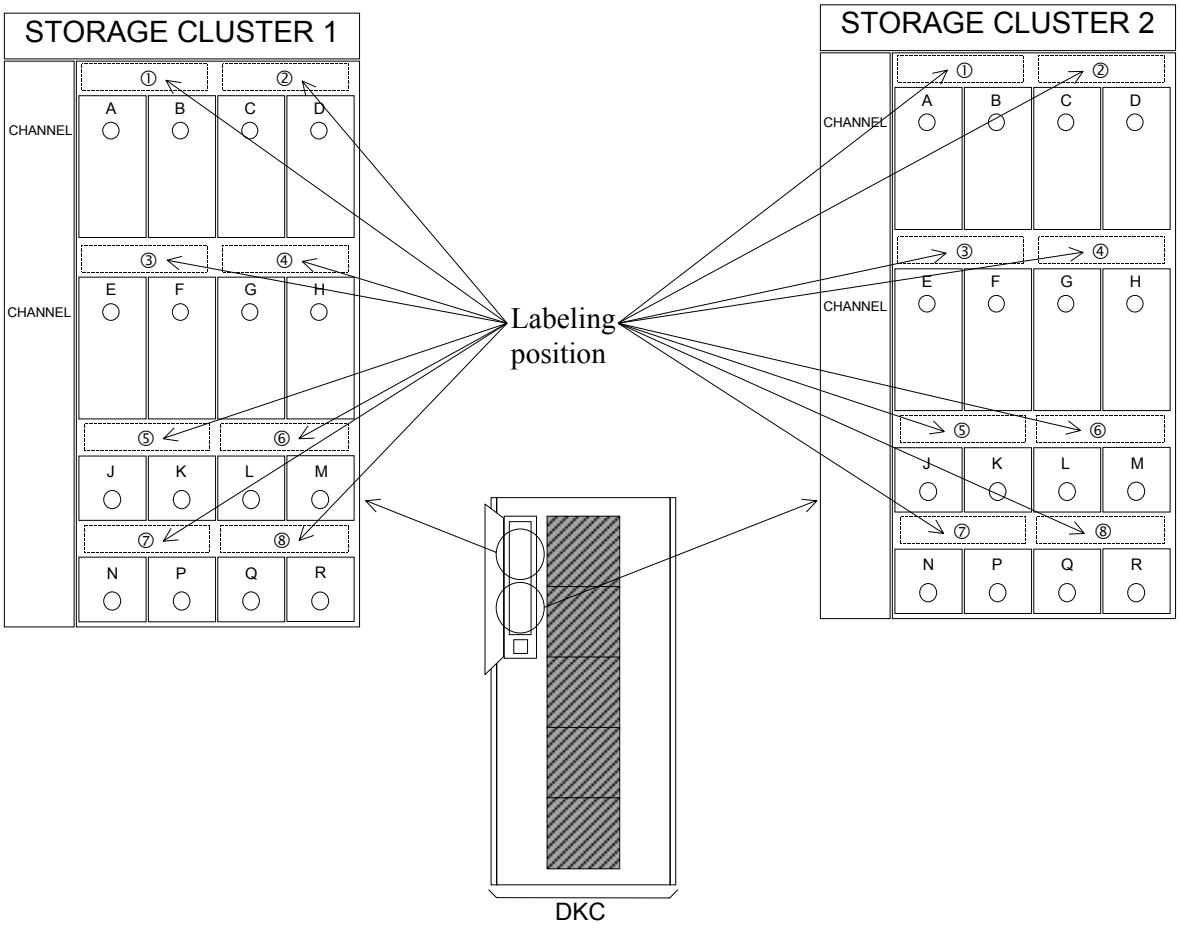


Fig. 3.6.5-8 Attachment of Labels

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5. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.6.5-9.

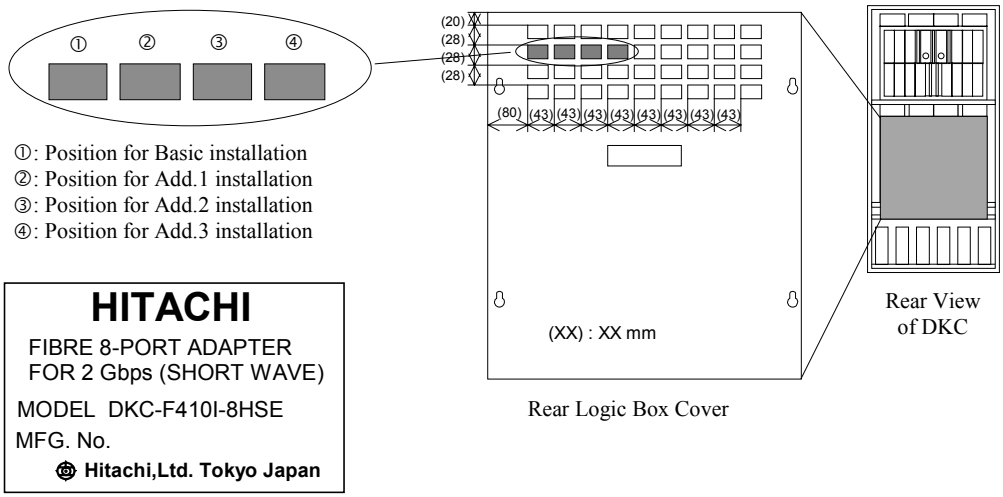


Fig. 3.6.5-9 Attachment of Nameplate

6. Return to General Flow.
   New Installation: Go to INST02-20 Step (6).
   Non-disruptive Installation: Go to INST02-90 Step (3)-5.
   Disruptive Installation: Go to INST02-210 Step (5).

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3.6.6 Installation of Mainframe Fibre 4-port Adapter (DKC-F410I-4MS/4ML)

Note: When installing three or more channel options,
the CL Additional Power Supply (DKC-F410I-80) must be installed.
In such a case, be sure to add the channel option(s) after the DKC Additional Power Supply is added.

3.6.6.1 Parts List

Table 3.6.6-1 Parts List for Mainframe Fibre 4-port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-4MS	MF Fibre 2-port Adapter PCB	5515596-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5515612-1	4	For MF Fibre
		Nameplate	3257216-82	1	
2	DKC-F410I-4ML	MF Fibre 2-port Adapter PCB	5515596-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5515612-1	4	For MF Fibre
		Nameplate	3257216-83	1	

3.6.6.2 Flowchart

(1) Insert the PCBs.
↓
(2) Install the I/F connector panel.
↓
(3) Connect the optical fiber cables.
↓
(4) Attach the labels.
↓
(5) Attach the nameplate.

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3.6.6.3 Installation Procedure of Mainframe Fibre 4-port Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.6.6-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.6.6-3.
   c. Fasten the two screws referring to Fig. 3.6.6-2.

Table 3.6.6-3 Inserting Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

Up to 4 Fibre 4-port adapters can be installed in the subsystem.

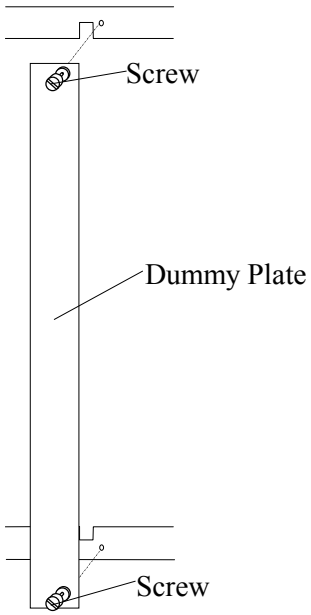


Fig. 3.6.6-1 Removal of Dummy Plate

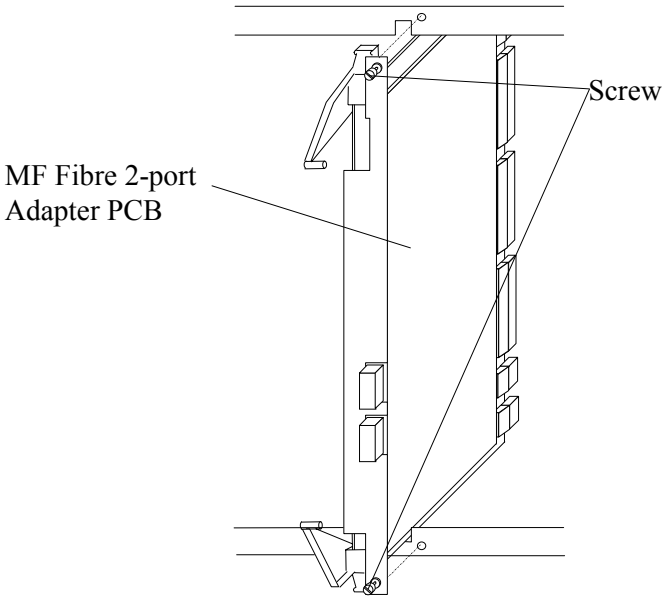
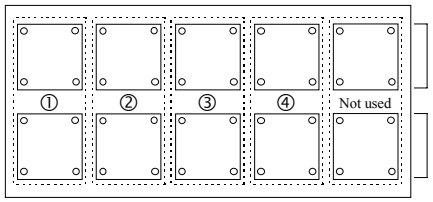


Fig. 3.6.6-2 Insertion of PCB

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2. Installation of the I/F connector panel
   Install the I/F connector panel in the order of the location number ①②③④ shown in Fig. 3.6.6-3.



①: Position for Basic installation
②: Position for Add.1 installation
③: Position for Add.2 installation
④: Position for Add.3 installation

Fig. 3.6.6-3 Location of I/F Connector Panel (Front)

a. Remove the dummy plate referring to Fig. 3.6.6-4.
b. Install the I/F connector panel referring to Fig. 3.6.6-5.
   (Note): Dummy plates should be stored for future use in de-installation.

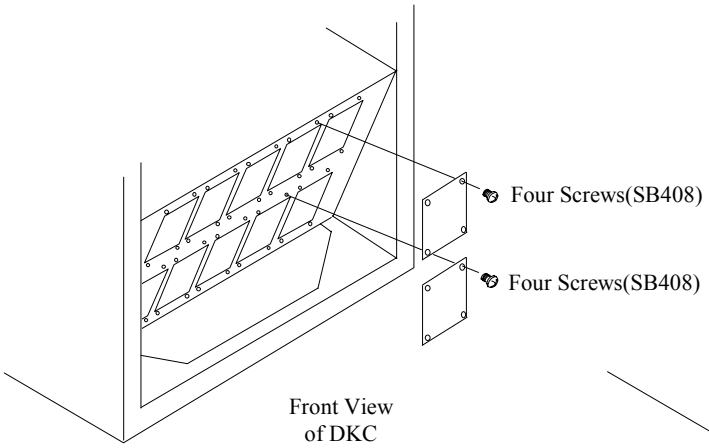


Fig. 3.6.6-4 Removal of Dummy Plate

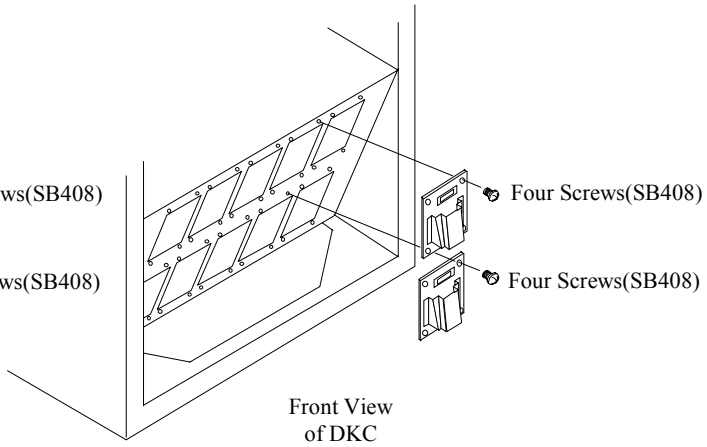


Fig. 3.6.6-5 Installation of I/F Connector Panel

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3. Connection of the optical fiber cable
   a. Pull the optical fiber cable into the DKC through the I/F connector panel referring to Fig. 3.6.6-6. Connect the optical fiber cable to the PCB. Refer to Fibre Channel Interface [LOCATION04-95] in LOCATION section.

   b. Fix the cable to Lower Strain Relief① and attach Upper Strain Relief② and Bracket③ referring to Fig. 3.6.6-7.

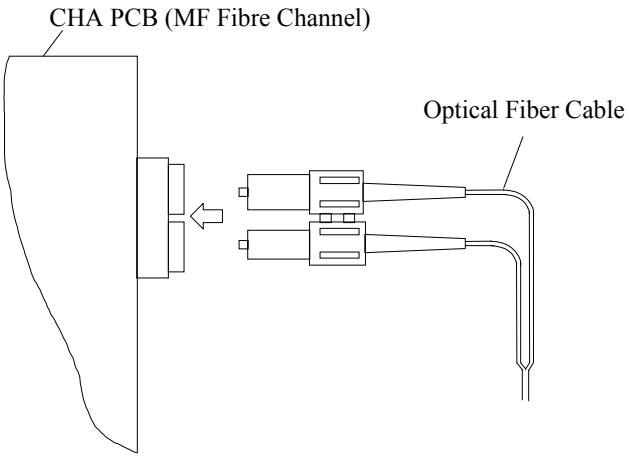


Fig. 3.6.6-6 Connection of Optical Fiber Cable

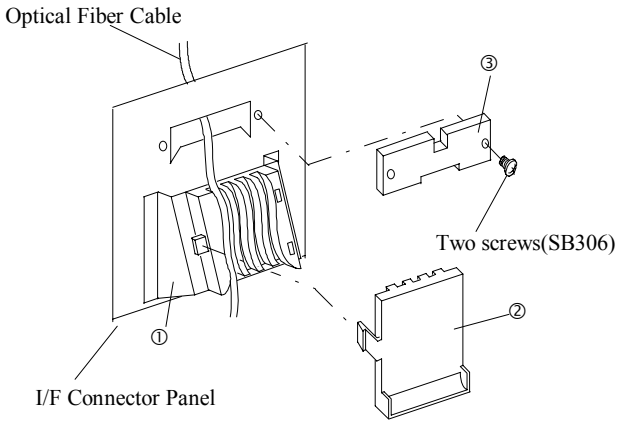


Fig. 3.6.6-7 Installation of Optical Fiber Cable

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4. Labeling
   a. Attach the labels "MF FIBRE" to ① through ⑧ referring to Table. 3.6.6-4 and Fig. 3.6.6-8.

Table 3.6.6-4 Attachment of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A, C	E, G	J, L	N, Q

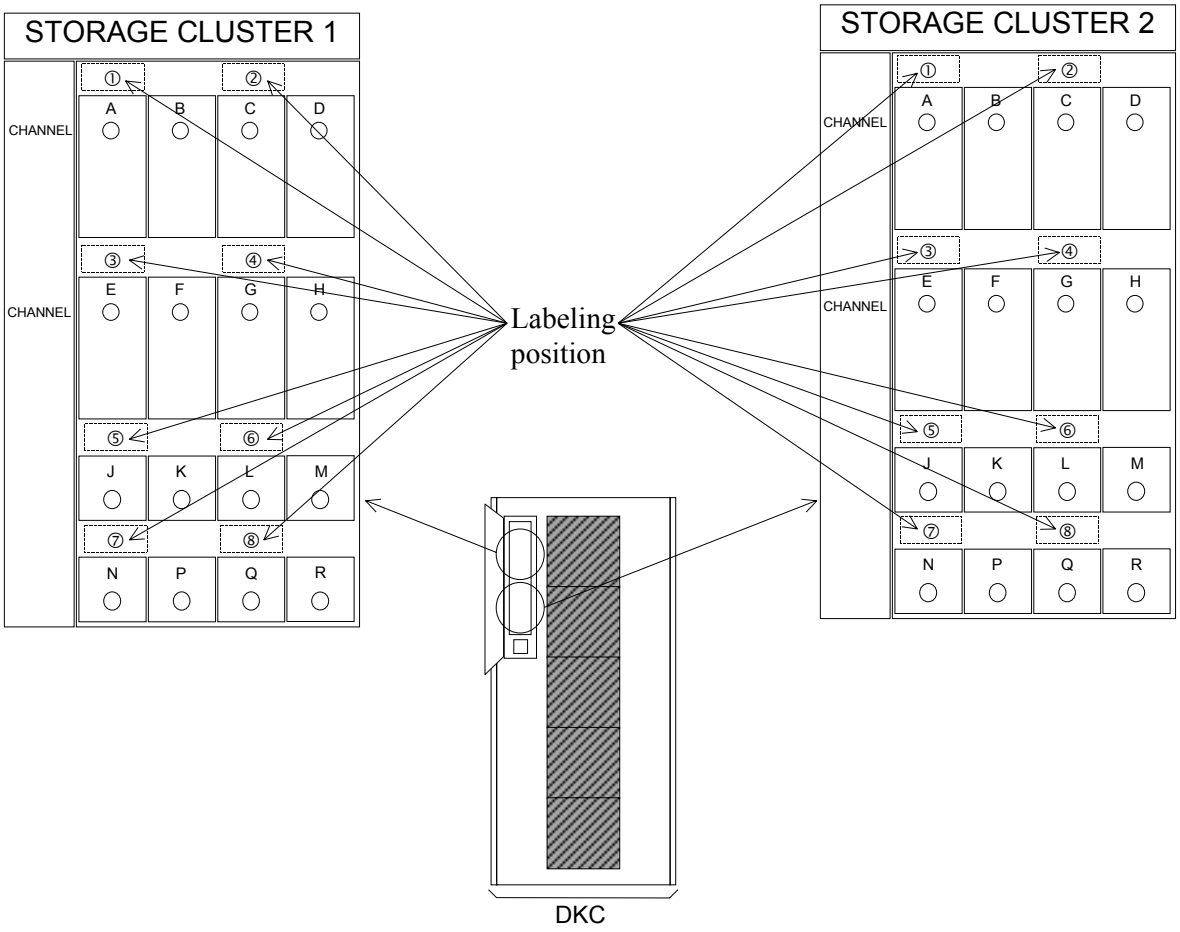


Fig. 3.6.6-8 Attachment of Labels

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5. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.6.6-9.

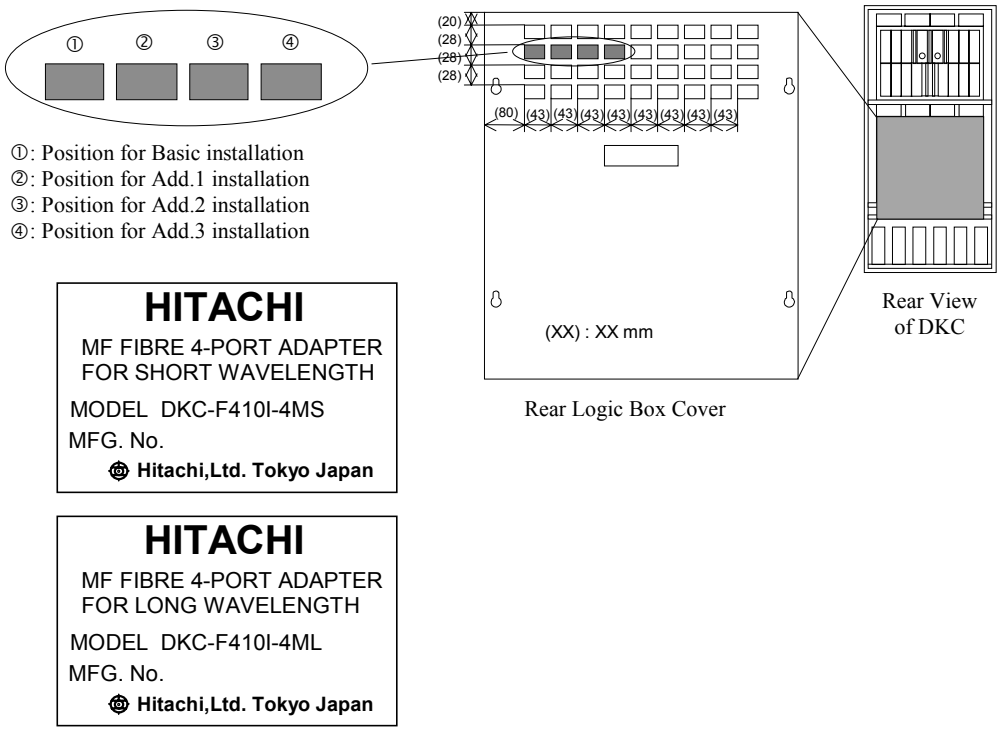


Fig. 3.6.6-9 Attachment of Nameplate

6. Return to General Flow.
   New Installation: Go to INST02-20 Step (6).
   Non-disruptive Installation: Go to INST02-90 Step (3)-5.
   Disruptive Installation: Go to INST02-210 Step (5).

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3.7 Installation of Shared Memory and Cache Memory

a. When only Shared Memory is to be installed,
go to "3.7.1 Installation of Additional Shared Memory (DKC-F410I-S256)".
b. When only Cache Memory is to be installed or when Shared Memory and Cache Memory are to be installed at the same time,
go to "3.7.2 Installation of Additional Cache Memory (DKC-F410I-20/21/22/512/1024)".
(INST03-1210)

3.7.1 Installation of Additional Shared Memory (DKC-F410I-S256)

3.7.1.1 Flowchart

(1) When the subsystem is powered on, blockade the Shared Memory on the cluster 1 from SVP.
When powered off, go to step (2).

↓

(2) Install the Shared Memory on the cluster 1.

↓

(3) When the subsystem is powered on, restore the Shared Memory on the cluster 1 and blockade the Shared Memory on the cluster 2 from SVP.
When powered off, go to step (4).

↓

(4) Install the Shared Memory on the cluster 2.

↓

(5) When the subsystem is powered on, restore the Shared Memory on the cluster 2 from SVP.
When powered off, go to step (6).

↓

(6) Change the nameplate.

3.7.1.2 Parts List

Table 3.7.1.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-S256	SH184-B	5509138-B	2	Shared Memory Module (128MB)

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3.7.1.3 Installation Procedure of Additional Shared Memory

1. When the subsystem is powered on, blockade the Shared Memory on the cluster 1 from SVP. When powered off, go to step 2.
   a. Go to INST02-390 step ⑨.

2. Install the Shared Memory on the Cluster 1.
   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. Remove the PCBs.

a. While referring to Fig. 3.7.1.3-1 and Table 3.7.1.3-1, check the Shut Down LED on the Cache Memory PCB in the Front Logic Box. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on. (This procedure [2-1. a.] is not valid for a New Installation.)

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is a PCB to be added.

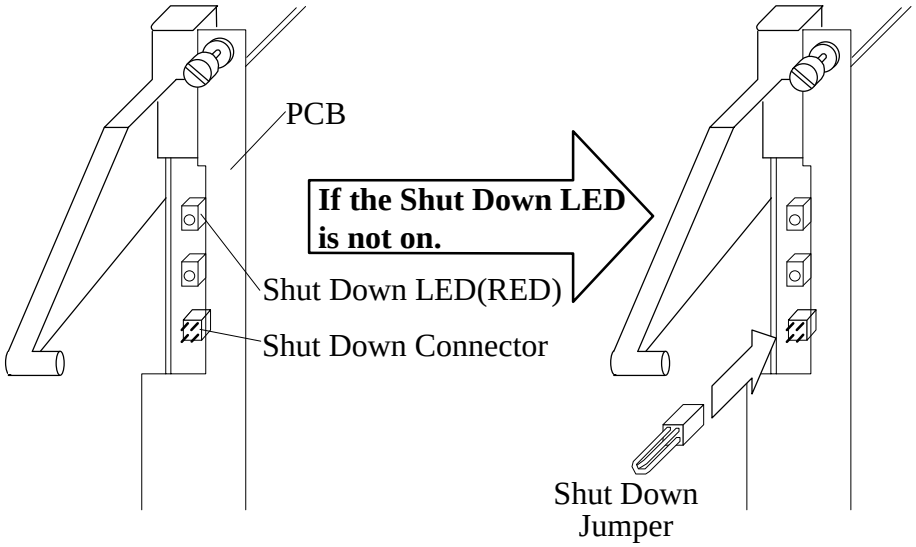


Fig. 3.7.1.3-1 Location of the Shut Down LED

Table 3.7.1.3-1 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB

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b. Remove the two screws and remove the Cache Memory PCB.

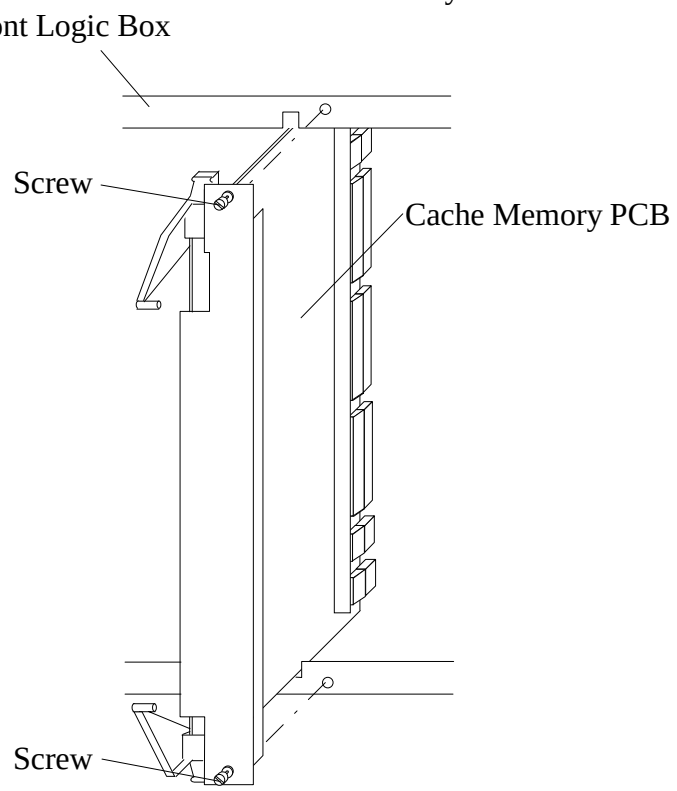


Fig. 3.7.1.3-2 Removal of the Cache Memory PCB

c. Remove the Shut Down Jumper if it is mounted.

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2-2. Insert the Shared Memory Modules.

a. Remove the dust covers that match the required Shared Memory capacity referring to Fig. 3.7.1.3-3, Table 3.7.1.3-2 and Table 3.7.1.3-2A.

b. Insert the Shared Memory Modules that match the required Shared Memory capacity.

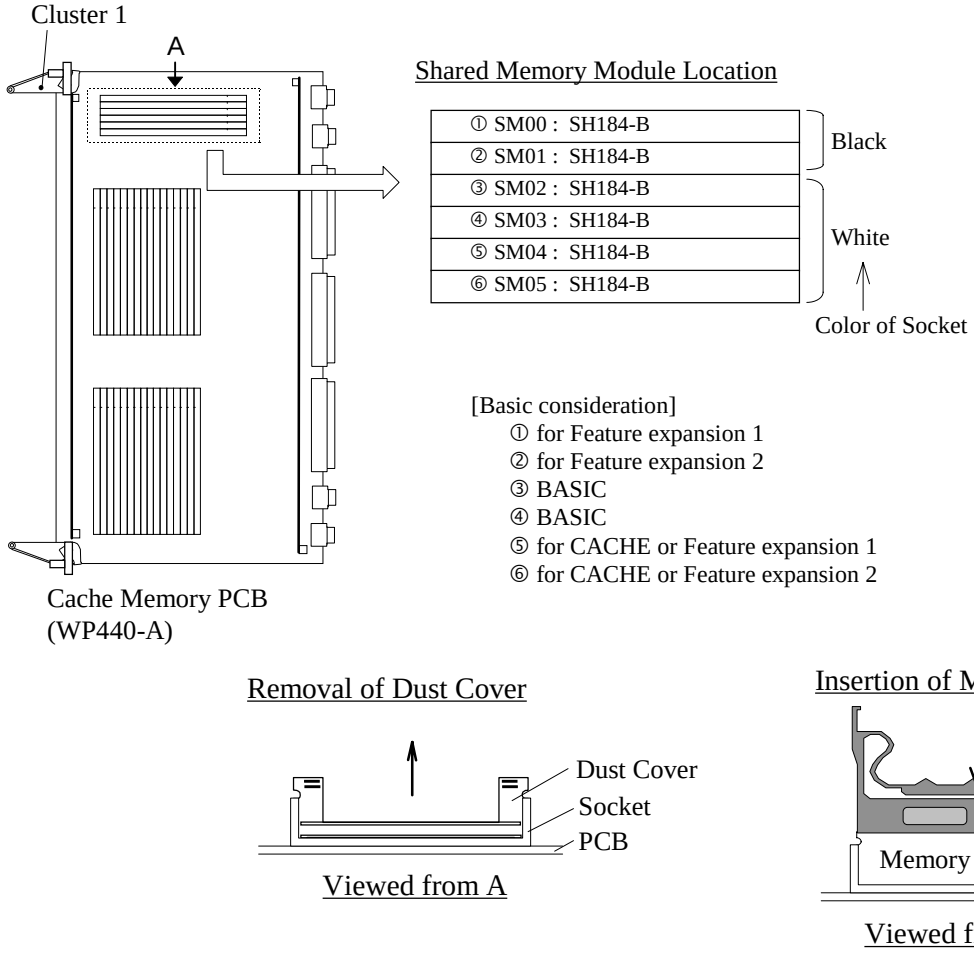


Fig. 3.7.1.3-3 Inserting Location of the Shared Memory Module

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Table 3.7.1.3-2 Number of SMs and Corresponding Shared Memory Capacity (except for 180GB HDD)

Cache Memory	Number of CU:1-4 (to 1024LDEV)			Number of CU:1-8 (to 2048LDEV)			Number of CU:1-16 (to 4096LDEV)			TPF(Number of CU:1-16) (to 4096LDEV)		
Capacity (MB)	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1
512	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,024	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,536	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,048	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,560	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,072	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,584	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
4,096	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
5,120	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
6,144	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
7,168	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
8,192	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
9,216	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
10GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
11GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
12GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
13GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
14GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
15GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
16GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
17GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
18GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
19GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
20GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
21GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
22GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
23GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
24GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
25GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
26GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
27GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
28GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
29GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
30GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
31GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
32GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥

Note. *1 : Location ① through ⑥ shows actual location of Shared Memory on Cache Memory PCB.

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Table 3.7.1.3-2A Number of SMs and Corresponding Shared Memory Capacity (applicable for 180GB HDD only)

In the case where the 180 G byte HDDs are mounted

(1) When the number of CUs is 1 to 16 and the cache memory capacity is larger than 13 G bytes in the case where the 180 G byte HDDs are mounted, the shared memory is added.

(2) When the number of CUs is 1 to 16 in the case where the 180 G byte HDDs are mounted, the cache memory with a capacity of 29 G bytes or larger cannot be added.

Cache Memory	Number of CU:1-4 (to 1024LDEV)			Number of CU:1-8 (to 2048LDEV)			Number of CU:1-16 (to 4096LDEV)			TPF(Number of CU:1-16) (to 4096LDEV)		
Capacity (MB)	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1
512	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,024	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,536	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,048	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,560	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,072	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,584	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
4,096	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
5,120	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
6,144	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
7,168	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
8,192	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
9,216	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
10GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
11GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
12GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
13GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
14GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
15GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
16GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
17GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
18GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
19GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
20GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
21GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
22GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
23GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
24GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
25GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
26GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
27GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
28GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
29GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
30GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
31GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
32GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—

Note. *1: Location ①-⑥ shows actual location of shared memory module on Cache PCB.

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2-3. Insert the PCB.

a. Insert the Cache Memory PCB into the Front Logic Box referring to Table 3.7.1.3-3.

b. Fasten the two screws.

Table 3.7.1.3-3 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB

c. Go to INST02-390 step ⑪.

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3. When the subsystem is powered on, restore the Shared Memory on the cluster 1 and blockade the Shared Memory on the cluster 2 from SVP. When powered off, go to step 4.
   a. Go to INST02-390 step ⑪.

4. Install the Shared Memory on the Cluster 2.
   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 PCBs.
   a. While referring to Fig. 3.7.1.3-4 and Table 3.7.1.3-4, check the Shut Down LED on the Cache Memory PCB in the Rear Logic Box. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on. (This procedure [4-1. a.] is not valid for a New Installation.)

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is a PCB to be added.

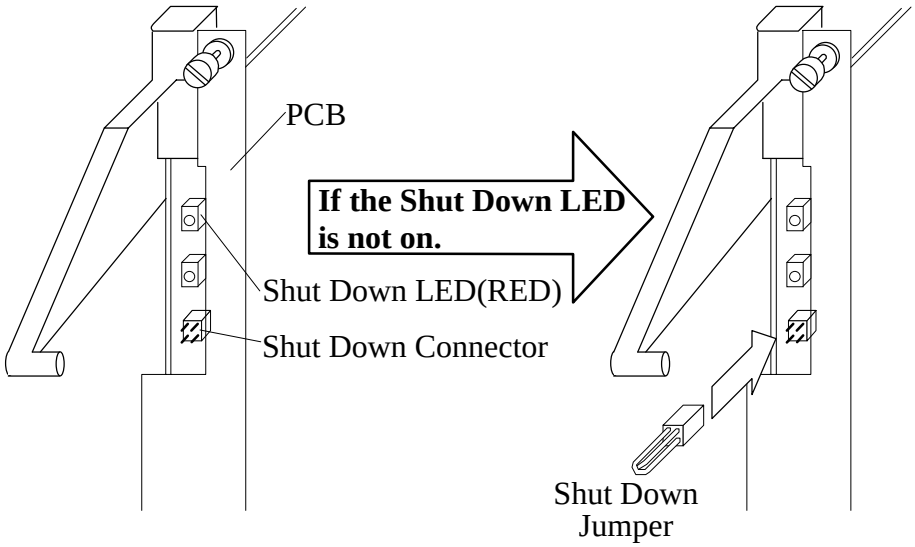


Fig. 3.7.1.3-4 Location of the Shut Down LED

Table 3.7.1.3-4 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB

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b. Remove the two screws and remove the Cache Memory PCB.

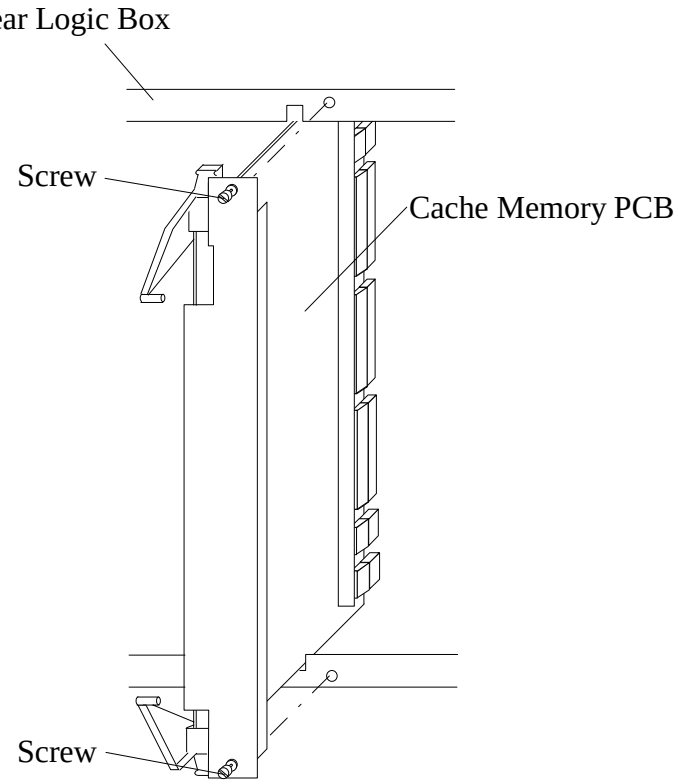


Fig. 3.7.1.3-5 Removal of the Cache Memory PCB

c. Remove the Shut Down Jumper if it is mounted.

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4-2. Insert the Shared Memory Modules.

a. Remove the dust covers that match the required Shared Memory capacity referring to Fig. 3.7.1.3-6 and Table 3.7.1.3-2.

b. Insert the Shared Memory Modules that match the required Shared Memory capacity.

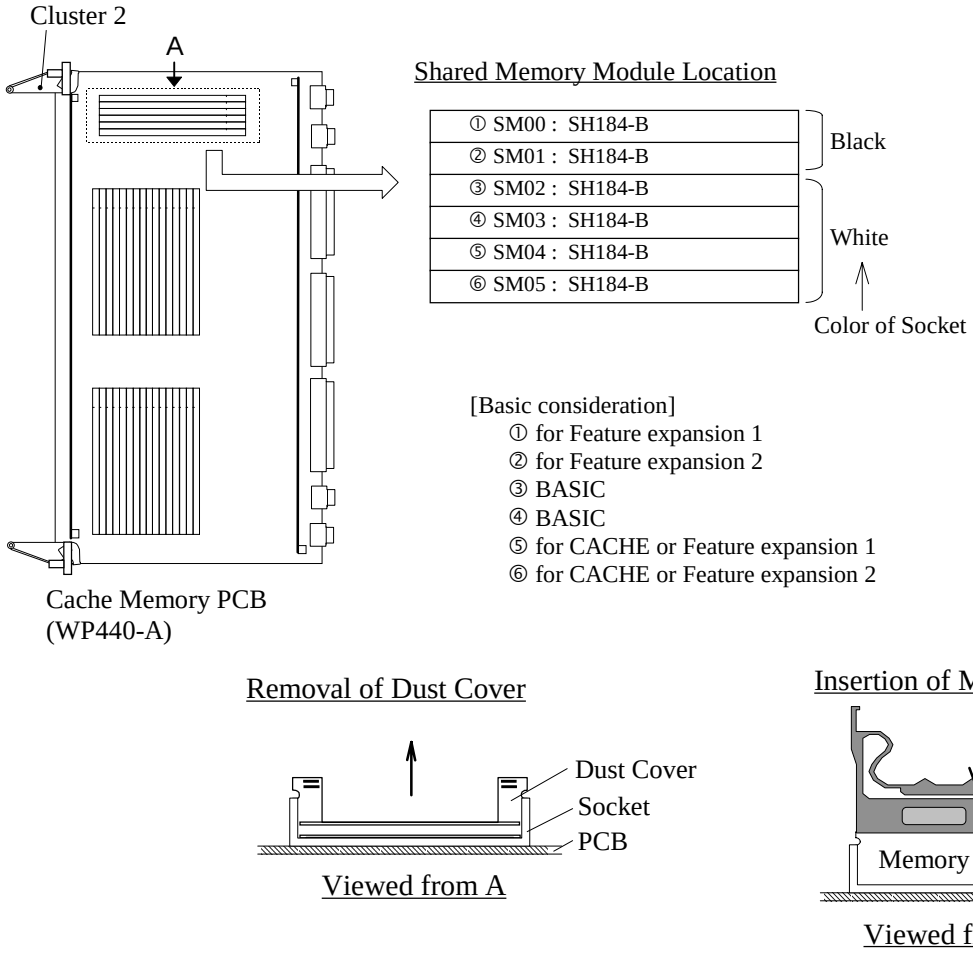


Fig. 3.7.1.3-6 Inserting Location of the Shared Memory Module

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4-3. Insert the PCB.

a. Insert the Cache Memory PCB into the Rear Logic Box referring to Table 3.7.1.3-5.

b. Fasten the two screws.

Table 3.7.1.3-5 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB

c. Go to INST02-390 step ⑬.

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5. When the subsystem is powered on, restore the Shared Memory on the cluster 2 from SVP. When powered off, go to step 6.
   a. Go to INST02-390 step ⑬.

6. Change the nameplate.
   a. Refer to Fig. 3.7.1.3-7 and Table 3.7.1.3-6 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding nameplate can be seen.

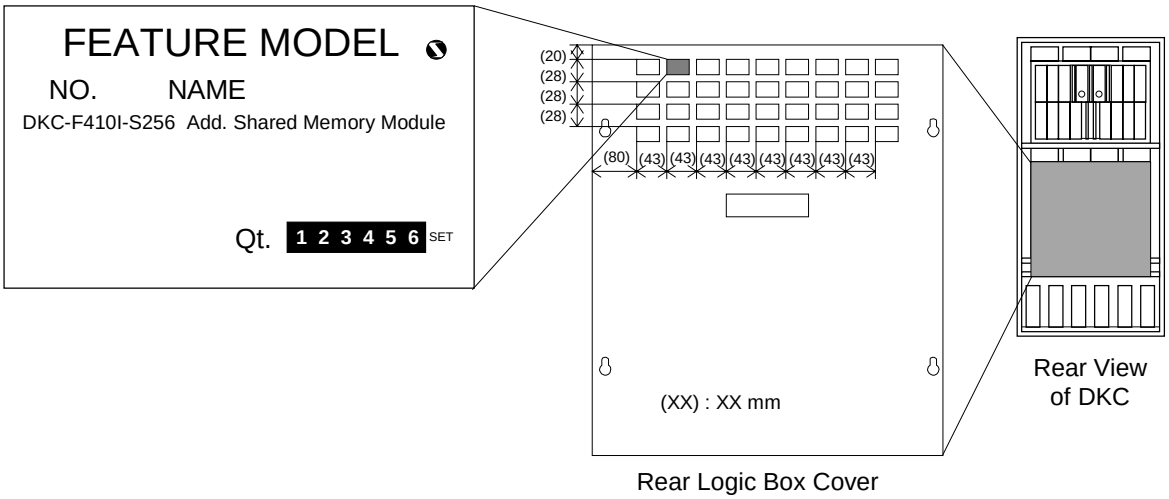


Fig. 3.7.1.3-7 Location of the Nameplate

Table 3.7.1.3-6 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F410I-S256 sets	Qt.
1	1 set	1
2	2 sets	2
3	3 sets	3
4	4 sets	4
5	5 sets	5
6	6 sets	6

7. Return to General Flow.
   Go to INST02-390 step ⑮.

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3.7.2 Installation of Additional Cache Memory (DKC-F410I-20/21/22/512/1024)

3.7.2.1 Flowchart

(1) When the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22) is installed, install the Battery Boxes and BATCTR PCBs.
When the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22) is not installed, go to step (2).

↓

(2) When the subsystem is powered on, blockade the Cache Memory on the cluster 1 from SVP.
When powered off, go to step (3).

↓

(3) Install the Cache Memory and Shared Memory on the cluster 1.

↓

(4) When the subsystem is powered on, restore the Cache Memory on the cluster 1 and blockade the Cache Memory on the cluster 2 from SVP.
When powered off, go to step (5).

↓

(5) Install the Cache Memory and Shared Memory on the cluster 2.

↓

(6) When the subsystem is powered on, restore the Cache Memory on the cluster 2 from SVP.
When powered off, go to step (7).

↓

(7) Change the nameplate.

3.7.2.2 Parts List

Table 3.7.2.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-20	WP440-B	5509137-B	2	Cache Memory PCB
		Battery Box	5509125-A	2	
		SH199-A	5509217-A	2	BATCTR PCB
		Jumper (Battery)	3254715-A	2	Jumper Connector (BTJP2)
		Nameplate	3257216-1	1	
2	DKC-F410I-21	WP440-B	5509137-B	2	Cache Memory PCB
		Nameplate		1	
3	DKC-F410I-22	Battery Box	5509125-A	2	
		SH199-A	5509217-A	2	BATCTR PCB
		Jumper (Battery)	3254715-A	2	Jumper Connector (BTJP2)
		Nameplate		1	
4	DKC-F410I-512	SH185-A	5509139-A	4	Cache Memory Module (128 MB)
5	DKC-F410I-1024	SH185-B	5509139-B	4	Cache Memory Module (256 MB)

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3.7.2.3 Installation Procedure of Additional Cache Memory

Notice : Confirm the quantity of the options to be installed prior to installing the cache memory. Refer to Table 1.1.2-1, Table 1.1.2-2 and Table 1.1.2-3 (INST01-40 through 60) for the required quantity of options.

1. When the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22) is installed, install the Battery Boxes and BATCTR PCBs.
   When the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22) is not installed, go to step 2.
   a. Insert the Battery Boxes (BATTERY-12 and BATTERY-22). Fasten the screws.

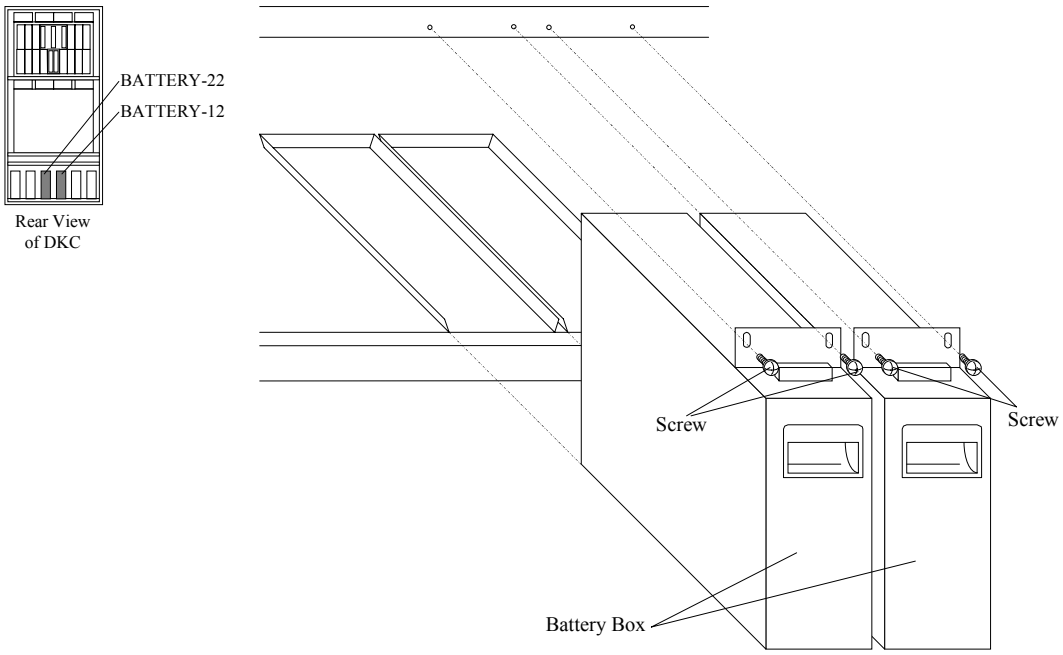


Fig. 3.7.2.3-1 Insertion of the Battery Box

   b. Connect the cables (PB12 and PB22) to the Battery Boxes.

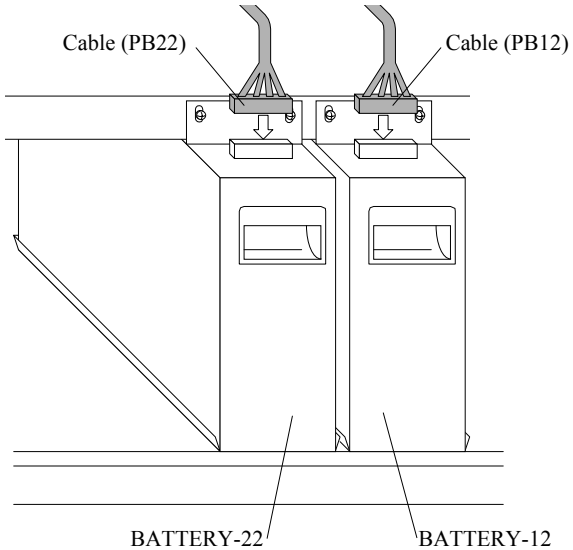


Fig. 3.7.2.3-2 Connection of the cables

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c. Insert the BATCTR PCBs (BATCTR-11 and BATCTR-21). Fasten the screws.

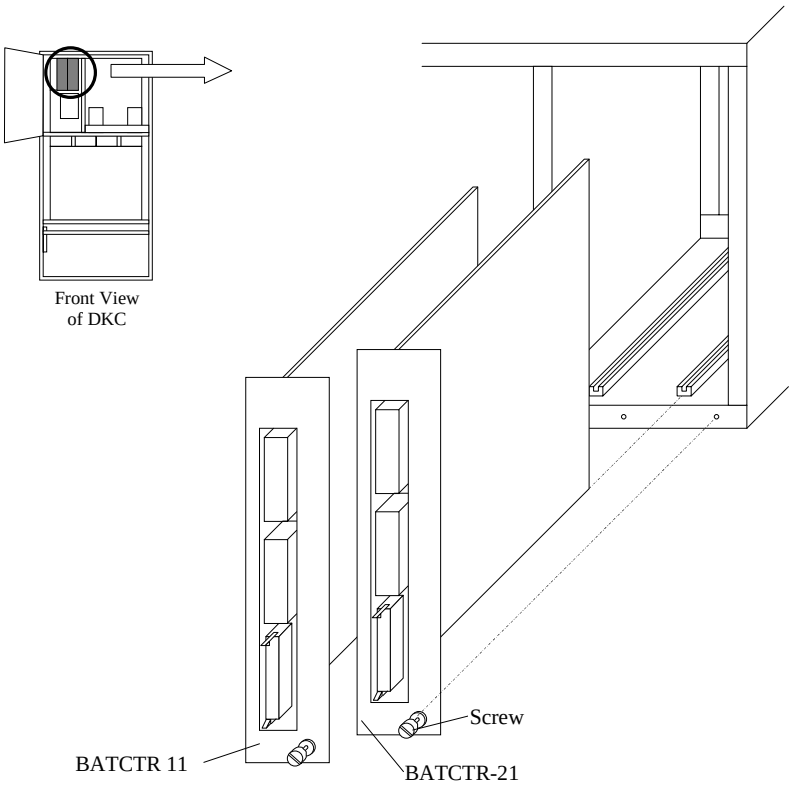


Fig.3.7.2.3-3 Insertion of the BAT CTR

⚠ CAUTION

You must insert the Connectors and Jumper in the Correct order.
Otherwise the cache PCB will be blocked.

d. Connect the Cables (BT-11, BT-21, BT-13 and BT-23).
e. Connect the Jumper Connectors (BTJP2).

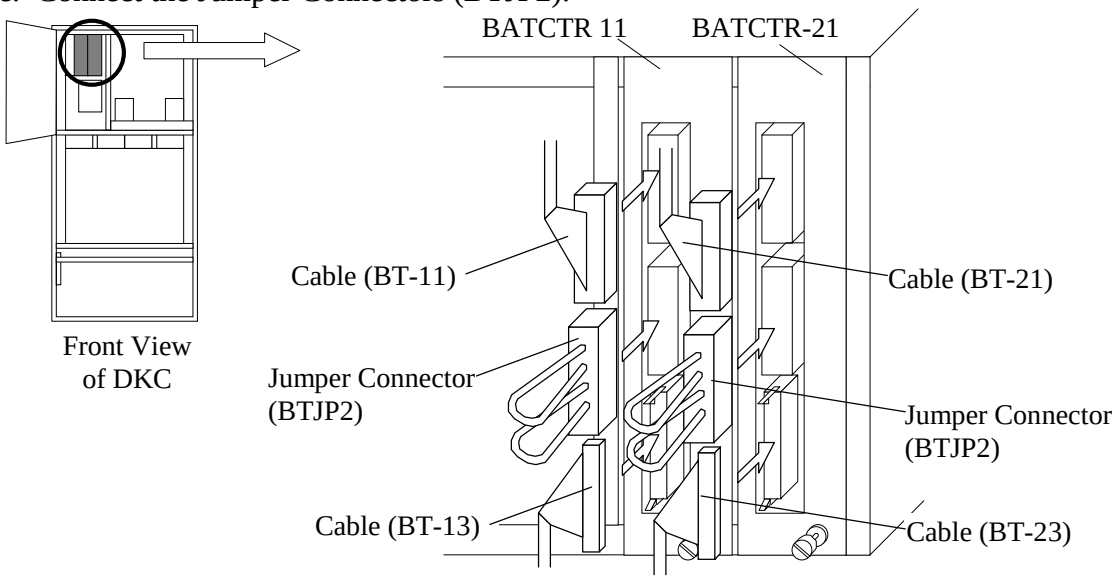


Fig.3.7.2.3-4 Connection of the cables and the Jumper Connectors

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2. When the subsystem is powered on, blockade the Cache Memory on the cluster 1 from SVP. When powered off, go to step 3.
   a. Go to INST02-380 step ②.

3. Install the Cache Memory and Shared Memory on the cluster 1.
   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 PCBs.
   a. While referring to Fig. 3.7.2.3-5 and Table 3.7.2.3-1 or 2, check the Shut Down LED on the Cache Memory PCB. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on. (This procedure [3-1 a.] is not valid for a New Installation.)

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is a PCB to be added.

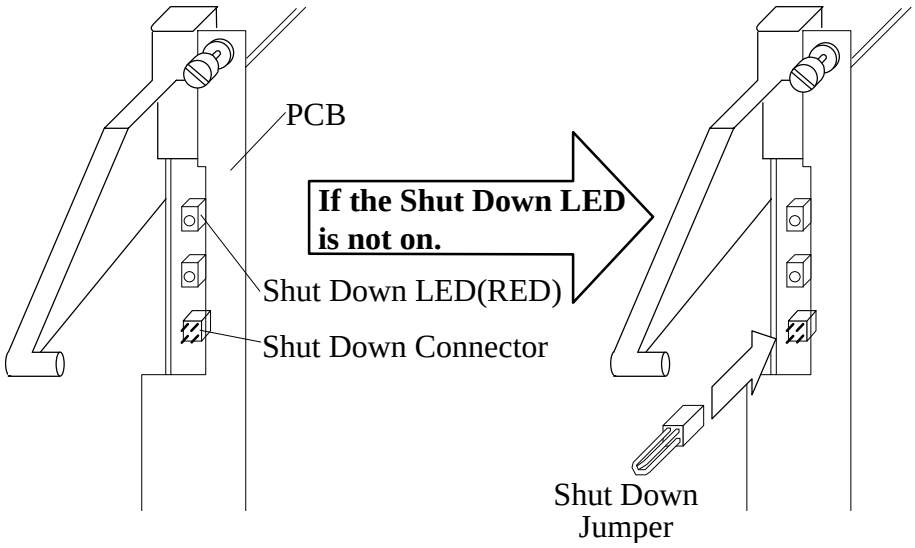


Fig. 3.7.2.3-5 Location of the Shut Down LED

Table 3.7.2.3-1 Location of the Cache Memory PCB (Standard Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB (Note 1)
	WP440-B	Front Logic Box	U	CACHE-1U	Cache Memory PCB (Note 2)

Note 1: No PCB needs to be removed if 16 or more DKC-F410I-512 or DKC-F410I-1024 sets are installed, except when installing DKC-F410I-S256 sets.
Note 2: Remove the PCB only when it is installed.

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Table 3.7.2.3-2 Location of the Cache Memory PCB
(High Performance Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB (Note 3)
	WP440-B	Front Logic Box	U	CACHE-1U	Cache Memory PCB (Note 3)

Note 3: When a mix of the DKC-F410I-512(s) and the DKC-F410I-1024(s) is to be installed, there is a case where the PCB removal is not necessary.

b. Remove the two screws and remove the Cache Memory PCB.

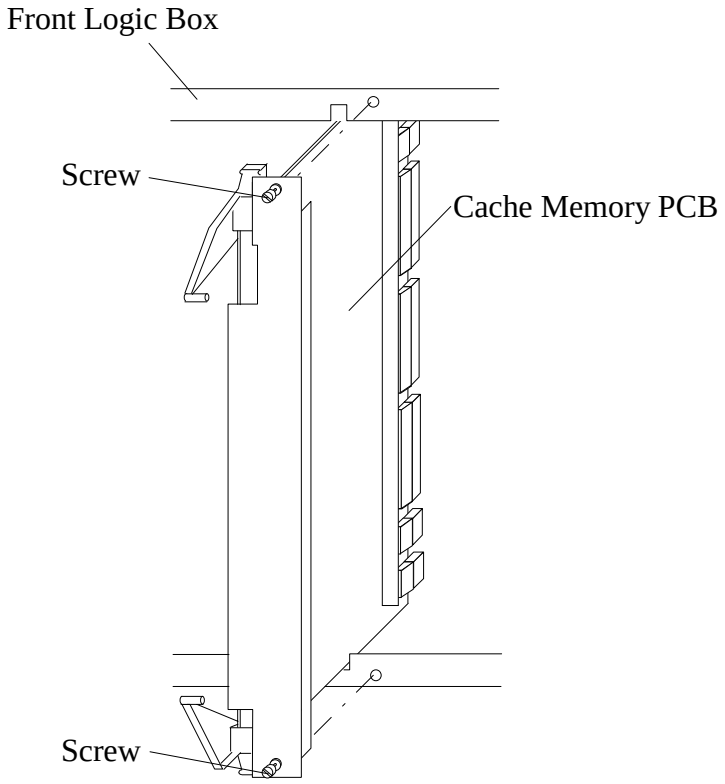


Fig. 3.7.2.3-6 Removal of the Cache Memory PCB

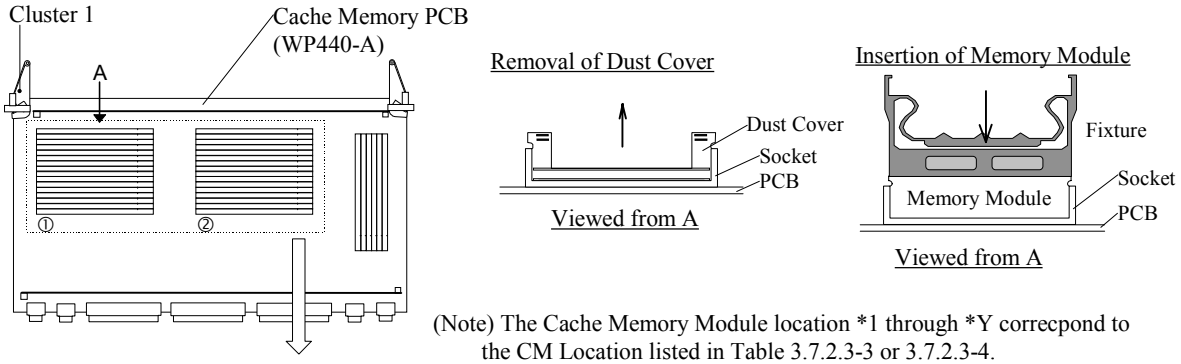
c. Remove the Shut Down Jumper if it is mounted.

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3-2. Insert the Cache Memory Modules.

a. Remove the dust covers that match the required Cache Memory capacity referring to Fig. 3.7.2.3-7 and Table 3.7.2.3-3 or 4.

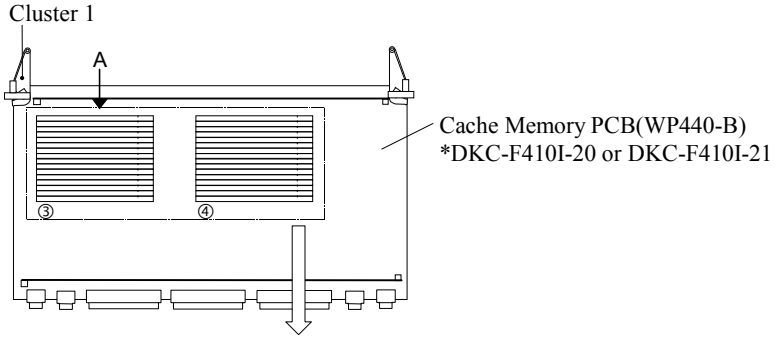
b. Insert the Cache Memory Modules that match the required Cache Memory capacity.



(Note) The Cache Memory Module location *1 through *Y correcpond to the CM Location listed in Table 3.7.2.3-3 or 3.7.2.3-4.

Cache Memory Module Location

①		②	
CM000 : SH185-A or SH185-B	*1	CM100 : SH185-A or SH185-B	*1
CM001 : SH185-A or SH185-B	*2	CM101 : SH185-A or SH185-B	*2
CM002 : SH185-A or SH185-B	*3	CM102 : SH185-A or SH185-B	*3
CM003 : SH185-A or SH185-B	*4	CM103 : SH185-A or SH185-B	*4
CM004 : SH185-A or SH185-B	*5	CM104 : SH185-A or SH185-B	*5
CM005 : SH185-A or SH185-B	*6	CM105 : SH185-A or SH185-B	*6
CM006 : SH185-A or SH185-B	*7	CM106 : SH185-A or SH185-B	*7
CM007 : SH185-A or SH185-B	*8	CM107 : SH185-A or SH185-B	*8
CM010 : SH185-A or SH185-B	*9	CM110 : SH185-A or SH185-B	*9
CM011 : SH185-A or SH185-B	*A	CM111 : SH185-A or SH185-B	*A
CM012 : SH185-A or SH185-B	*B	CM112 : SH185-A or SH185-B	*B
CM013 : SH185-A or SH185-B	*C	CM113 : SH185-A or SH185-B	*C
CM014 : SH185-A or SH185-B	*D	CM114 : SH185-A or SH185-B	*D
CM015 : SH185-A or SH185-B	*E	CM115 : SH185-A or SH185-B	*E
CM016 : SH185-A or SH185-B	*F	CM116 : SH185-A or SH185-B	*F
CM017 : SH185-A or SH185-B	*G	CM117 : SH185-A or SH185-B	*G



Cache Memory Module Location

③		④	
CM000 : SH185-A or SH185-B	*H	CM100 : SH185-A or SH185-B	*H
CM001 : SH185-A or SH185-B	*J	CM101 : SH185-A or SH185-B	*J
CM002 : SH185-A or SH185-B	*K	CM102 : SH185-A or SH185-B	*K
CM003 : SH185-A or SH185-B	*L	CM103 : SH185-A or SH185-B	*L
CM004 : SH185-A or SH185-B	*M	CM104 : SH185-A or SH185-B	*M
CM005 : SH185-A or SH185-B	*N	CM105 : SH185-A or SH185-B	*N
CM006 : SH185-A or SH185-B	*P	CM106 : SH185-A or SH185-B	*P
CM007 : SH185-A or SH185-B	*Q	CM107 : SH185-A or SH185-B	*Q
CM010 : SH185-A or SH185-B	*R	CM110 : SH185-A or SH185-B	*R
CM011 : SH185-A or SH185-B	*S	CM111 : SH185-A or SH185-B	*S
CM012 : SH185-A or SH185-B	*T	CM112 : SH185-A or SH185-B	*T
CM013 : SH185-A or SH185-B	*U	CM113 : SH185-A or SH185-B	*U
CM014 : SH185-A or SH185-B	*V	CM114 : SH185-A or SH185-B	*V
CM015 : SH185-A or SH185-B	*W	CM115 : SH185-A or SH185-B	*W
CM016 : SH185-A or SH185-B	*X	CM116 : SH185-A or SH185-B	*X
CM017 : SH185-A or SH185-B	*Y	CM117 : SH185-A or SH185-B	*Y

Fig. 3.7.2.3-7 Inserting Location of the Cache Memory Module

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Table 3.7.2.3-3 Number of CMs and Corresponding Cache Memory Capacity (Standard Model Installation)

Cache Memory Capacity (MB)	SH185-A only		SH185-B only		SH185-A/SH185-B mixture		
	DKC-F410I -512	CM Location (Note 1)	DKC-F410I -1024	CM Location (Note 1)	DKC-F410I -512	DKC-F410I -1024	CM Location (Note 1)
512	1 set	*1	—	—	1 set	—	*1
1,024	2 sets	*2	1 set	*1	2 sets	—	*2
1,536	3 sets	*3	—	—	3 sets	—	*3
2,048	4 sets	*4	2 sets	*2	4 sets	—	*4
2,560	5 sets	*5	—	—	5 sets	—	*5
3,072	6 sets	*6	3 sets	*3	6 sets	—	*6
3,584	7 sets	*7	—	—	7 sets	—	*7
4,096	8 sets	*8	4 sets	*4	8 sets	—	*8
5,120	10 sets	*9,*A	5 sets	*5	10 sets	—	*9,*A
6,144	12 sets	*B,*C	6 sets	*6	12 sets	—	*B,*C
7,168	14 sets	*D,*E	7 sets	*7	14 sets	—	*D,*E
8,192	16 sets	*F,*G	8 sets	*8	16 sets	—	*F,*G
9,216	18 sets	*H,*J	9 sets	*9	16 sets	1 set	*H
10GB	20 sets	*K,*L	10 sets	*A	16 sets	2 sets	*J
11GB	22 sets	*M,*N	11 sets	*B	16 sets	3 sets	*K
12GB	24 sets	*P,*Q	12 sets	*C	16 sets	4 sets	*L
13GB	26 sets	*R,*S	13 sets	*D	16 sets	5 sets	*M
14GB	28 sets	*T,*U	14 sets	*E	16 sets	6 sets	*N
15GB	30 sets	*V,*W	15 sets	*F	16 sets	7 sets	*P
16GB	32 sets	*X,*Y	16 sets	*G	16 sets	8 sets	*Q
17GB	—	—	17 sets	*H	16 sets	9 sets	*R
18GB	—	—	18 sets	*J	16 sets	10 sets	*S
19GB	—	—	19 sets	*K	16 sets	11 sets	*T
20GB	—	—	20 sets	*L	16 sets	12 sets	*U
21GB	—	—	21 sets	*M	16 sets	13 sets	*V
22GB	—	—	22 sets	*N	16 sets	14 sets	*W
23GB	—	—	23 sets	*P	16 sets	15 sets	*X
24GB	—	—	24 sets	*Q	16 sets	16 sets	*Y
25GB	—	—	25 sets	*R	—	—	—
26GB	—	—	26 sets	*S	—	—	—
27GB	—	—	27 sets	*T	—	—	—
28GB	—	—	28 sets	*U	—	—	—
29GB	—	—	29 sets	*V	—	—	—
30GB	—	—	30 sets	*W	—	—	—
31GB	—	—	31 sets	*X	—	—	—
32GB	—	—	32 sets	*Y	—	—	—

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.3.7.2.3-7.

Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

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Table 3.7.2.3-4 Number of CMs and Corresponding Cache Memory Capacity (High Performance Model Installation)

Cache Memory Capacity (MB)	DKC-F410I -20/21 (Add.PCB)	DKC-F410I-512			DKC-F410I-1024			DKC-F410I-512/1024mixture		
		Install PCB		CM	Install PCB		CM	Install PCB		CM
		Basic PCB	Add. PCB	Location (Note 1)	Basic PCB	Add. PCB	Location (Note 1)	Basic PCB	Add. PCB	Location (Note 1)
512	0	—	—	—	—	—	—			
1,024	1	1	1	*1,*H	—	—	—			
1,536	1	—	—	—	—	—	—			
2,048	1	2	2	*2,*J	1	1	*1,*H			
2,560	1	—	—	—	—	—	—			
3,072	1	3	3	*3,*K	—	—	—			
3,584	1	—	—	—	—	—	—			
4,096	1	4	4	*4,*L	2	2	*2,*J			
5,120	1	5	5	*5,*M	—	—	—			
6,144	1	6	6	*6,*N	3	3	*3,*K			
7,168	1	7	7	*7,*P	—	—	—			
8,192	1	8	8	*8,*Q	4	4	*4,*L			
9,216	1	9	9	*9,*R	—	—	—			
10GB	1	10	10	*A,*S	5	5	*5,*M			
11GB	1	11	11	*B,*T	—	—	—			
12GB	1	12	12	*C,*U	6	6	*6,*N			
13GB	1	13	13	*D,*V	—	—	—			
14GB	1	14	14	*E,*W	7	7	*7,*P			
15GB	1	15	15	*F,*X	—	—	—			
16GB	1	16	16	*G,*Y	8	8	*8,*Q			
17GB	1	—	—	—	—	—	—			
18GB	1	—	—	—	9	9	*9,*R			
19GB	1	—	—	—	—	—	—			
20GB	1	—	—	—	10	10	*A,*S			
21GB	1	—	—	—	—	—	—			
22GB	1	—	—	—	11	11	*B,*T			
23GB	1	—	—	—	—	—	—			
24GB	1	—	—	—	12	12	*C,*U			
25GB	1	—	—	—	—	—	—			
26GB	1	—	—	—	13	13	*D,*V			
27GB	1	—	—	—	—	—	—			
28GB	1	—	—	—	14	14	*E,*W			
29GB	1	—	—	—	—	—	—			
30GB	1	—	—	—	15	15	*F,*X			
31GB	1	—	—	—	—	—	—			
32GB	1	—	—	—	16	16	*G,*Y			

- **Mixed installation with F512 and F1024 in the same PCB is not allowed.**
- **When different type of memory option installed between at Basic PCB and Add. PCB, each memory size of PCB is recommended with same capacity.**

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.3.7.2.3-7.
Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

c. When the Additional Shared Memory Module (DKC-F410I-S256) is installed, insert the Shared Memory Modules. Refer to Section 3.7.1.3 Installation Procedure of Additional Shared Memory step 2-2 Insert the Shared Memory Modules (INST03-1140 through 03-1150). When the Additional Shared Memory Module (DKC-F410I-S256) is not installed, go to step 3-3.

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3-3. Insert the PCBs.

a. If the Additional Cache Board (DKC-F410I-20) or Cache Throughput Expansion Kit (DKC-F410I-21)is installed, remove the two screws and remove the dummy plate. Refer to Fig. 3.7.2.3-8.
   If not, go to step b.
b. Install the Cache Memory PCB referring to Table 3.7.2.3-5.
c. Fasten the two screws.

Note : Dummy plate should be stored for future use in De-installation.

Table 3.7.2.3-5 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB
	WP440-B	Front Logic Box	U	CACHE-1U	Cache Memory PCB (Note)

Note : Insert the PCB when DKC-F410I-20 or DKC-F410I-21 is installed.

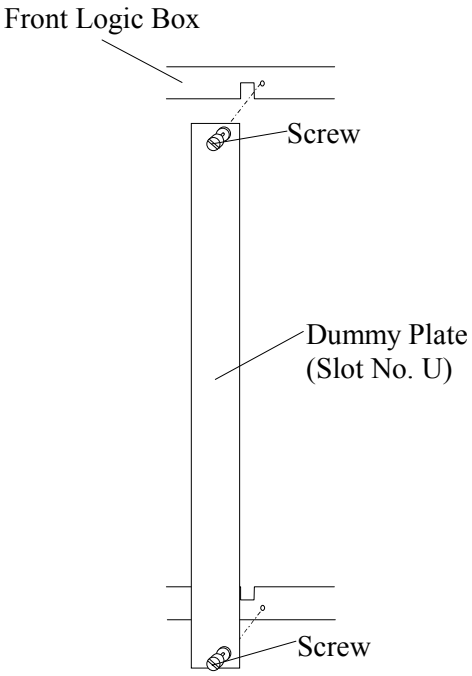


Fig. 3.7.2.3-8 Removal of the Dummy Plate

d. Go to INST02-380 step ④.

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4. When the subsystem is powered on, restore the Cache Memory on the cluster 1 and blockade the Cache Memory on the cluster 2 from SVP. When powered off, go to step 5.
   a. Go to INST02-380 step ④.

5. Install the Cache Memory and Shared Memory on the cluster 2.
   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.

5-1. Remove the PCBs.
   a. While referring to Fig. 3.7.2.3-9 and Table 3.7.2.3-6 or 7, check the Shut Down LED on the Cache Memory PCB. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on. (This procedure [5-1. a.] is not valid for a New Installation.)

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is a PCB to be added.

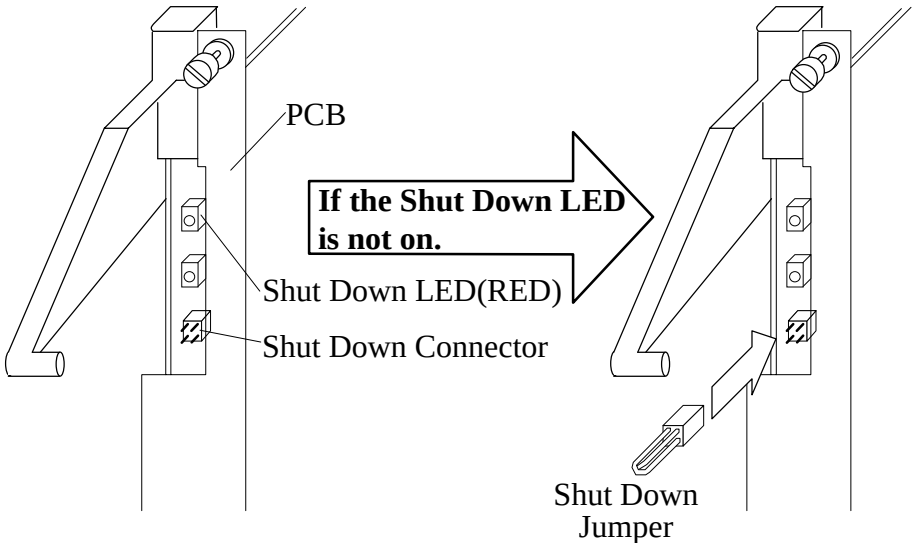


Fig. 3.7.2.3-9 Location of the Shut Down LED

Table 3.7.2.3-6 Location of the Cache Memory PCB (Standard Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB (Note 1)
	WP440-B	Rear Logic Box	F	CACHE-2F	Cache Memory PCB (Note 2)

Note 1: No PCB needs to be removed if 16 or more DKC-F410I-512 or DKC-F410I-1024 sets are installed, except when installing DKC-F410I-S256 sets.
Note 2: Remove the PCB only when it is installed.

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Table 3.7.2.3-7 Location of the Cache Memory PCB
(High Performance Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB (Note 3)
	WP440-B	Rear Logic Box	F	CACHE-2F	Cache Memory PCB (Note 3)

Note 3: When a mix of the DKC-F410I-512(s) and the DKC-F410I-1024(s) is to be installed, there is a case where the PCB removal is not necessary.

b. Remove the two screws and remove the Cache Memory PCB.

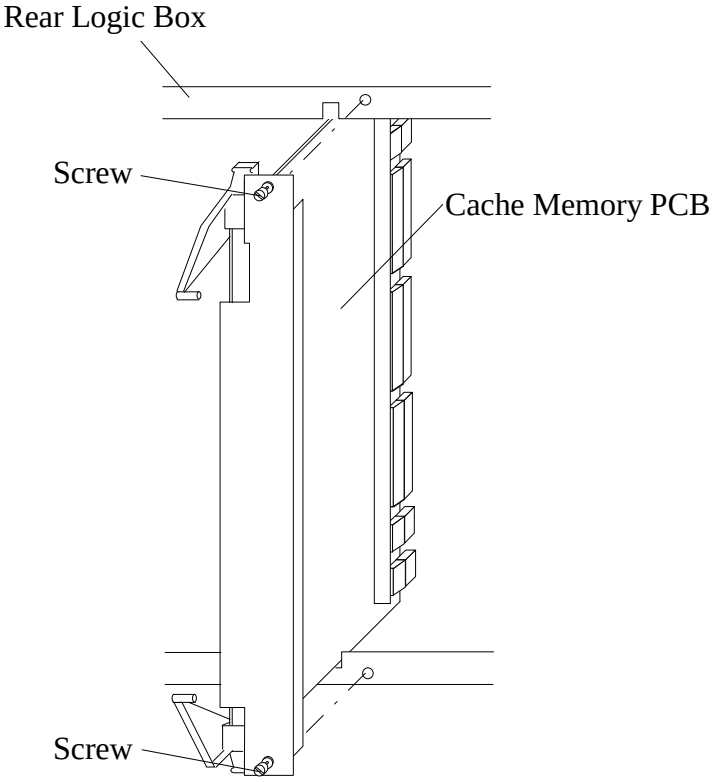


Fig. 3.7.2.3-10 Removal of the Cache Memory PCB

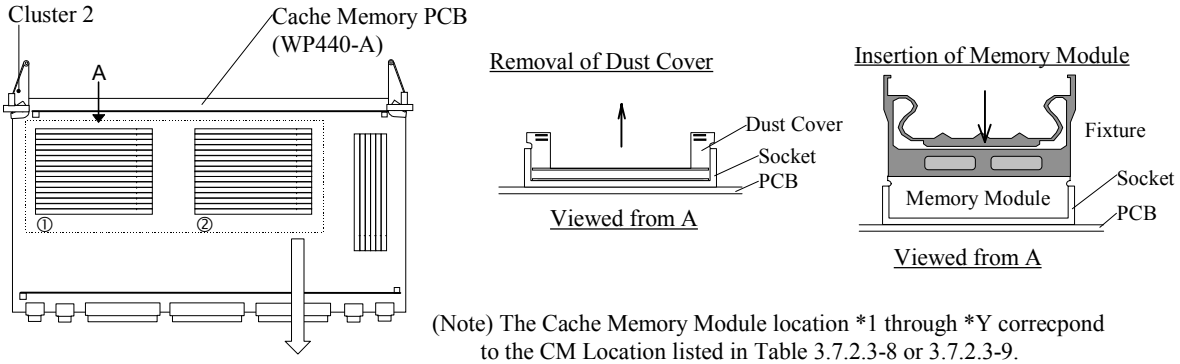
c. Remove the Shut Down Jumper if it is mounted.

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5-2. Insert the Cache Memory Modules.

a. Remove the dust covers that match the required Cache Memory capacity referring to Fig. 3.7.2.3-11 and Table 3.7.2.3-8 or 9.

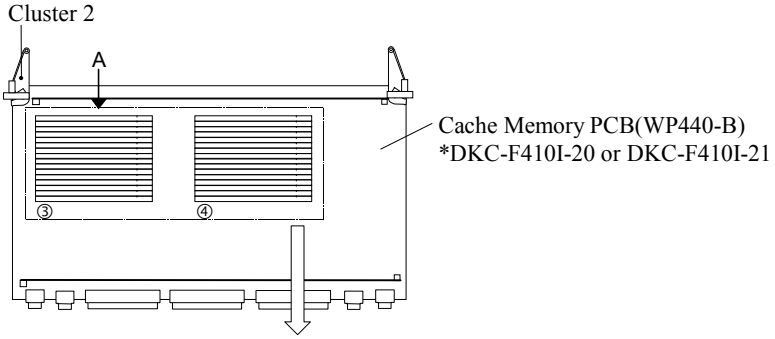
b. Insert the Cache Memory Modules that match the required Cache Memory capacity.



(Note) The Cache Memory Module location *1 through *Y correcpond to the CM Location listed in Table 3.7.2.3-8 or 3.7.2.3-9.

Cache Memory Module Location

①		②	
CM000 : SH185-A or SH185-B	*1	CM100 : SH185-A or SH185-B	*1
CM001 : SH185-A or SH185-B	*2	CM101 : SH185-A or SH185-B	*2
CM002 : SH185-A or SH185-B	*3	CM102 : SH185-A or SH185-B	*3
CM003 : SH185-A or SH185-B	*4	CM103 : SH185-A or SH185-B	*4
CM004 : SH185-A or SH185-B	*5	CM104 : SH185-A or SH185-B	*5
CM005 : SH185-A or SH185-B	*6	CM105 : SH185-A or SH185-B	*6
CM006 : SH185-A or SH185-B	*7	CM106 : SH185-A or SH185-B	*7
CM007 : SH185-A or SH185-B	*8	CM107 : SH185-A or SH185-B	*8
CM010 : SH185-A or SH185-B	*9	CM110 : SH185-A or SH185-B	*9
CM011 : SH185-A or SH185-B	*A	CM111 : SH185-A or SH185-B	*A
CM012 : SH185-A or SH185-B	*B	CM112 : SH185-A or SH185-B	*B
CM013 : SH185-A or SH185-B	*C	CM113 : SH185-A or SH185-B	*C
CM014 : SH185-A or SH185-B	*D	CM114 : SH185-A or SH185-B	*D
CM015 : SH185-A or SH185-B	*E	CM115 : SH185-A or SH185-B	*E
CM016 : SH185-A or SH185-B	*F	CM116 : SH185-A or SH185-B	*F
CM017 : SH185-A or SH185-B	*G	CM117 : SH185-A or SH185-B	*G



Cache Memory Module Location

③		④	
CM000 : SH185-A or SH185-B	*H	CM100 : SH185-A or SH185-B	*H
CM001 : SH185-A or SH185-B	*J	CM101 : SH185-A or SH185-B	*J
CM002 : SH185-A or SH185-B	*K	CM102 : SH185-A or SH185-B	*K
CM003 : SH185-A or SH185-B	*L	CM103 : SH185-A or SH185-B	*L
CM004 : SH185-A or SH185-B	*M	CM104 : SH185-A or SH185-B	*M
CM005 : SH185-A or SH185-B	*N	CM105 : SH185-A or SH185-B	*N
CM006 : SH185-A or SH185-B	*P	CM106 : SH185-A or SH185-B	*P
CM007 : SH185-A or SH185-B	*Q	CM107 : SH185-A or SH185-B	*Q
CM010 : SH185-A or SH185-B	*R	CM110 : SH185-A or SH185-B	*R
CM011 : SH185-A or SH185-B	*S	CM111 : SH185-A or SH185-B	*S
CM012 : SH185-A or SH185-B	*T	CM112 : SH185-A or SH185-B	*T
CM013 : SH185-A or SH185-B	*U	CM113 : SH185-A or SH185-B	*U
CM014 : SH185-A or SH185-B	*V	CM114 : SH185-A or SH185-B	*V
CM015 : SH185-A or SH185-B	*W	CM115 : SH185-A or SH185-B	*W
CM016 : SH185-A or SH185-B	*X	CM116 : SH185-A or SH185-B	*X
CM017 : SH185-A or SH185-B	*Y	CM117 : SH185-A or SH185-B	*Y

Fig. 3.7.2.3-11 Inserting Location of the Cache Memory Module

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Table 3.7.2.3-8 Number of CMs and Corresponding Cache Memory Capacity (Standard Model Installation)

Cache Memory Capacity (MB)	SH185-A only		SH185-B only		SH185-A/SH185-B mixture		
	DKC-F410I -512	CM Location (Note 1)	DKC-F410I -1024	CM Location (Note 1)	DKC-F410I -512	DKC-F410I -1024	CM Location (Note 1)
512	1 set	*1	—	—	1 set	—	*1
1,024	2 sets	*2	1 set	*1	2 sets	—	*2
1,536	3 sets	*3	—	—	3 sets	—	*3
2,048	4 sets	*4	2 sets	*2	4 sets	—	*4
2,560	5 sets	*5	—	—	5 sets	—	*5
3,072	6 sets	*6	3 sets	*3	6 sets	—	*6
3,584	7 sets	*7	—	—	7 sets	—	*7
4,096	8 sets	*8	4 sets	*4	8 sets	—	*8
5,120	10 sets	*9,*A	5 sets	*5	10 sets	—	*9,*A
6,144	12 sets	*B,*C	6 sets	*6	12 sets	—	*B,*C
7,168	14 sets	*D,*E	7 sets	*7	14 sets	—	*D,*E
8,192	16 sets	*F,*G	8 sets	*8	16 sets	—	*F,*G
9,216	18 sets	*H,*J	9 sets	*9	16 sets	1 set	*H
10GB	20 sets	*K,*L	10 sets	*A	16 sets	2 sets	*J
11GB	22 sets	*M,*N	11 sets	*B	16 sets	3 sets	*K
12GB	24 sets	*P,*Q	12 sets	*C	16 sets	4 sets	*L
13GB	26 sets	*R,*S	13 sets	*D	16 sets	5 sets	*M
14GB	28 sets	*T,*U	14 sets	*E	16 sets	6 sets	*N
15GB	30 sets	*V,*W	15 sets	*F	16 sets	7 sets	*P
16GB	32 sets	*X,*Y	16 sets	*G	16 sets	8 sets	*Q
17GB	—	—	17 sets	*H	16 sets	9 sets	*R
18GB	—	—	18 sets	*J	16 sets	10 sets	*S
19GB	—	—	19 sets	*K	16 sets	11 sets	*T
20GB	—	—	20 sets	*L	16 sets	12 sets	*U
21GB	—	—	21 sets	*M	16 sets	13 sets	*V
22GB	—	—	22 sets	*N	16 sets	14 sets	*W
23GB	—	—	23 sets	*P	16 sets	15 sets	*X
24GB	—	—	24 sets	*Q	16 sets	16 sets	*Y
25GB	—	—	25 sets	*R	—	—	—
26GB	—	—	26 sets	*S	—	—	—
27GB	—	—	27 sets	*T	—	—	—
28GB	—	—	28 sets	*U	—	—	—
29GB	—	—	29 sets	*V	—	—	—
30GB	—	—	30 sets	*W	—	—	—
31GB	—	—	31 sets	*X	—	—	—
32GB	—	—	32 sets	*Y	—	—	—

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.3.7.2.3-11.

Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

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Table 3.7.2.3-9 Number of CMs and Corresponding Cache Memory Capacity (High Performance Model Installation)

Cache Memory Capacity (MB)	DKC-F410I -20/21 (Add.PCB)	DKC-F410I-512			DKC-F410I-1024			DKC-F410I-512/1024mixture		
		Install PCB		CM Location (Note 1)	Install PCB		CM Location (Note 1)	Install PCB		CM Location (Note 1)
		Basic PCB	Add. PCB		Basic PCB	Add. PCB		Basic PCB	Add. PCB	
512	0	—	—	—	—	—	—			
1,024	1	1	1	*1,*H	—	—	—			
1,536	1	—	—	—	—	—	—			
2,048	1	2	2	*2,*J	1	1	*1,*H			
2,560	1	—	—	—	—	—	—			
3,072	1	3	3	*3,*K	—	—	—			
3,584	1	—	—	—	—	—	—			
4,096	1	4	4	*4,*L	2	2	*2,*J			
5,120	1	5	5	*5,*M	—	—	—			
6,144	1	6	6	*6,*N	3	3	*3,*K			
7,168	1	7	7	*7,*P	—	—	—			
8,192	1	8	8	*8,*Q	4	4	*4,*L			
9,216	1	9	9	*9,*R	—	—	—			
10GB	1	10	10	*A,*S	5	5	*5,*M			
11GB	1	11	11	*B,*T	—	—	—			
12GB	1	12	12	*C,*U	6	6	*6,*N			
13GB	1	13	13	*D,*V	—	—	—			
14GB	1	14	14	*E,*W	7	7	*7,*P			
15GB	1	15	15	*F,*X	—	—	—			
16GB	1	16	16	*G,*Y	8	8	*8,*Q			
17GB	1	—	—	—	—	—	—			
18GB	1	—	—	—	9	9	*9,*R			
19GB	1	—	—	—	—	—	—			
20GB	1	—	—	—	10	10	*A,*S			
21GB	1	—	—	—	—	—	—			
22GB	1	—	—	—	11	11	*B,*T			
23GB	1	—	—	—	—	—	—			
24GB	1	—	—	—	12	12	*C,*U			
25GB	1	—	—	—	—	—	—			
26GB	1	—	—	—	13	13	*D,*V			
27GB	1	—	—	—	—	—	—			
28GB	1	—	—	—	14	14	*E,*W			
29GB	1	—	—	—	—	—	—			
30GB	1	—	—	—	15	15	*F,*X			
31GB	1	—	—	—	—	—	—			
32GB	1	—	—	—	16	16	*G,*Y			

- **Mixed installation with F512 and F1024 in the same PCB is not allowed.**
- **When different type of memory option installed between at Basic PCB and Add. PCB, each memory size of PCB is recommended with same capacity.**

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.3.7.2.3-11.

Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

c. When the Additional Shared Memory Module (DKC-F410I-S256) is installed, insert the Shared Memory Modules. Refer to Section 3.7.1.3 Installation Procedure of Additional Shared Memory step 4-2 Insert the Shared Memory Modules (INST03-1180). When the Additional Shared Memory Module (DKC-F410I-S256) is not installed, go to step 5-3.

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5-3. Insert the PCBs.

a. If the Additional Cache Board (DKC-F410I-20) or Cache Throughput Expansion Kit (DKC-F410I-21)is installed, remove the two screws and remove the dummy plate. Refer to Fig. 3.7.2.3-12.
If not, go to step b.

b. Install the Cache Memory PCB referring to Table 3.7.2.3-10.

c. Fasten the two screws.

Note : Dummy plate should be stored for future use in De-installation.

Table 3.7.2.3-10 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB
	WP440-B	Rear Logic Box	F	CACHE-2F	Cache Memory PCB (Note)

Note : Insert the PCB when DKC-F410I-20 or DKC-F410I-21 is installed.

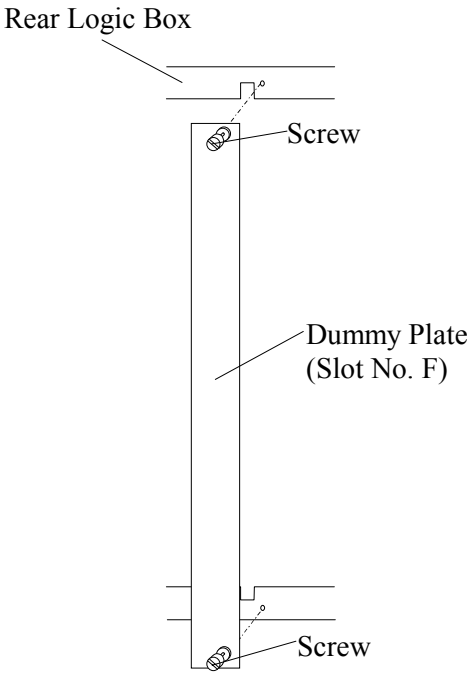


Fig. 3.7.2.3-12 Removal of the Dummy Plate

d. Go to INST02-380 step ⑥.

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6. When the subsystem is powered on, restore the Cache Memory on the cluster 2 from SVP. When powered off, go to step 7.
   a. Go to INST02-380 step ⑥.

7. Change the nameplate.
   a. Refer to Fig. 3.7.2.3-13 and Table 3.7.2.3-11 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding nameplate can be seen. Indicate the number which is added the number installed previously on the number of options added newly.

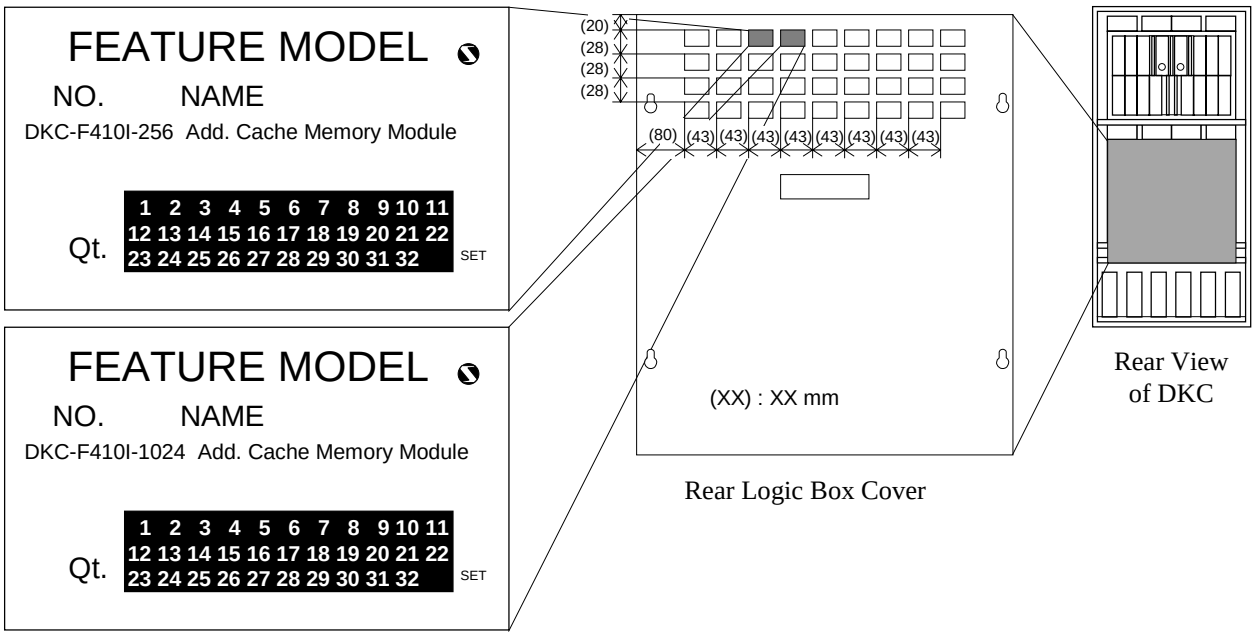


Fig. 3.7.2.3-13 Location of the Nameplate

Table 3.7.2.3-11 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F410I-512/1024 sets	Qt.
1	1 set	[redacted]
2	2 sets	[redacted]
3	3 sets	[redacted]
4	4 sets	[redacted]

(To be continued)

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(Continued from the preceding page)

No.	Quantity Marking	
	Number of DKC-F410I-512/1024 sets	Qt.
5	5 sets	[redacted]
6	6 sets	[redacted]
7	7 sets	[redacted]
8	8 sets	[redacted]
9	9 sets	[redacted]
10	10 sets	[redacted]
11	11 sets	[redacted]
12	12 sets	[redacted]
13	13 sets	[redacted]
14	14 sets	[redacted]
15	15 sets	[redacted]
16	16 sets	[redacted]
17	17 sets	[redacted]
18	18 sets	[redacted]
19	19 sets	[redacted]
20	20 sets	[redacted]

(To be continued)

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(Continued from the preceding page)

No.	Quantity Marking	
	Number of DKC-F410I-512/1024 sets	Qt.
21	21 sets	[redacted] 21
22	22 sets	[redacted] 22
23	23 sets	[redacted] 23
24	24 sets	[redacted] 24
25	25 sets	[redacted] 25
26	26 sets	[redacted] 26
27	27 sets	[redacted] 27
28	28 sets	[redacted] 28
29	29 sets	[redacted] 29
30	30 sets	[redacted] 30
31	31 sets	[redacted] 31
32	32 sets	[redacted] 32

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b. When the Additional Shared Memory Module (DKC-F410I-S256) is installed, change the nameplate. Refer to Section 3.7.1.3 Installation Procedure of Additional Shared Memory step 6 Change the nameplate (INST03-1200).
When the Additional Shared Memory Module (DKC-F410I-S256) is not installed, go to step c.

c. When the Additional Cache Board (DKC-F410I-20), Cache Throughput Expansion Kit (DKC-F410I-21) or Additional Cache Battery (DKC-F410I-22) is installed, attach the nameplate. Refer to Fig. 3.7.2.3-14.
When the Additional Cache Board (DKC-F410I-20), Cache Throughput Expansion Kit (DKC-F410I-21) or Additional Cache Battery (DKC-F410I-22) is not installed, go to step 8.

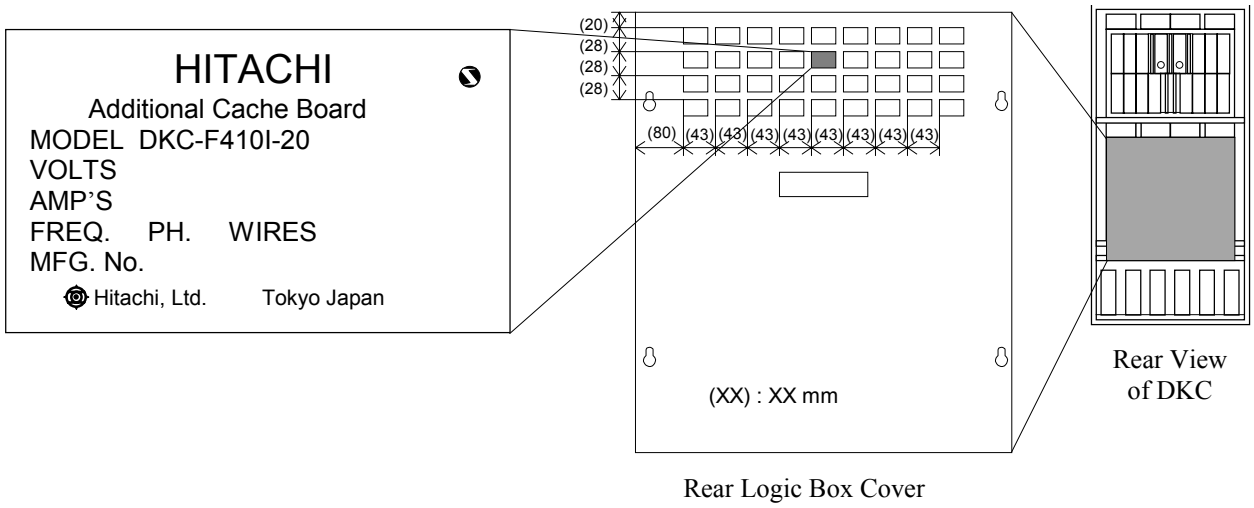


Fig. 3.7.2.3-14 Location of the Nameplate

8. Return to General Flow.
Go to INST02-380 step ⑧.

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3.8 Installation of Redundant Power Supply

3.8.1 Installation of the DKC Additional Power Supply (DKC-F410I-80)

3.8.1.1 Parts List

Table 3.8.1.1-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-80	3V power supply	5509117-A	4	PPD03080
					TAJ-272HS
		Nameplate	3257216-9	1	

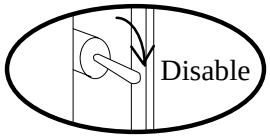
3.8.1.2 Flowchart

1. Confirm the PS Enable/Disable Switch.
↓
2. Install the Additional Power Supply (3V PS).
↓
3. Connect the inlet cable.
↓
4. Turn on the Additional Power Supply.
↓
5. Attach the nameplate.
↓
6. Check the DC voltage.

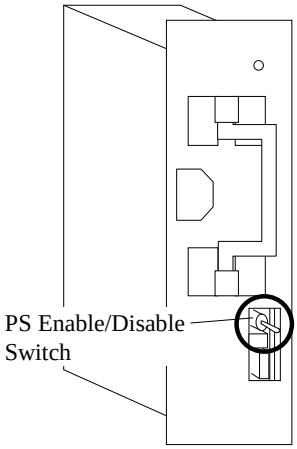
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3.8.1.3 Installation Procedure of the DKC Additional Power Supply

1. Confirmation of the PS Enable/Disable Switch
   a. Confirm the PS Enable/Disable Switch is turned to (DOWN) **Disable**. Refer to Fig. 3.8.1.3-1.



PS Enable/Disable Switch



3V PS

Fig. 3.8.1.3-1 Switch

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2. Installation of the additional power supply
   a. Open the locking clamps and remove the inlet cables from the inserting locations. Refer to Table 3.8.1.3-1, Fig. 3.8.1.3-2, and Fig. 3.8.1.3-3.
   b. Loosen the screws and remove the dummy plates.
   c. Install the additional power supplies in the correct locations and fasten the screws. Refer to Table 3.8.1.3-1, Fig. 3.8.1.3-2, and Fig. 3.8.1.3-4.

   Note: Dummy plates should be stored for future use in De-installation.

Table 3.8.1.3-1 Inserting Location

No.	Part Name	PS Location		Remarks
		Cluster 1	Cluster 2	
1	3V Power Supply	3VPS1C	3VPS2C	
2	3V Power Supply	3VPS1D	3VPS2D	

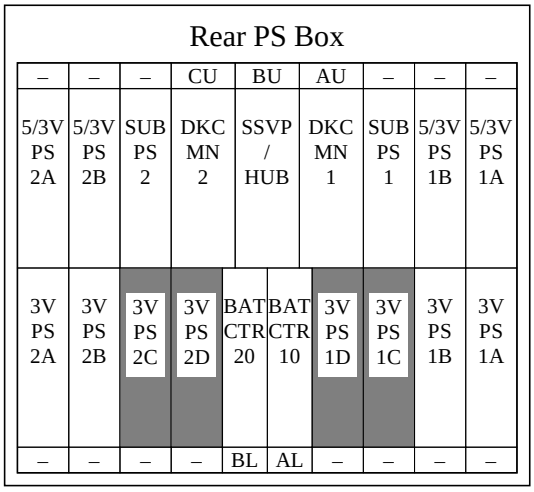


Fig. 3.8.1.3-2 Inserting Location

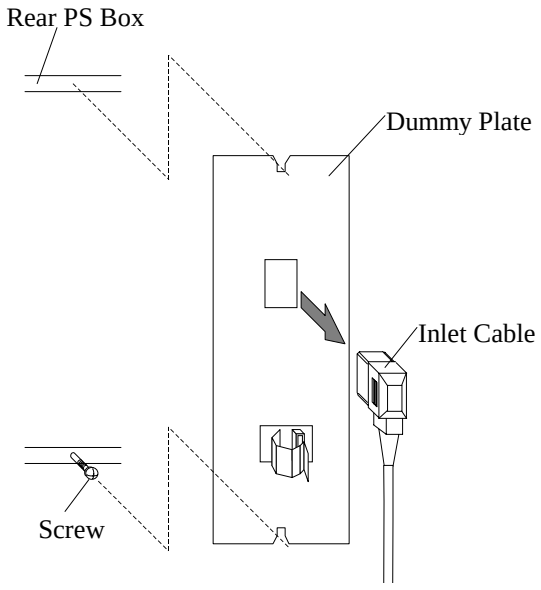


Fig. 3.8.1.3-3 Removal of Dummy Plate

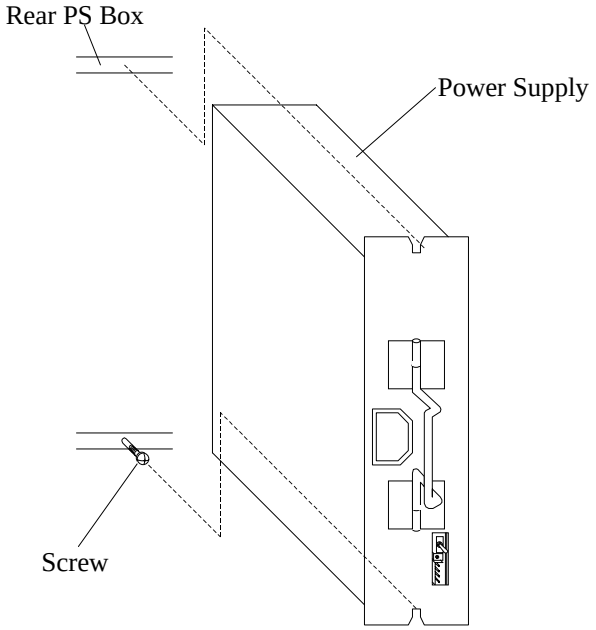


Fig. 3.8.1.3-4 Installation of Power Supply

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3. Connection of the inlet cable
   a. Connect the inlet cables to the power supply and fix them with the lever. Refer to Fig. 3.8.1.3-5.

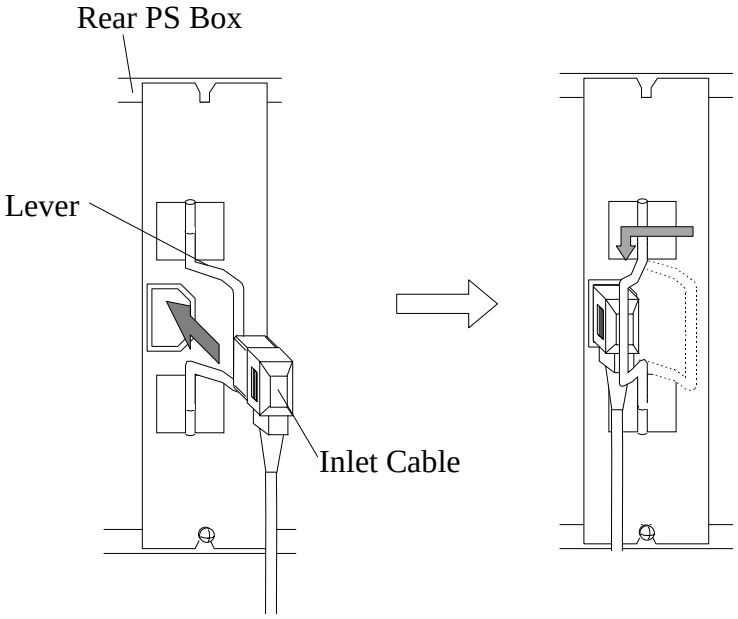
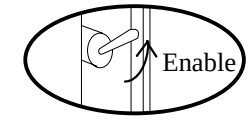
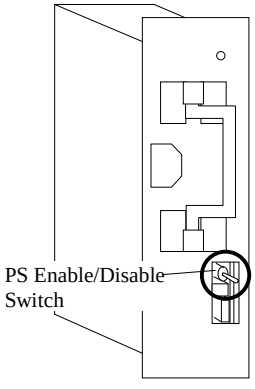


Fig. 3.8.1.3-5 Connection of Inlet Cable

4. Turn on the Additional Power Supply
   a. Turn the PS Enable/Disable Switch to (UP) **Enable**. Refer to Fig. 3.8.1.3-6.



PS Enable/Disable Switch



3V PS

Fig. 3.8.1.3-6 Switch

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5. Attachment of the nameplate
   a. Attach the nameplate of DKC-F410I-80 referring to Fig. 3.8.1.3-7.

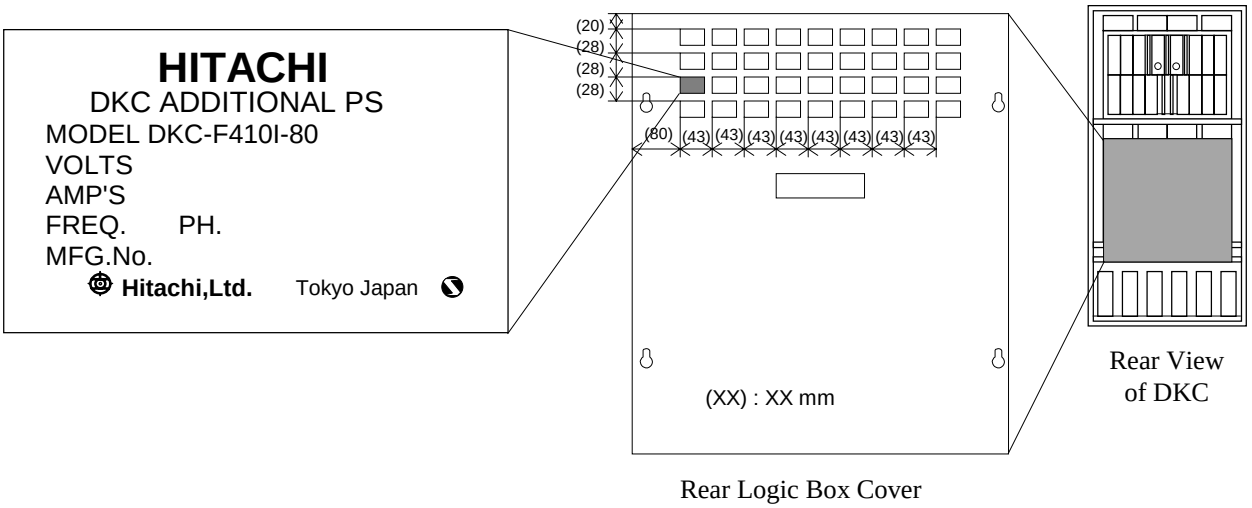


Fig. 3.8.1.3-7 Attachment of Nameplate

6. Check of DC voltage
   a. See CHECK OF DC VOLTAGE in PERIODIC SECTION.

7. Return to General Flow.
   New Installation: Go to INST02-10 step (5).
   Non-disruptive Installation: Go to INST02-80 Step (2)-5.
   Disruptive Installation: Go to INST02-200 Step (4).

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3.9 Installation of the Platform for Canister Mount (DKU-F405I-B4)

3.9.1 Flowchart

The procedure for expanding the platform for the canister mount is shown below.

(1) Confirmation of installation position of platform for the canister mount.
↓
(2) Removal of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN assembly.
↓
(3) Removal of the side plate.
↓
(4) Installation of the HDU box.
↓
(5) Connection of the DKUMN cable.
↓
(6) Setting of the PL ID jumper.
↓
(7) Attachment of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly.
↓
(8) Attachment of the side plate.
↓
(9) Connection of the INLET cable.
↓
(10) Attachment of the nameplate and label (REV).
↓
(11) Setting of the PS enable switch on the multi power supply.
↓
(12) Installation of the Jumper plug in the DKUMN PCB.
↓
(13) Check of the PL ID Jumpers

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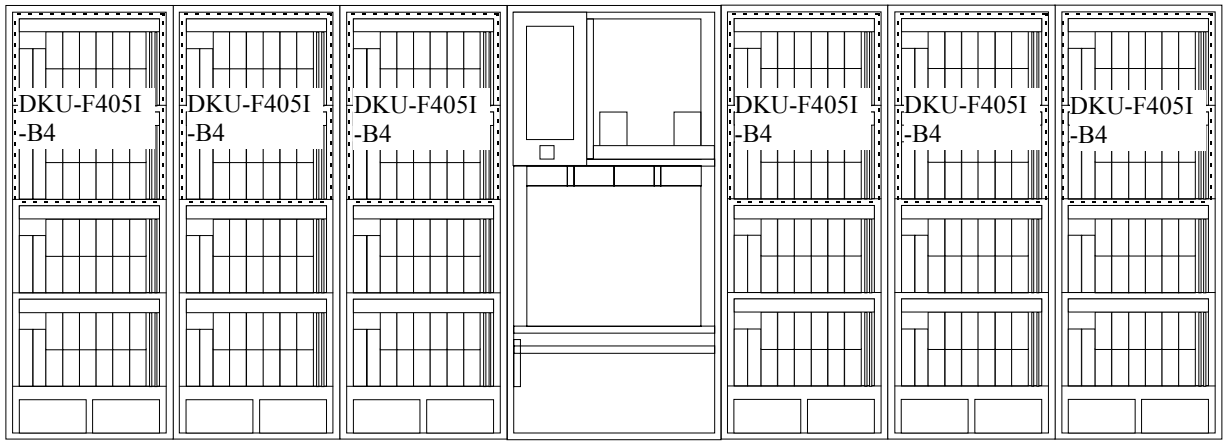
3.9.2 Parts List

Table 3.9.2-1 Parts List for Platform for Canister Mount

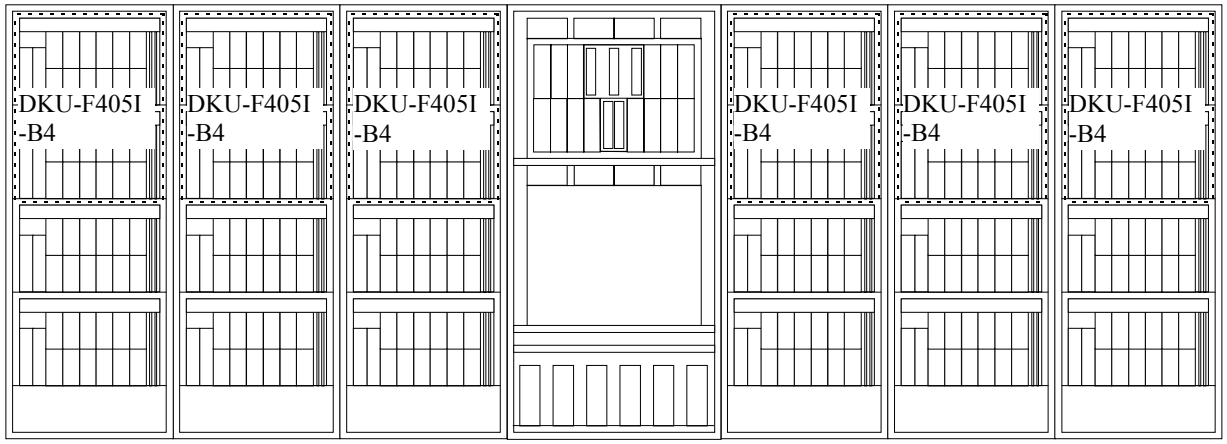
No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-B4	HDU Box	1505217-A	4	
		Multi Power Supply	5502384-A	8	
		FSW PCB	5502386-A	8	
		HDD FAN Assembly	5502388-A	4	
		Nameplate E (DKU-F405I)	2103570-1	1	
			2103575-1	1	
		Label (REV)	3239458-1	1	

3.9.3 Installation Procedure of the Platform for Canister Mount

1. Confirm a position to install platform for the canister mount.



Front View



Rear View

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2. Removal of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly.
   a. Remove the acrylic cover.

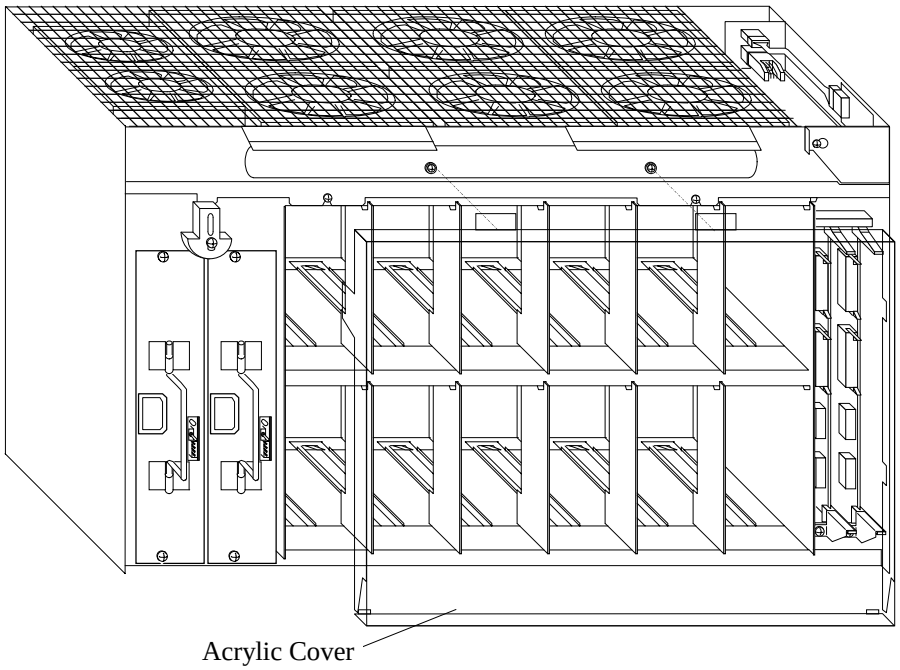


Fig. 3.9.3-1 Removal of the Acrylic Cover

   b. Loosen the screw and rotate the stopper. Remove the FSW PCB in the HDU box to be installed.

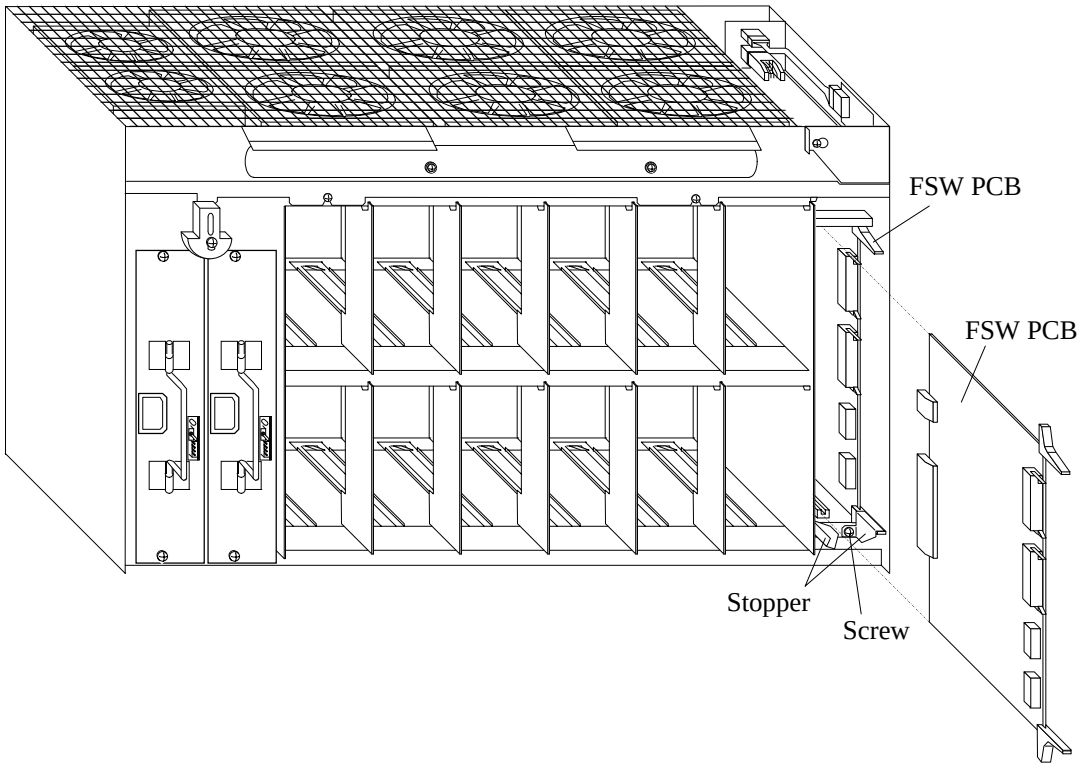


Fig. 3.9.3-2 Removal of the FSW PCB

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c. Remove screws securing the multi power supply in the HDU box to be installed, flip up the buffering rubbers, and pull out the multi power supply.

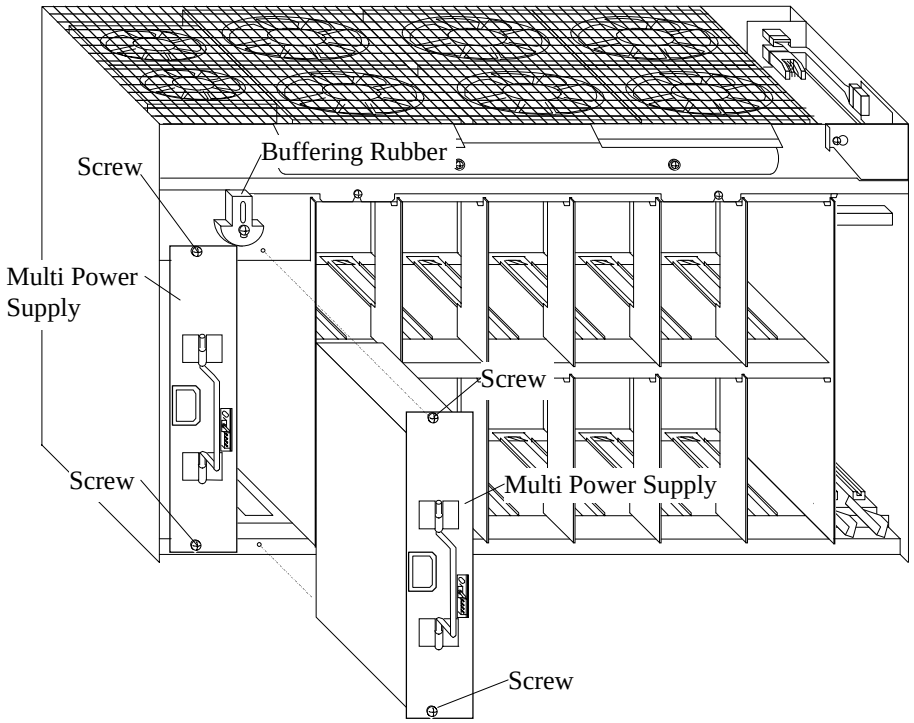


Fig. 3.9.3-3 Removal of the Multi Power Supply

d. Loosen the screw and remove the rail.

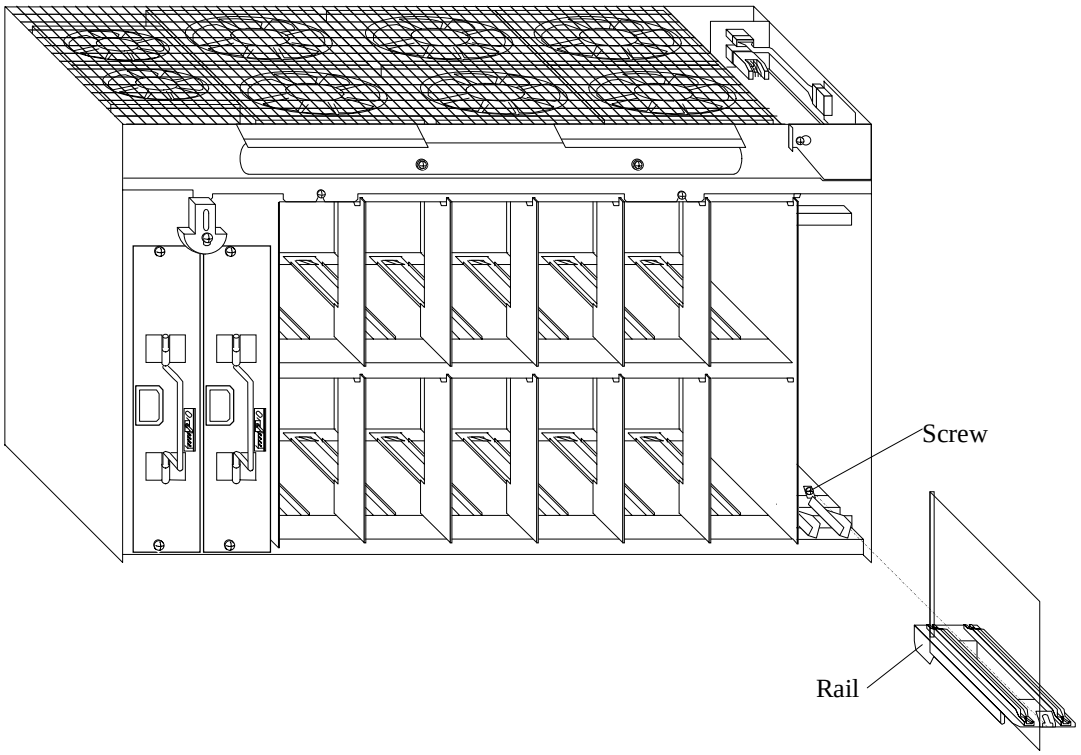


Fig. 3.9.3-4 Removal of the Rail

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e. Loosen the screw ① and remove the cover. Loosen the two screws ② and remove the HDD FAN Assembly.

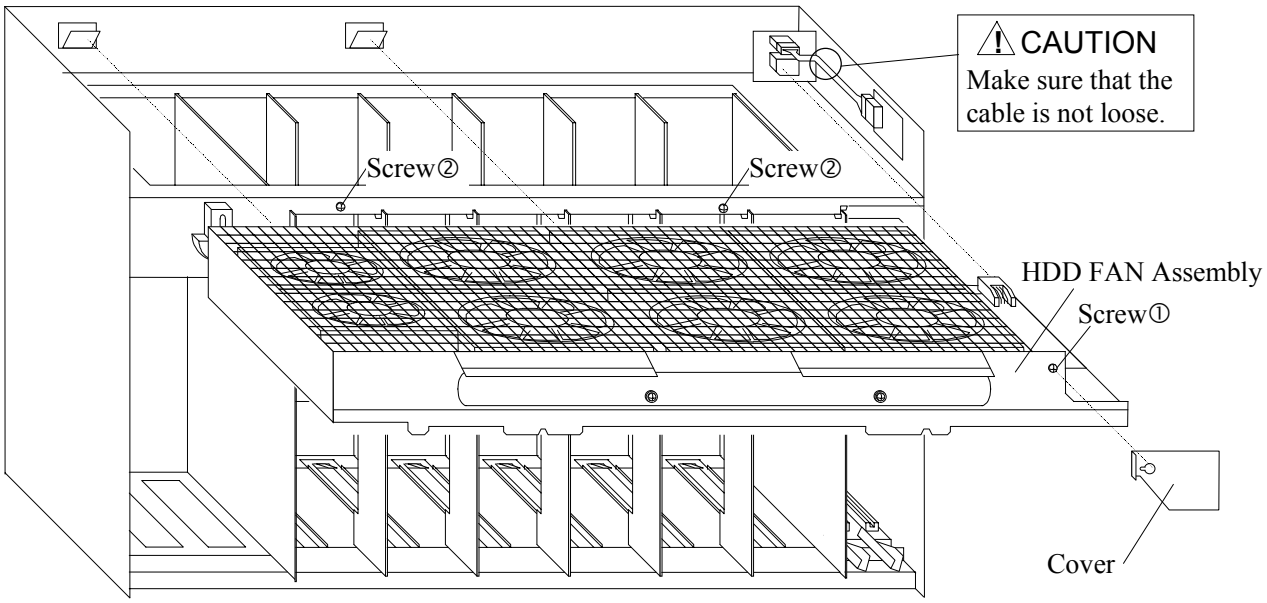


Fig. 3.9.3-5 Removal of the HDD FAN Assembly

3. Removal of the side plate.
   a. Loosen screws ① and raise DKUMN PCBs and slide DKUMN PCBs.
   b. Remove screws ② and side plates.
   c. Loosen screws ③ and raise cable ducts when installing a new HDU box.

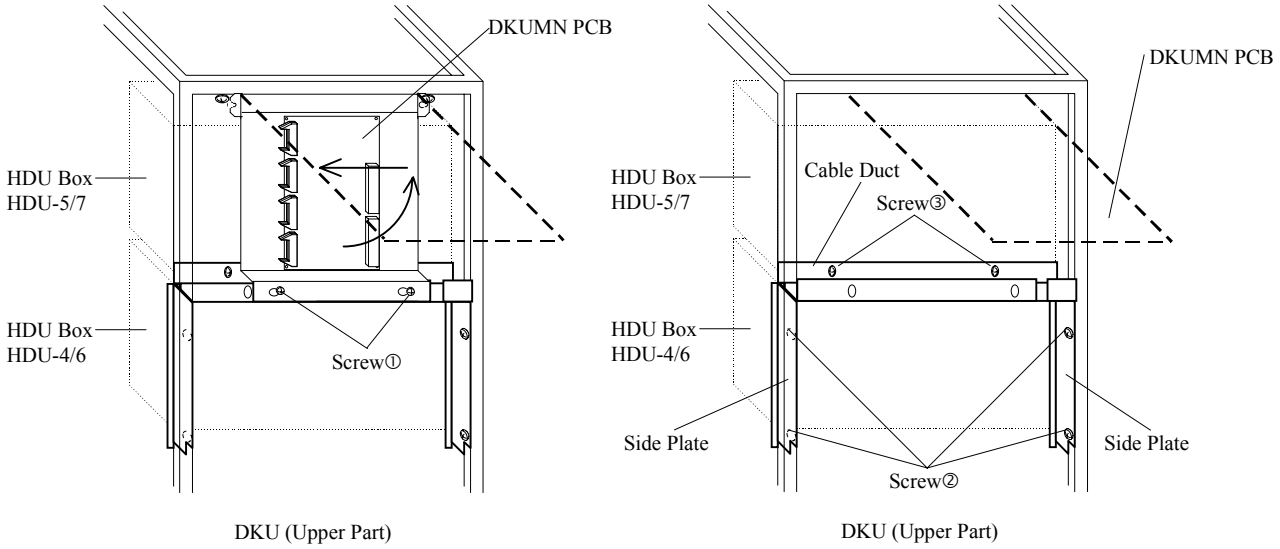


Fig. 3.9.3-6 Removal of the Side Plate

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4. Installation of the HDU Box.
   a. Install the HDU box on the disk unit and secure it with screws and plastic washers.

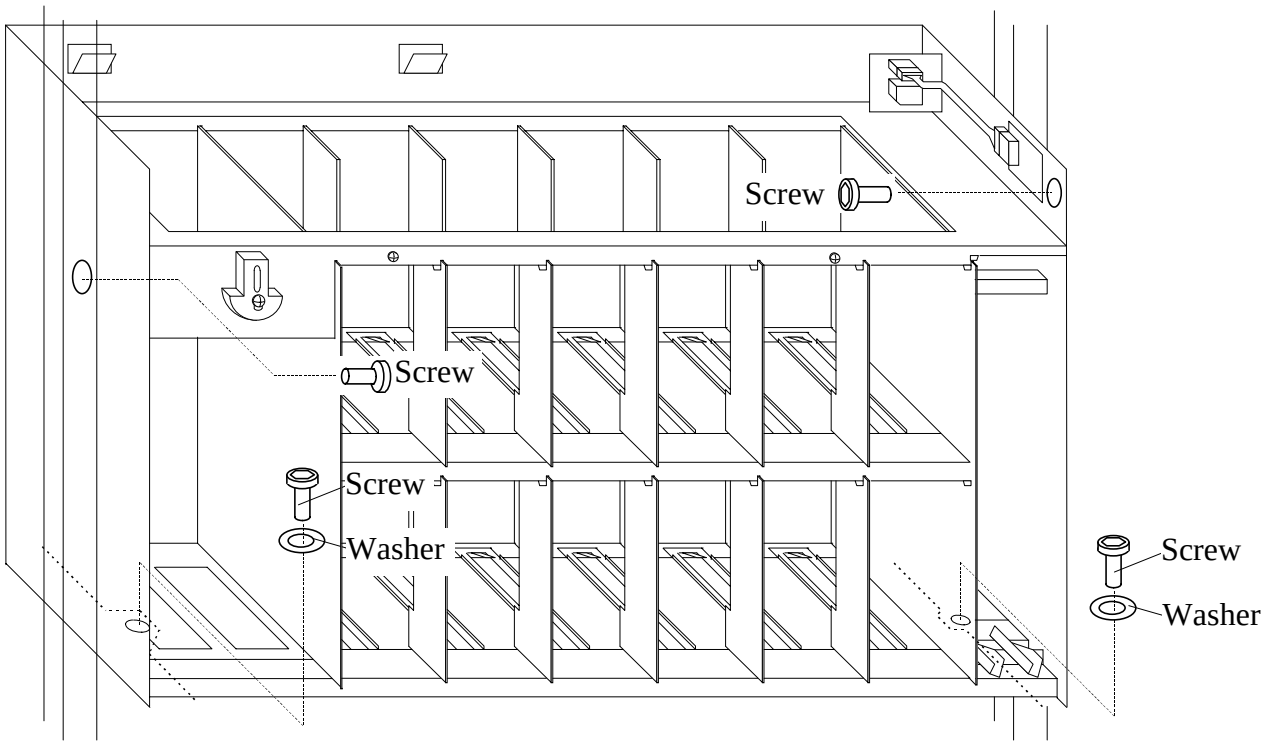


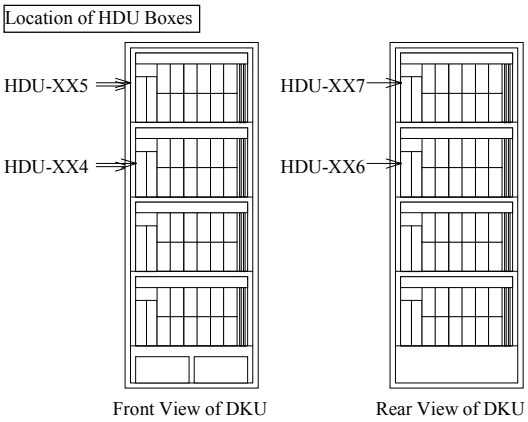
Fig. 3.9.3-7 Installation of the HDU Box

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5. Connection of the DKUMN cable.
   a. Loosen the screw and remove the plate.
   b. Connect the DKUMN cables referring to Table 3.9.3-1 and Fig. 3.9.3-8.
   c. To prevent the DKUMN cable from becoming loose, fasten it with the Locking Clamp 2.
   d. Attach the plate and fasten the screw.

Table 3.9.3-1 DKUMN Cables and Matching Connectors

Location of HDU Box	No.	DKUMN Cable	Connector
XX4	1	4-P301	4-J301
	2	4-P302	4-J302
XX5	1	5-P301	5-J301
	2	5-P302	5-J302
XX6	1	6-P301	6-J301
	2	6-P302	6-J302
XX7	1	7-P301	7-J301
	2	7-P302	7-J302



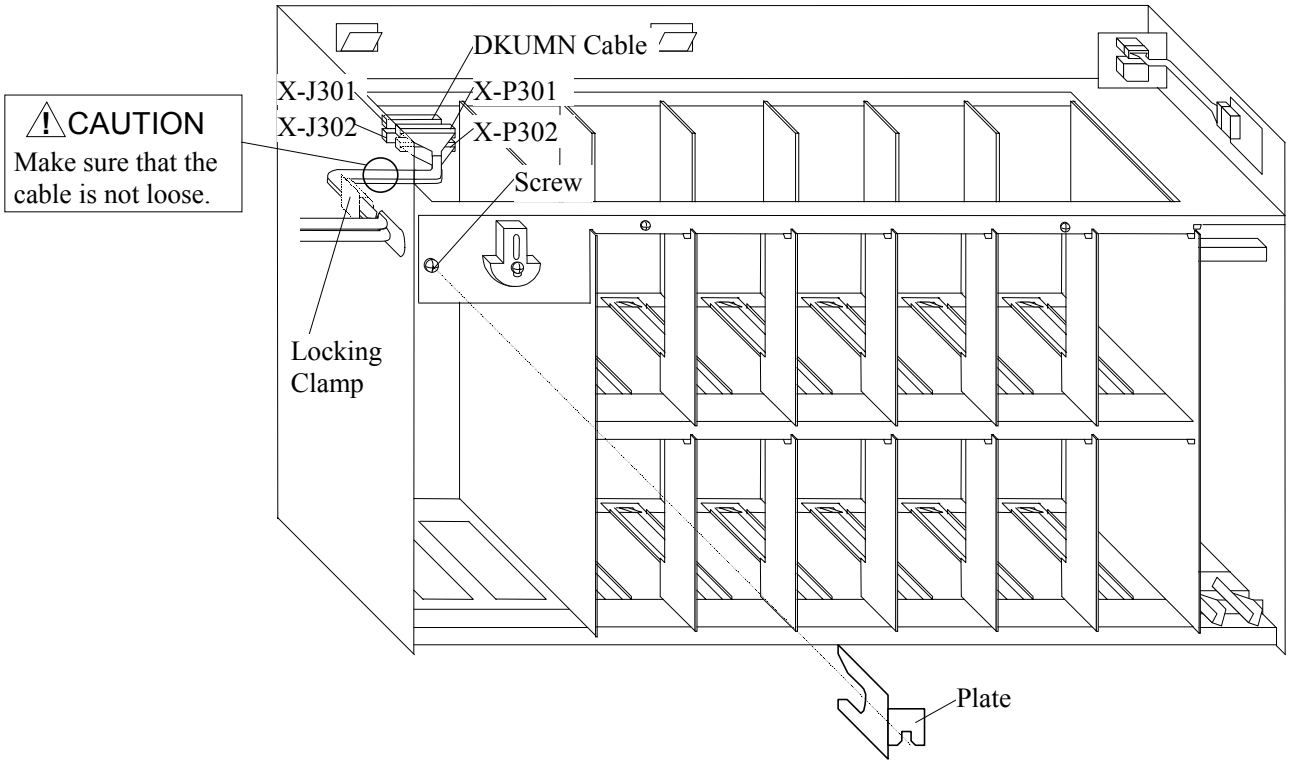
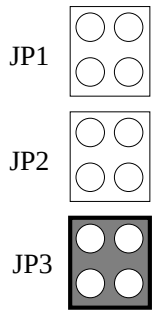
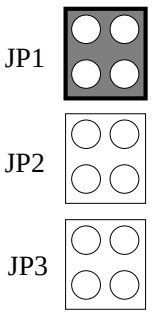
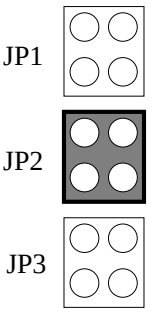


Fig. 3.9.3-8 Connection of the DKUMN Cables

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6. Setting of the PL ID jumper.
   a. For the first and third disk units, install a PL ID jumper to socket JP3 on the PL ID PCB.
   b. For the second and fourth disk units, install a PL ID jumper to socket JP1 on the PL ID PCB.
   c. For the fifth and sixth disk units, install a PL ID jumper to the socket JP2 on the PL ID PCB.

Table 3.9.3-2 Setting of the PL ID

	1st / 3rd DKU	2nd / 4th DKU	5th / 6th DKU
Setting of PL ID			

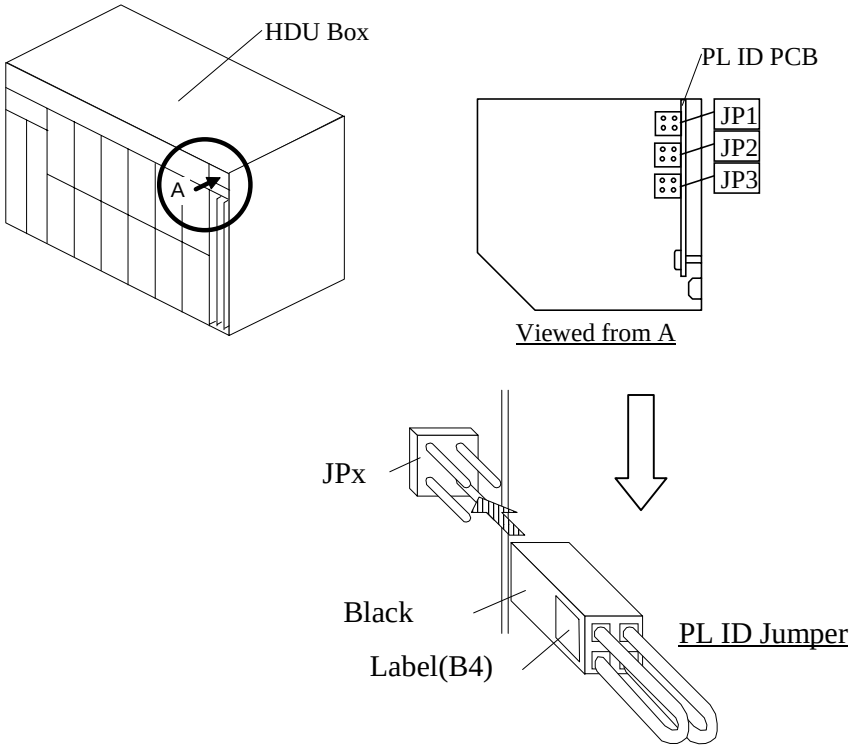


Fig. 3.9.3-9 Setting of the PL ID Jumper

7. Attachment of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly.
   a. Attach the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly in the HDU box in the reverse order of Step 2.

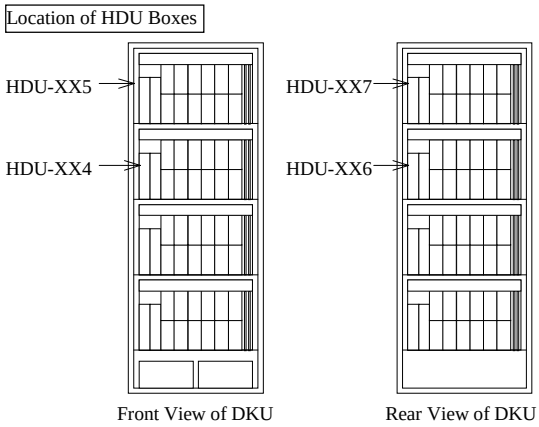
8. Attachment of the side plate.
   a. Attach the side plates in the reverse order of Step 3.

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9. Connection of the INLET cable.
   a. Connect the INLET cables referring to Table 3.9.3-3 and Fig. 3.9.3-10.

Table 3.9.3-3 INLET Cables and Matching Connectors

Location of HDU Box	No.	INLET Cable	Connector
XX4	1	4-P601-1	4-J601-1
	2	4-P601-2	4-J601-2
XX5	1	5-P601-1	5-J601-1
	2	5-P601-2	5-J601-2
XX6	1	6-P601-1	6-J601-1
	2	6-P601-2	6-J601-2
XX7	1	7-P601-1	7-J601-1
	2	7-P601-2	7-J601-2



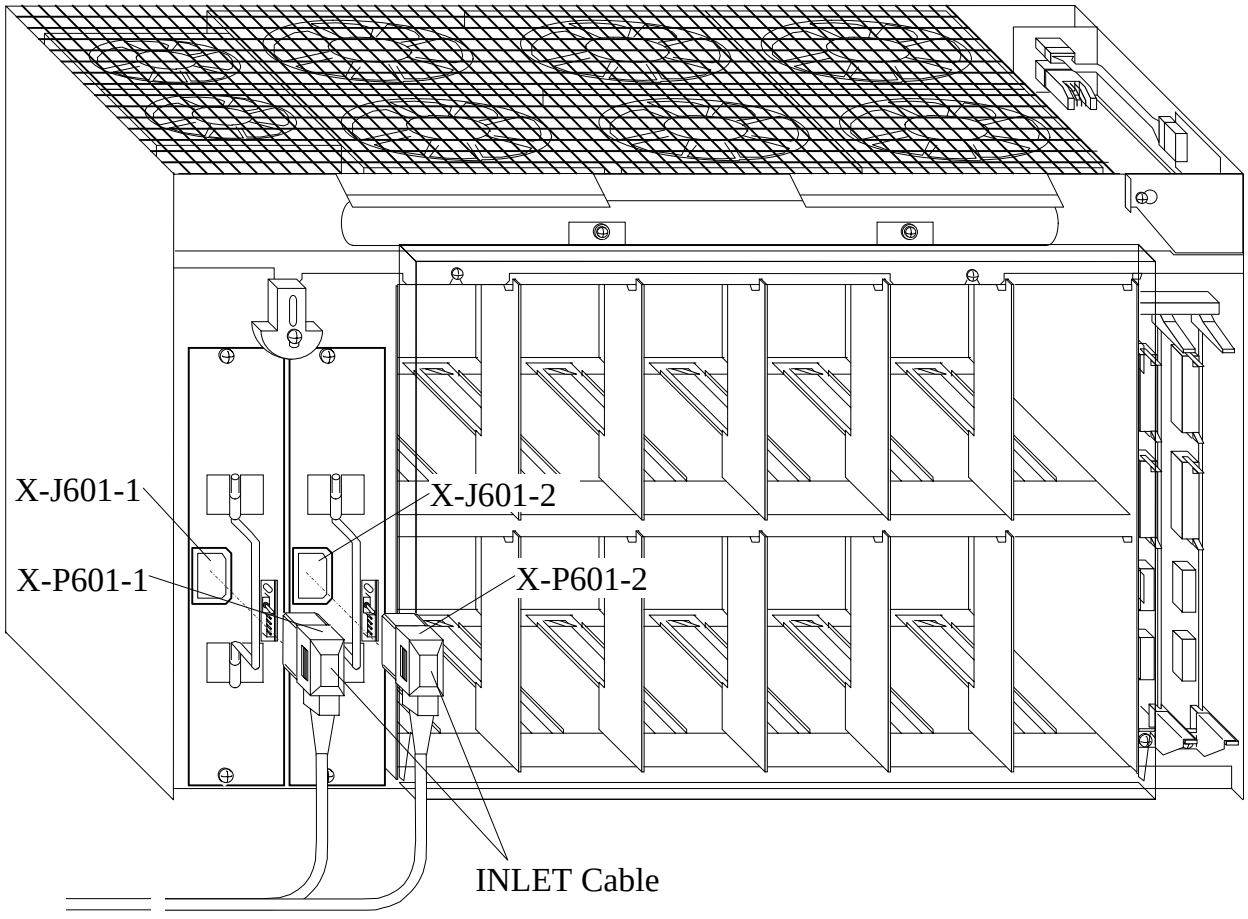


Fig. 3.9.3-10 Connection of the INLET Cable

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10. Attachment of the nameplate and label (REV).
    a. Attach the nameplate and label (REV) of additional HUD box, referring to Fig. 3.9.3-11.

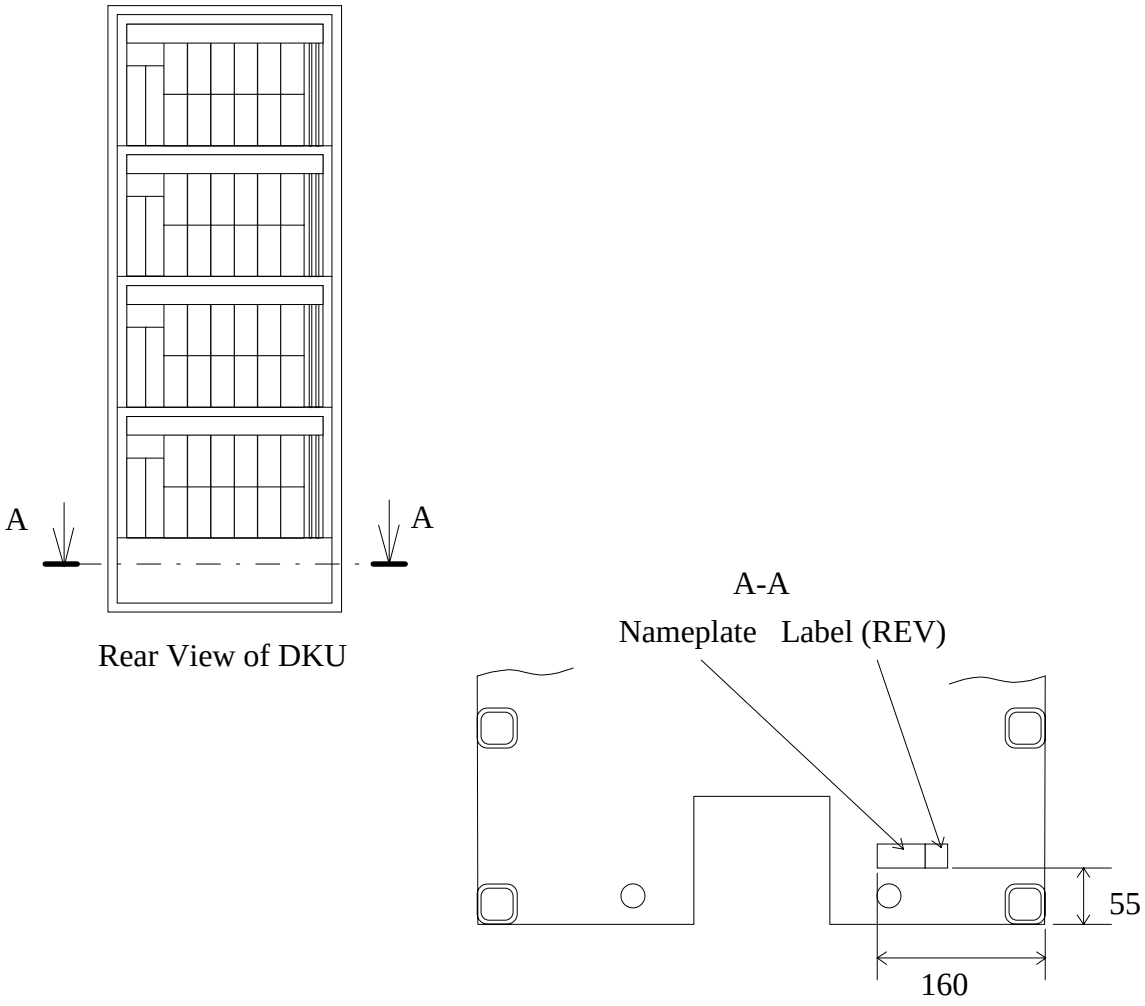


Fig. 3.9.3-11 Attachment of the Nameplate and Label (REV)

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11. Setting of the PS enable switch on the multi power supply.
    a. Set the PS enable switch on the multi power supply to Enable and make sure that the PS enable LED goes on.

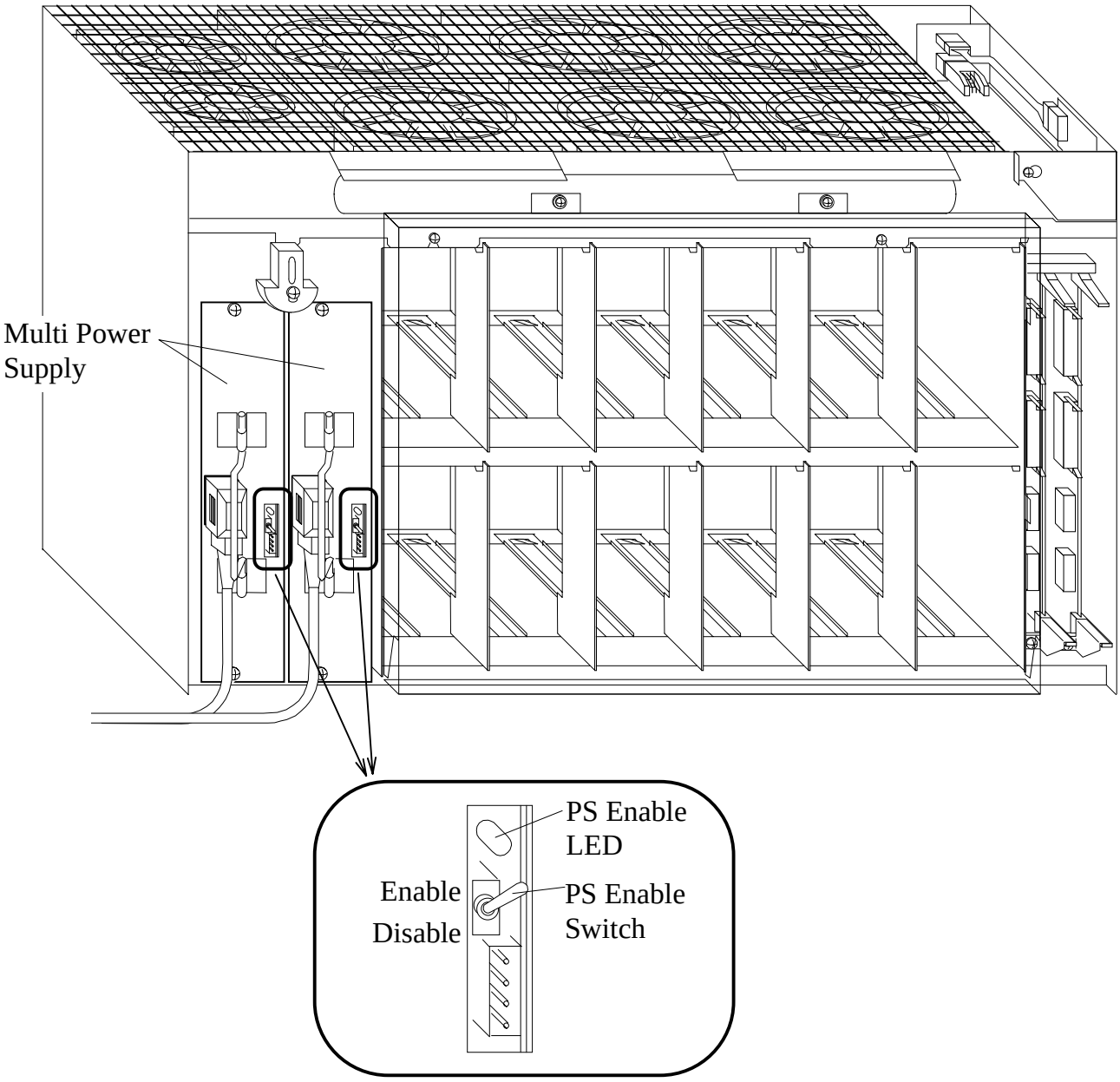
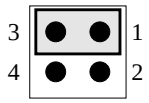
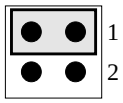
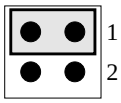
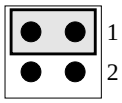
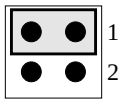
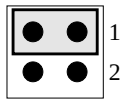
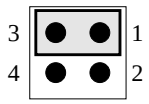
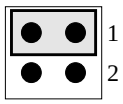
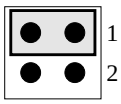
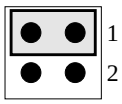
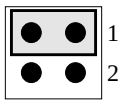
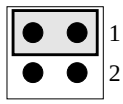


Fig. 3.9.3-12 Setting of the PS Enable Switch on the Multi Power Supply

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12. Installation of the jumper plug on the DKUMN PCB.
    a. Install the jumper plugs for JP02 on the DKUMN PCBs, referring to Fig. 3.9.3-13.

	1	2	3	4	5	6
	DKUMN-R1F	DKUMN-R1R	DKUMN-R2F	DKUMN-R2R	DKUMN-L1F	DKUMN-L1R
	Front	Rear	Front	Rear	Front	Rear
JP02						
	1st DKU		2nd DKU		3rd DKU	

	7	8	9	10	11	12
	DKUMN-L2F	DKUMN-L2R	DKUMN-R3F	DKUMN-R3R	DKUMN-L3F	DKUMN-L3R
	Front	Rear	Front	Rear	Front	Rear
JP02						
	4th DKU		5th DKU		6th DKU	

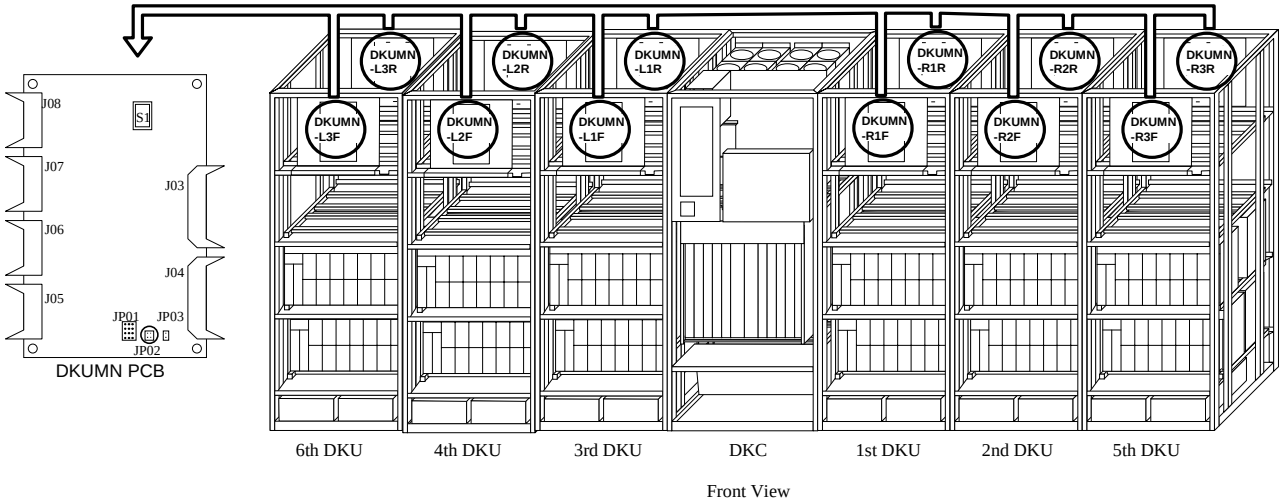


Fig. 3.9.3-13 DKUMN PCB Jumper Plug Positions

13. Check of the PL ID Jumpers
    a. Check the PL ID jumpers on the PL ID PCBs. Refer to step 6 Setting of the PL ID jumper [INST03-1520].
    When the PL ID jumpers are not installed to the correct sockets, install the PL ID jumpers to the correct sockets.

14. Return to General Flow.
    New Installation : Go to INST02-20 step (8)-4.
    Non-Disruptive Installation : Go to INST02-100 step (6)-6.
    Disruptive Installation : Go to INST02-220 step (9)-6.

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3.10 Installation of HDD Canister (DKU-F405I-18J4/18J1/18K4/18K1/36K4/36K1/47J4/47J1/72J4/72J1/72K4/72K1/146J4/146J1/180H4/180H1)

3.10.1 Flowchart

(1) Confirmation of installation position of HDD canister.	[INST03-1580]
↓	
(2) Removal of the acrylic cover.	[INST03-1580]
↓	
(3) Installation of the HDD Canister.	[INST03-1580]
↓	
(4) Attachment of the acrylic cover.	[INST03-1580]
↓	
(5) Attachment of the nameplate.	[INST03-1590]

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3.10.2 Parts List

Table 3.10.2-1 Parts List for HDD Canister

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKU-F405I-18J4	HDU-18J1FC	5502391-A	4	
		Nameplate	2103570-15	1	
			3259627-2	1	
2	DKU-F405I-18J1	HDU-18J1FC	5502391-A	1	
		Nameplate	2103570-14	1	
			3259627-1	1	
3	DKU-F405I-18K4	HDU-18K1FC	5510884-A	4	
		Nameplate	2103570-51	1	
			3259627-19	1	
4	DKU-F405I-18K1	HDU-18K1FC	5510884-A	1	
		Nameplate	2103570-52	1	
			3259627-20	1	
5	DKU-F405I-36K4	HDU-36K1FC	5502398-A	4	
		Nameplate	2103570-63	1	
			3259627-31	1	
6	DKU-F405I-36K1	HDU-36K1FC	5502398-A	1	
		Nameplate	2103570-64	1	
			3259627-32	1	
7	DKU-F405I-47J4	HDU-47J1FC	5502392-A	4	
		Nameplate	2103570-17	1	
			3259627-4	1	
8	DKU-F405I-47J1	HDU-47J1FC	5502392-A	1	
		Nameplate	2103570-16	1	
			3259627-3	1	
9	DKU-F405I-72J4	HDU-72J1FC	5502393-A	4	
		Nameplate	2103570-19	1	
			3259627-6	1	
10	DKU-F405I-72J1	HDU-72J1FC	5502393-A	1	
		Nameplate	2103570-18	1	
			3259627-5	1	
11	DKU-F405I-72K4	HDU-72K1FC	5519913-A	4	
		Nameplate	2103570-69	1	
			—	1	
12	DKU-F405I-72K1	HDU-72K1FC	5519913-A	1	
		Nameplate	2103570-60	1	
			—	1	
13	DKU-F405I-146J4	HDU-146J1FC	5518495-A	4	
		Nameplate	2103570-65	1	
			3259627-33	1	
14	DKU-F405I-146J1	HDU-146J1FC	5518495-A	1	
		Nameplate	2103570-66	1	
			3259627-34	1	
15	DKU-F405I-180H4	HDU-180H1FC	5502397-A	4	
		Nameplate	2103570-57	1	
			3259627-26	1	
16	DKU-F405I-180H1	DKU-180H1FC	5502397-A	1	
		Nameplate	2103570-58	1	
			3259627-25	1	

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3.10.3 Installation Procedure of HDD Canister

1. Installation of the HDD Canister.
   a. Refer to Chapter 1.3 Drive Expansion Sequence (INST01-210 through INST01-230). Confirm a position to install HDD canister.

NOTICE:
The position to be installed in the 2nd or 4th DKU is different from one in the 1st or 3rd DKU. Be sure to set the HDDs in the right position. Wrong setting in the 5th or 6th DKU may cause DKU failure on the same path.

   b. Remove the acrylic cover.
      Process 1 : Disengage two claws at the bottom of the acrylic cover.
      Process 2 : Slide the acrylic cover upward and remove it from the screws on the HDD Box.
   c. Install the HDD canister. (For the detailed procedure for installation, refer to the procedure for installing HDD canister on page INST03-1590.)
   d. Attach the acrylic cover.

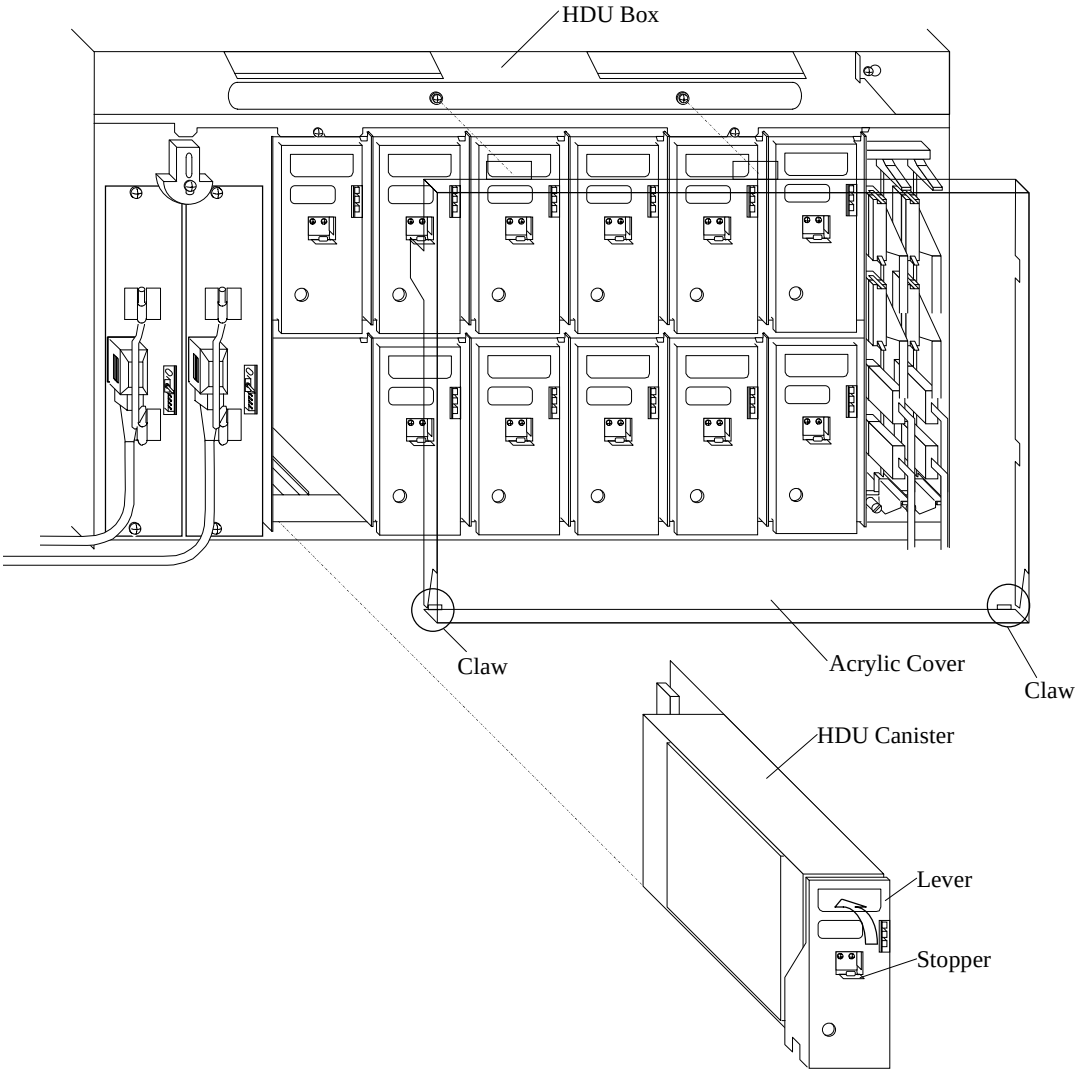


Fig. 3.10.3-1 Installation of HDD Canister

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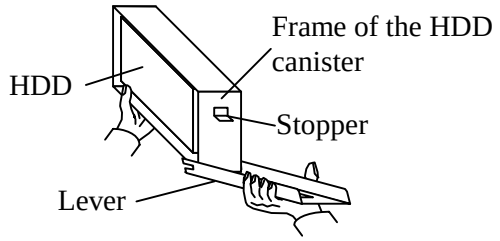
HDD canister install procedure

Note on the installation: Do not insert the HDD canister by pushing its frame.

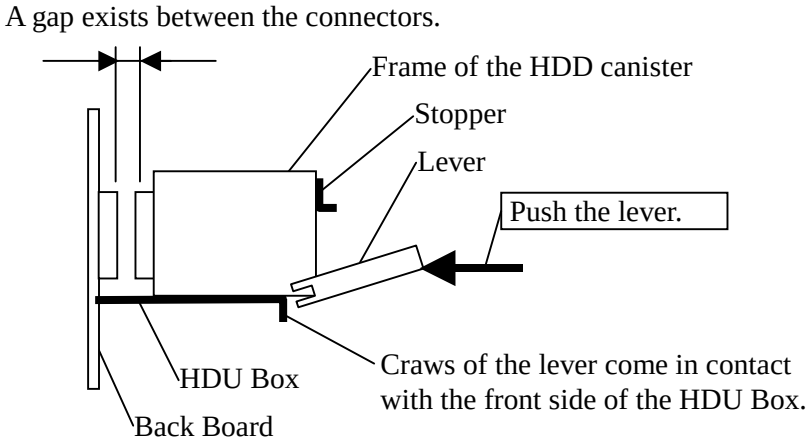
(1) Insert the HDD canister into the HDU Box holding its lever.
(Insert the canister until the claws that are located at the bottom of the lever come in contact with the front side of the HDU Box.)

(2) Turn the lever at a stroke by pushing its top with your thumb.
(Turn the lever until it latches with the stopper. Do not stop the lever on its way of turning.)

Handling of the canister



(1) Insert the HDD canister into the HDU Box holding its lever.



(2) Turn the lever at a stroke by pushing its top with your thumb.
(Do not stop the lever on its way of turning.)

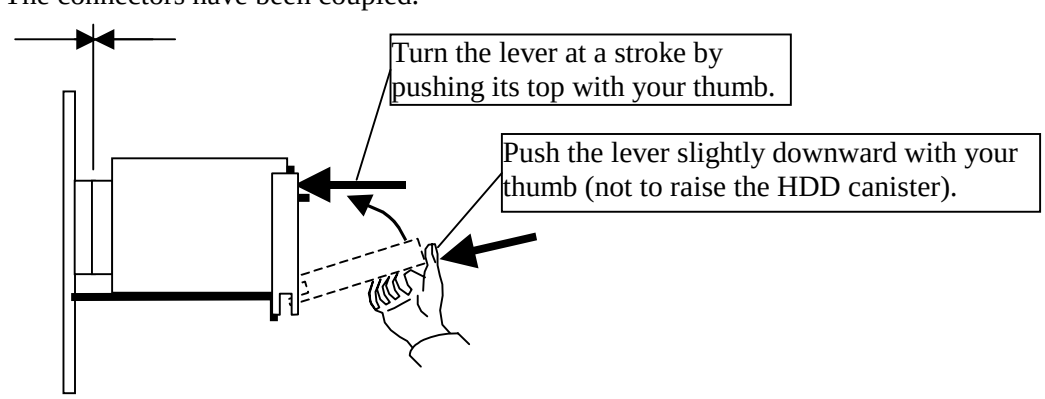


Fig. 3.10.3-1A Method of Installing HDD Canister

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2. Attachment of the nameplate.
   a. Attach the nameplate regardless of the model number and location of the added HDD canister(s) from the left of the air plate. (Fig. 3.10.3-2)

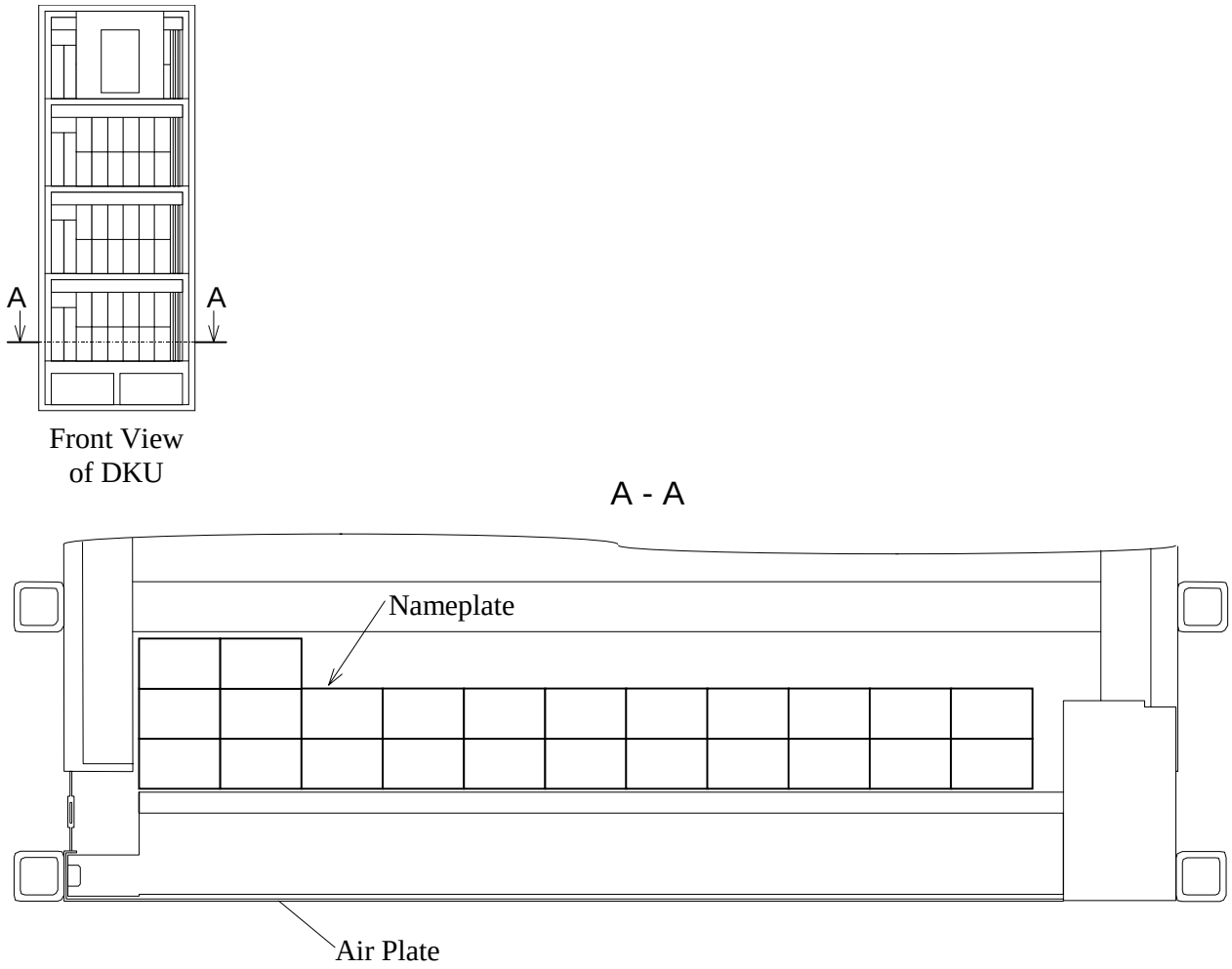


Fig. 3.10.3-2 Attachment of Nameplate

3. Return to General Flow.
   New Installation : Go to INST02-30 step (10).
   Non-Disruptive Installation :
   - If connection of DEV interface cables (2) (DKC-F410I-EXC) Installation, go to INST02-110 step (8)-8.
   - If connection of DEV interface cables (2) (DKC-F410I-EXC) not Installation, go to INST02-110 step (8)-17.

   Disruptive Installation : Go to INST02-230 step (11).

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3.11 Installation of Additional Disk Adapter (DKC-F410I-100)

3.11.1 Parts List

Table 3.11-1 Parts List for Additional Disk Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-100	Disk Adapter PCB	5509136-A	2	
		Nameplate	3257216-2	1	

3.11.2 Flowchart

(1) Insert the PCBs.

↓

(2) Connect the cables.

↓

(3) Attach the nameplate.

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3.11.3 Installation Procedure of Additional Disk Adapter

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.

1. Insertion of the PCBs
   a. Remove the dummy plate installed in the installation location referring to the Fig. 3.11-1. (Note) Dummy plates should be stored for future use in De-installation.
   b. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.11-2.
   c. Fasten the two screws referring to Fig. 3.11-2.

Table 3.11-2 Inserting Location (Rear of the unit)

Cluster	CL2							CL1				
Slot No.	M	L	K	J	H	G	F	E	D	C	B	A
Function	CSW	DKA	DKA	DKA	DKA	CACHE	CACHE	DKA	DKA	DKA	DKA	CSW
Location No.	CSW -2M	DKA -2L	DKA -2K	DKA -2J	DKA -2H	CACHE -2G	CACHE -2F	DKA -1E	DKA -1D	DKA -1C	DKA -1B	CSW -1A
Order of addition		Add.3	Add.2	Add.1	Basic			Add.3	Add.2	Add.1	Basic	

Up to 4 disk adapters can be installed in the subsystem.

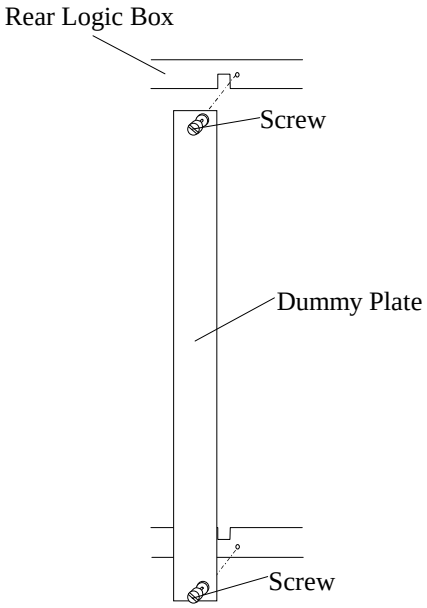


Fig. 3.11-1 Removal of Dummy Plate

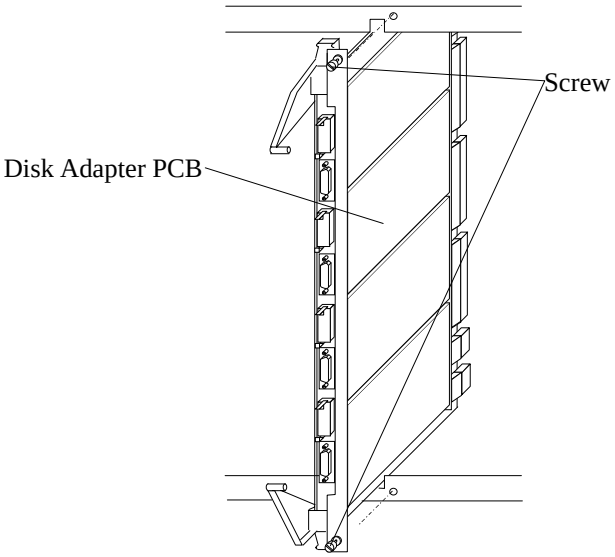


Fig. 3.11-2 Insertion of PCB

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2. Connection of cables

In case of Add.1

a. Loosen the three screws and remove the cable cover.
b. Insert the cables into the cable clamp.
c. Remove the connector covers from each connector of the DEV interface cables and connect the cable to the sub-edge of PCB. (Refer to Fig. 3.11-3.)
d. Attach the cable cover with the three screws.

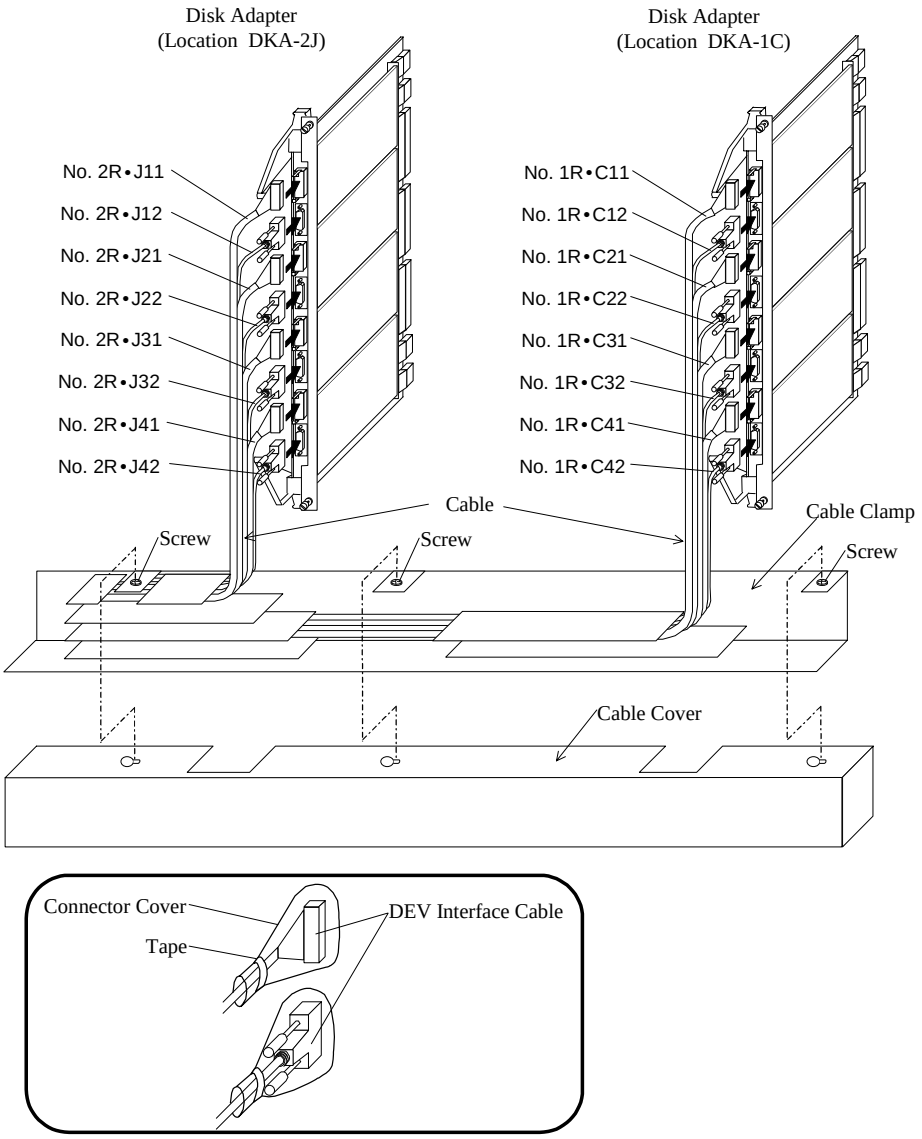


Fig.3.11-3 Connection of cable (Add.1)

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In case of Add.2

a. Loosen the three screws and remove the cable cover.
b. Insert the cables into the cable clamp.
c. Remove the connector covers from each connector of the DEV interface cables and connect the cable to the sub-edge of PCB. (Refer to Fig. 3.11-4.)
d. Attach the cable cover with the three screws.

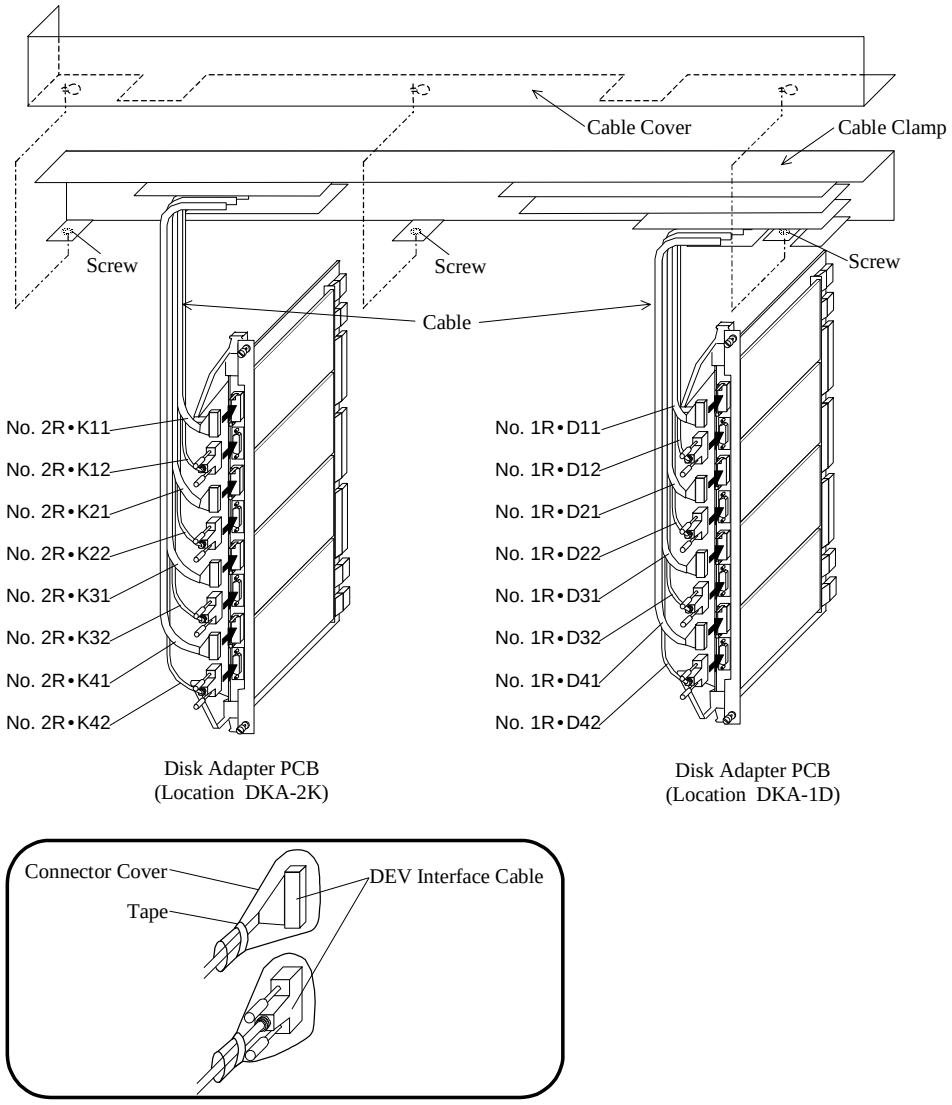


Fig.3.11-4 Connection of cable (Add.2)

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In case of Add.3

a. Loosen the three screws and remove the cable cover.
b. Insert the cables into the cable clamp.
c. Remove the connector covers from each connector of the DEV interface cables and connect the cable to the sub-edge of PCB. (Refer to Fig. 3.11-5.)
d. Attach the cable cover with the three screws.

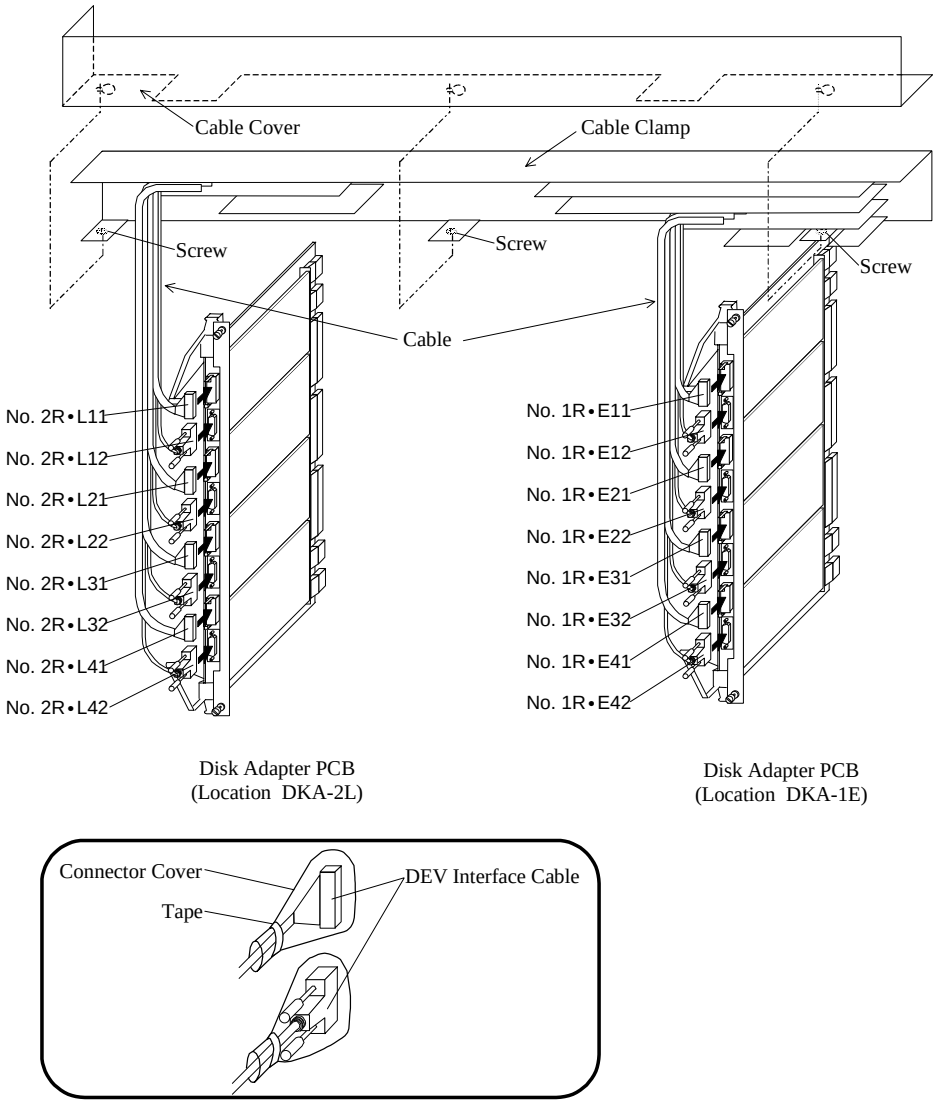


Fig.3.11-5 Connection of cable (Add.3)

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3. Attachment of the nameplate
   a. Attach the nameplate referring to Fig. 3.11-6.

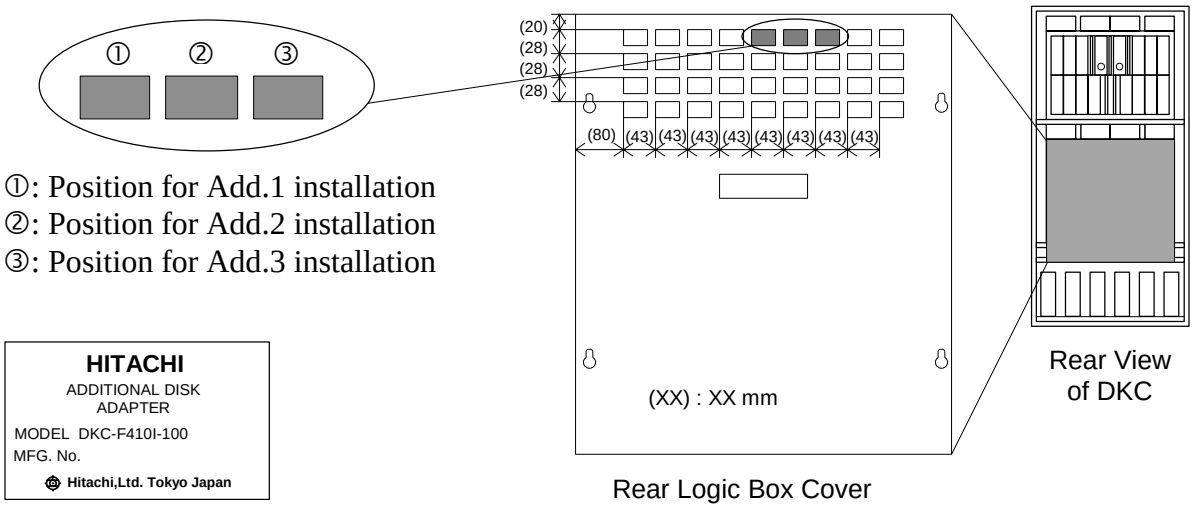


Fig. 3.11-6 Attachment of Nameplate

4. Return to General Flow.
   New Installation: Go to INST02-20 step (7).
   Non-disruptive Installation: Go to INST02-100 step (7)-5.
   Disruptive Installation: Go to INST02-210 step (6).

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3.12 Connection of DEV Interface Cables

3.12.1 Connection of DEV Interface Cable 0 (DKC-F410I-R1C)

3.12.1.1 Flowchart

1. Connection Procedure of DEV Interface Cables between DKC and First DKU (HDU-R14-R17) Frames

1 Attachment of the DEV Interface Cables (Before attachment of HDD Boxes (DKU-F405I-B4)) [INST03-1670]

(1) Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover.

↓

(2) Loosen the screws and open the cable covers.

(3) Route the eight DEV interface cables from the front to the rear of the disk controller.

2 Connection of the DEV Interface Cables (After attachment of HDD Boxes (DKU-F405I-B4)) [INST03-1690]

(1) Connect the DEV interface cables to the sub-edges on the disk adapter PCBs, that are installed in locations Nos. C and J in the Rear Logic Box.

↓

(2) Loosen the screws and remove the cable covers ① and ②.

↓

(3) Loosen the screws and remove the side plates.

↓

(4) Pull out the DEV interface cable to the DKU side and connect it to the cable duct at the lower front of the HDU box.

↓

(5) Attach the side plates and fasten the screws.

↓

(6) Connect the DEV interface cables to the sub-edges on the FSW PCBs in the HDU box.

↓

(7) Attach the cable covers with the screws.

↓

(8) Attach the nameplate of DKC-F410I-R1C.

↓

(9) Close the cable covers and fasten the screws.

↓

(10) Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

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3.12.1.2 Parts List

Table 3.12.1.2-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F410I-R1C	DEV Interface Cable	5509146-J	1	1R•C11/C12 - 4R•P501/P503
		DEV Interface Cable	5509146-K	1	1R•C21/C22 - 5R•P501/P503
		DEV Interface Cable	5509146-L	1	1R•C31/C32 - 6R•P501/P503
		DEV Interface Cable	5509146-M	1	1R•C41/C42 - 7R•P501/P503
		DEV Interface Cable	5509146-N	1	2R•J11/J12 - 4L•P501/P503
		DEV Interface Cable	5509146-P	1	2R•J21/J22 - 5L•P501/P503
		DEV Interface Cable	5509146-Q	1	2R•J31/J32 - 6L•P501/P503
		DEV Interface Cable	5509146-R	1	2R•J41/J42 - 7L•P501/P503
		Nameplate	3257216-34	1	

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3.12.1.3 Connection Procedure of DEV Interface Cable 0 (In case of HDU-R17 from R14)

1. Attachment of the DEV Interface Cables (Before attachment of HDD Boxes (DKU-F405I-B4))
   a. Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover. Refer to INST03-20 through 03-30.
   b. Remove the screws and open the cable covers.

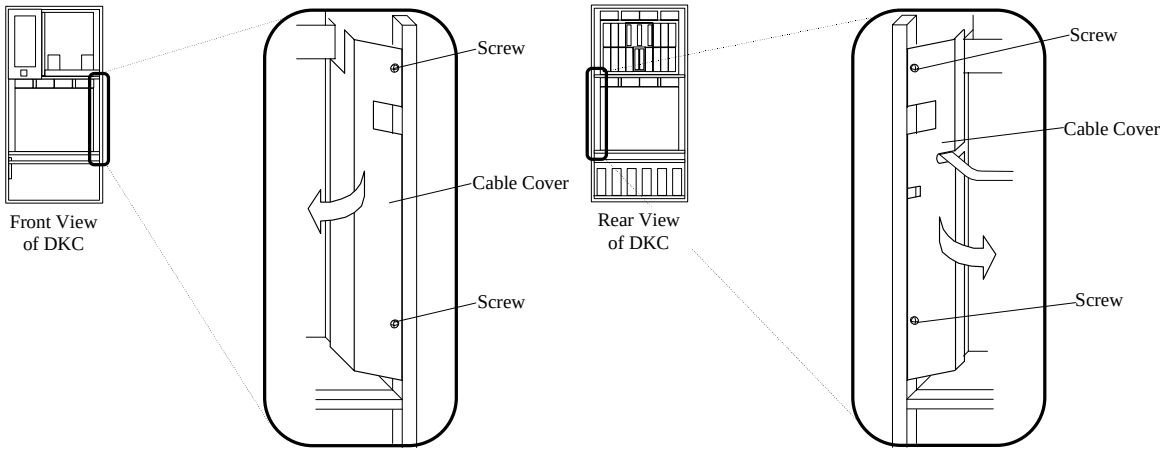


Fig. 3.12.1.3-1 How to open the Covers

   c. Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
   If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.

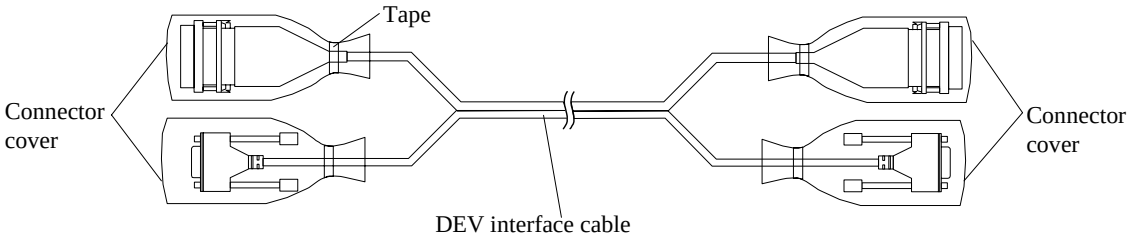


Fig. 3.12.1.3-1A Checking the Connector Covers

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d. Refer to Fig. 3.12.1.3-2. Route the eight DEV interface cables listed in Table 3.12.1.3-1 from the front to the rear of the disk controller.

Table 3.12.1.3-1 Parts List for Additional DEV Interface Cable

No.	Connector No.		Parts No.
	Source	Destination	
1	1R▪C11	4R▪P501	5509146-J
2	1R▪C12	4R▪P503	
3	1R▪C21	5R▪P501	5509146-K
4	1R▪C22	5R▪P503	
5	2R▪J11	4L▪P501	5509146-N
6	2R▪J12	4L▪P503	
7	2R▪J21	5L▪P501	5509146-P
8	2R▪J22	5L▪P503	

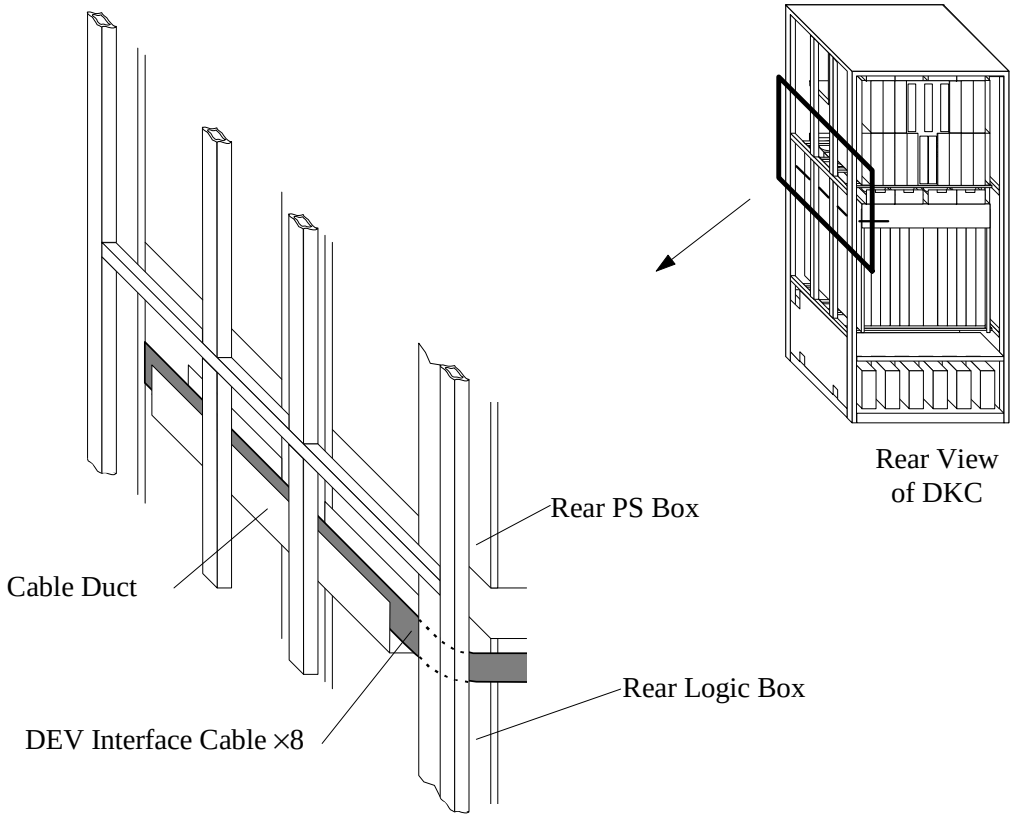


Fig. 3.12.1.3-2 Attachment of DEV Interface Cable

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2. Connection of the DEV Interface Cables (After attachment of HDD Boxes (DKU-F405I-B4))
   a. Loosen the three screws and remove the cable cover. Insert the cables into the cable clamp. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the sub-edges on the disk adapter PCBs, that are installed in locations Nos. C and J in the Rear Logic Box. Attach the cable cover with the three screws.

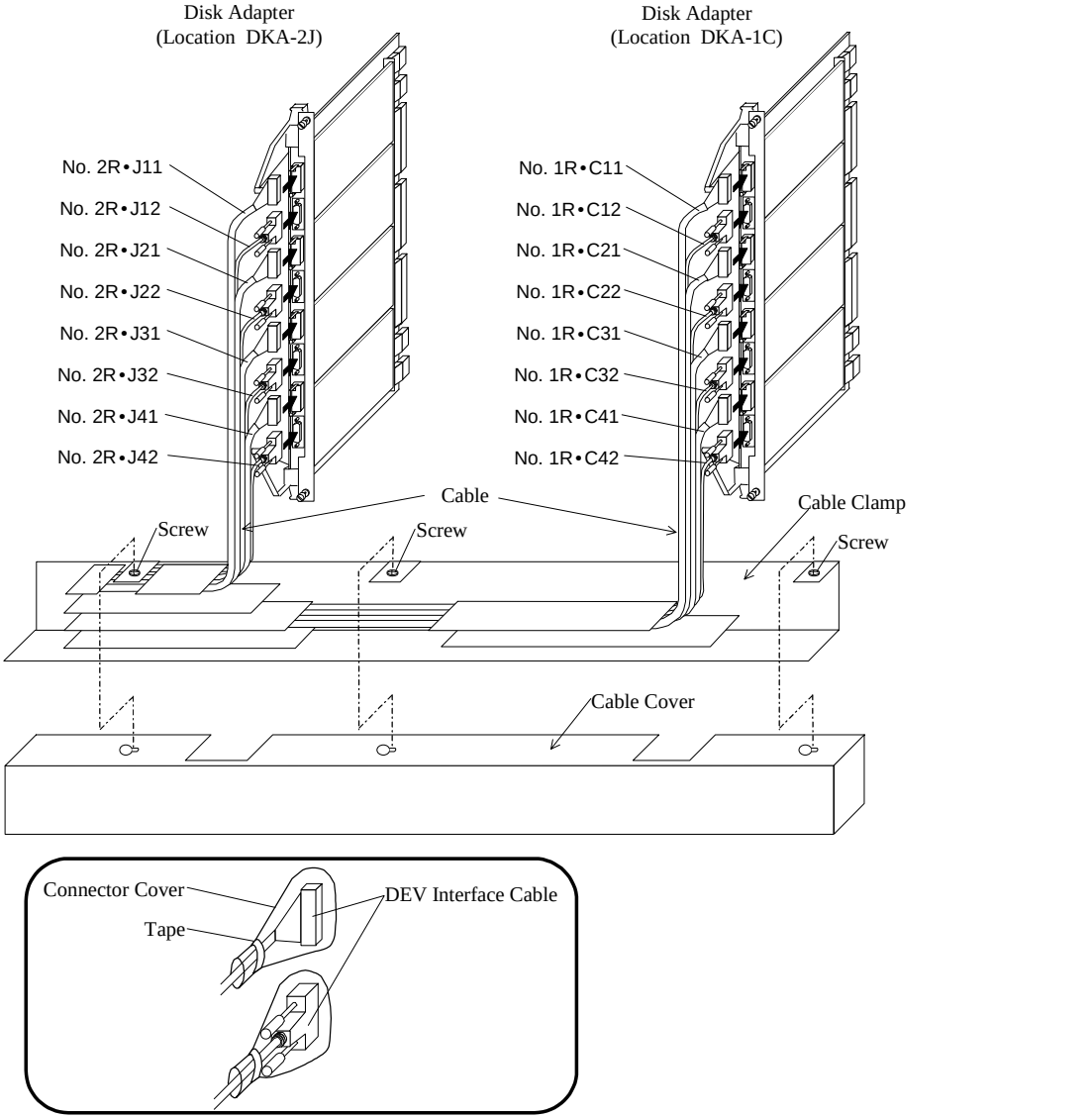


Fig. 3.12.1.3-3 DEV Interface Cabling Diagram (Disk Adapter PCB Side)

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b. Loosen the screws and remove the cable covers ① and ②.

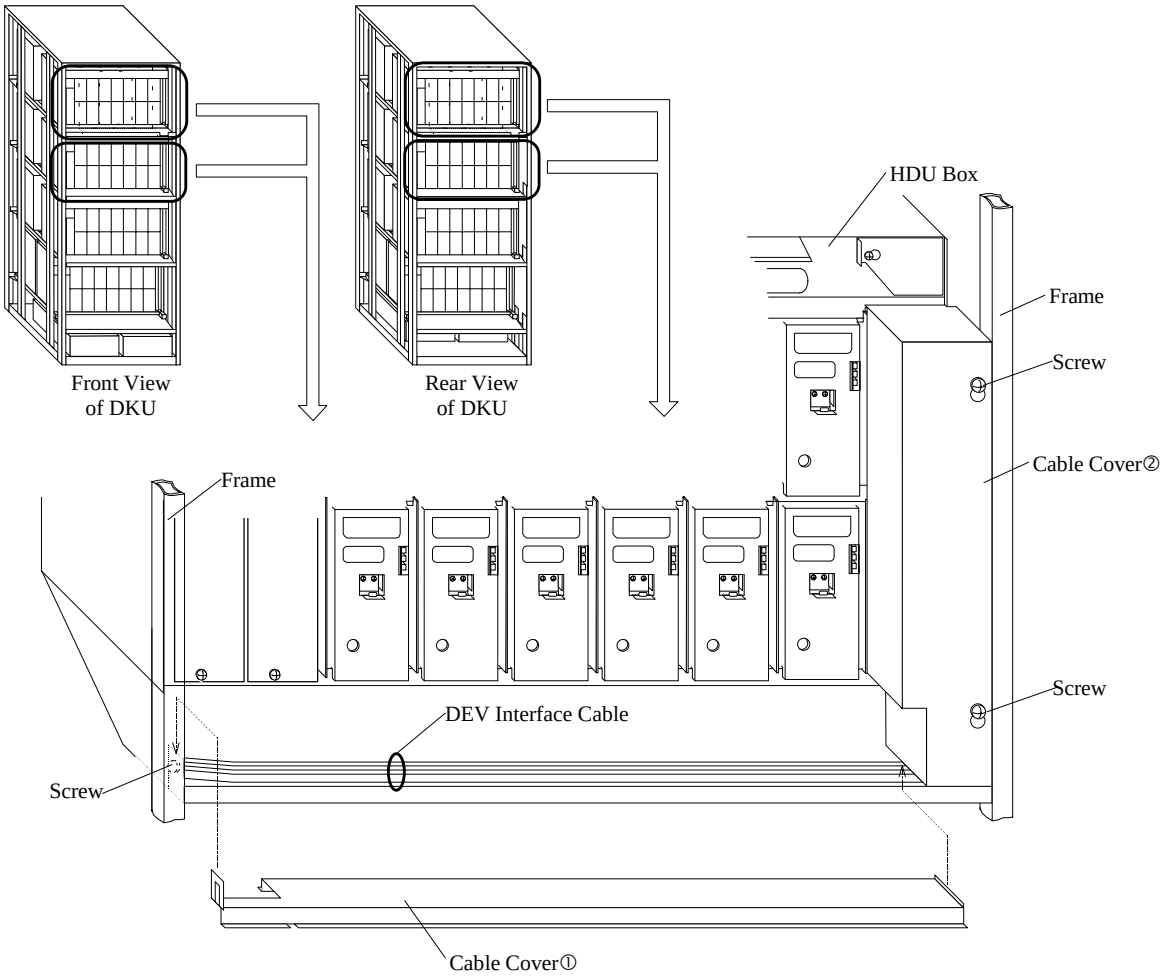


Fig. 3.12.1.3-4 Removal of Cable Covers

c. Loosen the screws and remove the side plates.

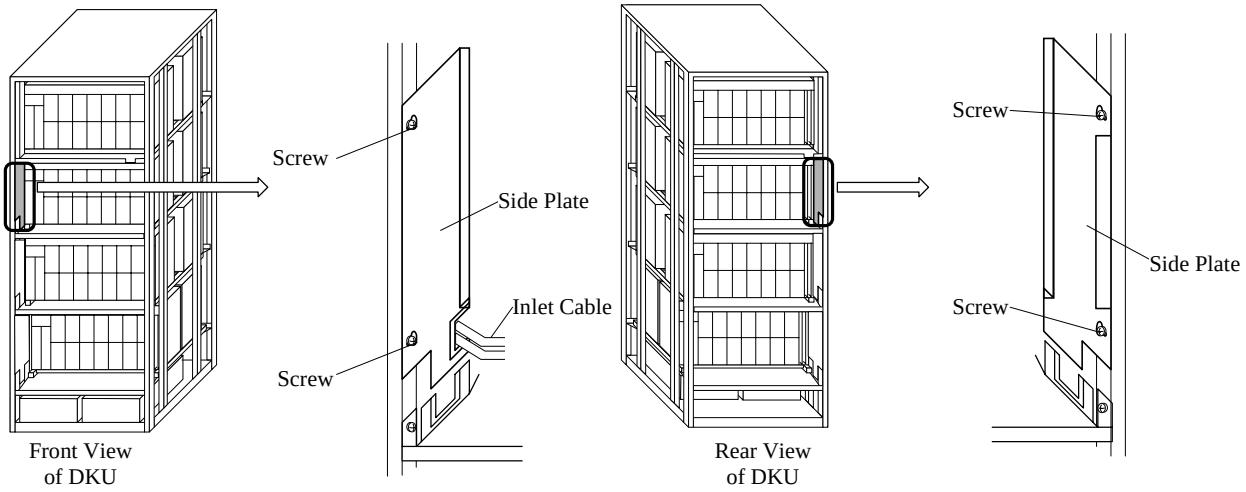


Fig. 3.12.1.3-5 Removal of Side Plates

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d. Pull out the DEV interface cable to the DKU side and connect it to the cable duct at the lower front of the HDU box.

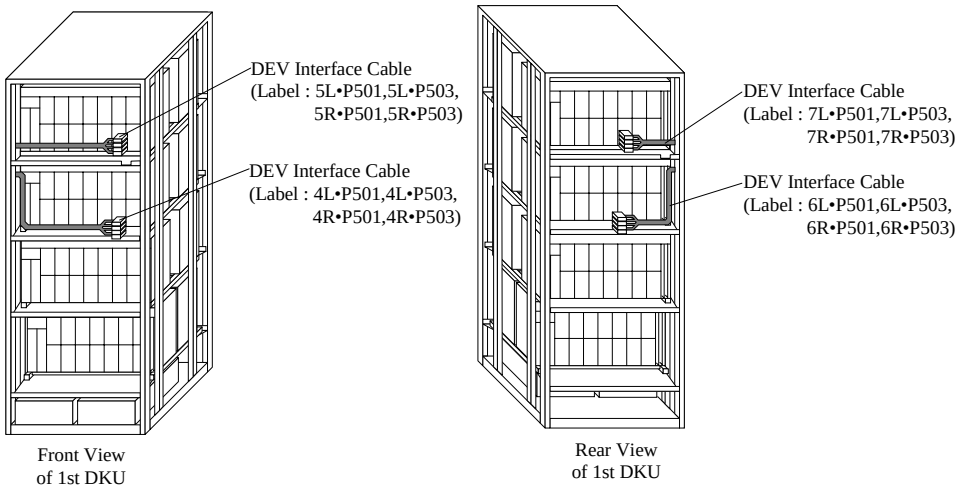


Fig. 3.12.1.3-6 Routing of DEV Interface Cables

e. Attach the side plates and fasten the screws.

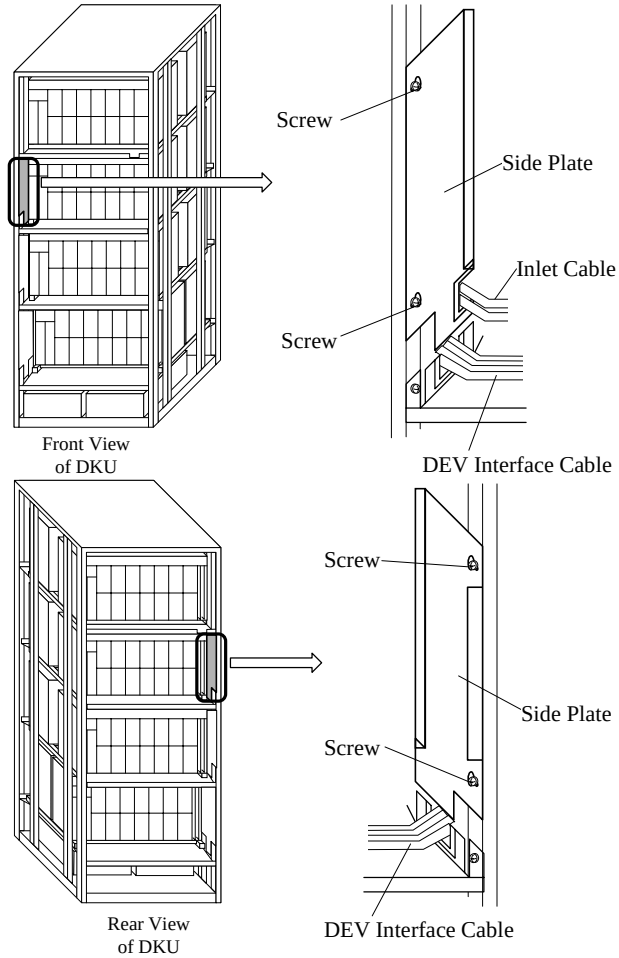


Fig. 3.12.1.3-7 Attachment of Side Plates

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f. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the sub-edges on the FSW PCBs in the HDU box.

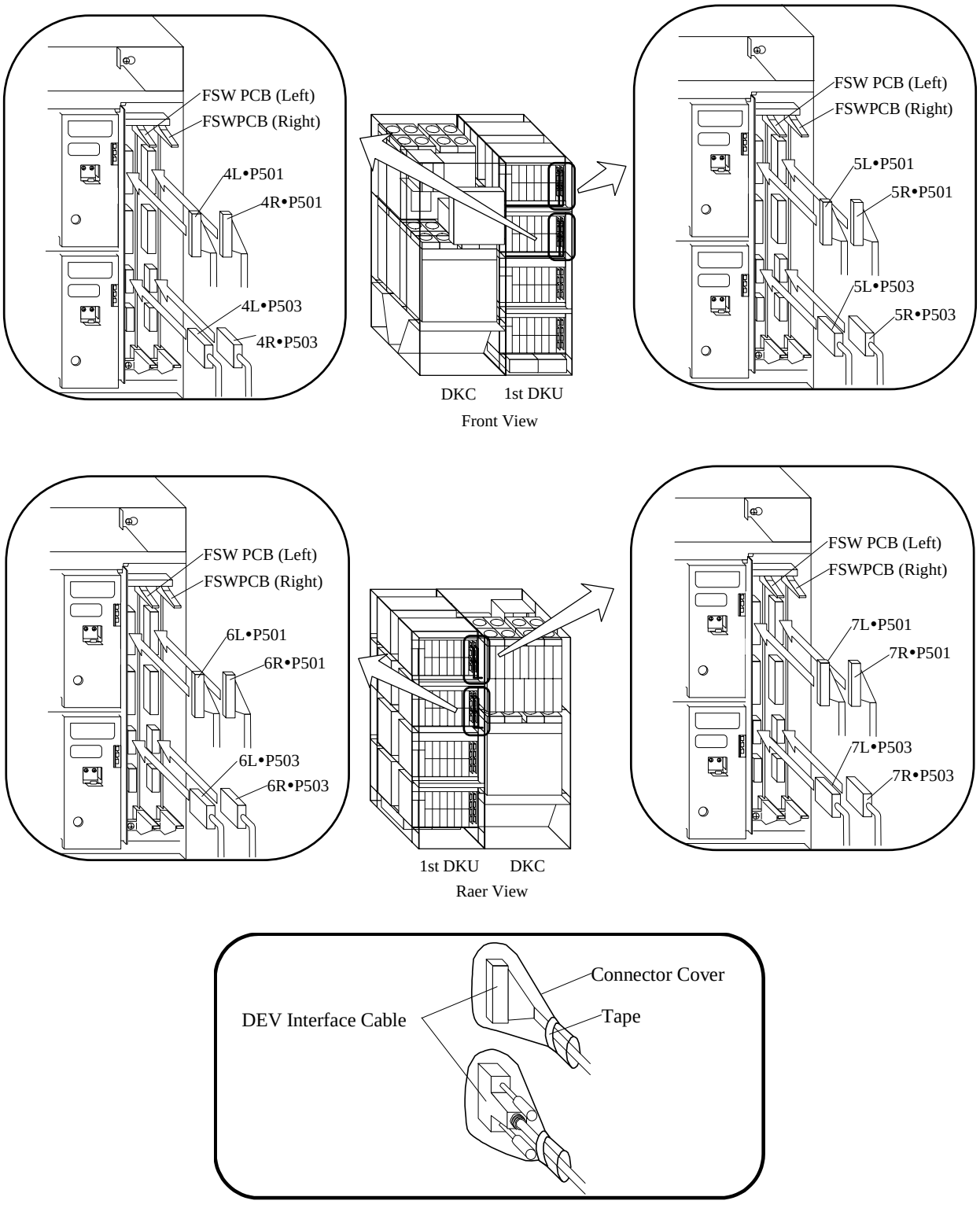


Fig. 3.12.1.3-8 DEV Interface Cabling Diagram (FSW PCB Side)

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g. Attach the cable covers with the screws referring to Fig. 3.12.1.3-4.
h. Attach the nameplate of DKC-F410I-R1C.

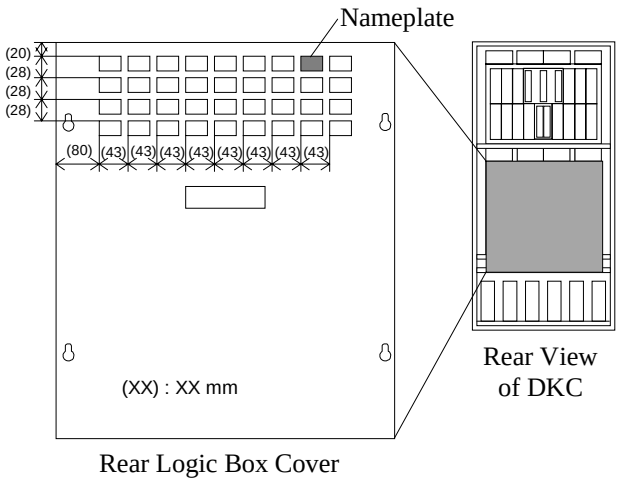


Fig. 3.12.1.3-9 Attachment of Nameplate

i. Close the cable covers and fasten the screws.
j. Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

3. Return to General Flow.
New Installation : Go to INST02-20 step (8)-5.
Non-Disruptive Installation : Go to INST02-100 step (7)-6.
Disruptive Installation : Go to INST02-220 step (9)-8.

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3.12.2 Connection of DEV Interface Cable 1 (DKC-F410I-L1C)

3.12.2.1 Flowchart

1. Connection Procedure of DEV Interface Cables between DKC and Third DKU (HDU-L10-L13) Frames

1 Attachment of the DEV Interface Cables (Before attachment of Third DKU (DKU405I-14)) [INST03-1760]

(1) Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover.

↓

(2) Loosen the screws and open the cable covers.

↓

(3) Route the eight DEV interface cables from the front to the rear of the disk controller.

2 Connection of the DEV Interface Cables (After attachment of Third DKU (DKU405I-14)) [INST03-1780]

(1) Connect the DEV interface cables to the sub-edges on the disk adapter PCBs, that are installed in locations Nos. D and K in the Rear Logic Box.

↓

(2) Loosen the screws and remove the cable covers ① and ②.

↓

(3) Loosen the screws and remove the side plates.

↓

(4) Pull out the DEV interface cable to the DKU side and connect it to the cable duct at the lower front of the HDU box.

↓

(5) Attach the side plates and fasten the screws.

↓

(6) Connect the DEV interface cables to the sub-edges on the FSW PCBs in the HDU box.

↓

(7) Attach the cable covers with the screws.

↓

(8) Secure the remaining 16 DEV Interface cables inside the Third Disk Unit with the tie wraps.

↓

(9) Attach the nameplate.

↓

(10) Close the cable covers and fasten the screws.

↓

(11) Replace the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

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2. Connection Procedure of DEV Interface Cables between DKC and Third DKU (HDU-L14-L17) Frames

1 Attachment of the DEV Interface Cables (Before attachment of HDD Boxes (DKU-F405I-B4)) [INST03-1830]

(1) Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover.

↓

(2) Loosen the screws and open the cable covers.

↓

(3) Route the eight DEV interface cables from the front to the rear of the disk controller.

2 Connection of the DEV Interface Cables (After attachment of HDD Boxes (DKU-F405I-B4)) [INST03-1850]

(1) Connect the DEV interface cables to the sub-edges on the disk adapter PCBs, that are installed in locations Nos. E and L in the Rear Logic Box.

↓

(2) Loosen the screws and remove the cable covers ① and ②.

↓

(3) Loosen the screws and remove the side plates.

↓

(4) Pull out the DEV interface cable to the DKU side and connect it to the cable duct at the lower front of the HDU box.

↓

(5) Attach the side plates and fasten the screws.

↓

(6) Connect the DEV interface cables to the sub-edges on the FSW PCBs in the HDU box.

↓

(7) Attach the cable covers with the screws.

↓

(8) Close the cable covers and fasten the screws.

↓

(9) Replace the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

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3.12.2.2 Parts List

Table 3.12.2.2-1 Parts List

No.	Model Number	Parts Name	Parts No. (Spare Parts No.)	Quantity	Remarks
1	DKC-F410I-L1C	DEV Interface Cable	5509233-A	1	1R•D11/12 - 0R•P501/503
		DEV Interface Cable	5509233-B	1	1R•D21/22 - 1R•P501/503
		DEV Interface Cable	5509233-C	1	1R•D31/32 - 2R•P501/503
		DEV Interface Cable	5509233-D	1	1R•D41/42 - 3R•P501/503
		DEV Interface Cable	5509233-E	1	2R•K11/12 - 0L•P501/503
		DEV Interface Cable	5509233-F	1	2R•K21/22 - 1L•P501/503
		DEV Interface Cable	5509233-G	1	2R•K31/32 - 2L•P501/503
		DEV Interface Cable	5509233-H	1	2R•K41/42 - 3L•P501/503
		DEV Interface Cable	5509233-J	1	1R•E11/12 - 4R•P501/503
		DEV Interface Cable	5509233-K	1	1R•E21/22 - 5R•P501/503
		DEV Interface Cable	5509233-L	1	1R•E31/32 - 6R•P501/503
		DEV Interface Cable	5509233-M	1	1R•E41/42 - 7R•P501/503
		DEV Interface Cable	5509233-N	1	2R•L11/12 - 4L•P501/503
		DEV Interface Cable	5509233-P	1	2R•L21/22 - 5L•P501/503
		DEV Interface Cable	5509233-Q	1	2R•L31/32 - 6L•P501/503
		DEV Interface Cable	5509233-R	1	2R•L41/42 - 7L•P501/503
		Nameplate	3257216-35	1	

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3.12.2.3 Connection Procedure of DEV Interface Cable 1 (In case of HDU-L13 from L10)

1. Attachment of the DEV Interface Cables (Before attachment of Third DKU(DKU405I-14))
   a. Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover. Refer to INST03-20 through 03-30.
   b. Remove the screws and open the cable covers.

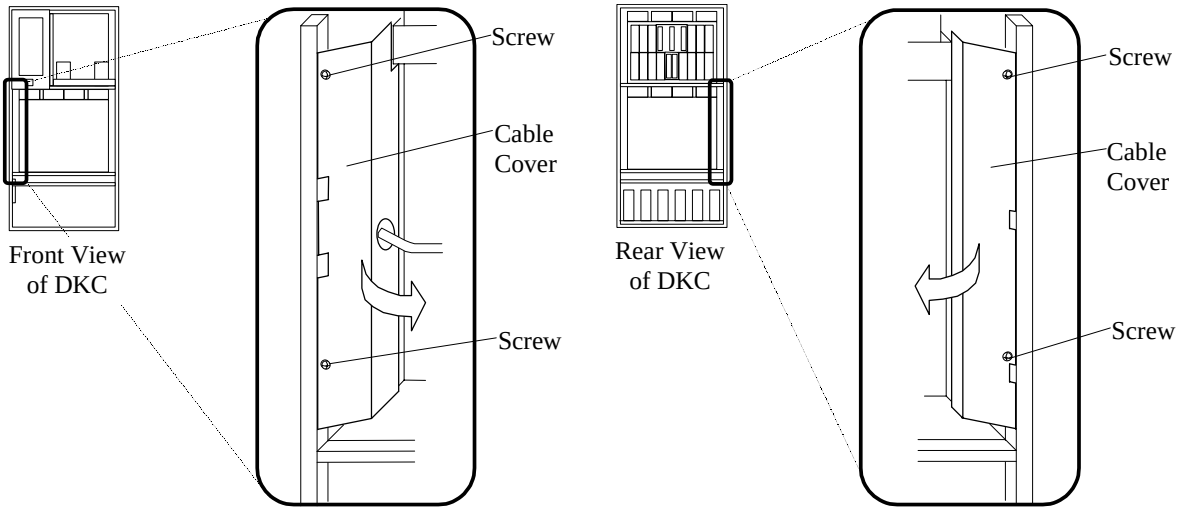


Fig. 3.12.2.3-1 How to open the Covers

   c. Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
   If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.

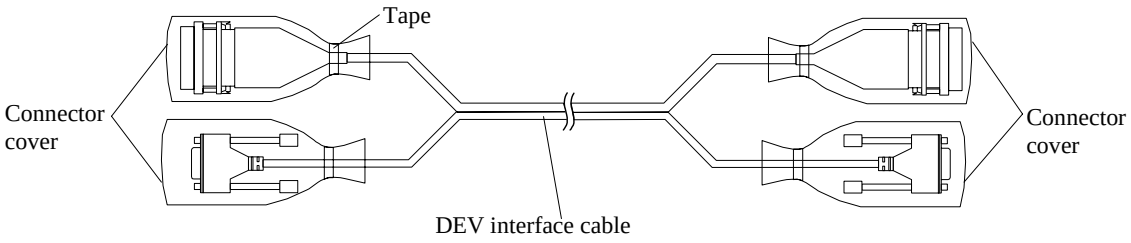


Fig. 3.12.2.3-1A Checking the Connector Covers.

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d. Refer to Fig. 3.12.2.3-2. Route the eight DEV interface cables listed in Table 3.12.2.3-1 from the front to the rear of the disk controller.

Table 3.12.2.3-1 Parts List for Additional DEV Interface Cable

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•D11	0R•P501	5509233-A
2	1R•D12	0R•P503	
3	1R•D21	1R•P501	5509233-B
4	1R•D22	1R•P503	
5	2R•K11	0L•P501	5509233-E
6	2R•K12	0L•P503	
7	2R•K21	1L•P501	5509233-F
8	2R•K22	1L•P503	

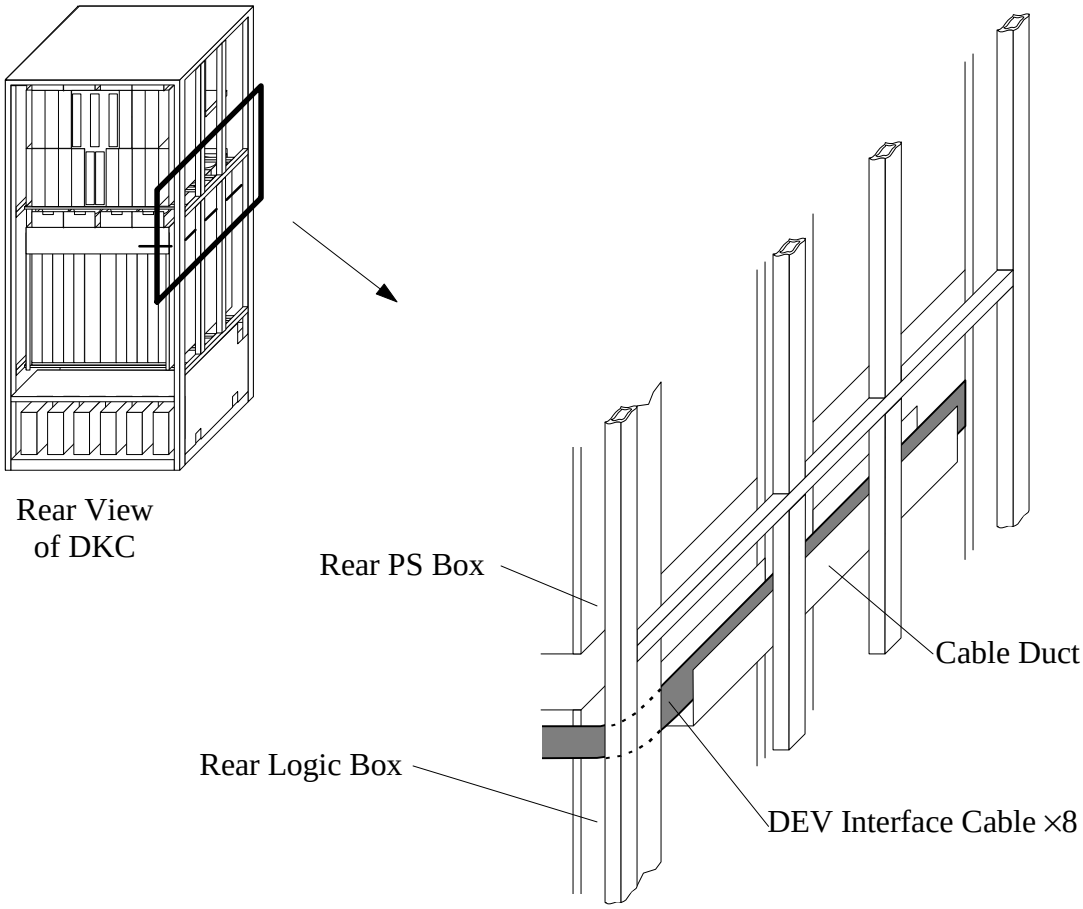


Fig. 3.12.2.3-2 Attachment of DEV Interface Cable

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2. Connection of the DEV Interface Cables (After attachment of Third DKU(DKU405I-14))
   a. Loosen the three screws and remove the cable cover. Insert the cables into the cable clamp. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the sub-edges on the disk adapter PCBs, that are installed in locations Nos. D and K in the Rear Logic Box. Attach the cable cover with the three screws.

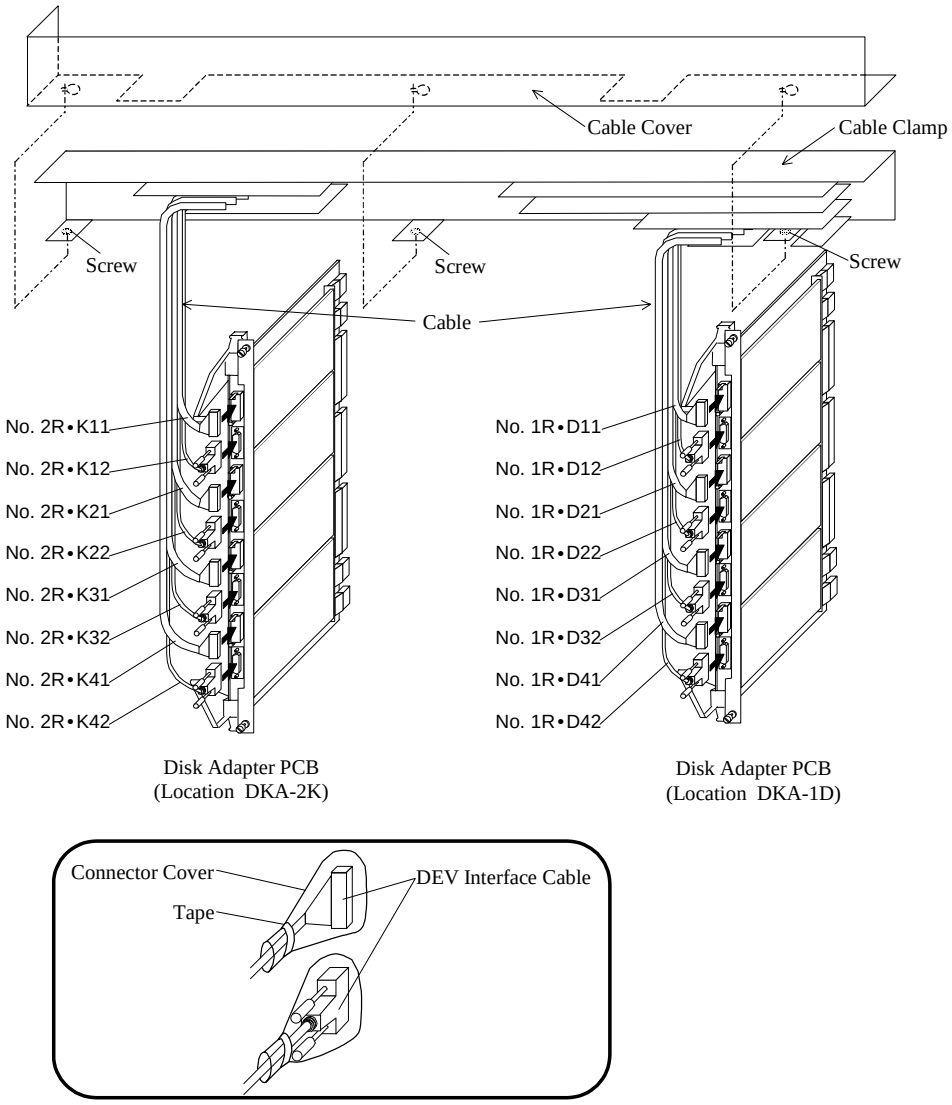


Fig. 3.12.2.3-3 DEV Interface Cabling Diagram (Disk Adapter PCB Side)

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b. Loosen the screws and remove the cable covers ① and ②.

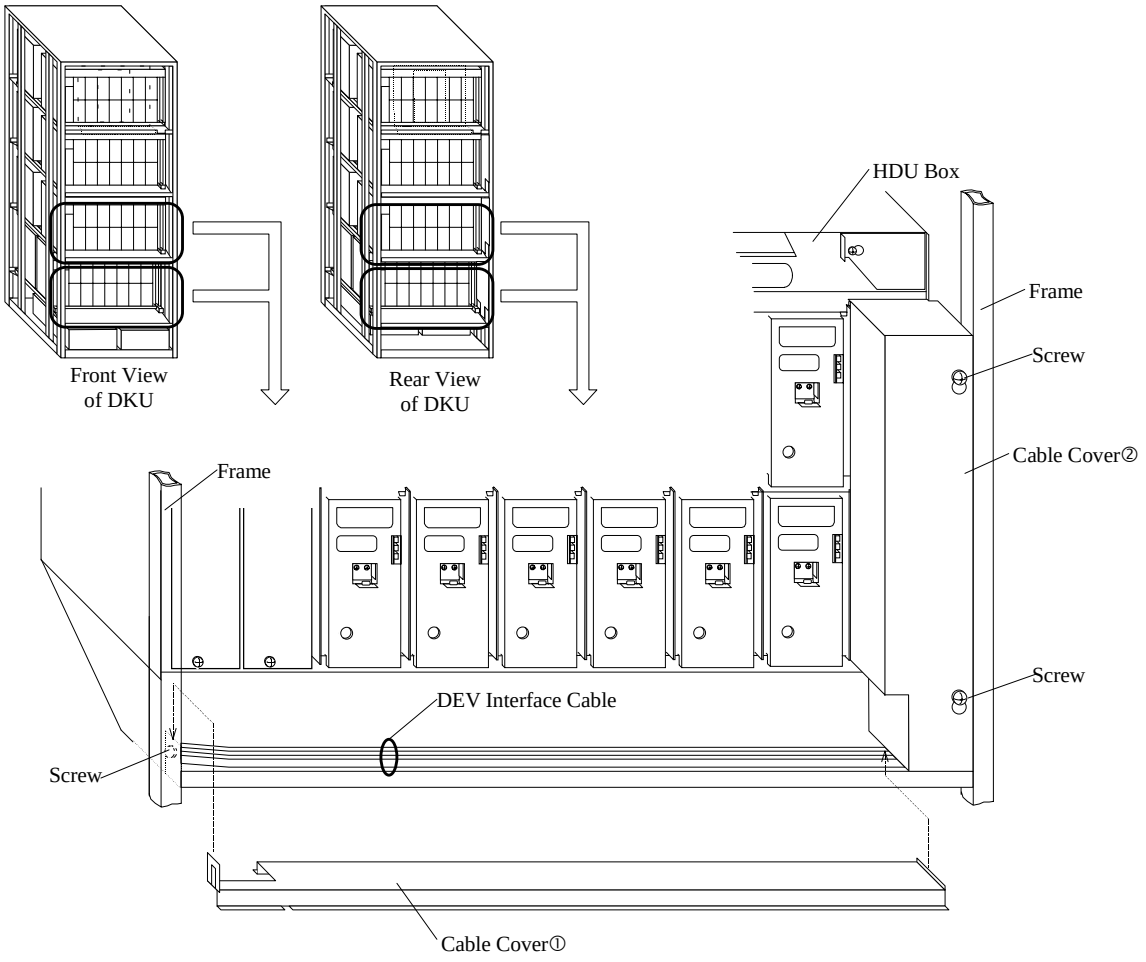


Fig. 3.12.2.3-4 Removal of Cable Covers

c. Loosen the screws and remove the side plates.

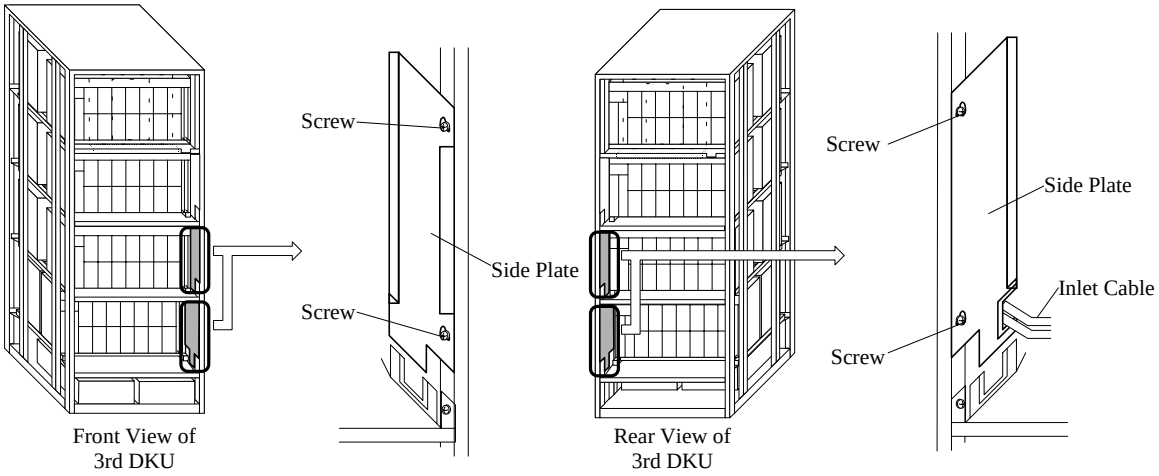


Fig. 3.12.2.3-5 Removal of Side Plates

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d. Pull out the DEV interface cable to the DKU side and connect it to the cable duct at the lower front of the HDU box.

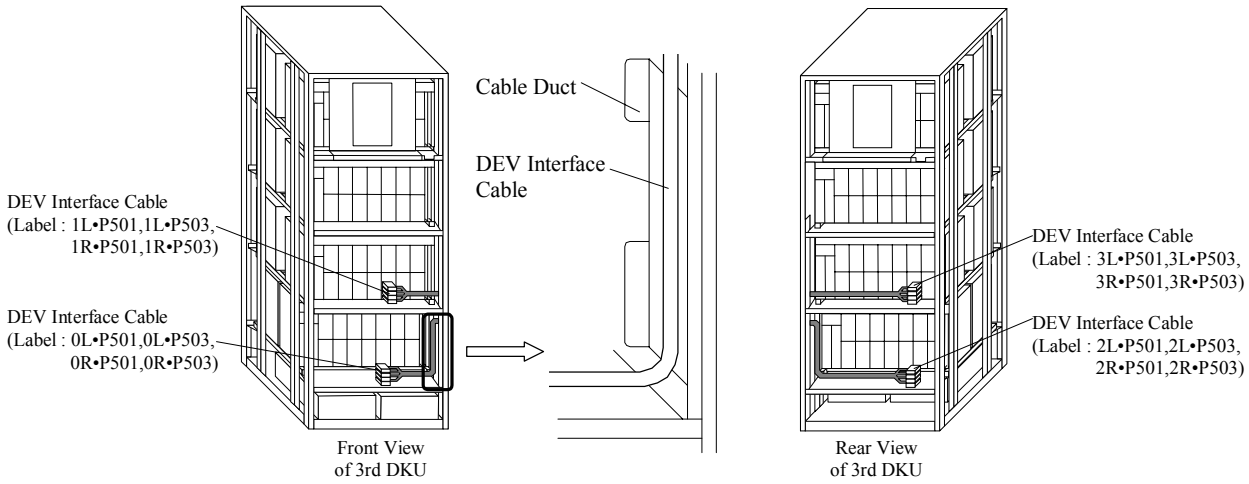


Fig. 3.12.2.3-6 Routing of DEV Interface Cables

e. Attach the side plates and fasten the screws.

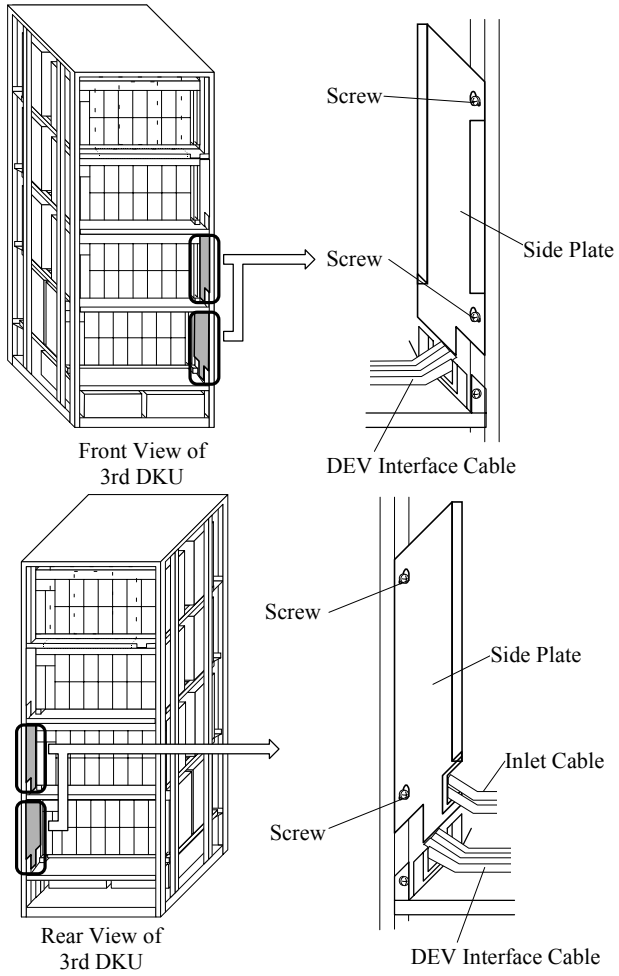


Fig. 3.12.2.3-7 Attachment of Side Plates

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f. Refer to Fig. 3.12.2.3-8. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the sub-edges on the FSW PCBs in the HDU box.

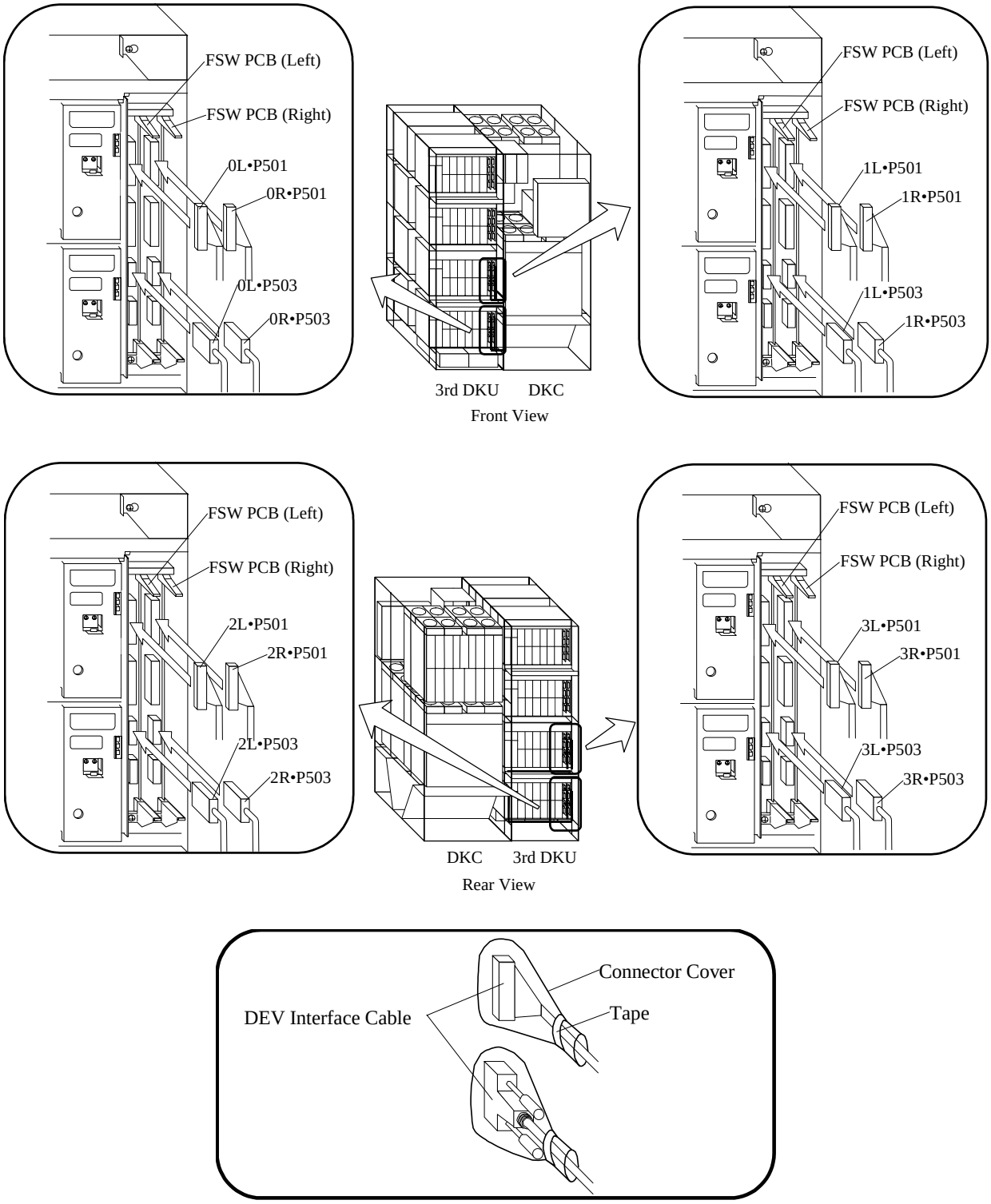


Fig. 3.12.2.3-8 DEV Interface Cabling Diagram (FSW PCB Side)

g. Attach the cable covers with the screws. Refer to Fig. 3.12.2.3-4.

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h. When assembling the Third Disk Unit in the 4-HDU configuration, secure the remaining 16 DEV interface cables inside the Third Disk Unit with the tie wraps. Refer to Fig. 3.12.2.3-9. When assembling the Third Disk Unit in the 8-HDU configuration, refer to INST03-1850 through 1880.

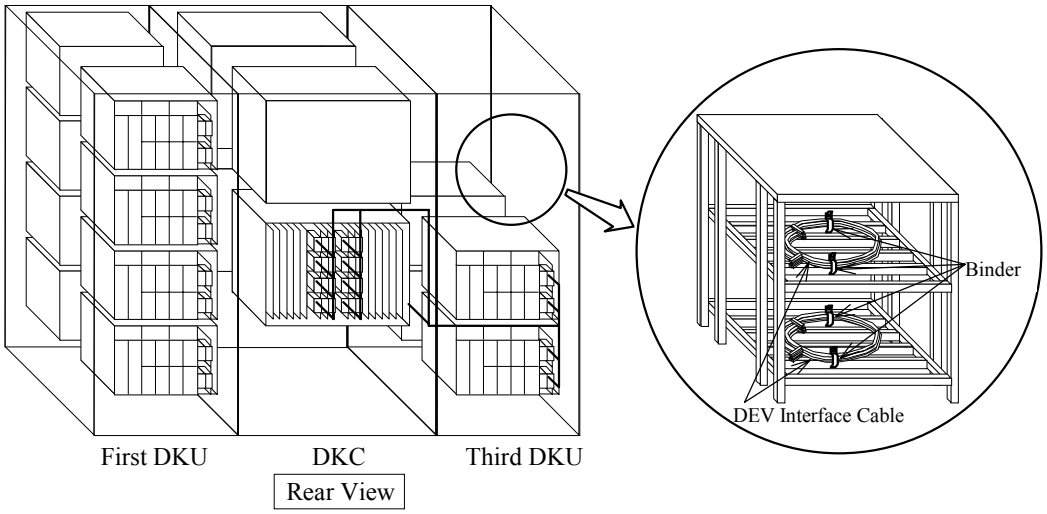


Fig. 3.12.2.3-9 Fixing of DEV Interface Cables

i. Refer to Fig. 3.12.2.3-10 Attach the nameplate.

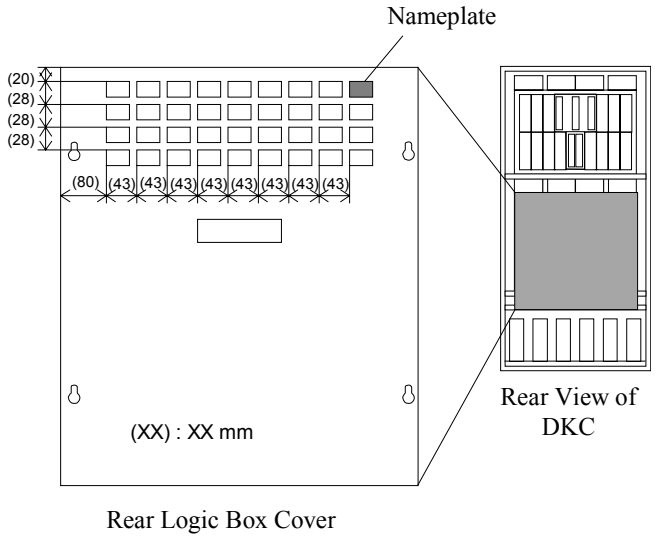


Fig. 3.12.2.3-10 Attachment of Nameplate

j. Close the cable covers and fasten the screws.
k. Replace the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

3. Return to General Flow.
New Installation : Go to INST02-20 step (7)-5.
Non-Disruptive Installation : Go to INST02-100 step (7)-4.
Disruptive Installation : Go to INST02-210 step (8)-6.

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3.12.2.4 Connection Procedure of DEV Interface Cable 1 (In case of HDU-L17 from L14)

1. Attachment of the DEV Interface Cables (Before attachment of HDU Boxes (DKU-F405I-B4))
   a. Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover. Refer to INST03-20 through 03-30.
   b. Remove the screws and open the cable covers.

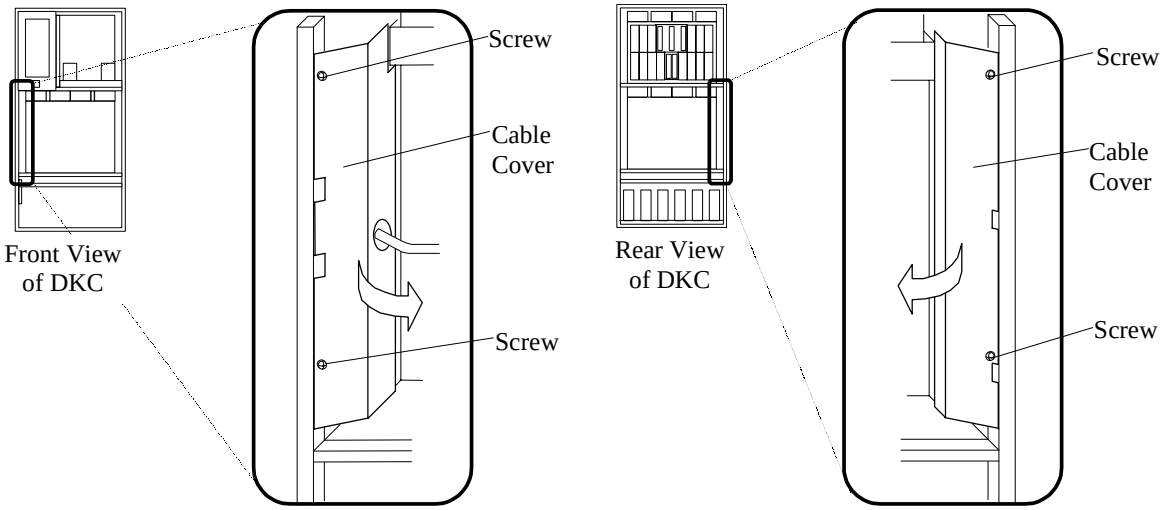


Fig. 3.12.2.4-1 How to open the Covers

   c. Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
   If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.

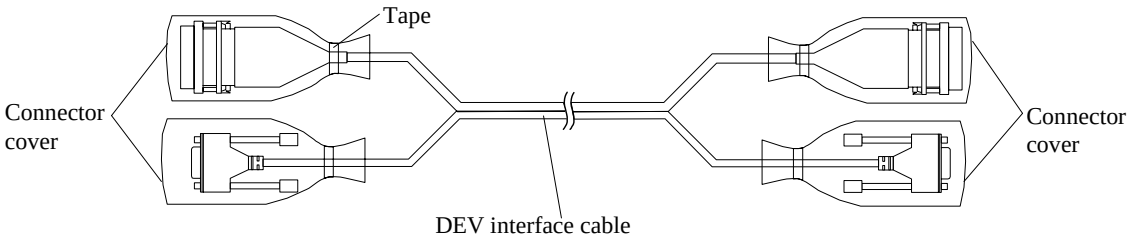


Fig. 3.12.2.4-1A Checking the Connector Covers

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d. Refer to Fig. 3.12.2.4-2. Route the eight DEV interface cables listed in Table 3.12.2.4-2 from the front to the rear of the disk controller.

Table 3.12.2.4-2 Parts List for Additional DEV Interface Cable

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•E11	4R•P501	5509233-J
2	1R•E12	4R•P503	
3	1R•E21	5R•P501	5509233-K
4	1R•E22	5R•P503	
5	2R•L11	4L•P501	5509233-N
6	2R•L12	4L•P503	
7	2R•L21	5L•P501	5509233-P
8	2R•L22	5L•P503	

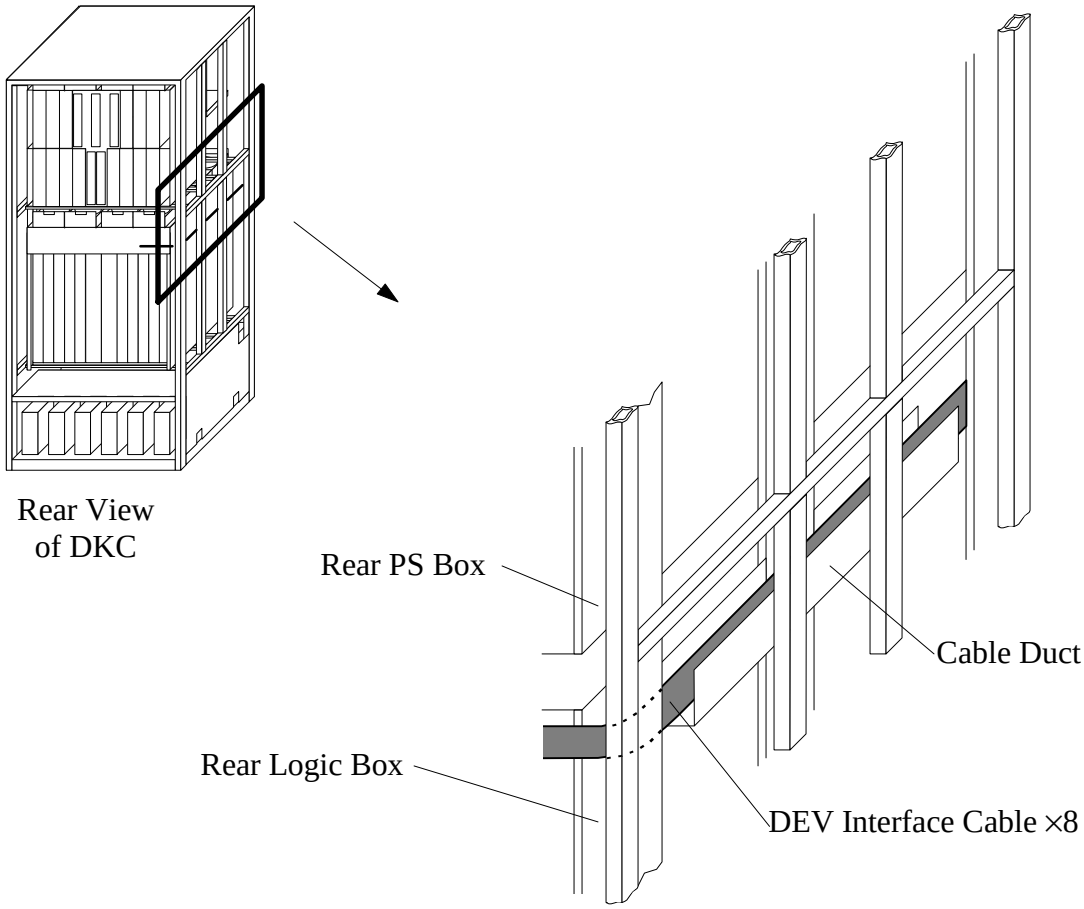


Fig. 3.12.2.4-2 Attachment of DEV Interface Cables

e. Return to General Flow.
New Installation : Go to INST02-20 step (8)-2.
Non-Disruptive Installation : Go to INST02-100 step (6)-5.
Disruptive Installation : Go to INST02-220 step (9)-5.

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2. Connection of the DEV Interface Cables (After attachment of HDU Boxes (DKU-F405I-B4))
   a. Loosen the three screws and remove the cable cover. Insert the cables into the cable clamp. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the sub-edges on the disk adapter PCBs, that are installed in locations Nos. E and L in the Rear Logic Box. Secure the cables by inserting them in between the cable clamps on the Rear Logic Box. Attach the cable cover with the three screws.

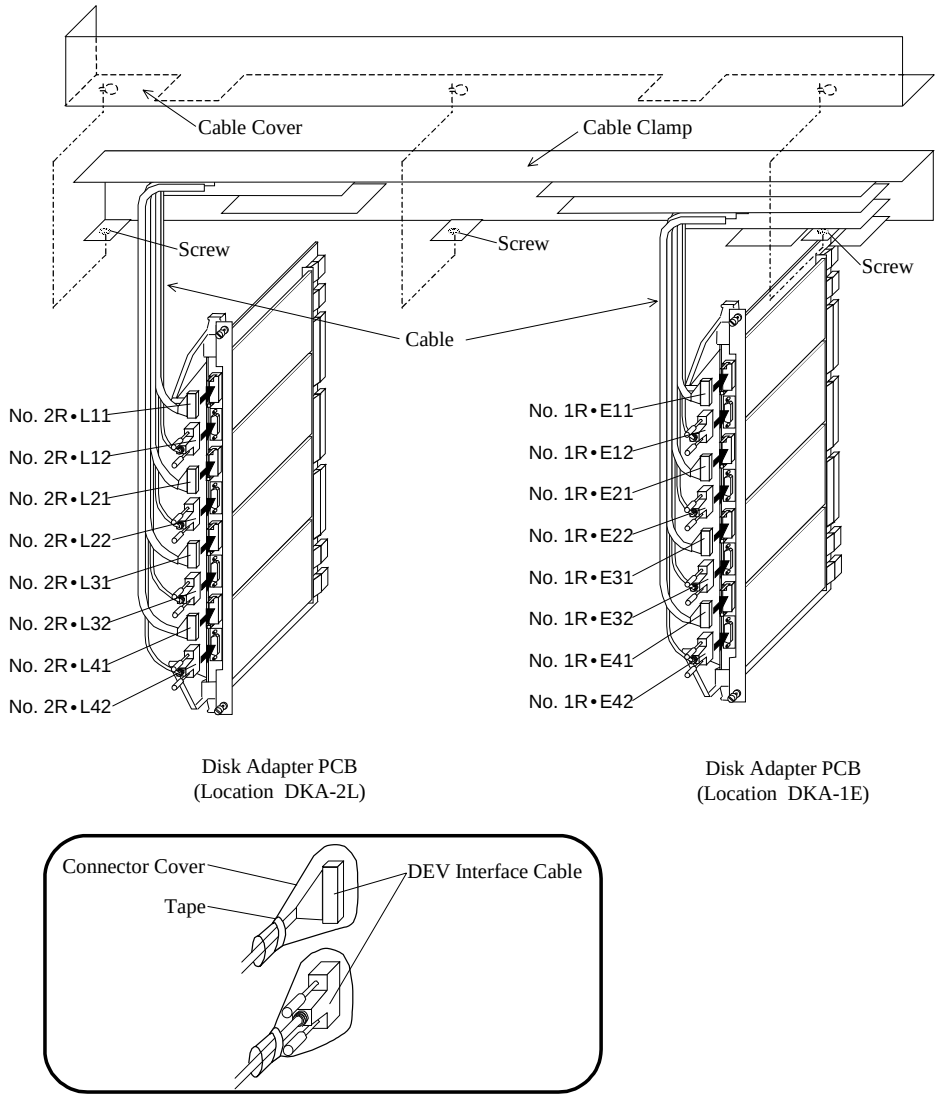


Fig. 3.12.2.4-3 DEV Interface Cabling Diagram (Disk Adapter PCB Side)

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b. Loosen the screws and remove the cable covers ① and ②.

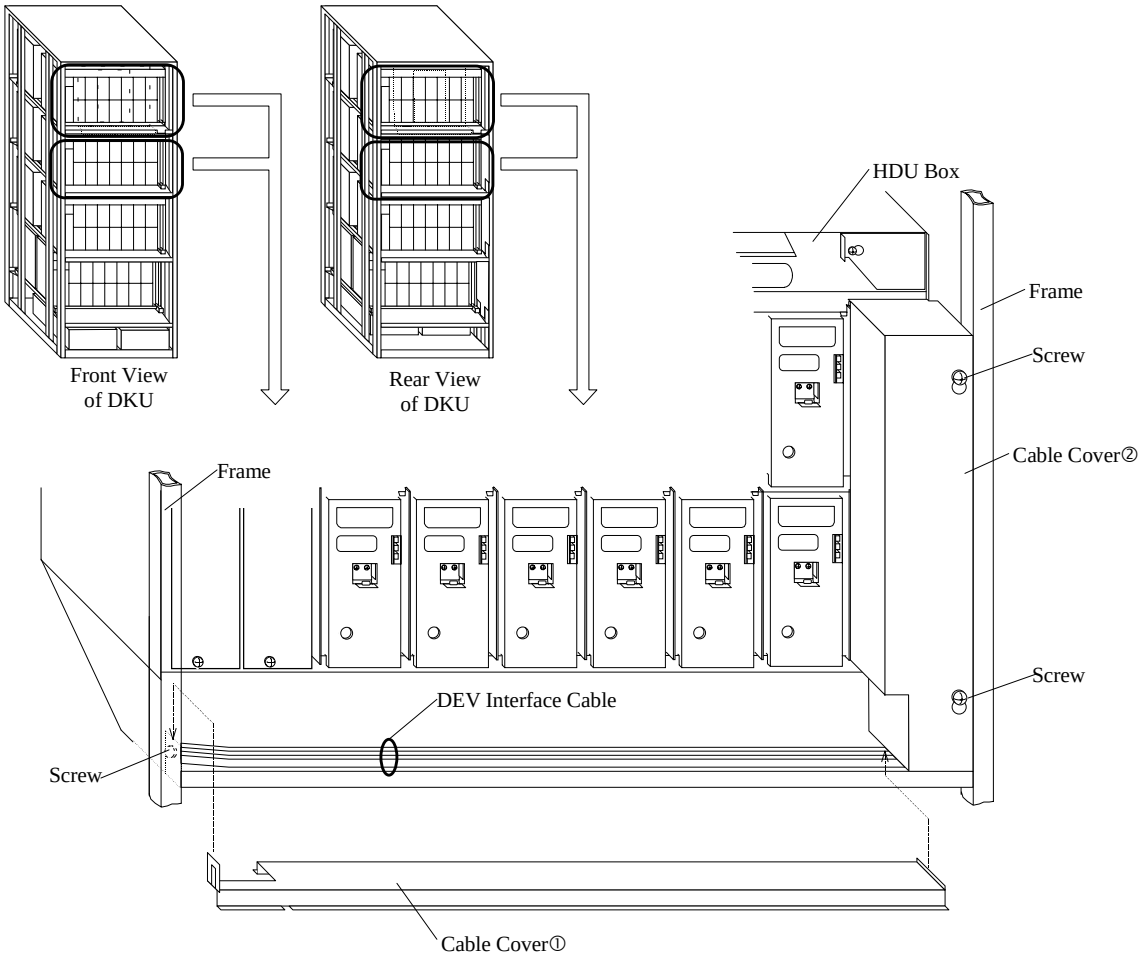


Fig. 3.12.2.4-4 Removal of Cable Covers

c. Loosen the screws and remove the side plates.

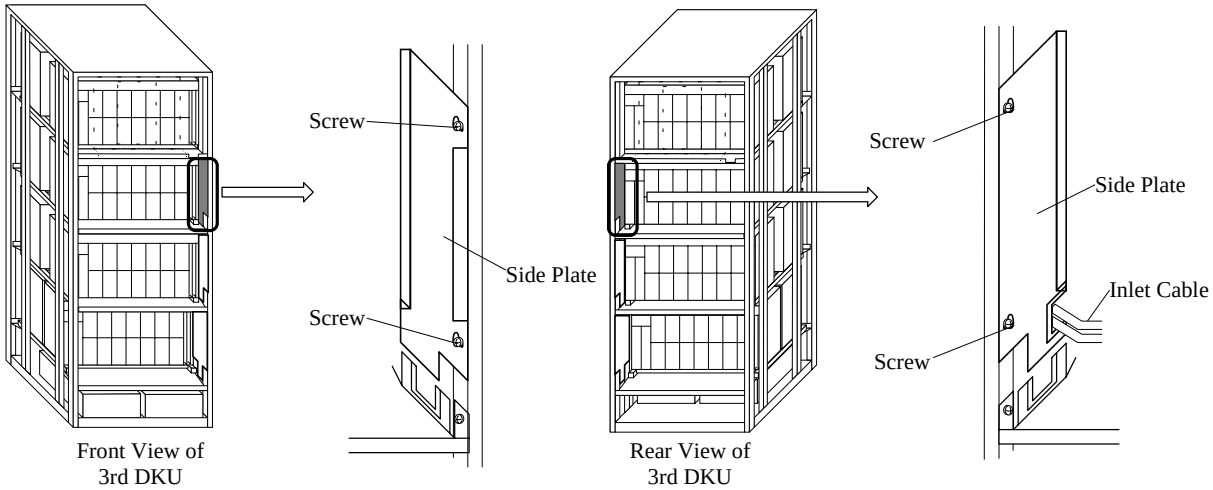


Fig. 3.12.2.4-5 Removal of Side Plates

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d. Pull out the DEV interface cable to the DKU side and connect it to the cable duct at the lower front of the HDU box.

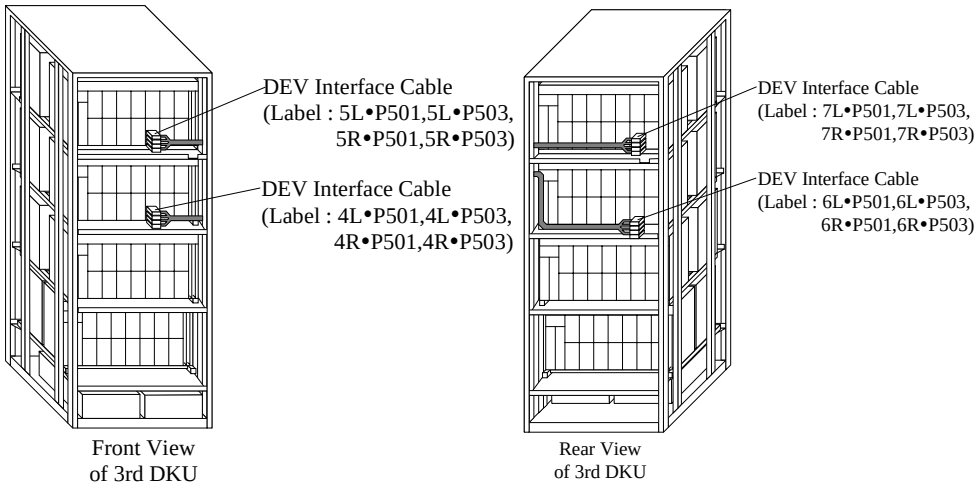


Fig. 3.12.2.4-6 Routing of DEV Interface Cables

e. Attach the side plates and fasten the screws.

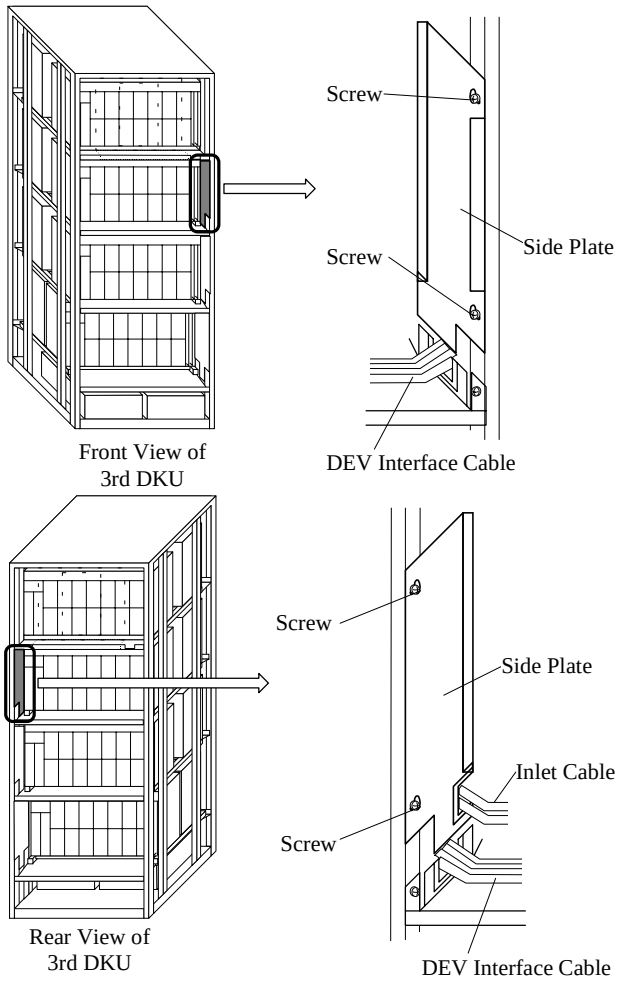


Fig. 3.12.4.3-7 Attachment of Side Plates

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f. Refer to Fig. 3.12.2.4-8. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the Sub-Edges on FSW PCBs in HDU Box.

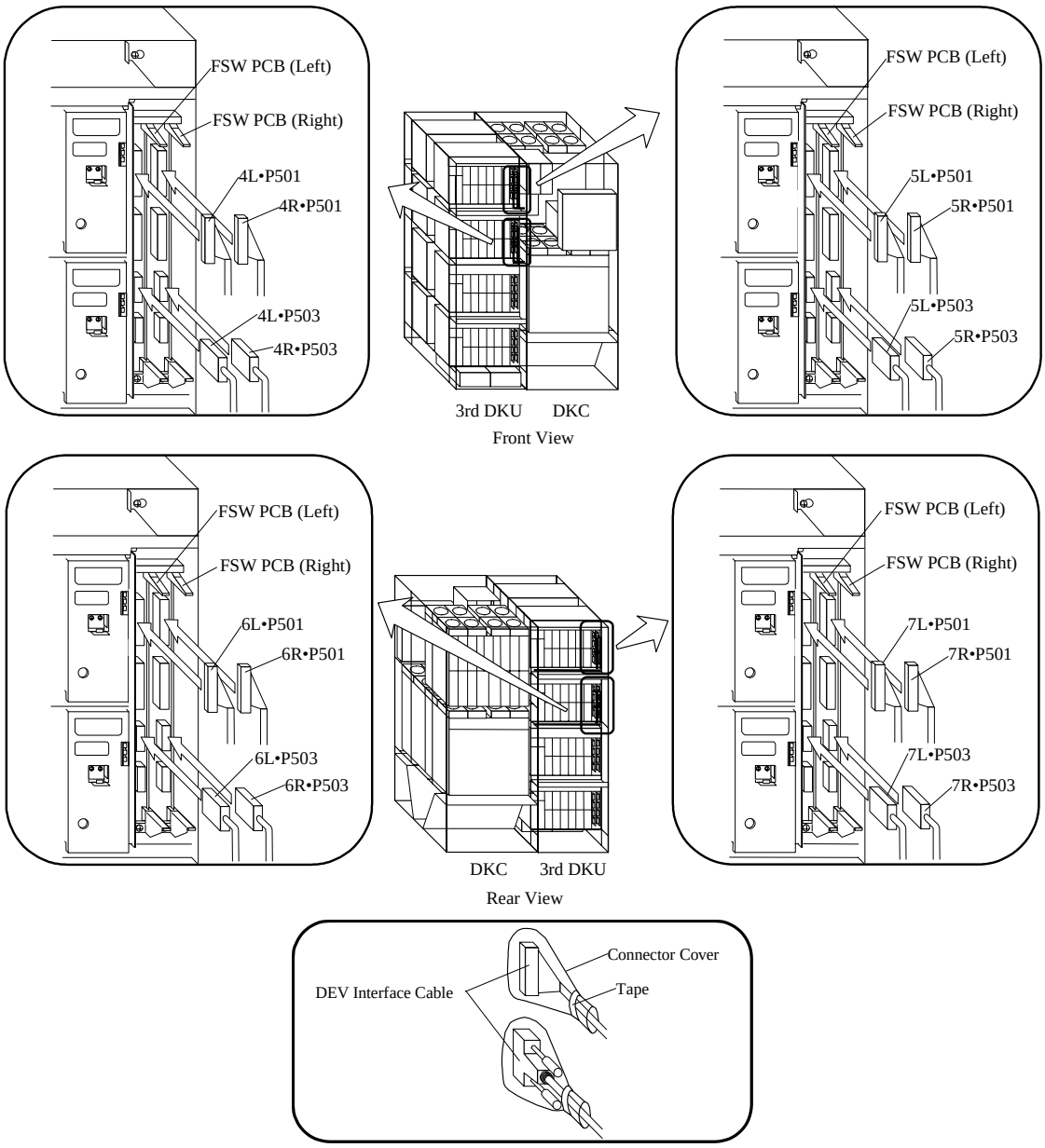


Fig. 3.12.2.4-8 DEV Interface Cabling Diagram (FSW PCB Side)

g. Attach the cable covers with the screws. Refer to Fig. 3.12.2.4-4.
h. Close the cable covers and fasten the screws.
i. Replace the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

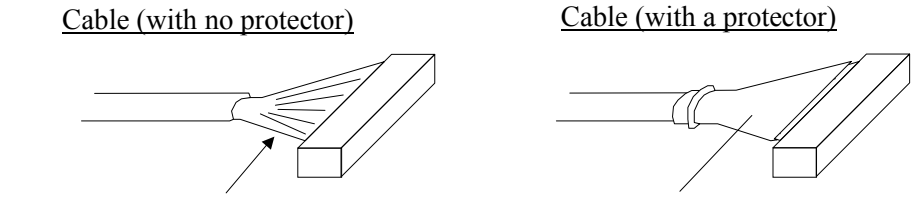
3. Return to General Flow.
   New Installation : Go to INST02-20 step (8)-6.
   Non-Disruptive Installation : Go to INST02-100 step (7)-7.
   Disruptive Installation : Go to INST02-220 step (9)-10.

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3.12.3 Connection of DEV Interface Cable 2 (DKU-F405I-EXC)

⚠ CAUTION

Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.



3.12.3.1 Flowchart

The connection procedure of the DEV I/F cable (DKU-F405I-EXC) is shown below. You must perform the operations actually after referring to the details of the procedure.
When connecting the DEV interface cable with disk subsystem inactive, you don't have to check Shut Down LED on the FSW PCB and blocking/restoring both DKA PCB and FSW PCB through SVP.

1. Connection Procedure of DEV Interface Cables between First (HDU-R10-R13) and Second DKU (HDU-R20-R23) Frames ---------- [INST03-1900]
2. Connection Procedure of DEV Interface Cables between First (HDU-R14-R17) and Second DKU (HDU-R24-R27) Frames ---------- [INST03-1910]
3. Connection Procedure of DEV Interface Cables between Third (HDU-L10-L13) and Fourth DKU (HDU-L20-L23) Frames ---------- [INST03-1920]
4. Connection Procedure of DEV Interface Cables between Third (HDU-L14-L17) and Fourth DKU (HDU-L24-L27) Frames ---------- [INST03-1930]
5. Connection Procedure of DEV Interface Cables between Second (HDU-R20-R23) and Fifth DKU (HDU-R30-R33) Frames ---------- [INST03-1940]
6. Connection Procedure of DEV Interface Cables between Second (HDU-R24-R27) and Fifth DKU (HDU-R34-R37) Frames ---------- [INST03-1950]
7. Connection Procedure of DEV Interface Cables between Fourth (HDU-L20-L23) and Sixth DKU (HDU-L30-L33) Frames ---------- [INST03-1960]
8. Connection Procedure of DEV Interface Cables between Fourth (HDU-L24-L27) and Sixth DKU (HDU-L34-L37) Frames ---------- [INST03-1970]

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1. Connection Procedure of DEV Interface Cables between First (HDU-R10-R13) and Second DKU (HDU-R20-R23) Frames ---------- [INST03-1980]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Second DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

(13) Attach the nameplate to the Second DKU frame.

↓

(14) When the Second DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the Second DKU frame.

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2. Connection Procedure of DEV Interface Cables between First (HDU-R14-R17) and Second DKU (HDU-R24-R27) Frames ---------- [INST03-2080]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Second DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

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3. Connection Procedure of DEV Interface Cables between Third (HDU-L10-L13) and Fourth DKU (HDU-L20-L23) Frames ---------- [INST03-2170]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the fourth DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Third DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Third DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

↓

(13) Attach the nameplate to the fourth DKU frame.

↓

(14) When the fourth DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the fourth DKU frame.

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4. Connection Procedure of DEV Interface Cables between Third (HDU-L14-L17) and Fourth DKU (HDU-L24-L27) Frames ---------- [INST03-2270]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the fourth DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Third DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Third DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

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5. Connection Procedure of DEV Interface Cables between Second (HDU-R20-R23) and Fifth DKU (HDU-R30-R33) Frames ---------- [INST03-2360]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fifth DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Second DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Second DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

↓

(13) Attach the nameplate to the Fifth DKU frame.

↓

(14) When the Fifth DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the Fifth DKU frame.

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6. Connection Procedure of DEV Interface Cables between Second (HDU-R24-R27) and Fifth DKU (HDU-R34-R37) Frames ---------- [INST03-2460]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fifth DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Second DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Second DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

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7. Connection Procedure of DEV Interface Cables between Fourth (HDU-L20-L23) and Sixth DKU (HDU-L30-L33) Frames ---------- [INST03-2550]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Sixth DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

↓

(13) Attach the nameplate to the Sixth DKU frame.

↓

(14) When the Sixth DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the Sixth DKU frame.

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8. Connection Procedure of DEV Interface Cables between Fourth (HDU-L24-L27) and Sixth DKU (HDU-L34-L37) Frames ---------- [INST03-2650]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Sixth DKU frame.

↓

(4) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(5) (Dummy procedure) Go to next step.

↓

(6) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame.

↓

(7) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(8) (Dummy procedure) Go to next step.

↓

(9) Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame.

↓

(10) Return to flow when connecting the additional DEV interface cable while the sub-system is in operation. Go to next step when connecting the additional DEV interface cable with the sub-system switched off.

↓

(11) Attach the side plates in the reverse order of Step 2.

↓

(12) Attach the cable covers ① and ② with the screws to fix the DEV Interface cables.

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3.12.3.2 Parts List

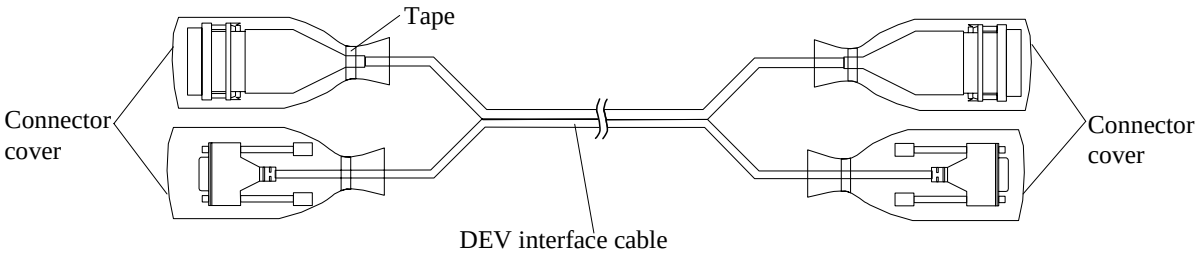
Table 3.12.2.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-EXC	DEV Interface Cable 2 (FC)	5502402-A-R	16	
		DEV Interface Cable 2 (LED)	5502403-A-R	16	
		DKUMN Cable	5485589-517, 518	2	
		Nameplate	2103570-2	1	
			2103575-2	1	

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3.12.3.3 Connection Procedure of DEV Interface Cables (In case of HDU-R23 from R20)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

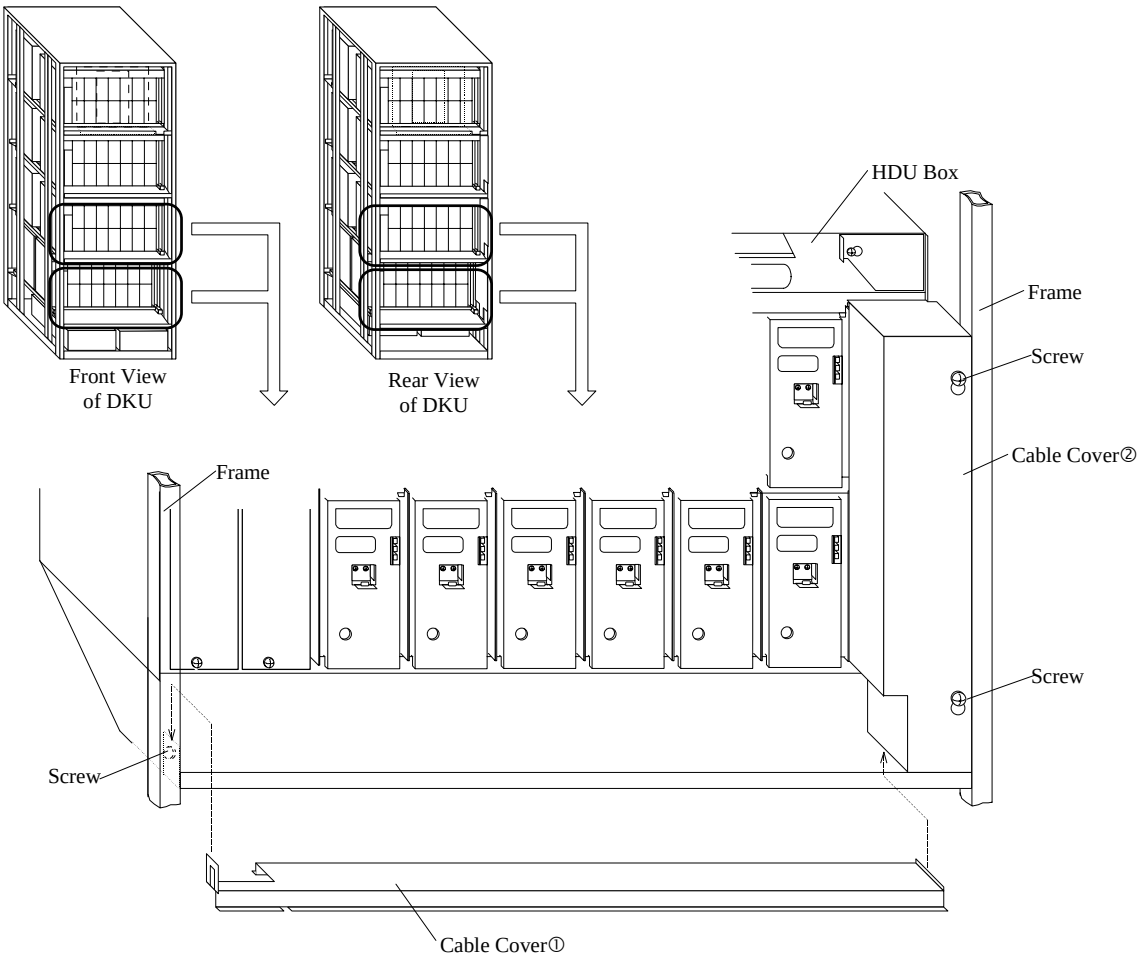


Fig. 3.12.3.3-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

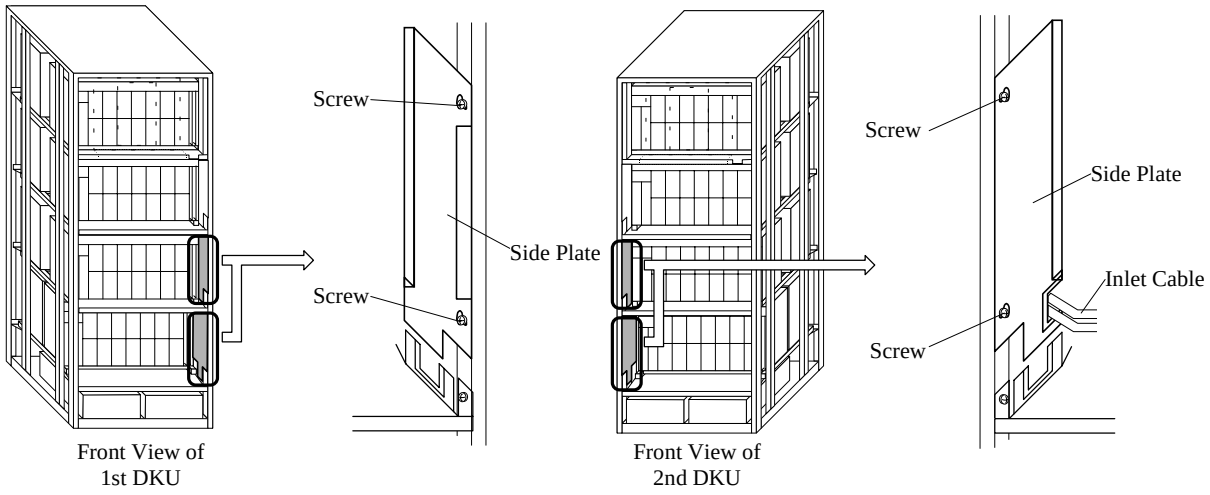


Fig. 3.12.3.3-2 Removal of Side Plates (Front View)

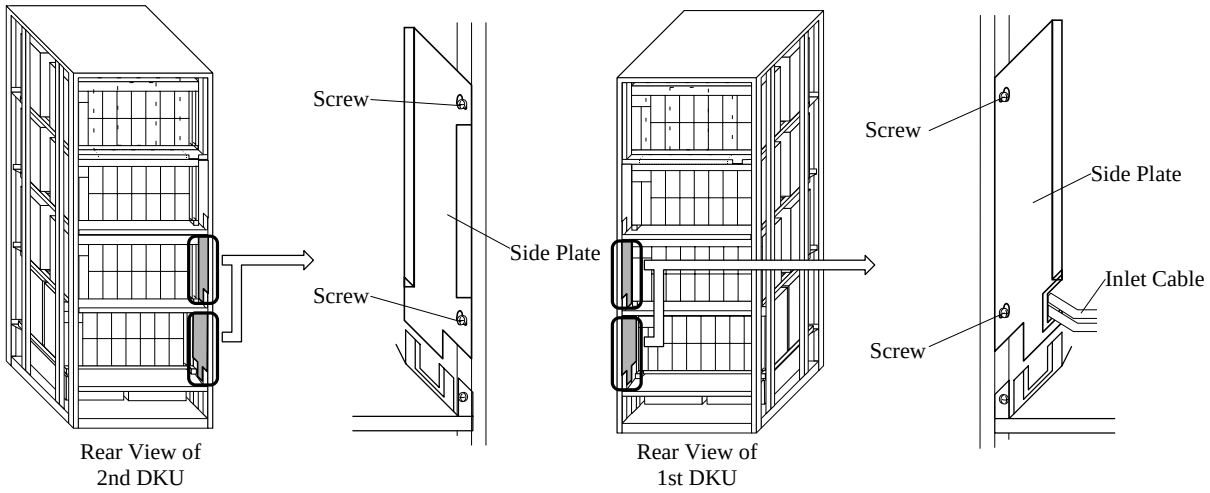


Fig. 3.12.3.3-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the second DKU frame. Refer to figures 3.12.3.3-4 and 3.12.3.3-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

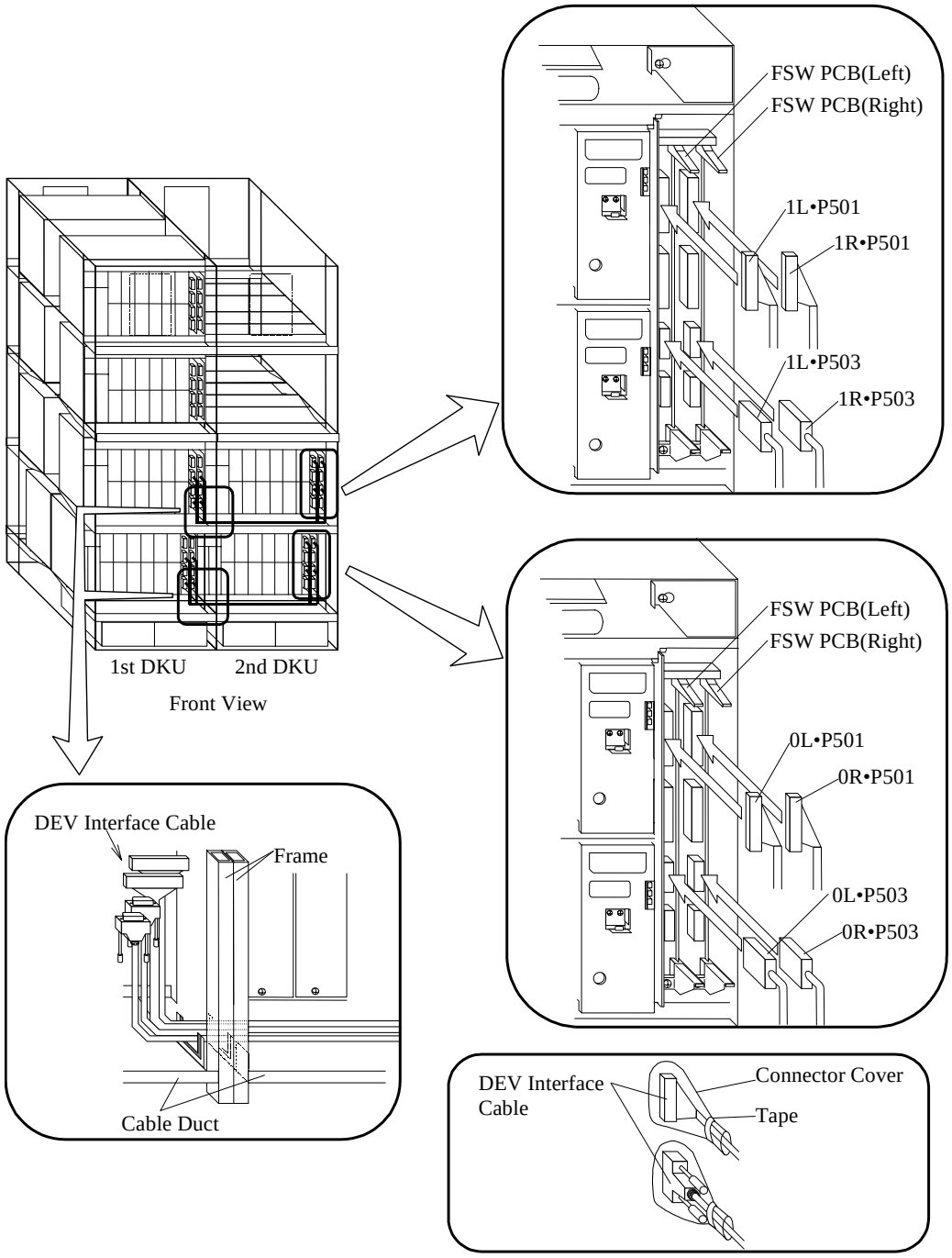


Fig. 3.12.3.3-4 Connection of the DEV Interface Cables

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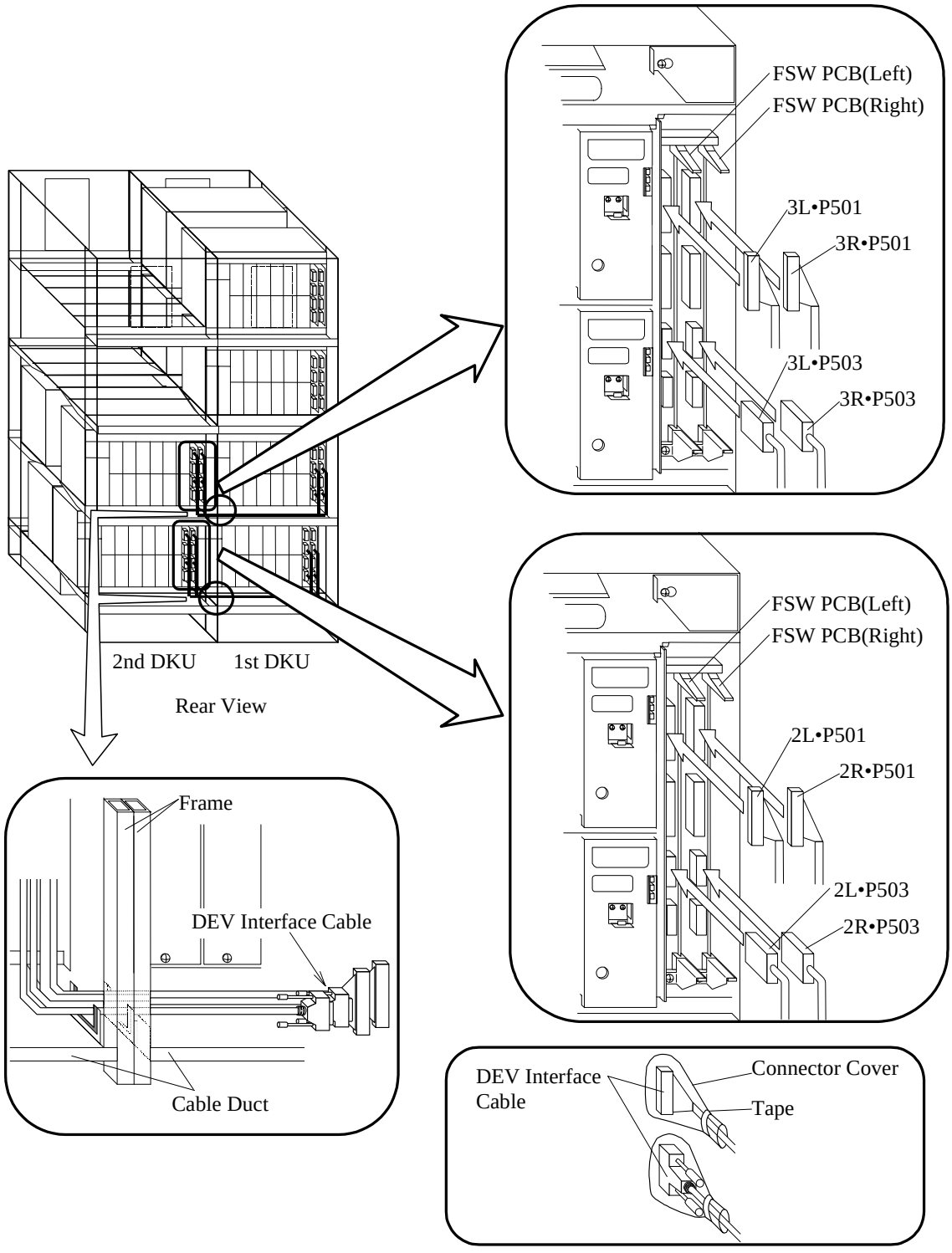


Fig. 3.12.3.3-5 Connection of the DEV Interface Cables

4. Return to INST02-300 ③ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2010 when connecting the additional DEV interface cable with the sub-system switched off.

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5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame. Refer to figures 3.12.3.3-7 and 3.12.3.3-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

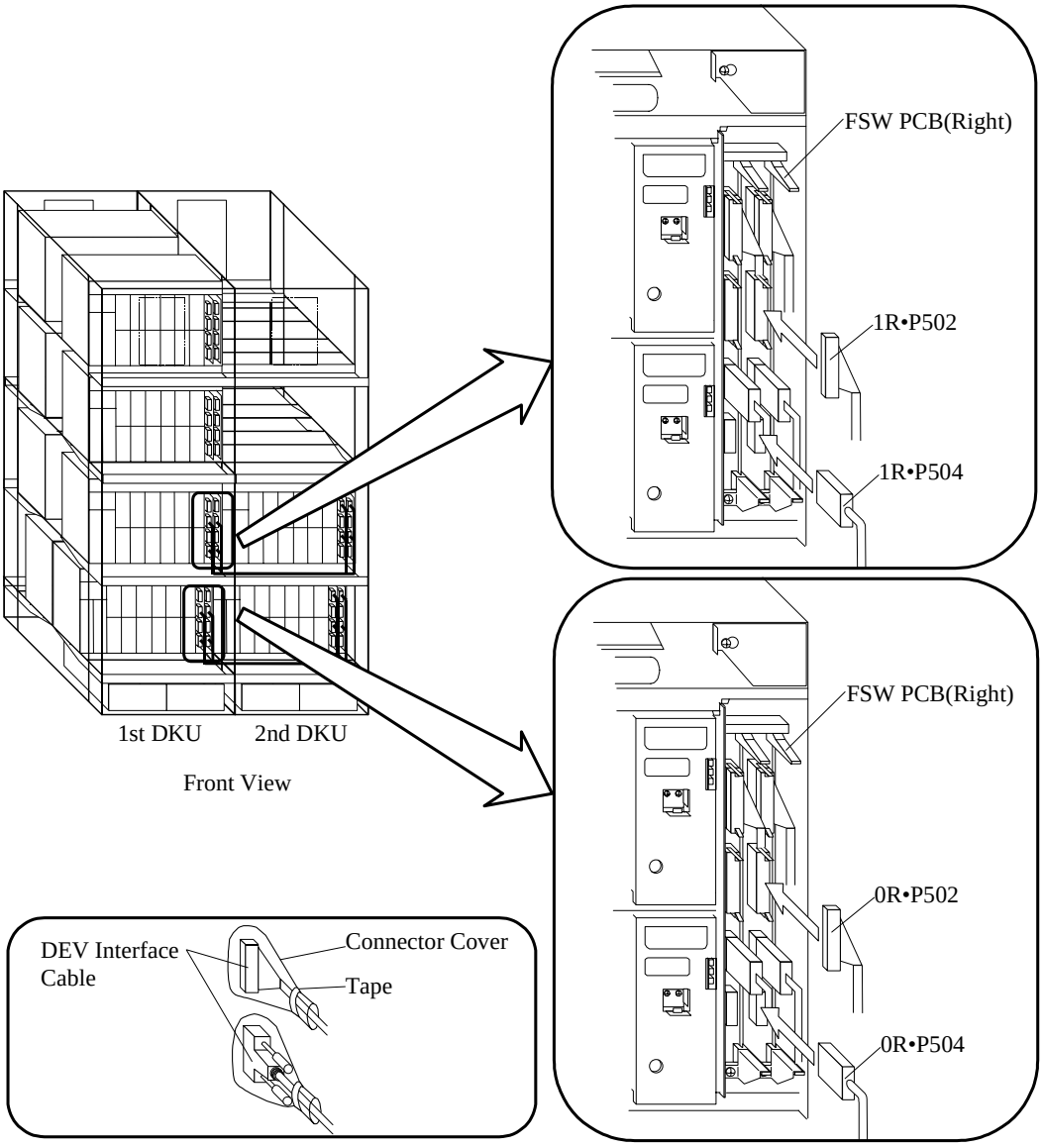


Fig. 3.12.3.3-7 Connection of the DEV Interface Cables

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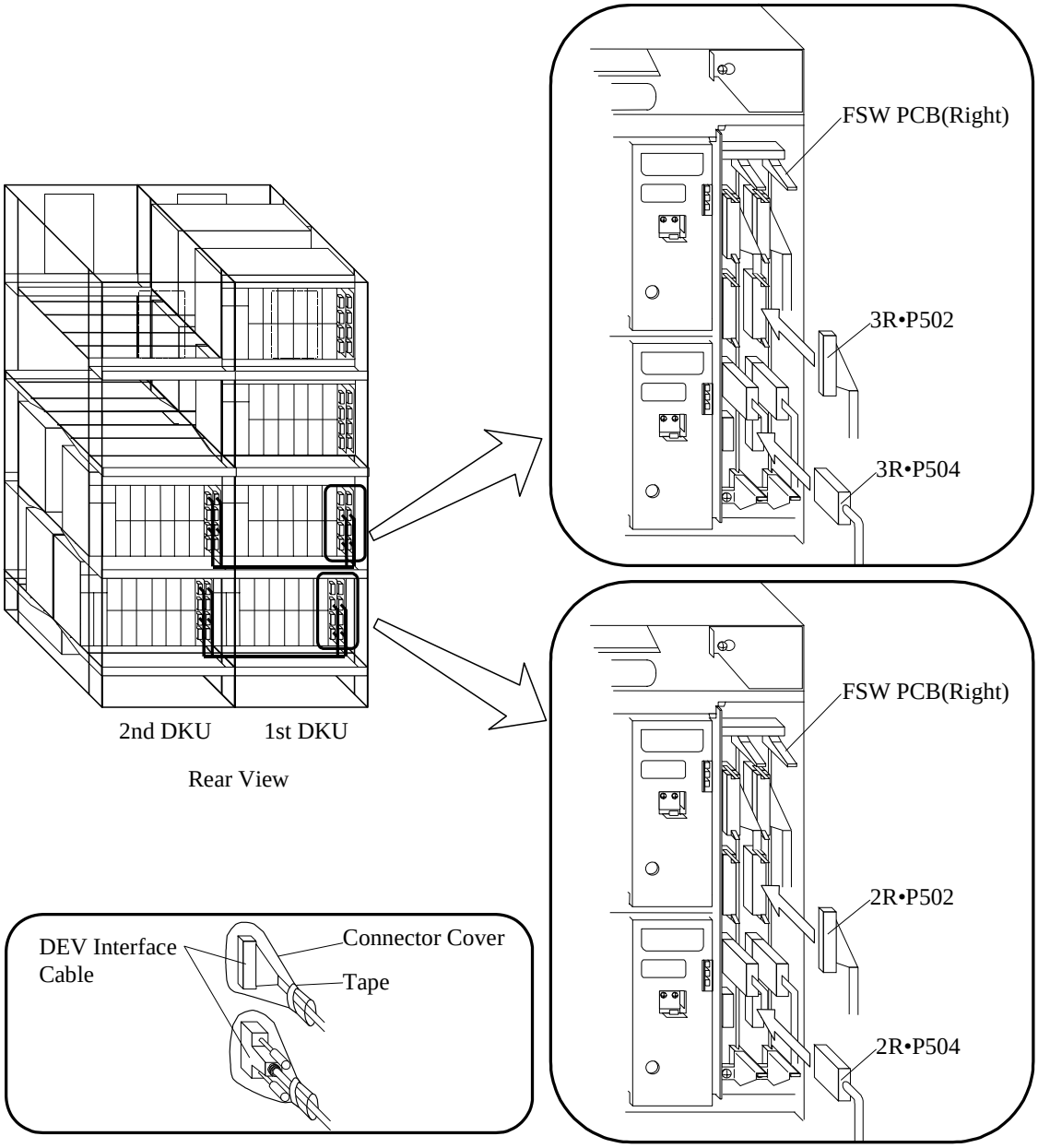


Fig. 3.12.3.3-8 Connection of the DEV Interface Cables

7. Return to INST02-310 ⑤ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2040 when connecting the additional DEV interface cable with the sub-system switched off.

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8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame. Refer to figures 3.12.3.3-10 and 3.12.3.3-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

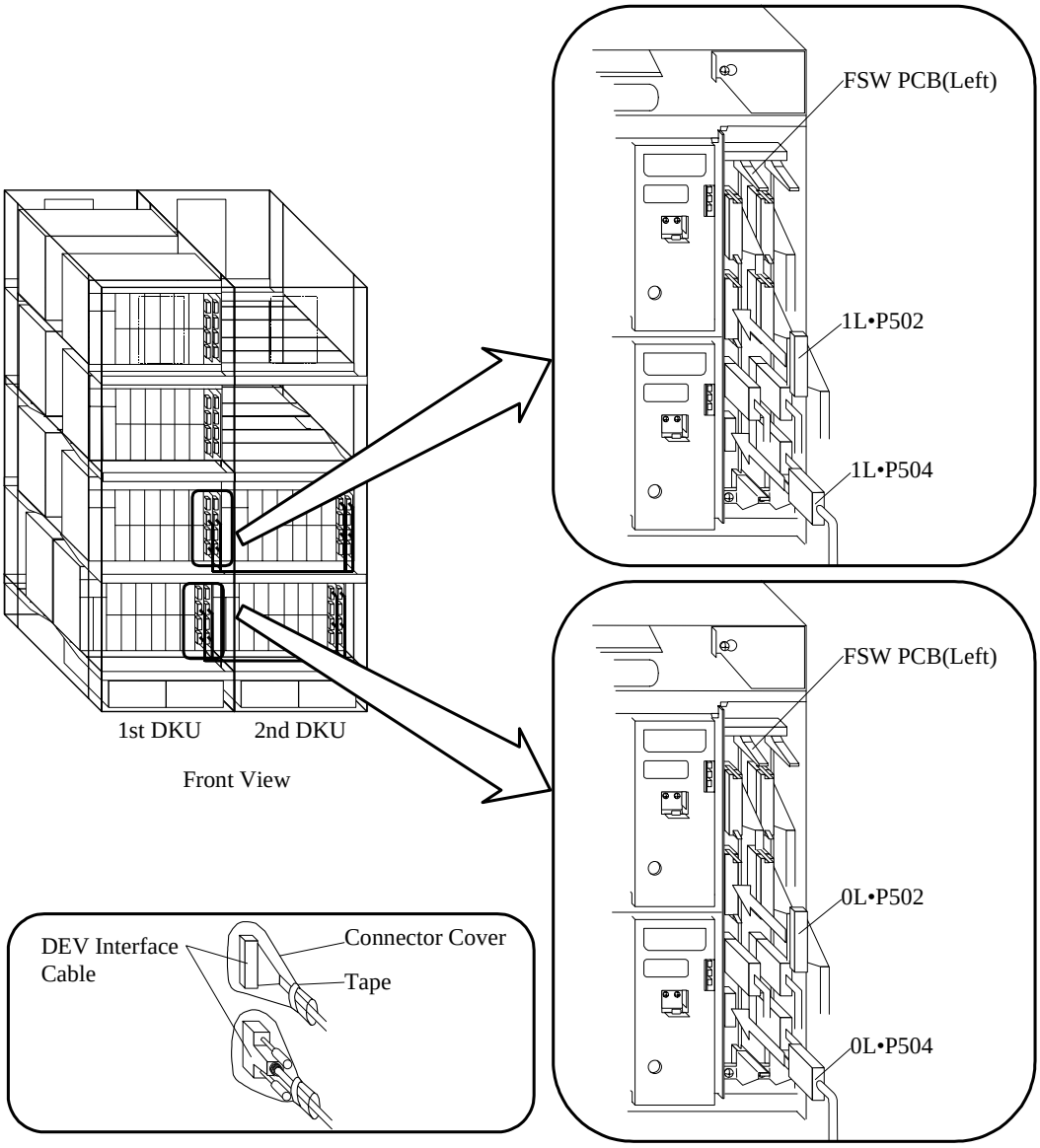


Fig. 3.12.3.3-10 Connection of the DEV Interface Cables

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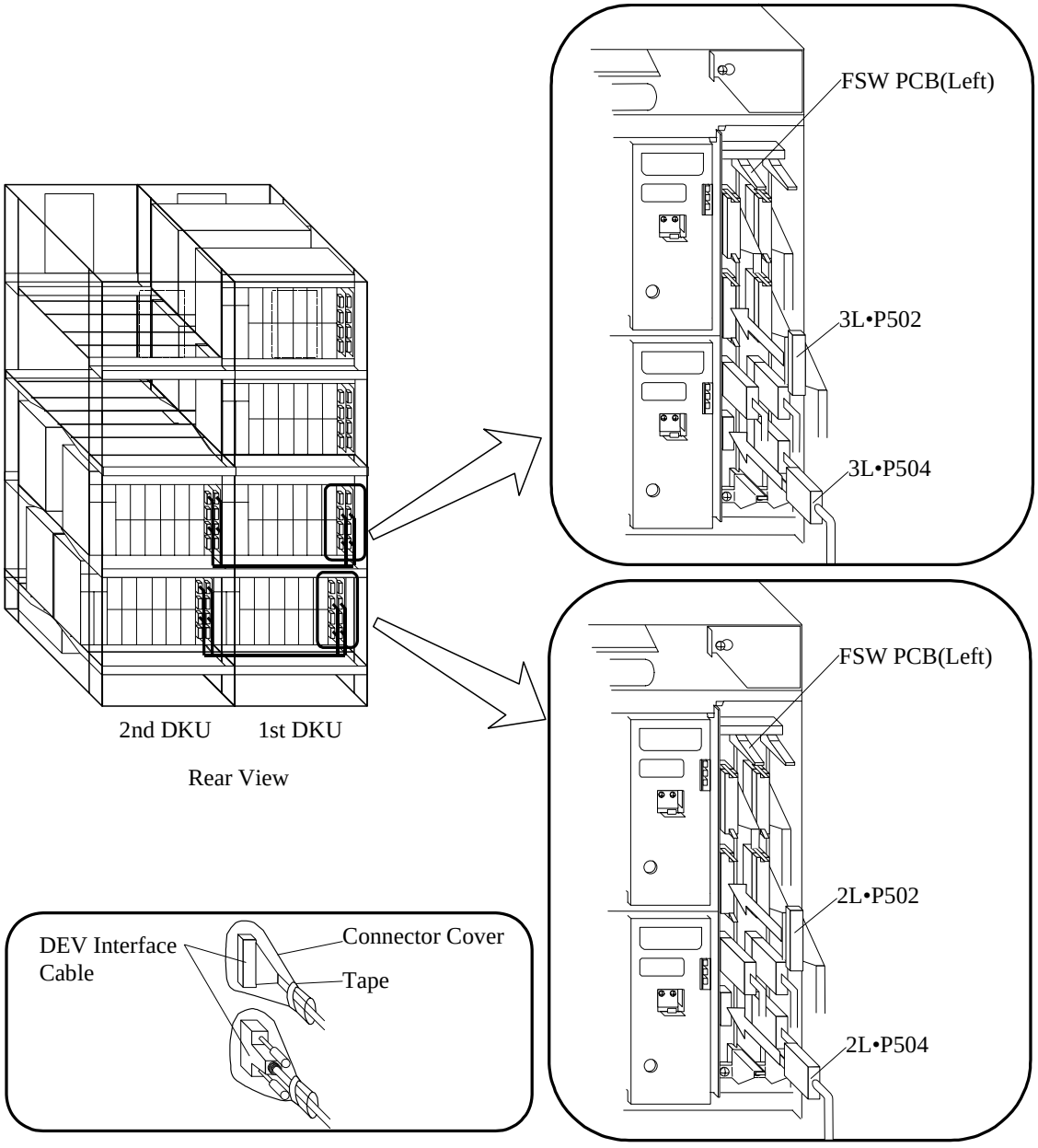


Fig. 3.12.3.3-11 Connection of the DEV Interface Cables

10. Return to INST02-320 ⑦ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2060 when connecting the additional DEV interface cable with the sub-system switched off.

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11. Attach the side plates in the reverse order of Step 2.
12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

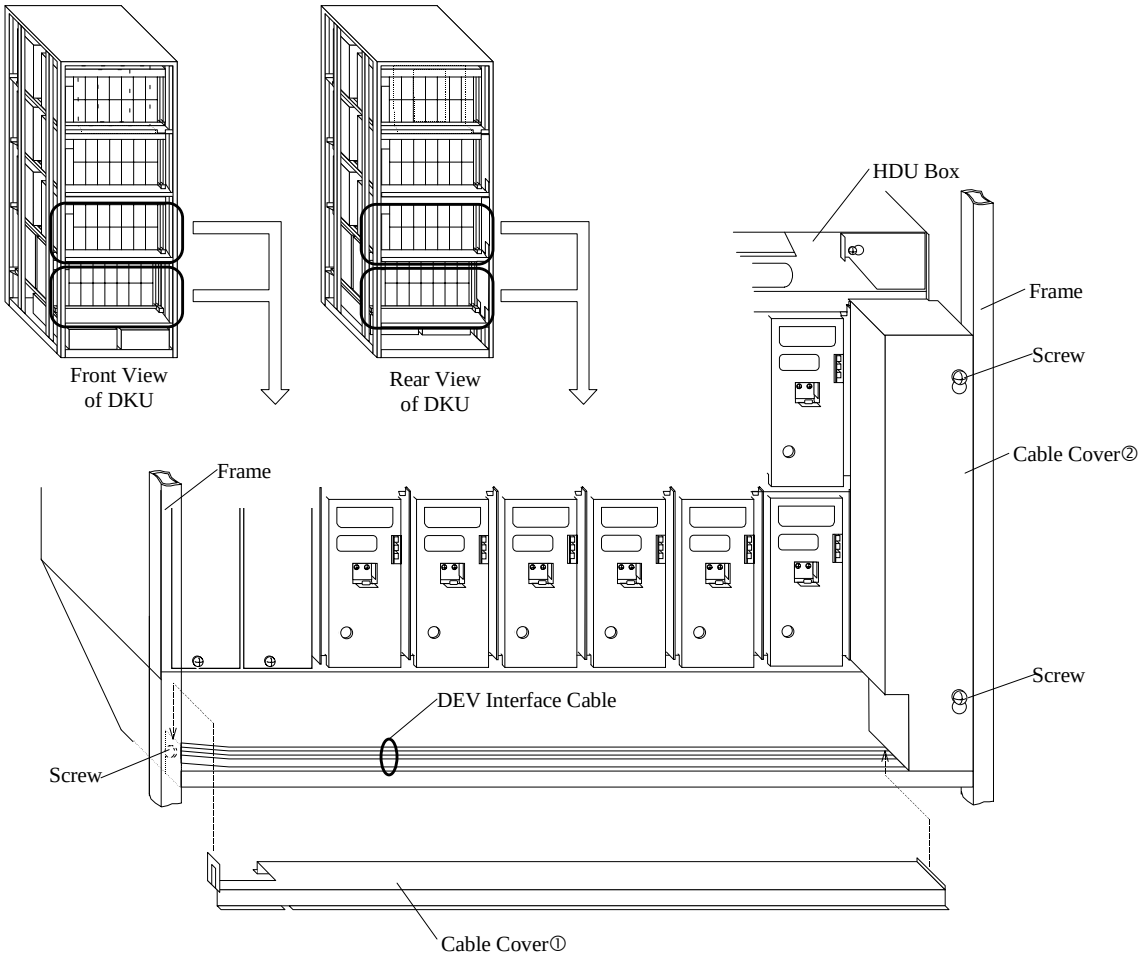


Fig. 3.12.3.3-12 Fixation of the DEV Interface Cables

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13. Attach the nameplate to the Second DKU frame.

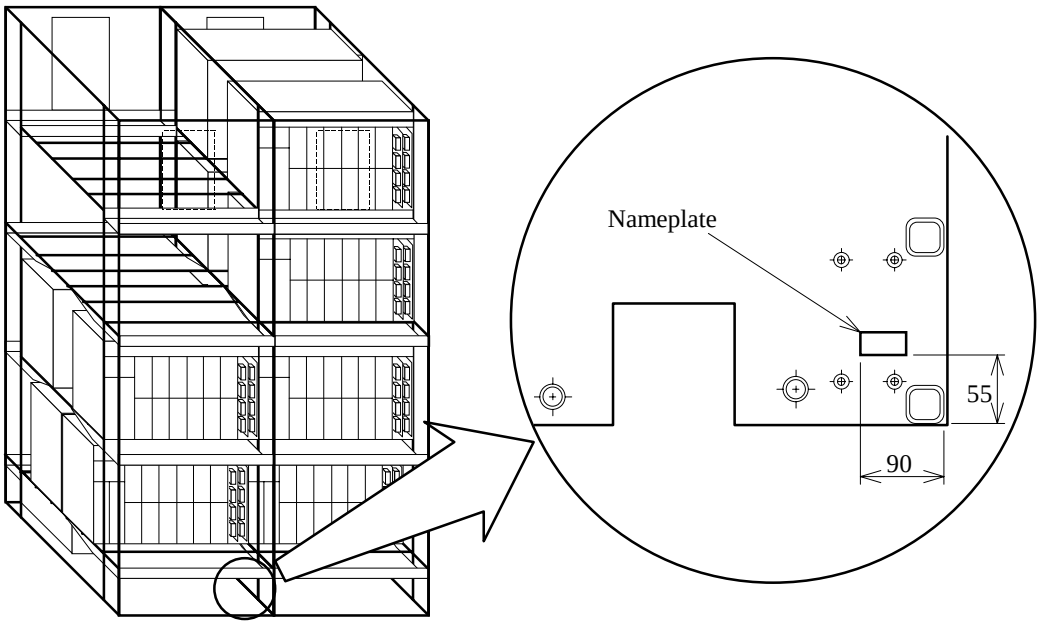


Fig. 3.12.3.3-13 Attachment of the Nameplate

14. When the Second DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the third DKU frame with the binders.

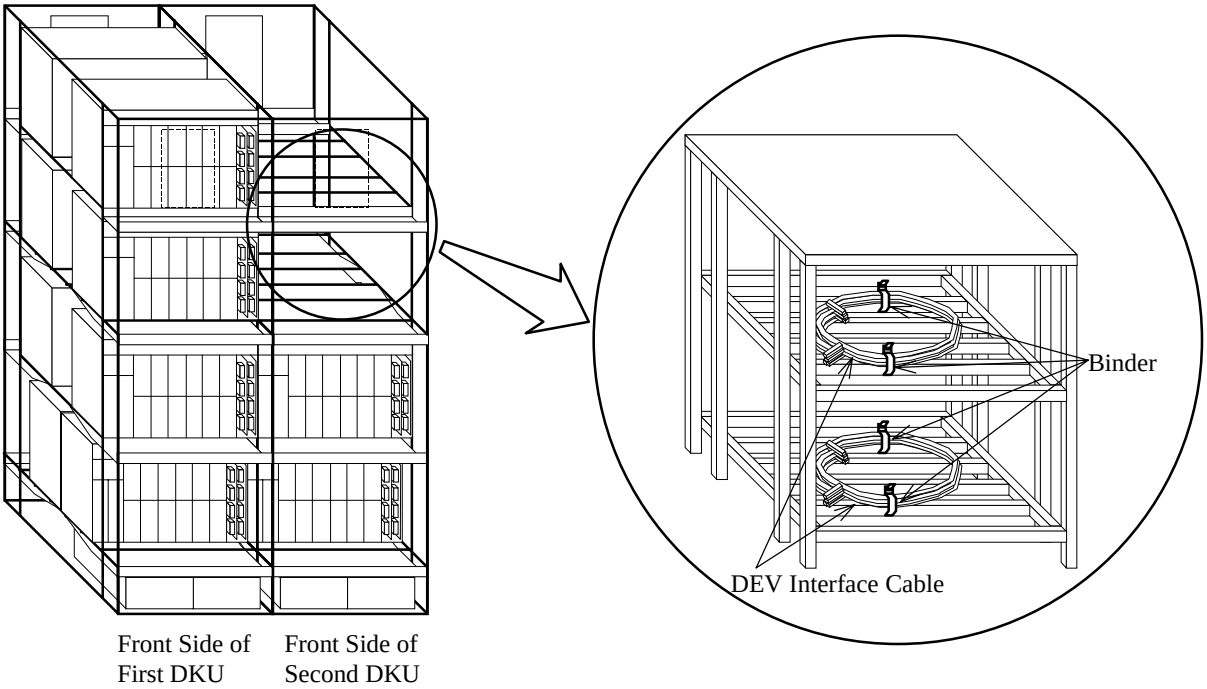


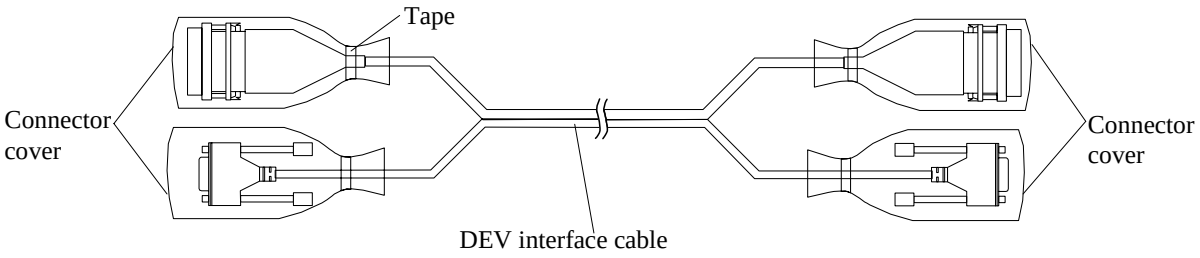
Fig. 3.12.3.3-14 Fixation of the DEV Interface Cables

15. Go to INST02-330 Step ⑨.

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3.12.3.4 Connection Procedure of DEV Interface Cables (In case of HDU-R27 from R24)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

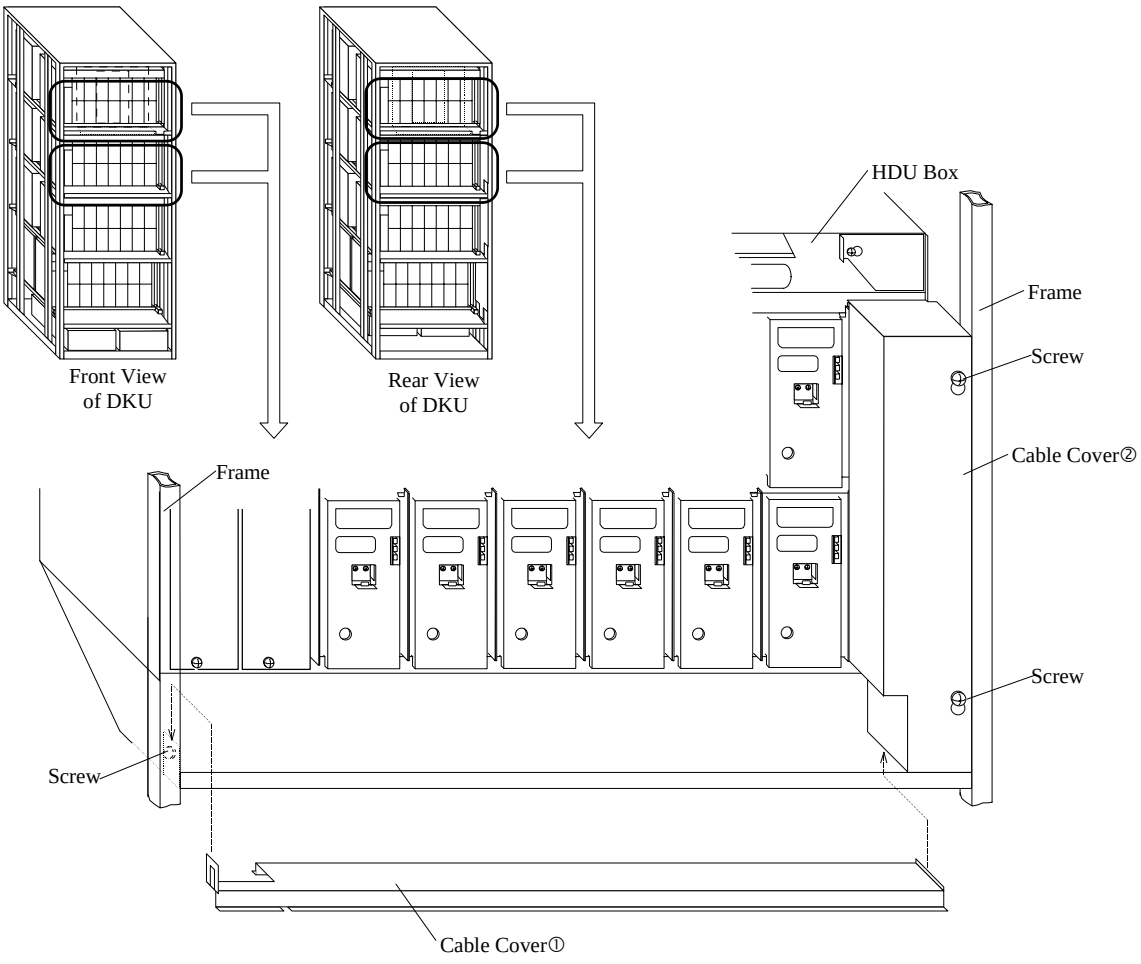


Fig. 3.12.3.4-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

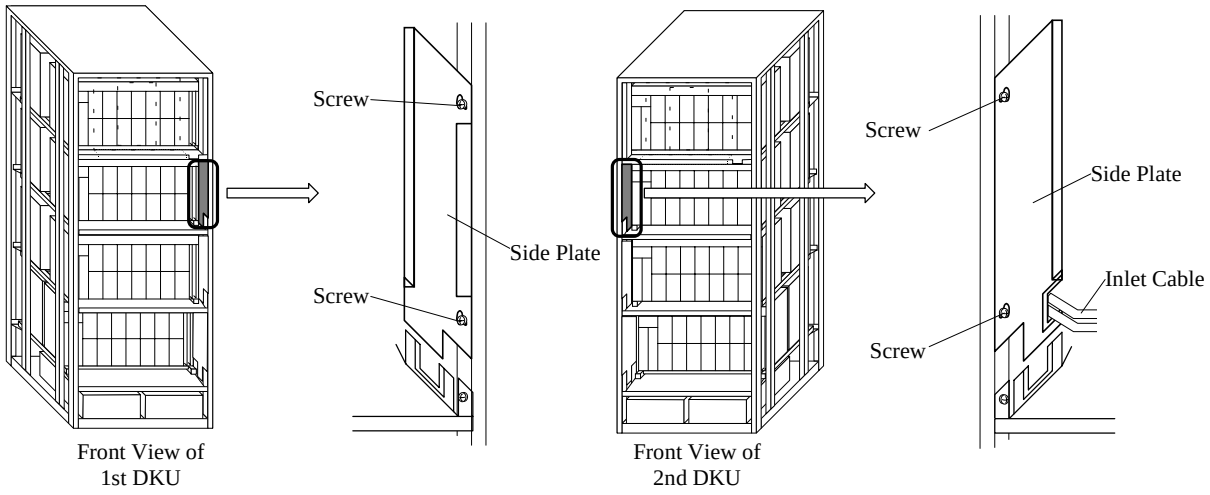


Fig. 3.12.3.4-2 Removal of Side Plates (Front View)

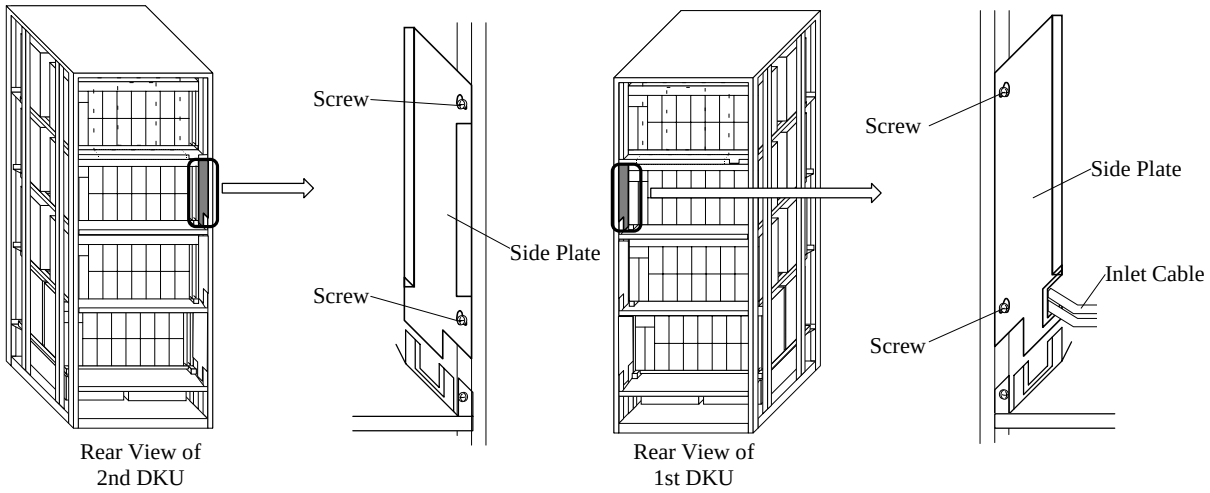


Fig. 3.12.3.4-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the second DKU frame. Refer to figures 3.12.3.4-4 and 3.12.3.4-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

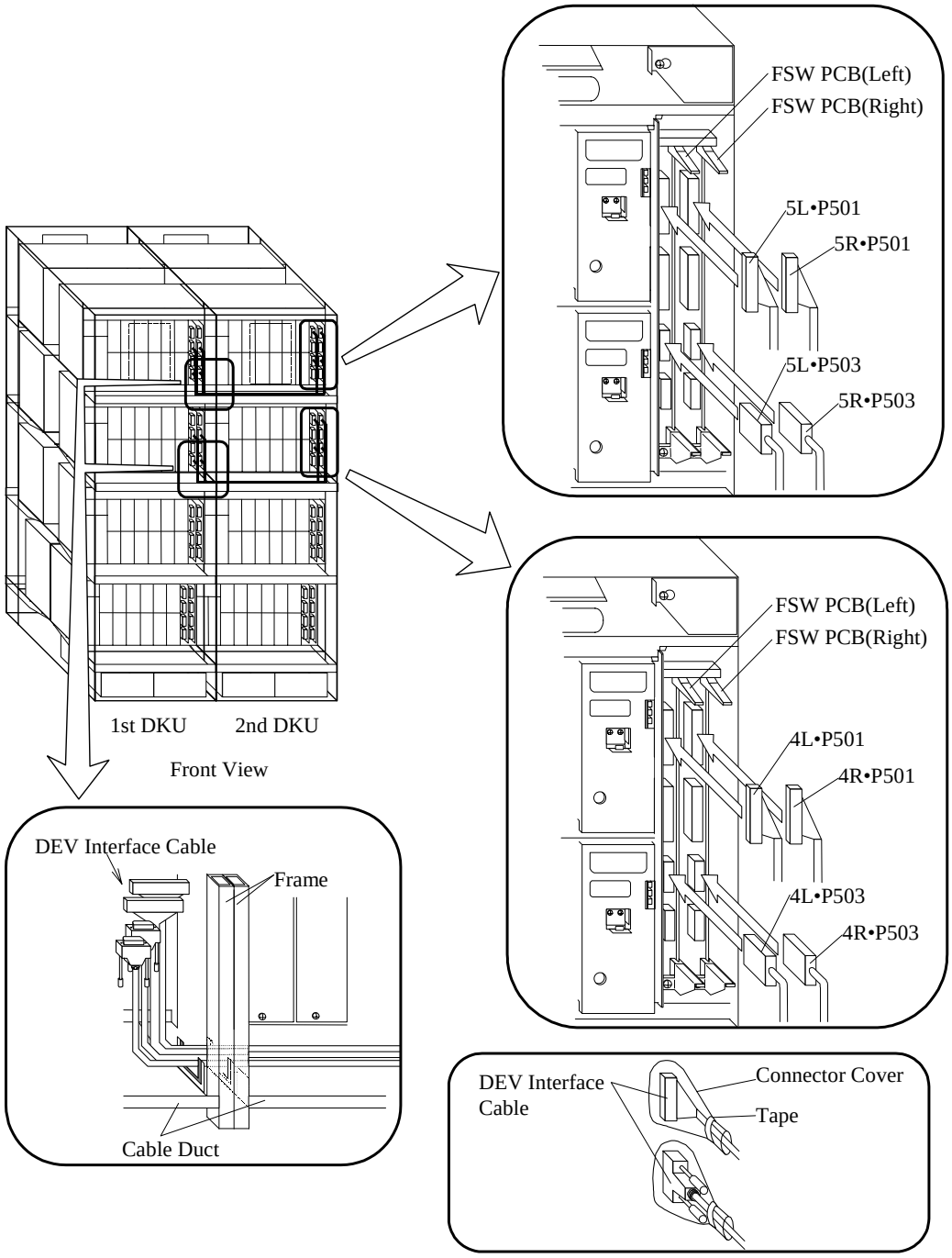


Fig. 3.12.3.4-4 Connection of the DEV Interface Cables

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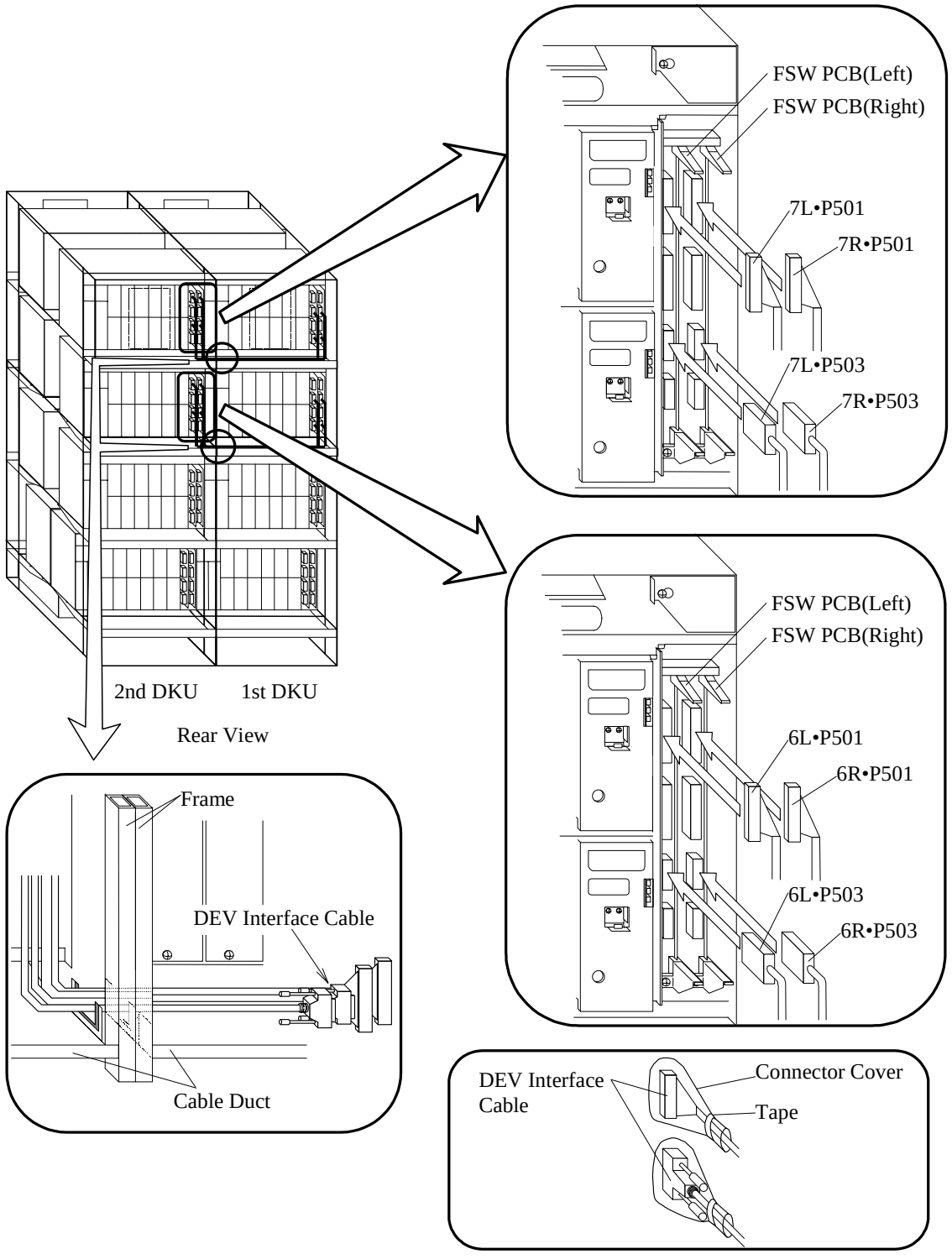


Fig. 3.12.3.4-5 Connection of the DEV Interface Cables

4. Return to INST02-300 ③ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2110 when connecting the additional DEV interface cable with the sub-system switched off.

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5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame. Refer to figures 3.12.3.4-7 and 3.12.3.4-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

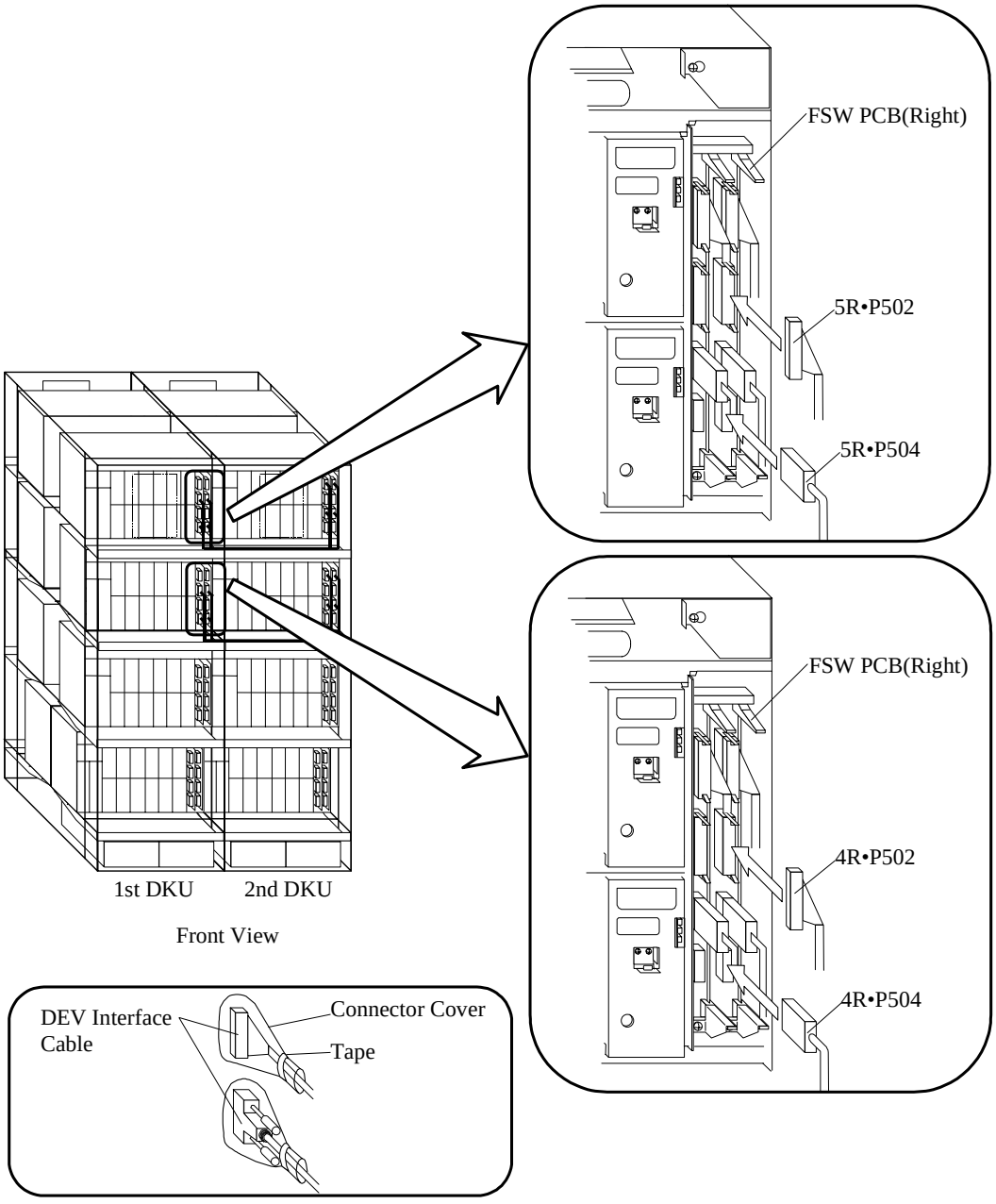


Fig. 3.12.3.4-7 Connection of the DEV Interface Cables

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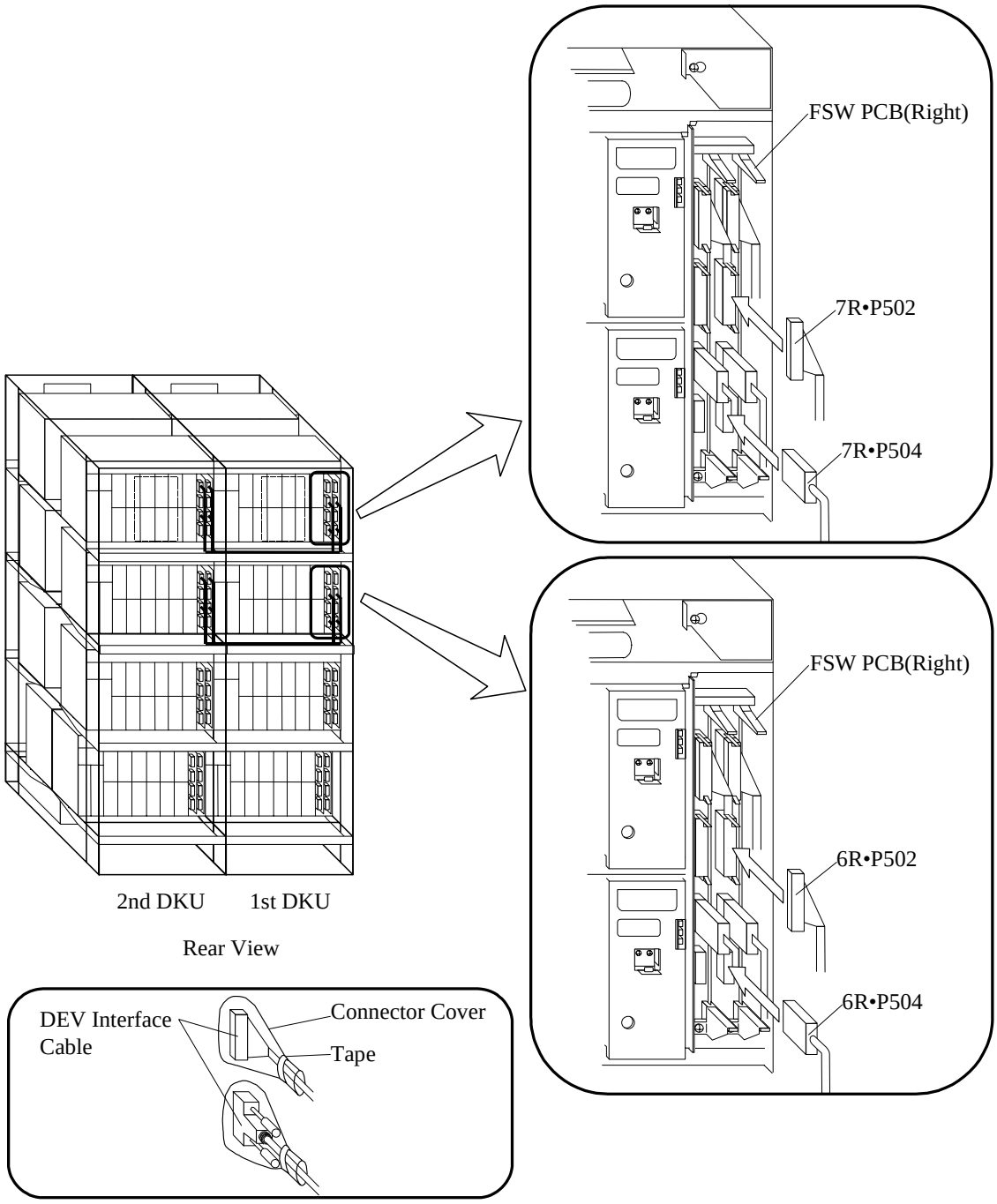


Fig. 3.12.3.4-8 Connection of the DEV Interface Cables

7. Return to INST02-310 ⑤ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2140 when connecting the additional DEV interface cable with the sub-system switched off.

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8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the first DKU frame. Refer to figures 3.12.3.4-10 and 3.12.3.4-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

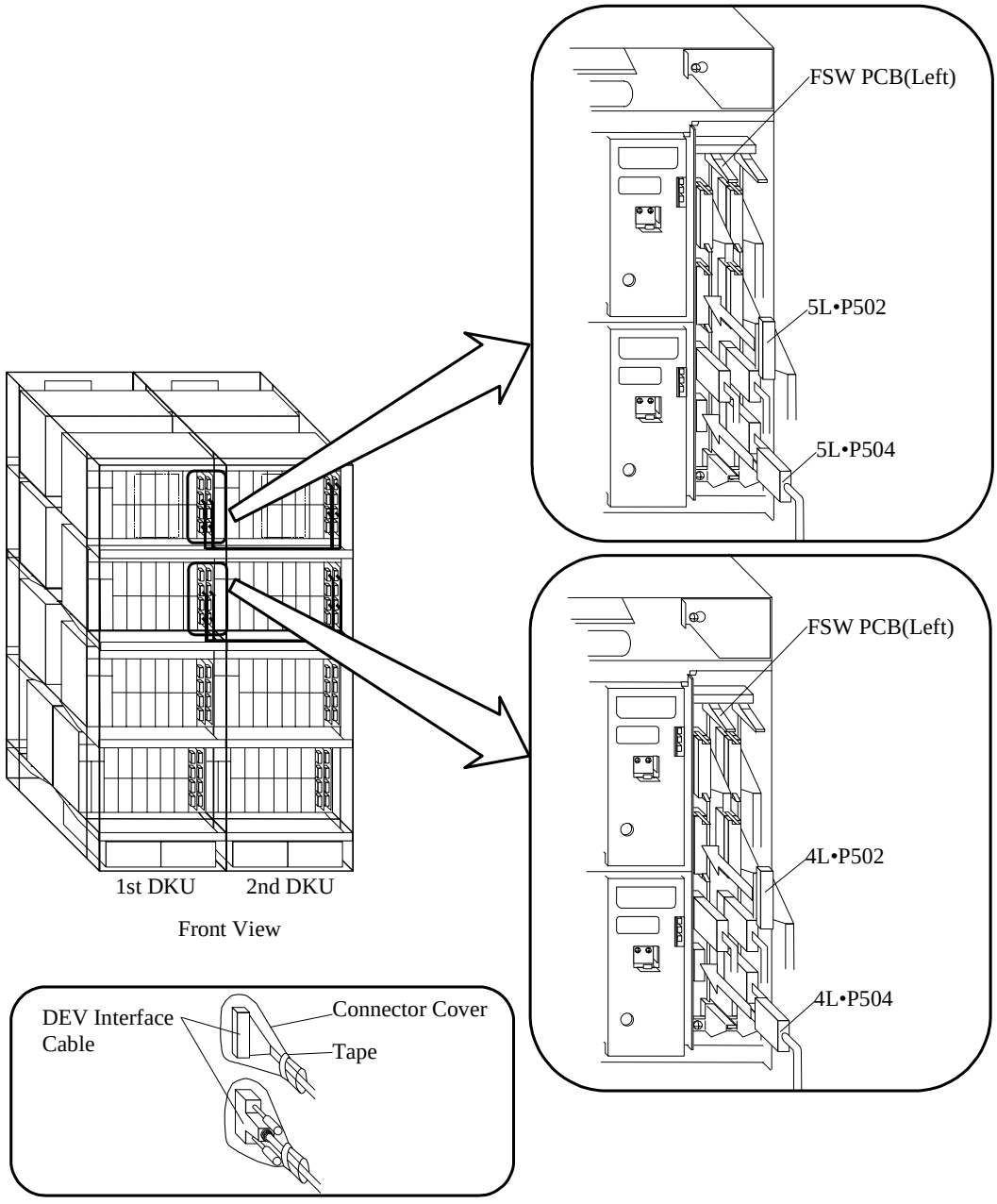


Fig. 3.12.3.4-10 Connection of the DEV Interface Cables

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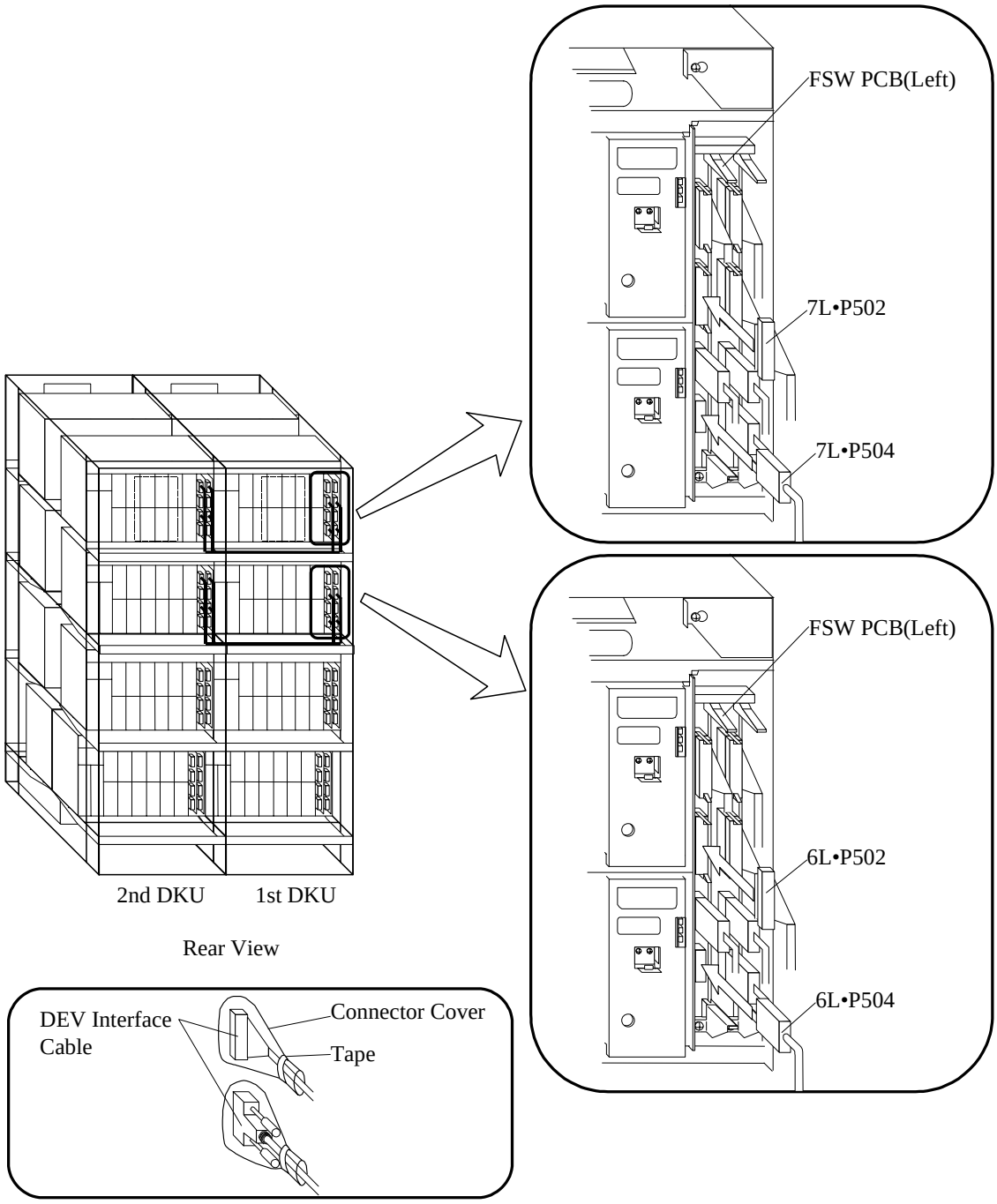


Fig. 3.12.3.4-11 Connection of the DEV Interface Cables

10. Return to INST02-320 ⑦ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2160 when connecting the additional DEV interface cable with the sub-system switched off.

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11. Attach the side plates in the reverse order of Step 2.
12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

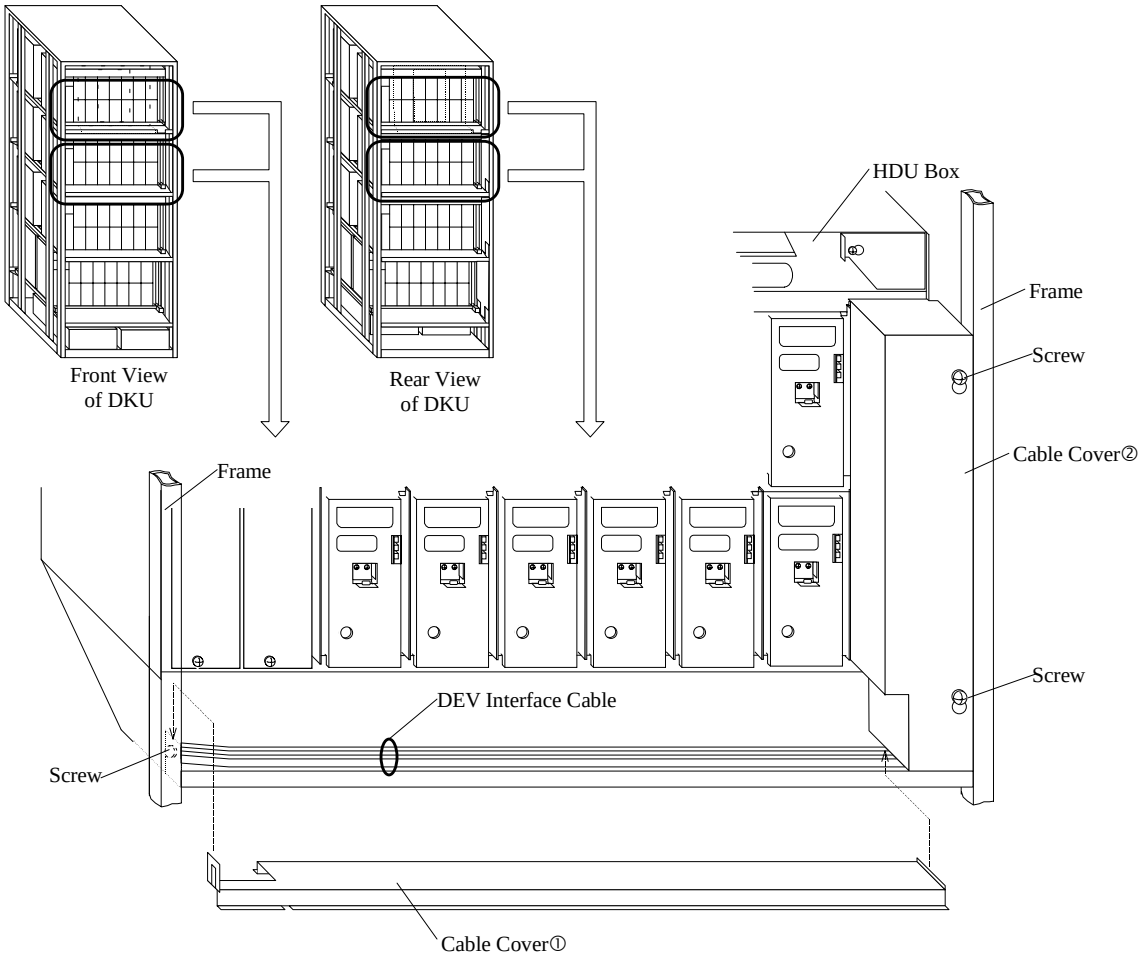


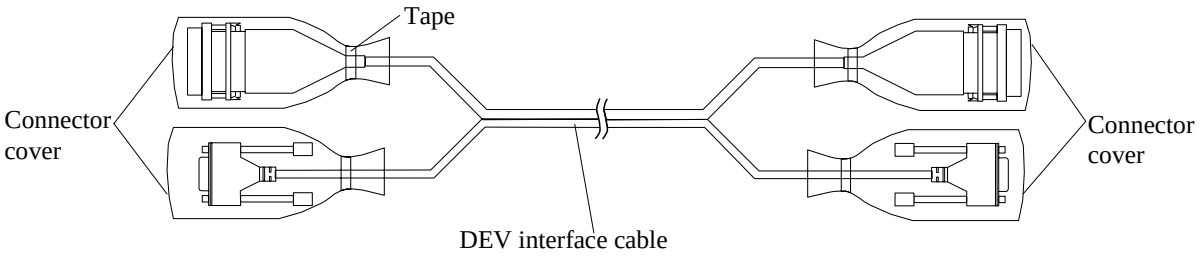
Fig. 3.12.3.4-12 Fixation of the DEV Interface Cables

13. Go to INST02-330 Step ⑨.

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3.12.3.5 Connection Procedure of DEV Interface Cables (In case of HDU-L23 from L20)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

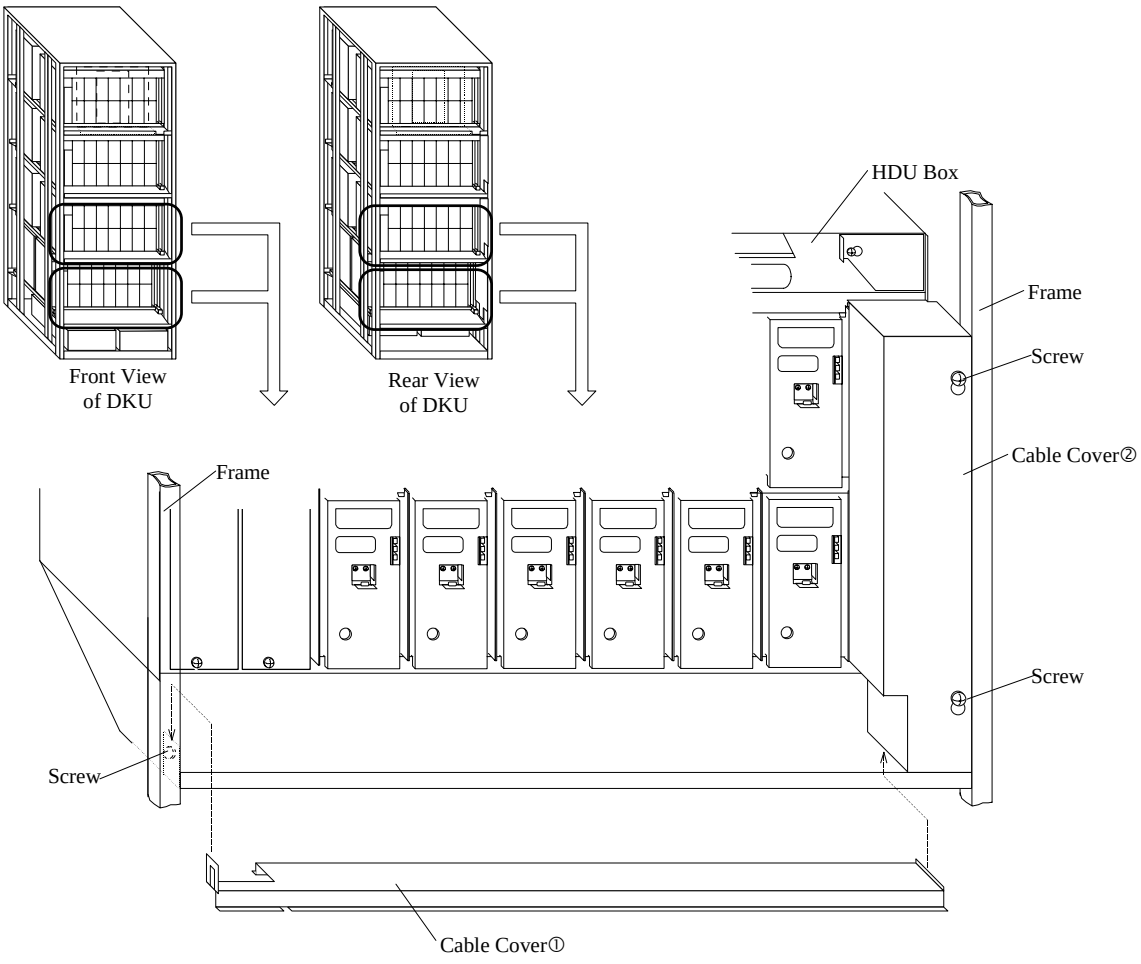


Fig. 3.12.3.5-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

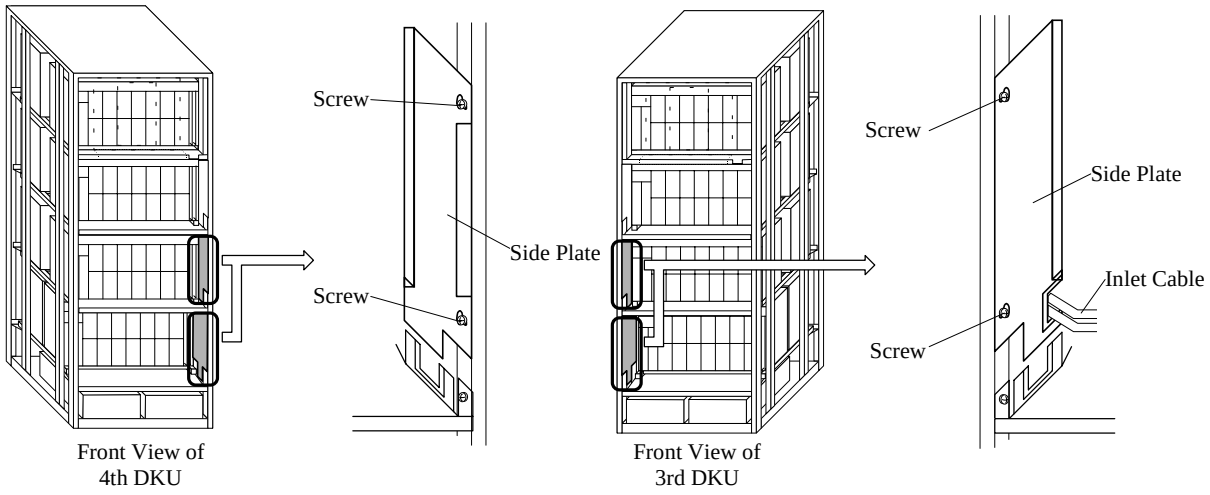


Fig. 3.12.3.5-2 Removal of Side Plates (Front View)

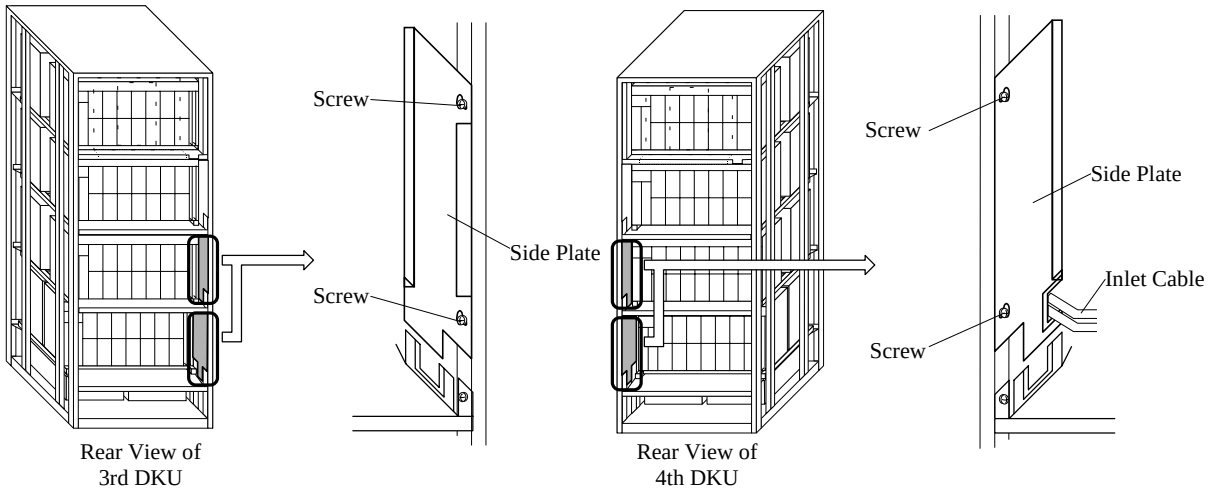


Fig. 3.12.3.5-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the fourth DKU frame. Refer to figures 3.12.3.5-4 and 3.12.3.5-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

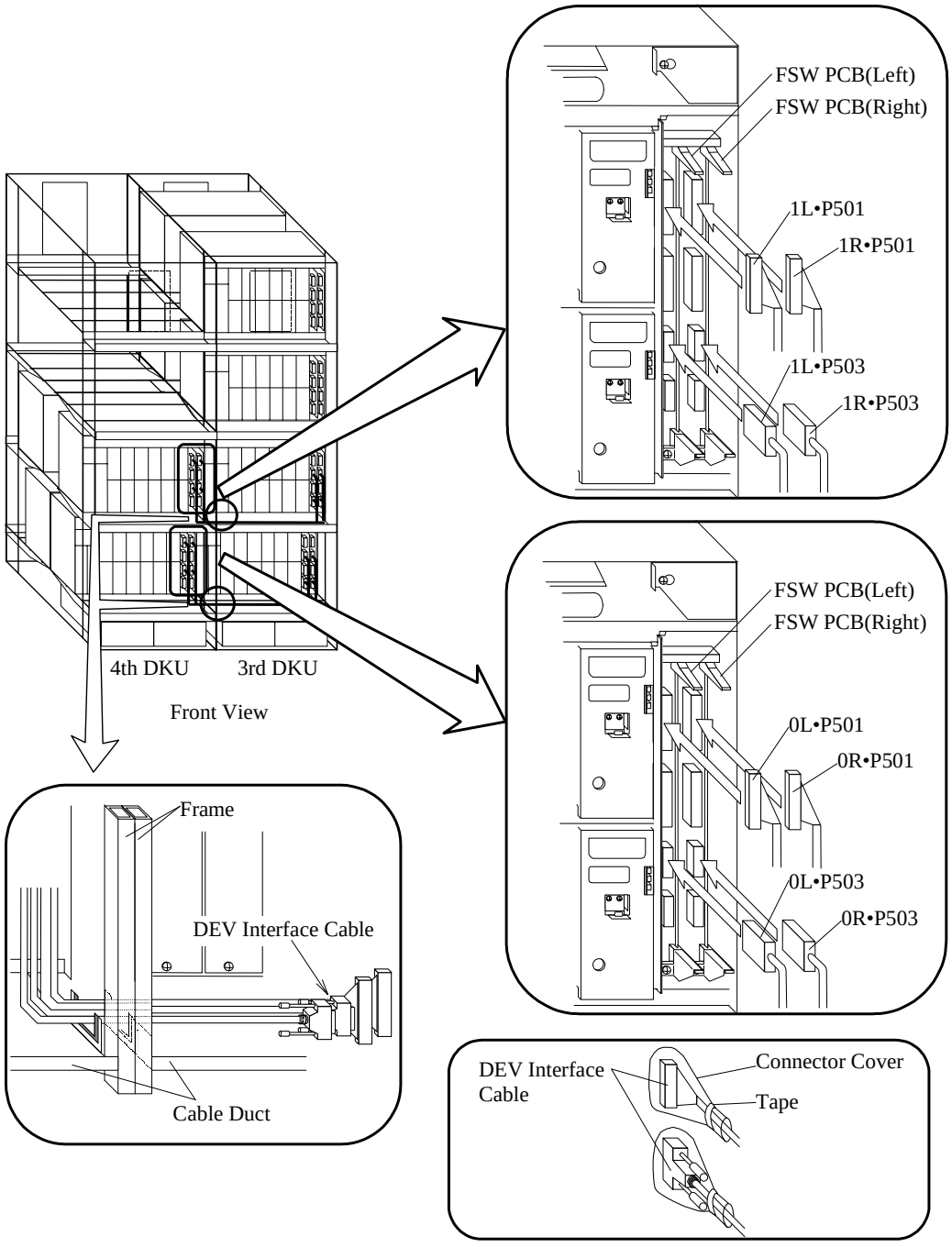


Fig. 3.12.3.5-4 Connection of the DEV Interface Cables

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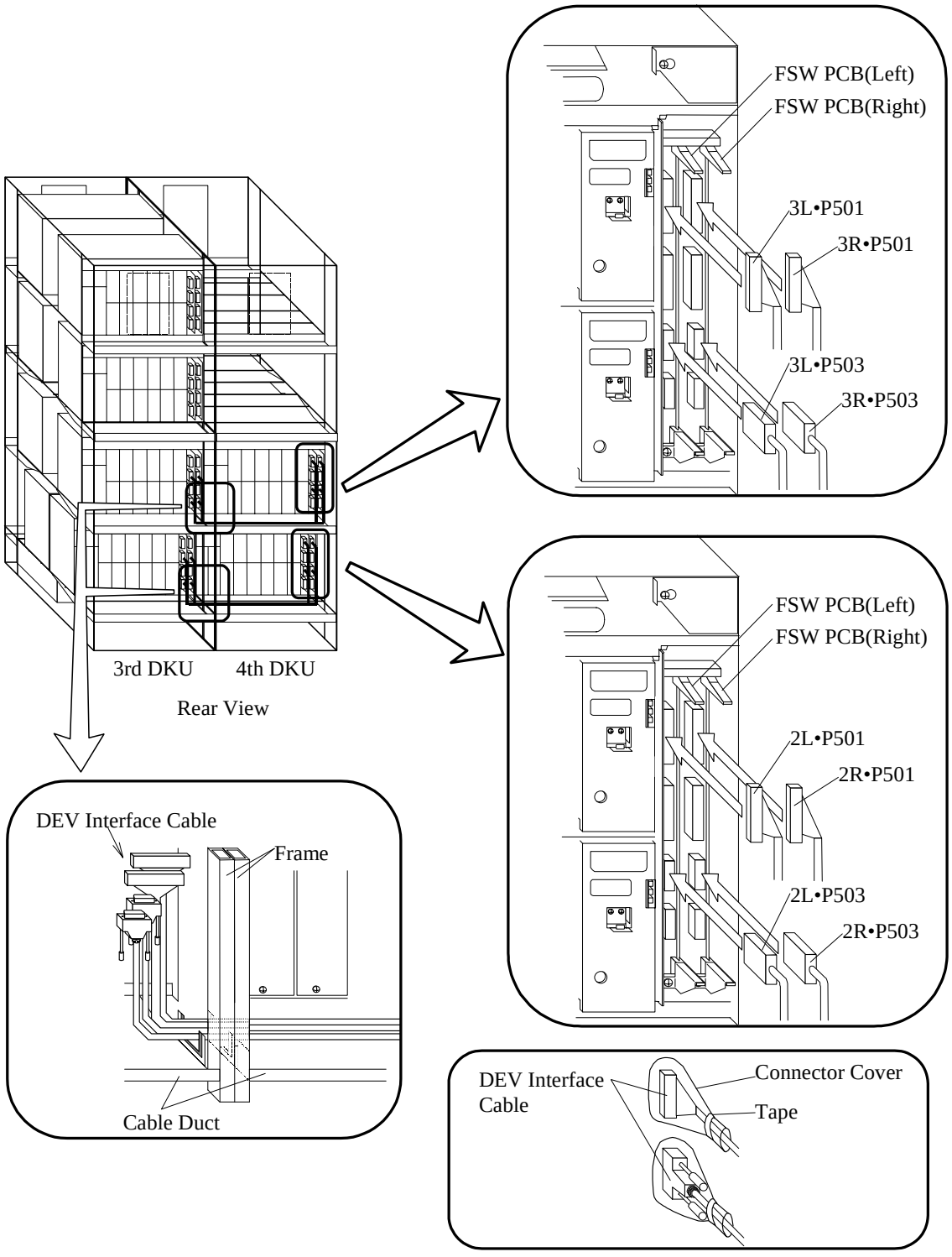


Fig. 3.12.3.5-5 Connection of the DEV Interface Cables

4. Return to INST02-300 ③ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2200 when connecting the additional DEV interface cable with the sub-system switched off.

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5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the third DKU frame. Refer to figures 3.12.3.5-7 and 3.12.3.5-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

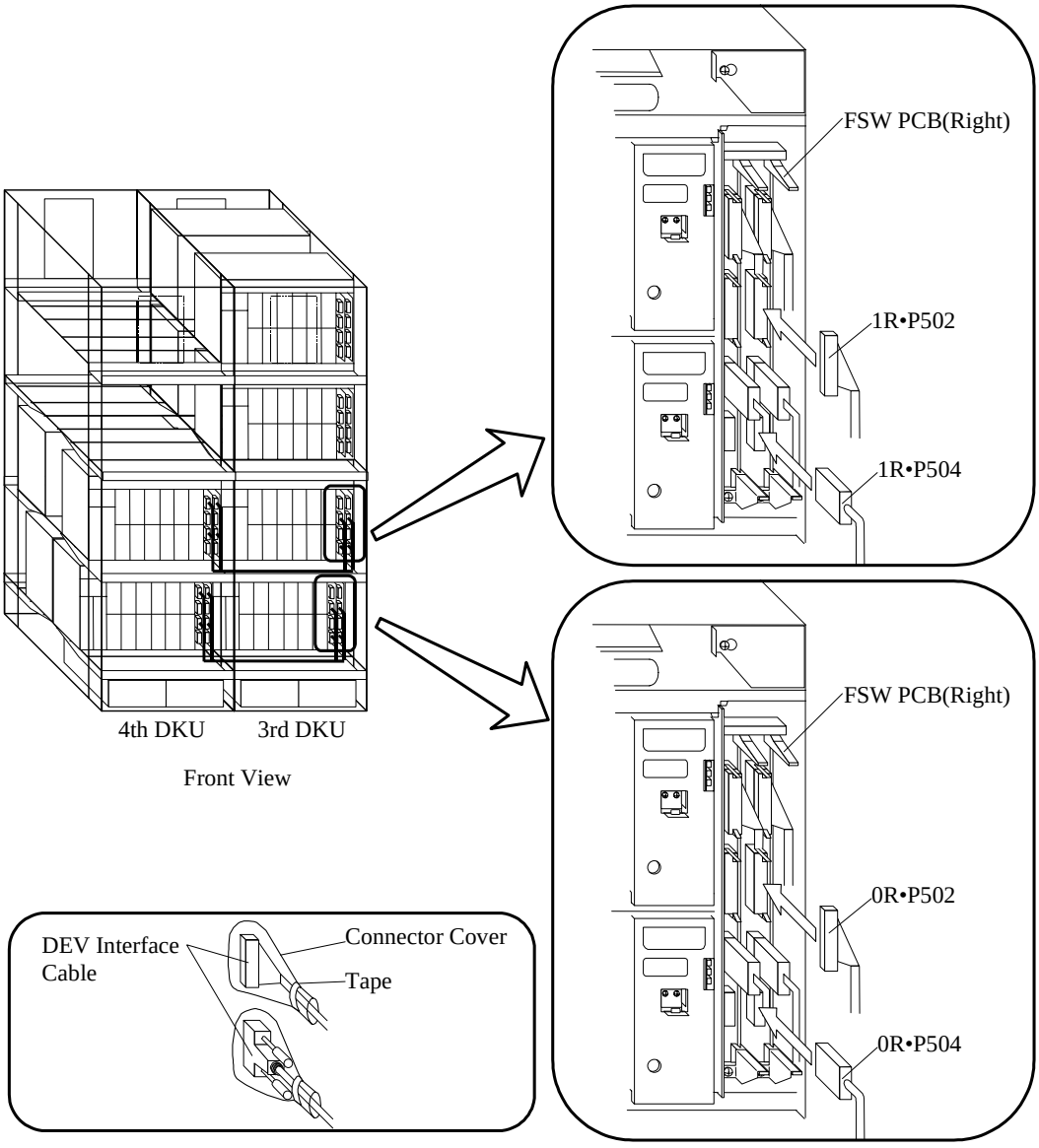


Fig. 3.12.3.5-7 Connection of the DEV Interface Cables

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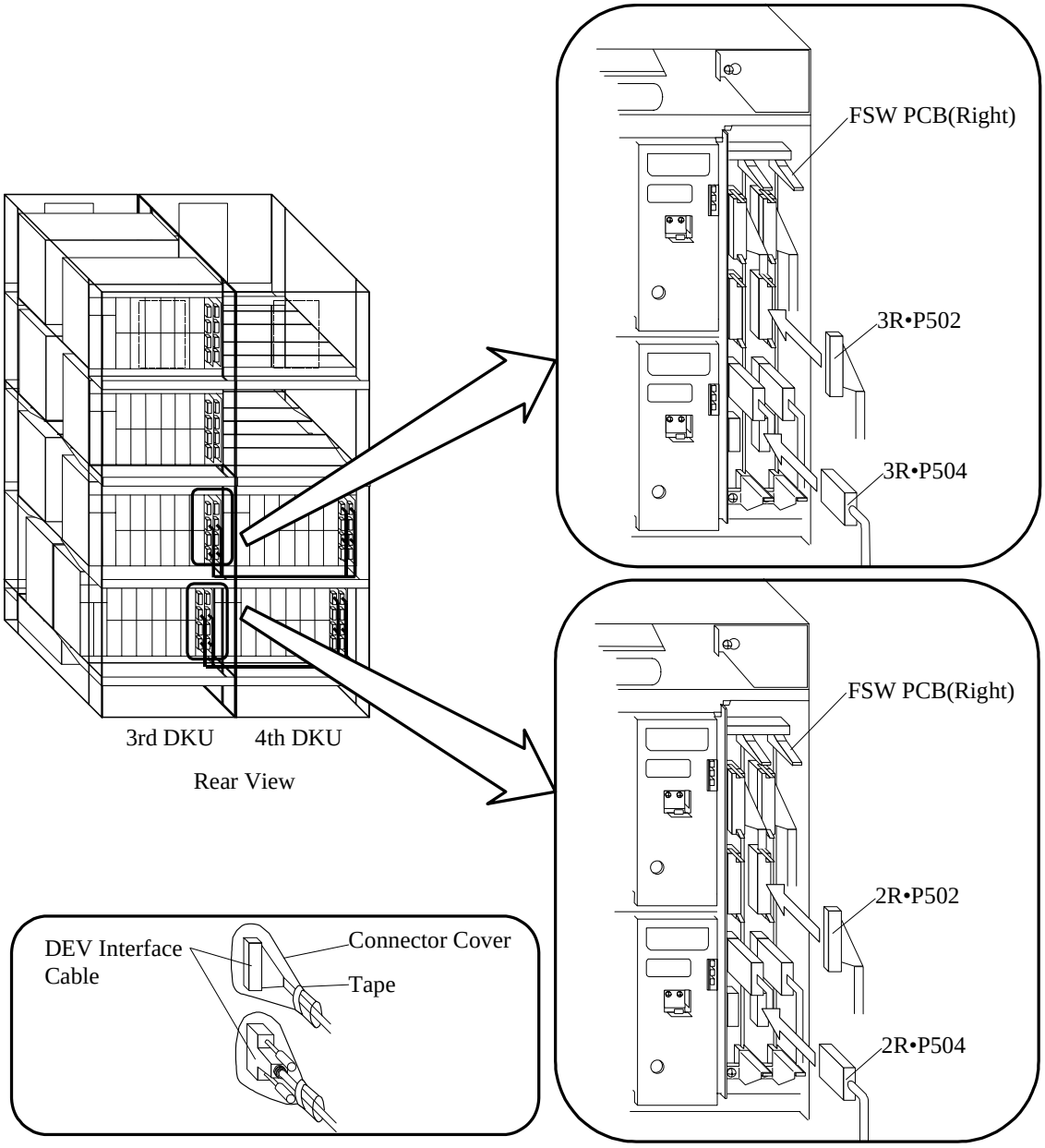


Fig. 3.12.3.5-8 Connection of the DEV Interface Cables

7. Return to INST02-310 ⑤ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2230 when connecting the additional DEV interface cable with the sub-system switched off.

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8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the third DKU frame. Refer to figures 3.12.3.5-10 and 3.12.3.5-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

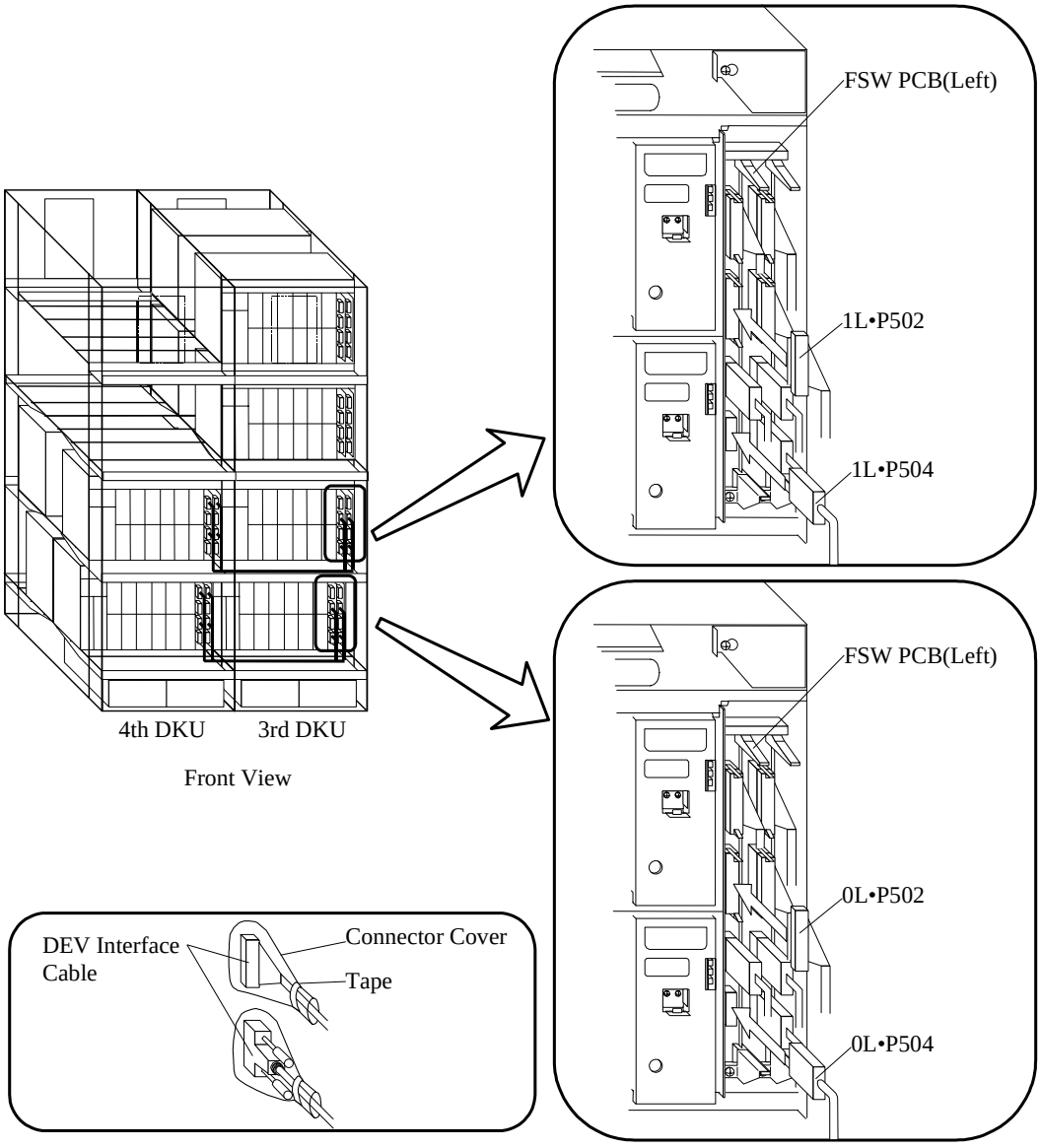


Fig. 3.12.3.5-10 Connection of the DEV Interface Cables

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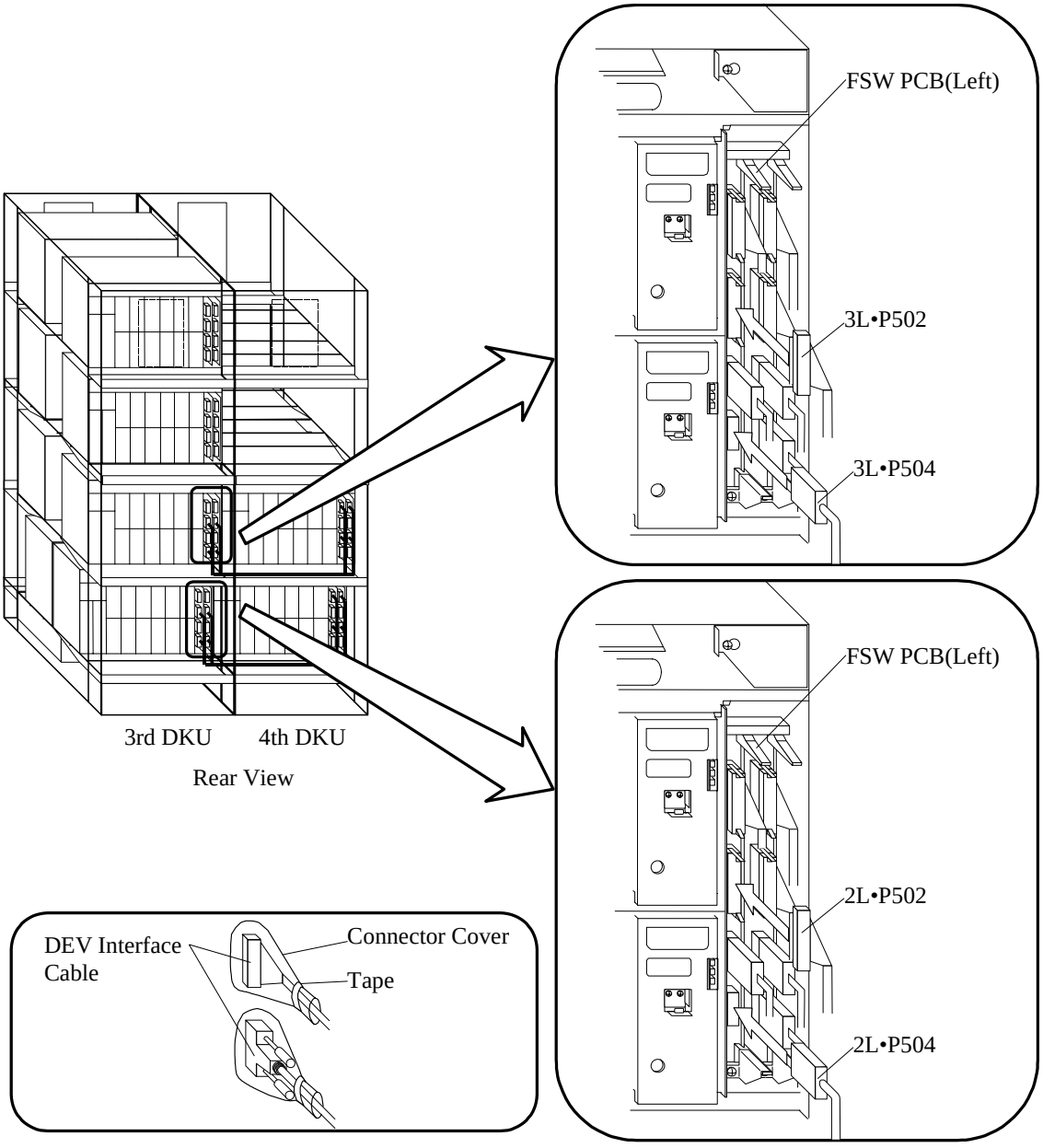


Fig. 3.12.3.5-11 Connection of the DEV Interface Cables

10. Return to INST02-320 ⑦ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2250 when connecting the additional DEV interface cable with the sub-system switched off.

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11. Attach the side plates in the reverse order of Step 2.
12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

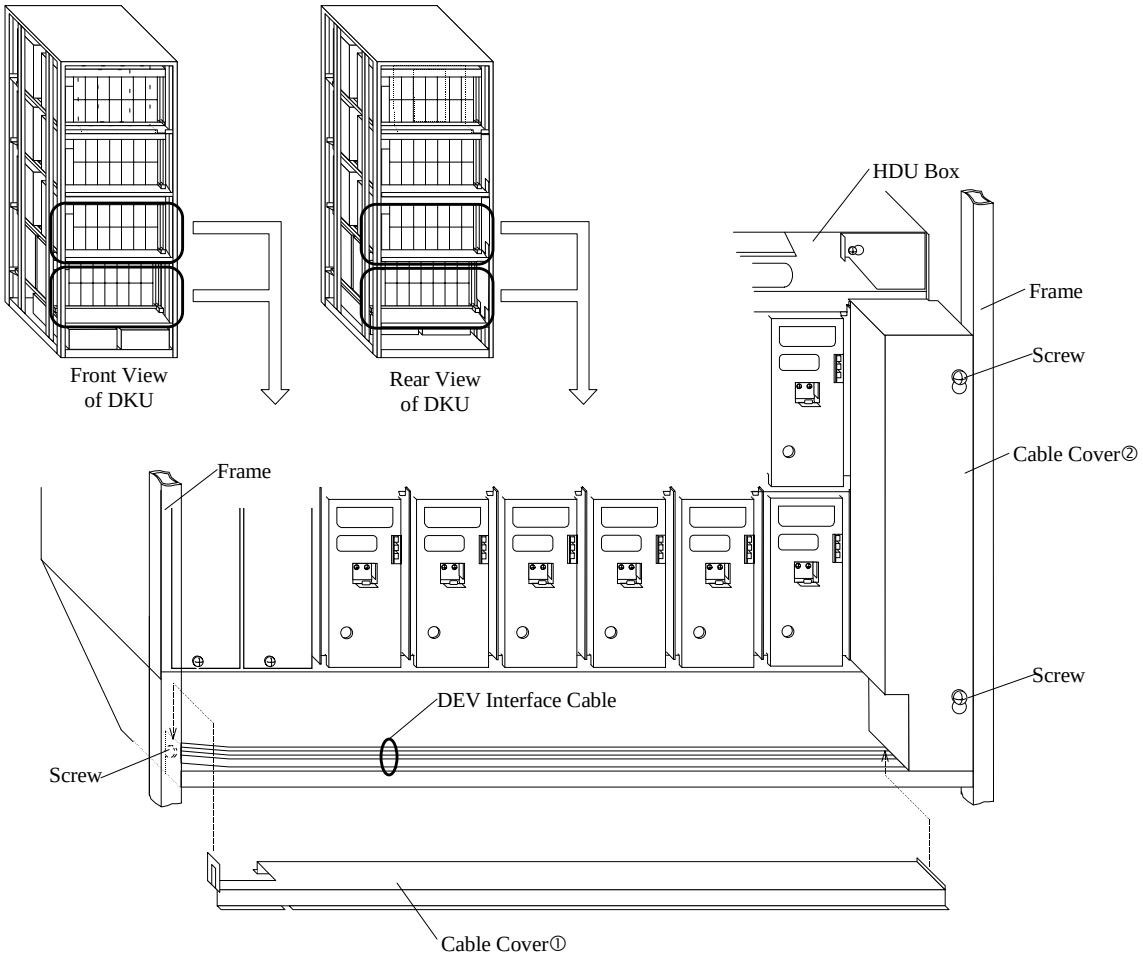


Fig. 3.12.3.5-12 Fixation of the DEV Interface Cables

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13. Attach the nameplate to the fourth DKU frame.

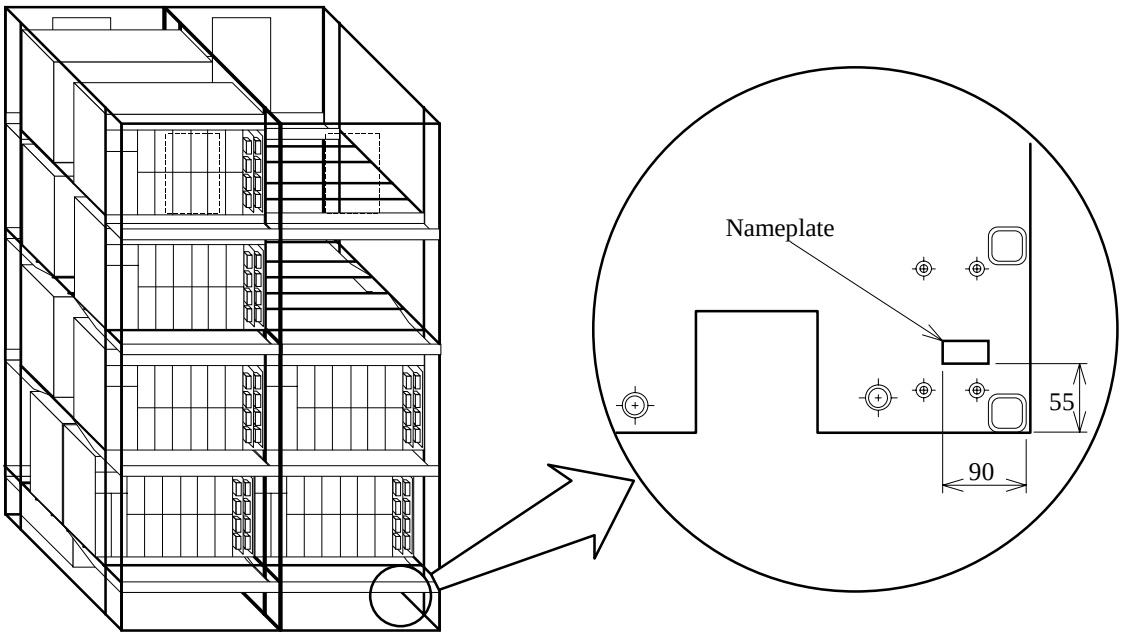


Fig. 3.12.3.5-13 Attachment of the Nameplate

14. When the fourth DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the fourth DKU frame with the binders.

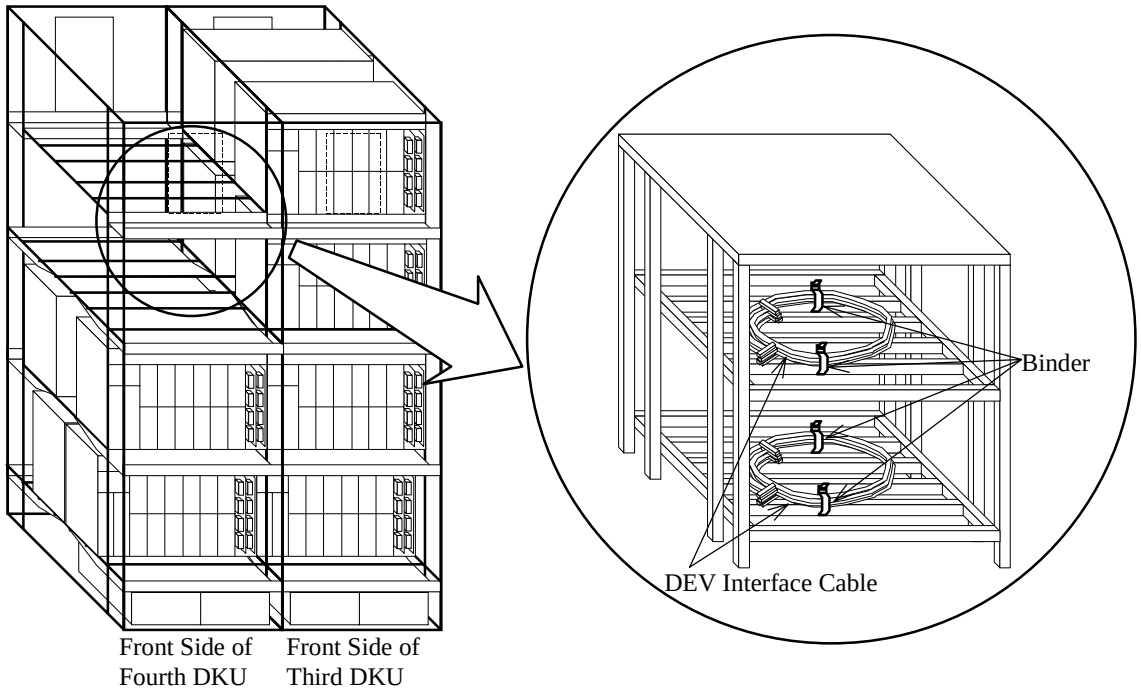


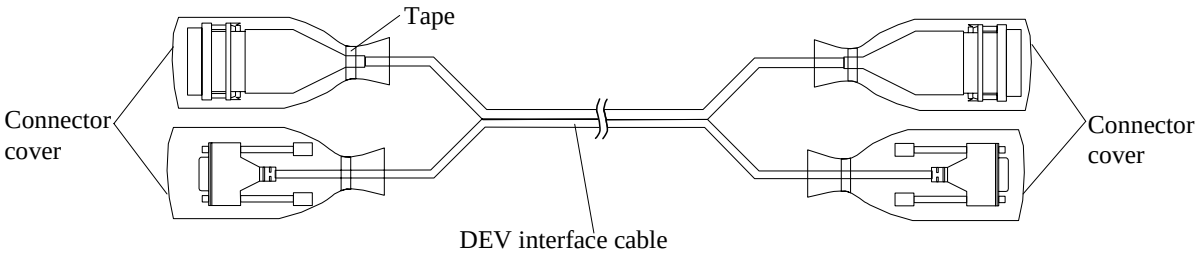
Fig. 3.12.3.5-14 Fixation of the DEV Interface Cables

15. Go to INST02-330 Step ⑨.

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3.12.3.6 Connection Procedure of DEV Interface Cables (In case of HDU-L27 from L24)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

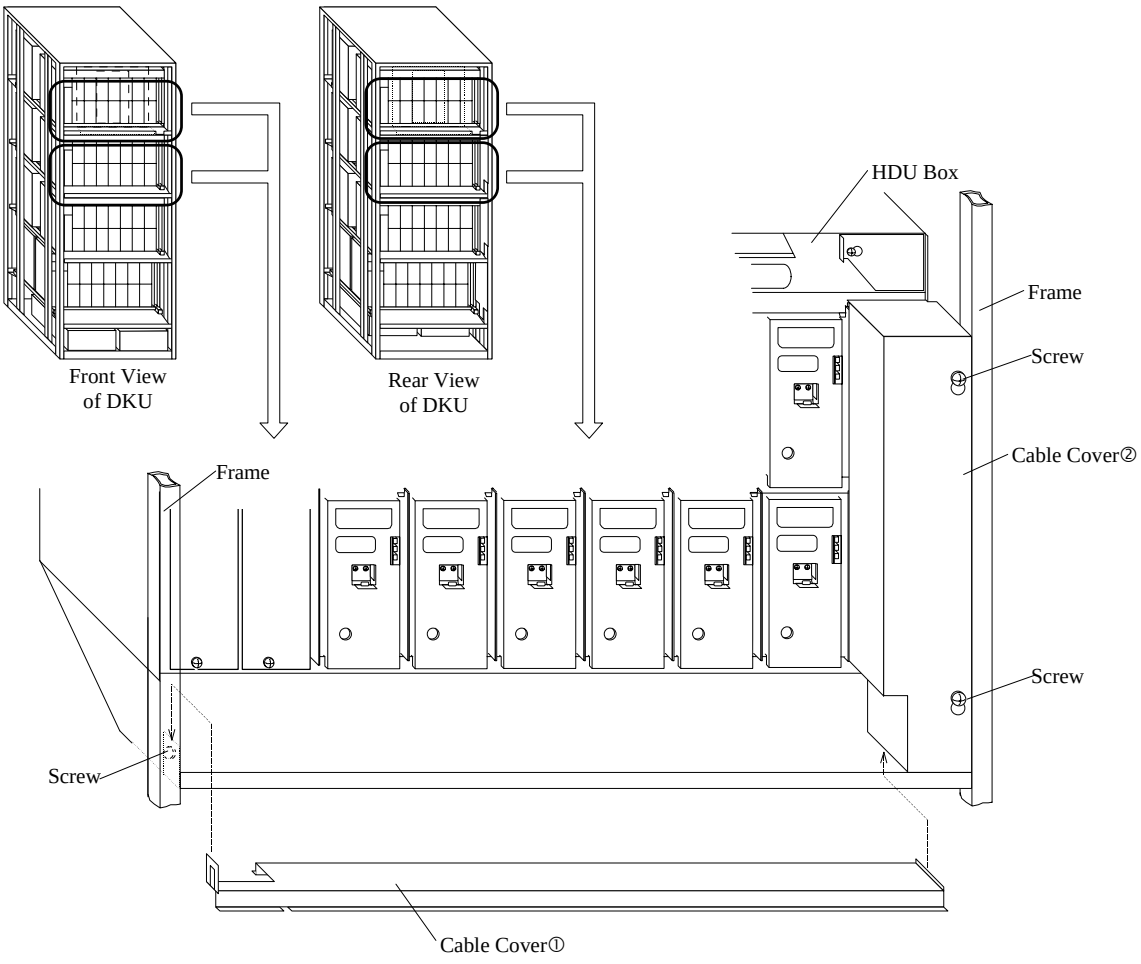


Fig. 3.12.3.6-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

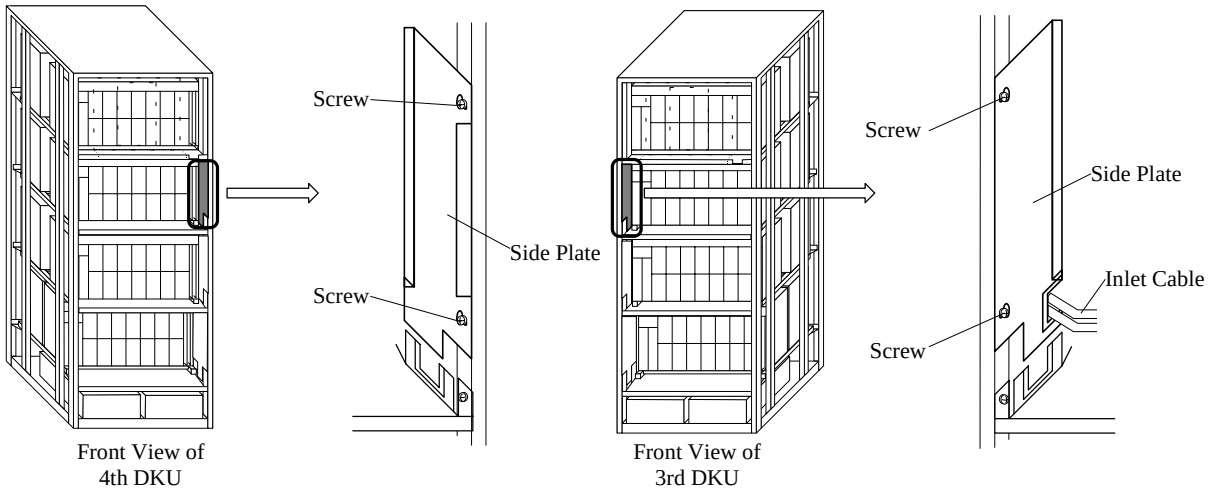


Fig. 3.12.3.6-2 Removal of Side Plates (Front View)

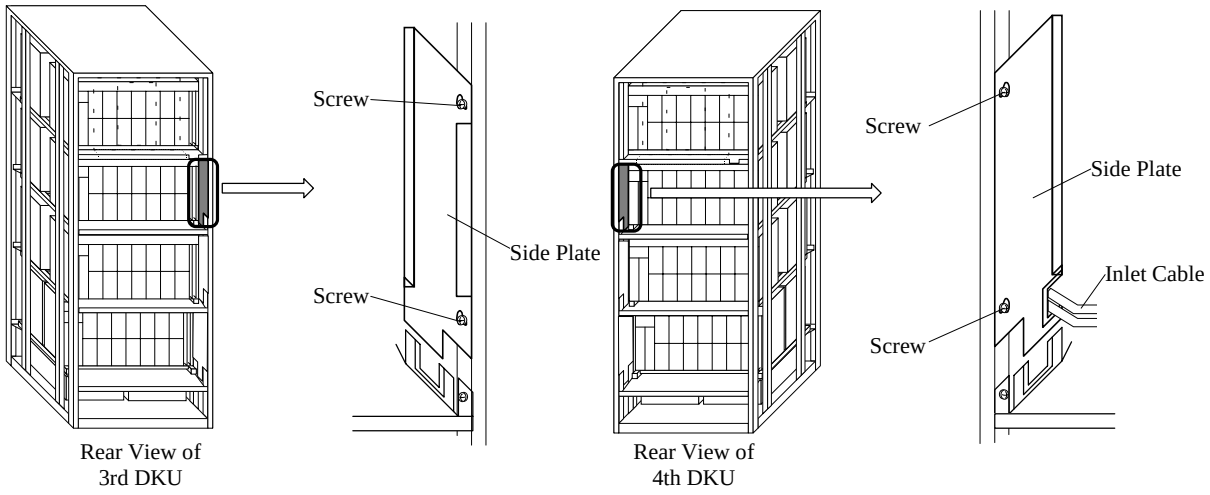


Fig. 3.12.3.6-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the fourth DKU frame. Refer to figures 3.12.3.6-4 and 3.12.3.6-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

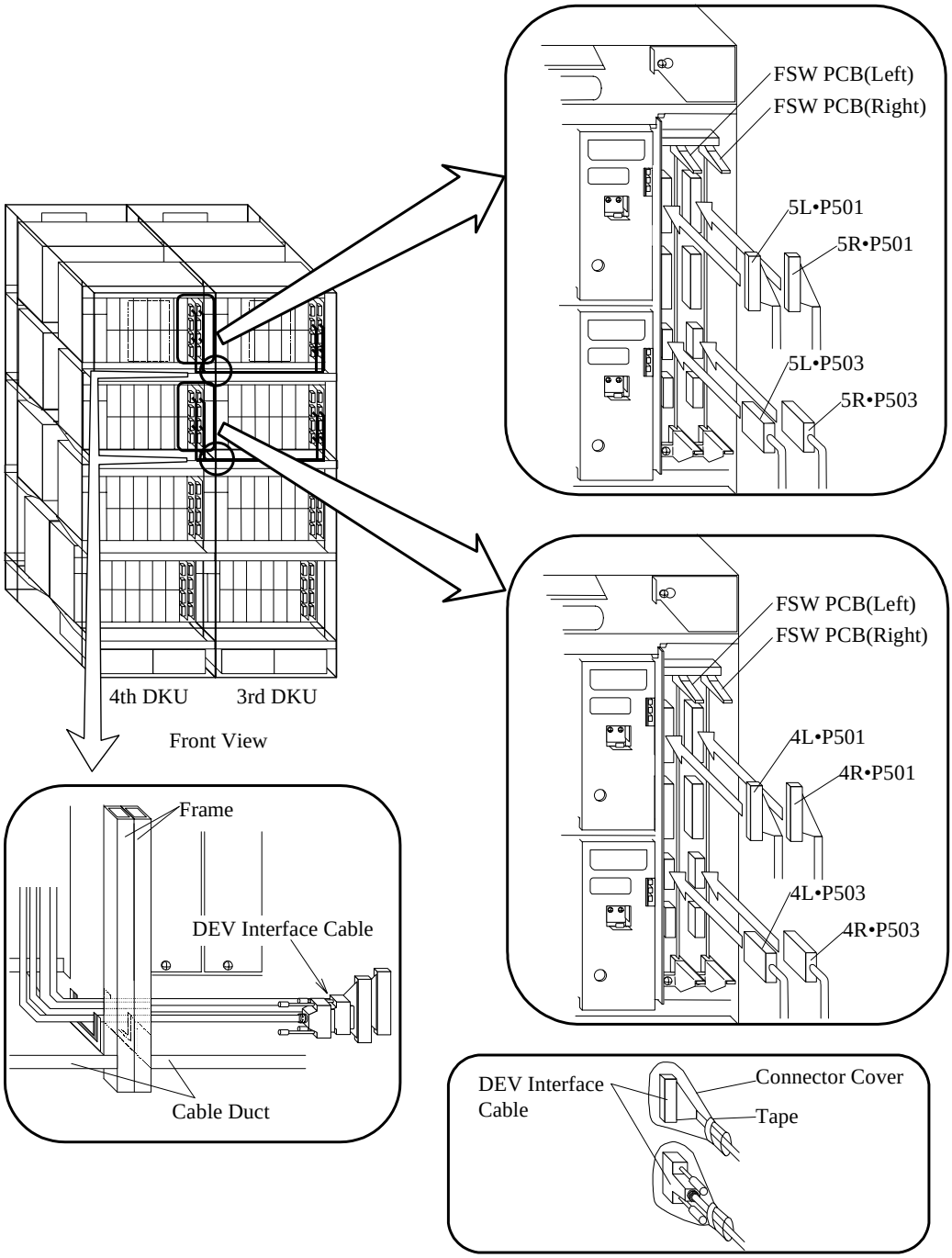


Fig. 3.12.3.6-4 Connection of the DEV Interface Cables

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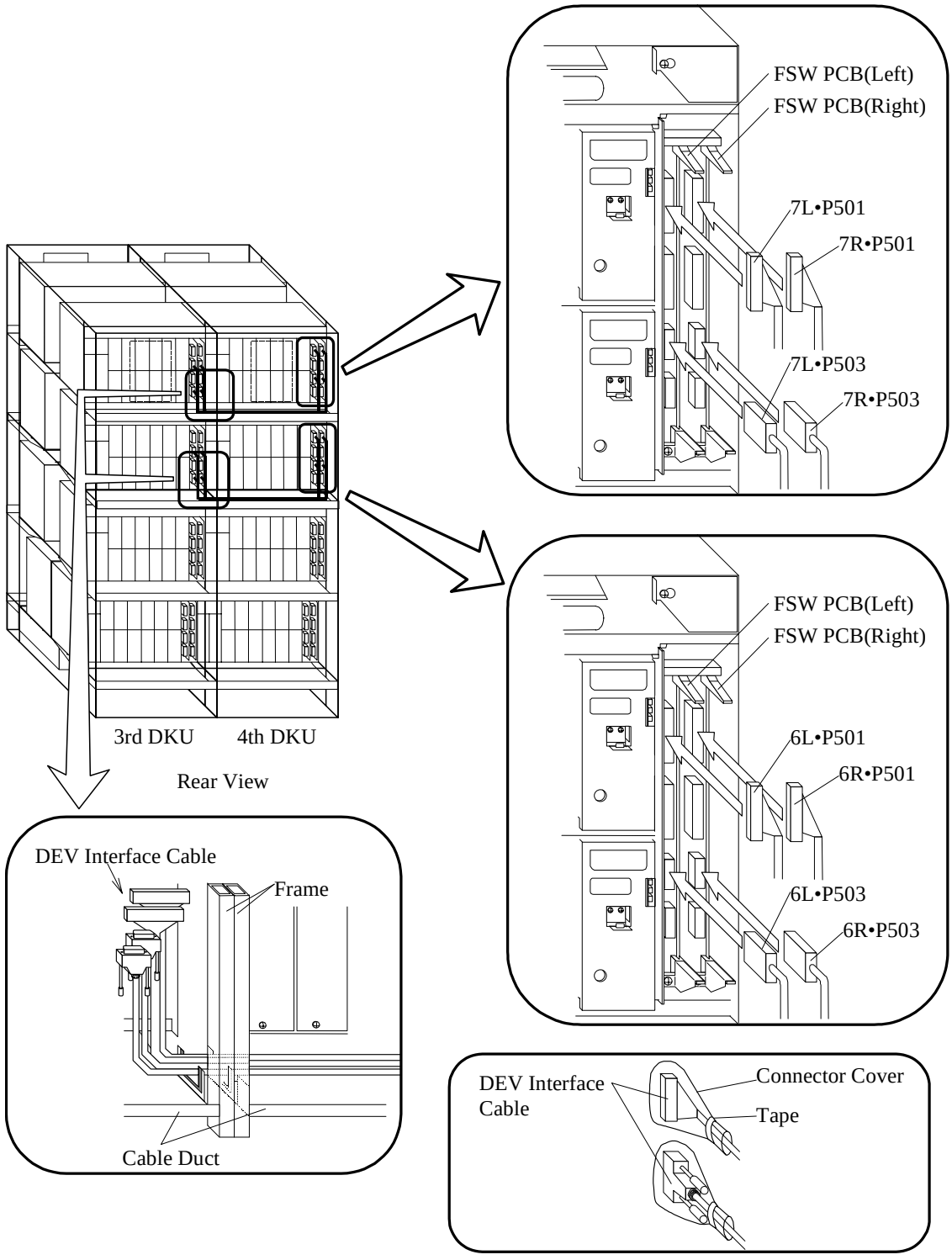


Fig. 3.12.3.6-5 Connection of the DEV Interface Cables

4. Return to INST02-300 ③ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2300 when connecting the additional DEV interface cable with the sub-system switched off.

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5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the third DKU frame. Refer to figures 3.12.3.6-7 and 3.12.3.6-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

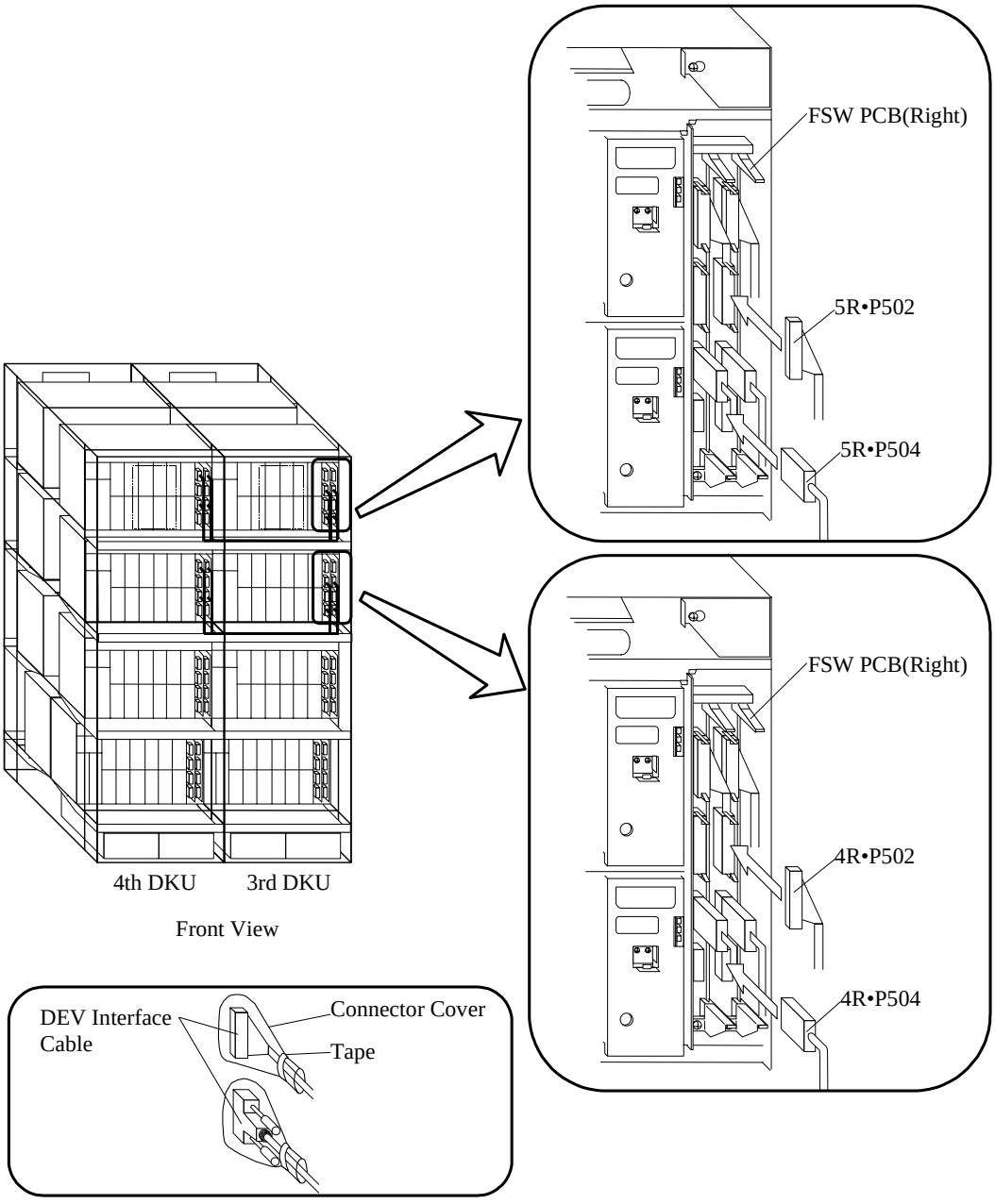


Fig. 3.12.3.6-7 Connection of the DEV Interface Cables

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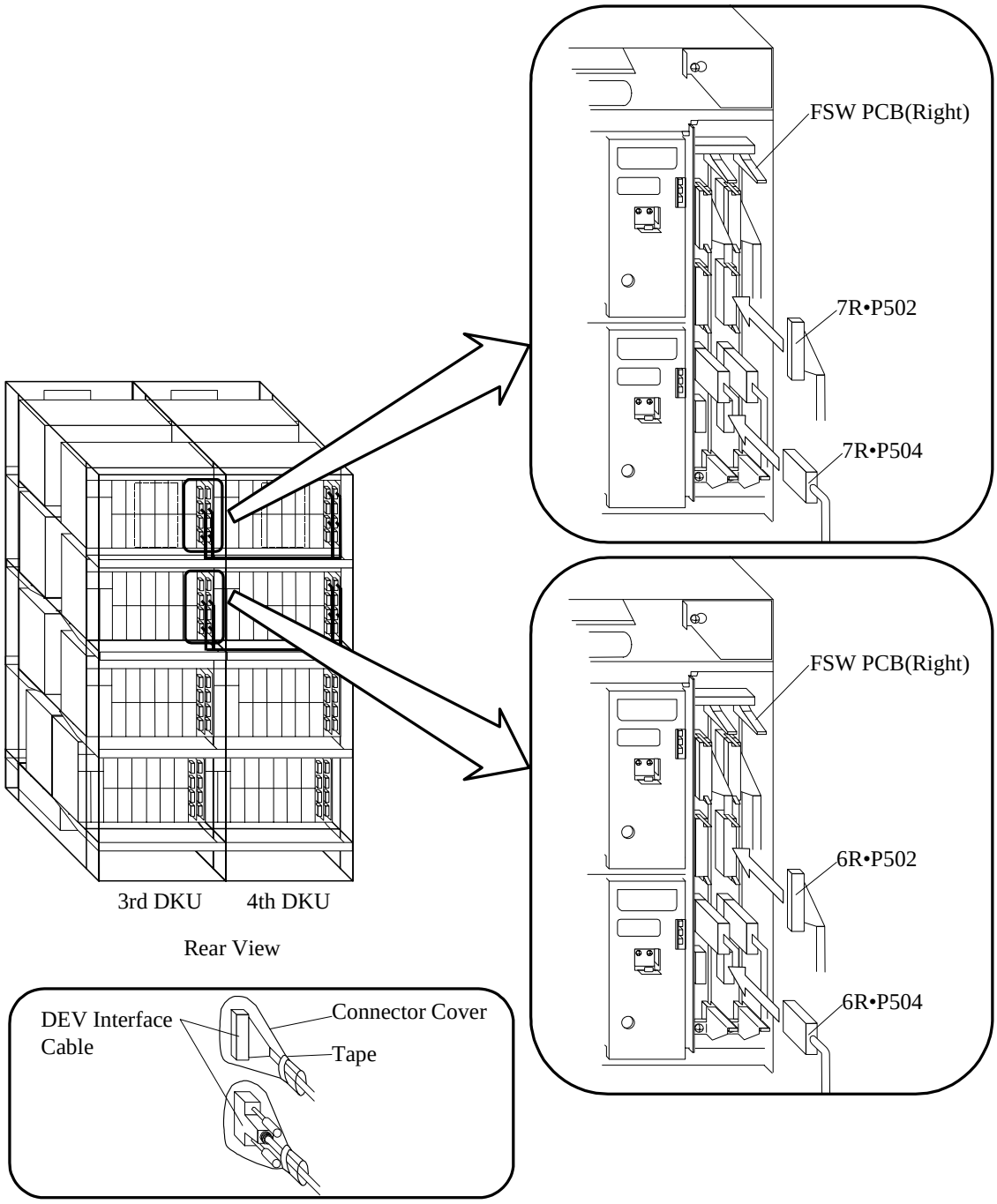


Fig. 3.12.3.6-8 Connection of the DEV Interface Cables

7. Return to INST02-310 ⑤ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2330 when connecting the additional DEV interface cable with the sub-system switched off.

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8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the third DKU frame. Refer to figures 3.12.3.6-10 and 3.12.3.6-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

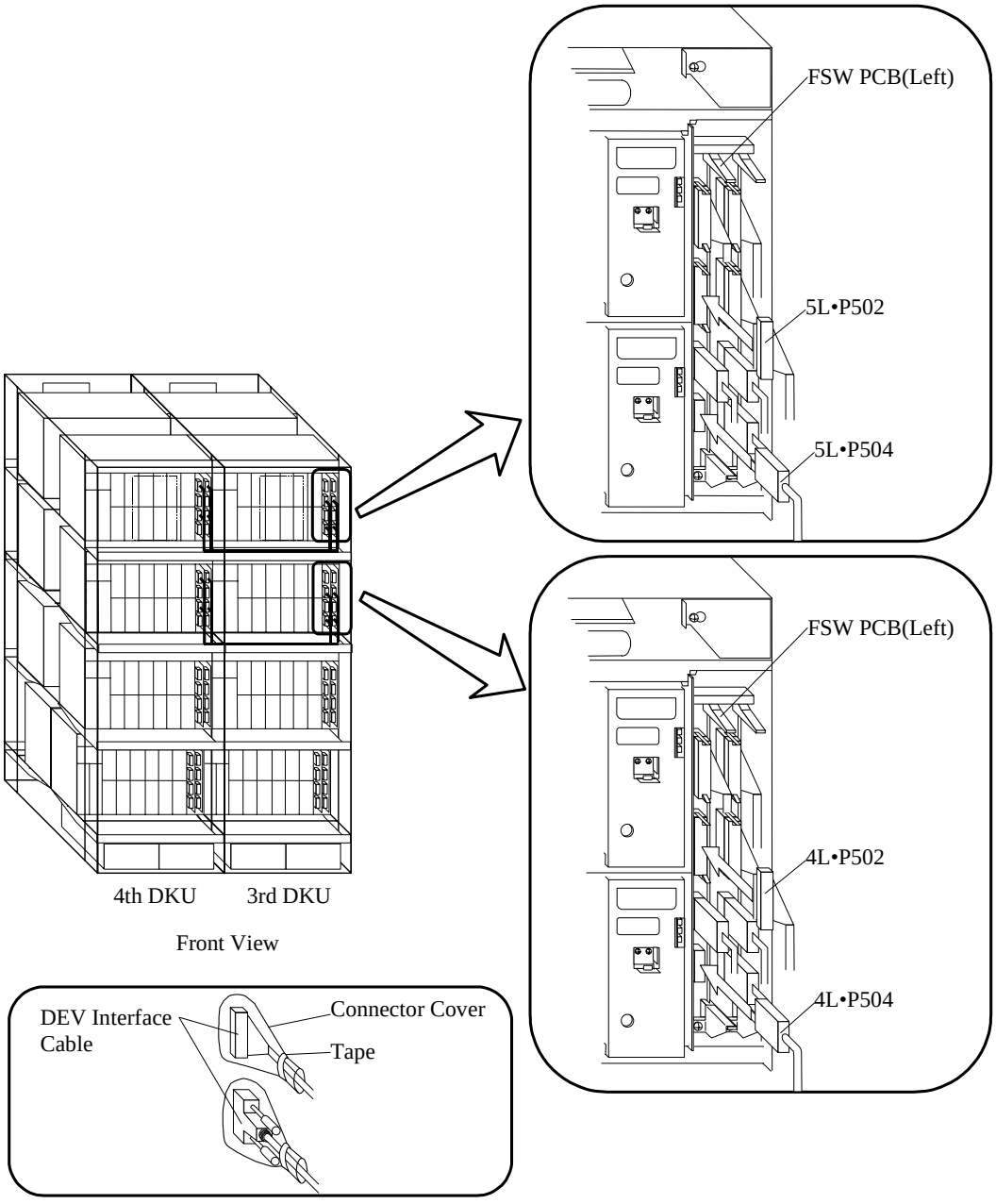


Fig. 3.12.3.6-10 Connection of the DEV Interface Cables

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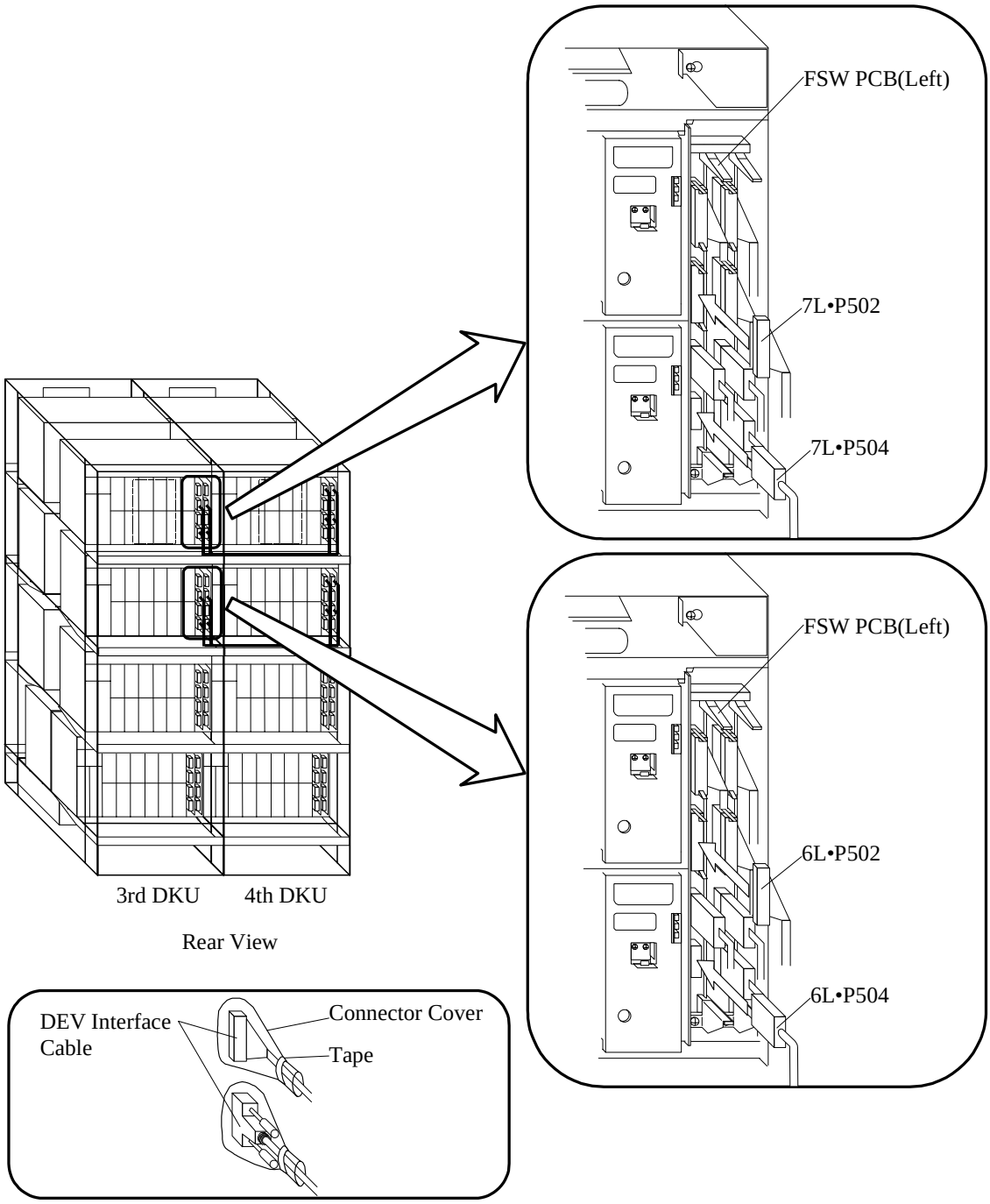


Fig. 3.12.3.6-11 Connection of the DEV Interface Cables

10. Return to INST02-320 ⑦ when connecting the additional DEV interface cable while the sub-system is in operation. Go to INST03-2350 when connecting the additional DEV interface cable with the sub-system switched off.

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11. Attach the side plates in the reverse order of Step 2.
12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

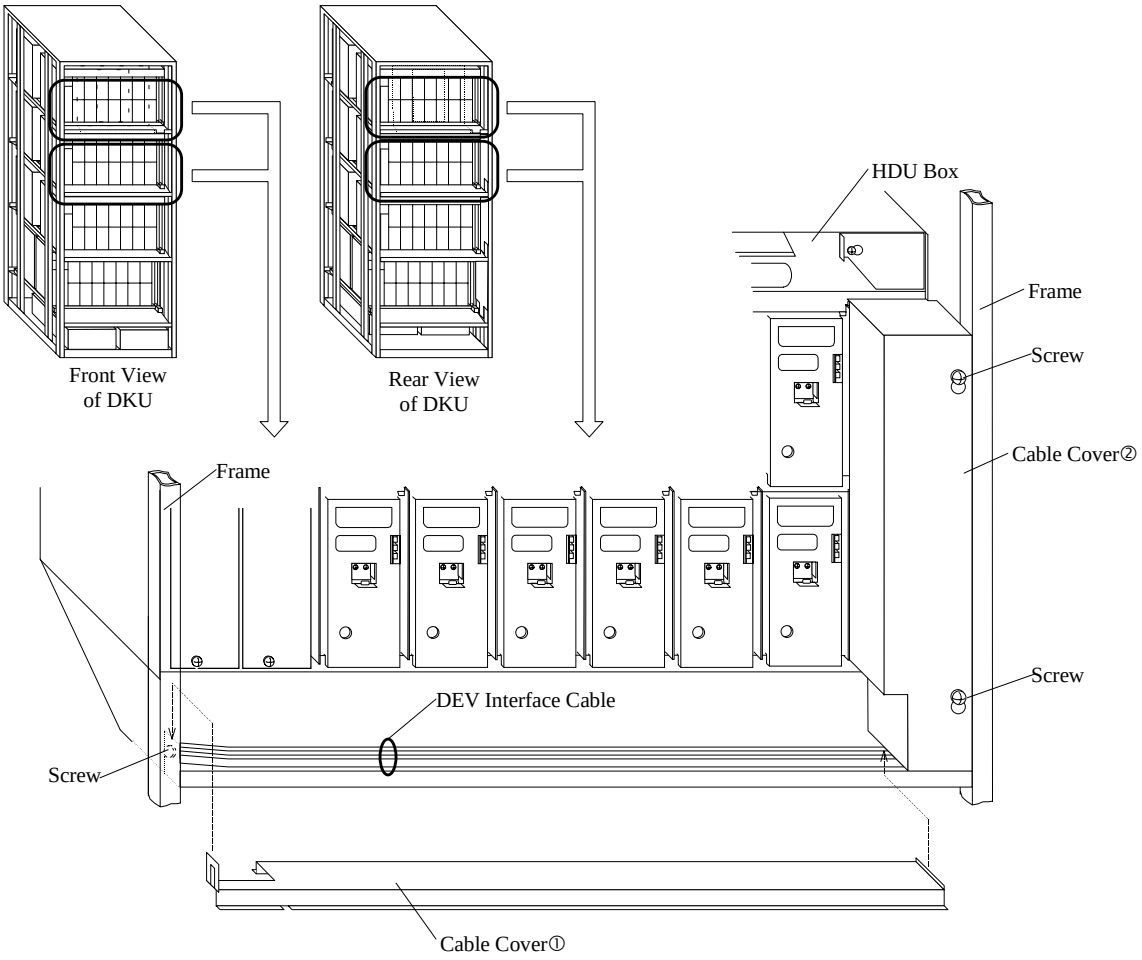


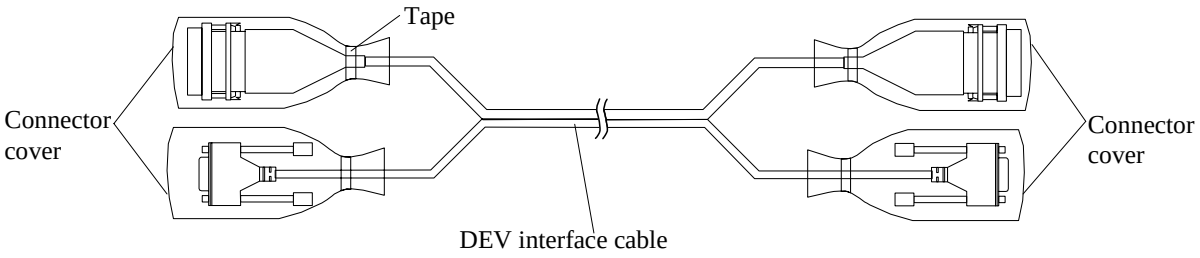
Fig. 3.12.3.6-12 Fixation of the DEV Interface Cables

13. Go to INST02-330 Step ⑨.

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3.12.3.7 Connection Procedure of DEV Interface Cables (In case of HDU-R33 from R30)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

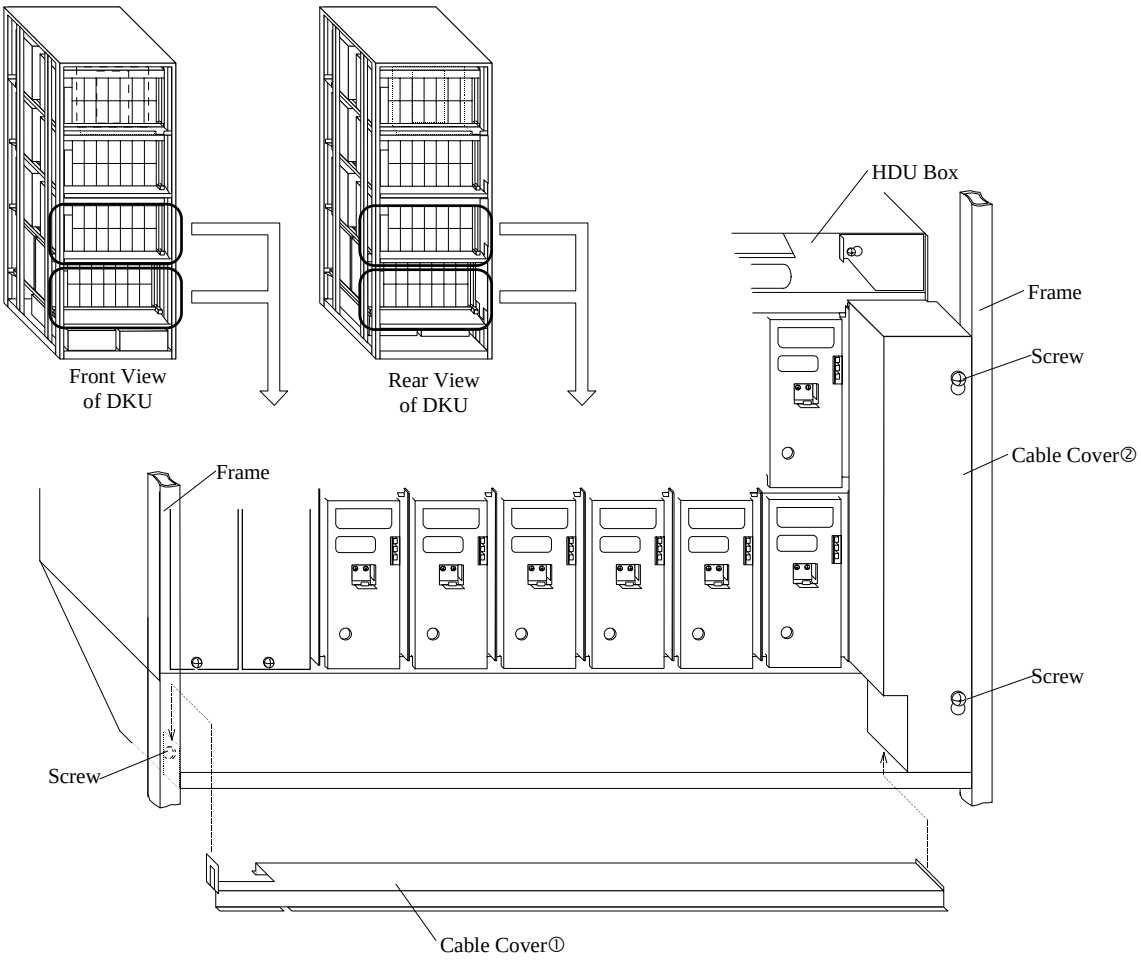


Fig. 3.12.3.7-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

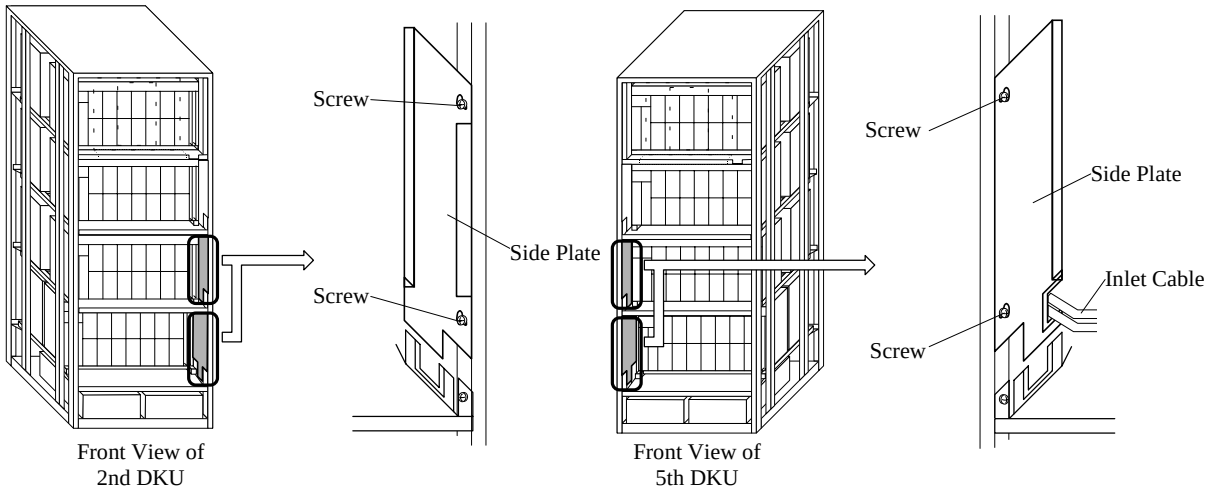


Fig. 3.12.3.7-2 Removal of Side Plates (Front View)

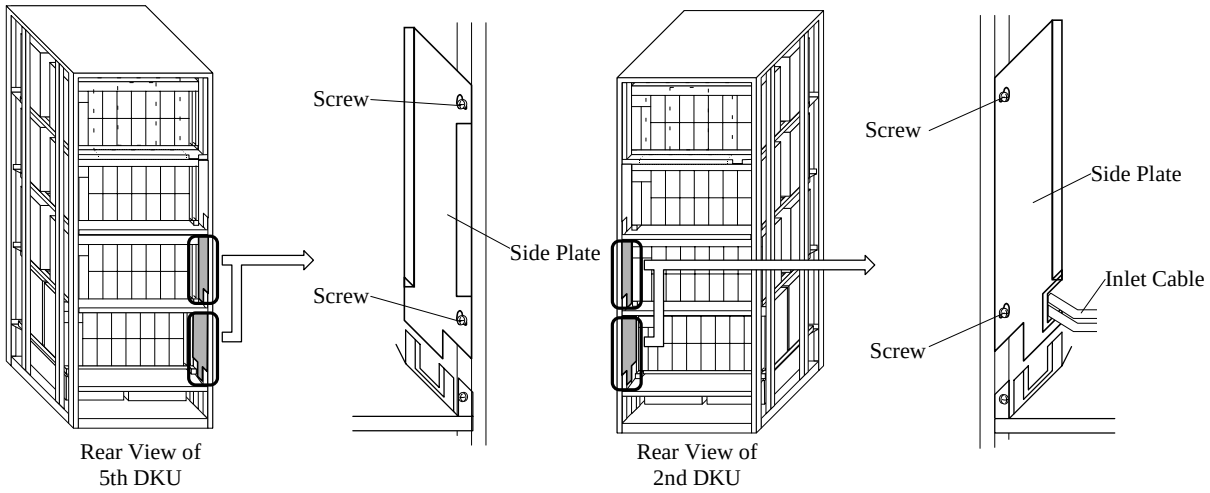


Fig. 3.12.3.7-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the fifth DKU frame. Refer to figures 3.12.3.7-4 and 3.12.3.7-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

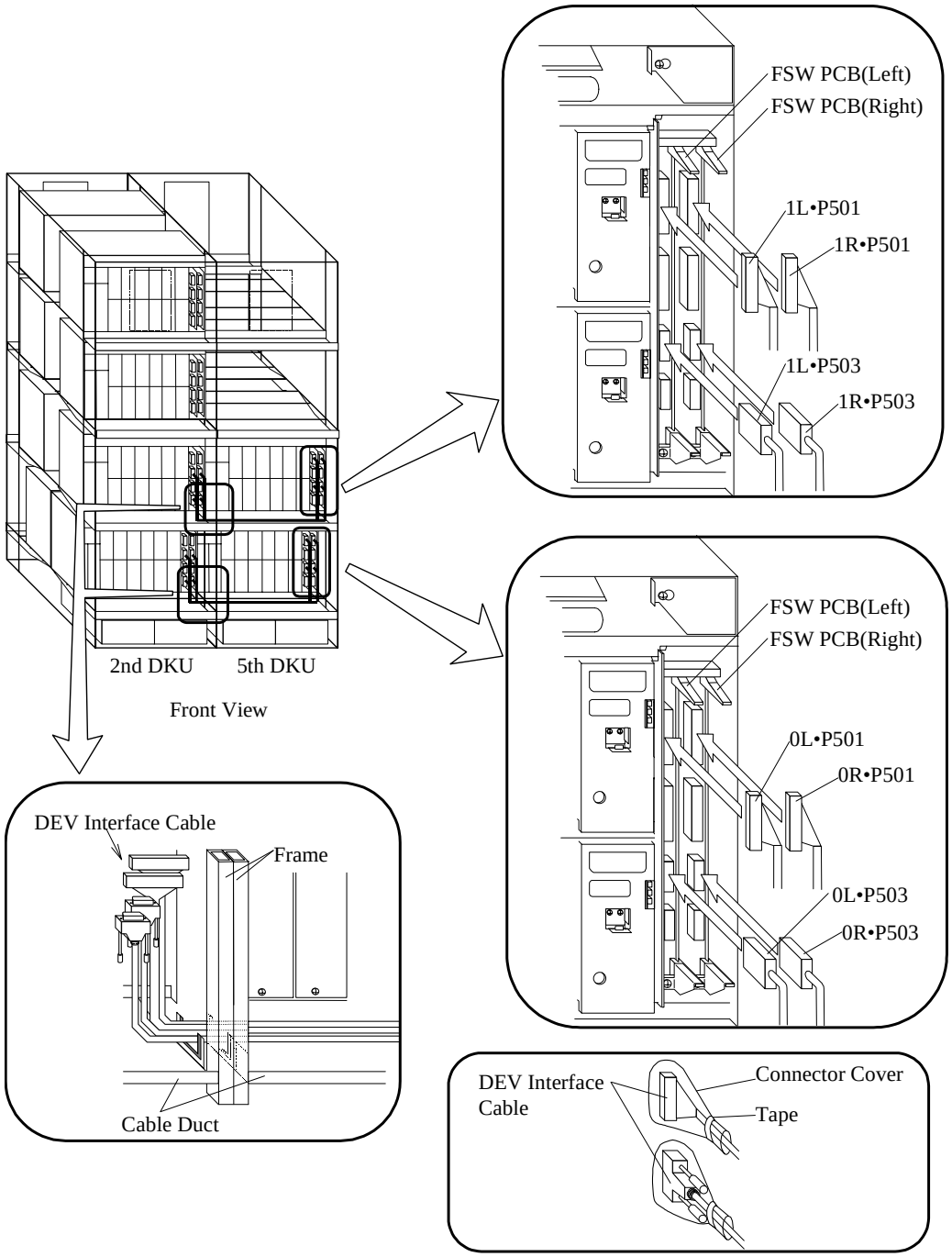


Fig. 3.12.3.7-4 Connection of the DEV Interface Cables

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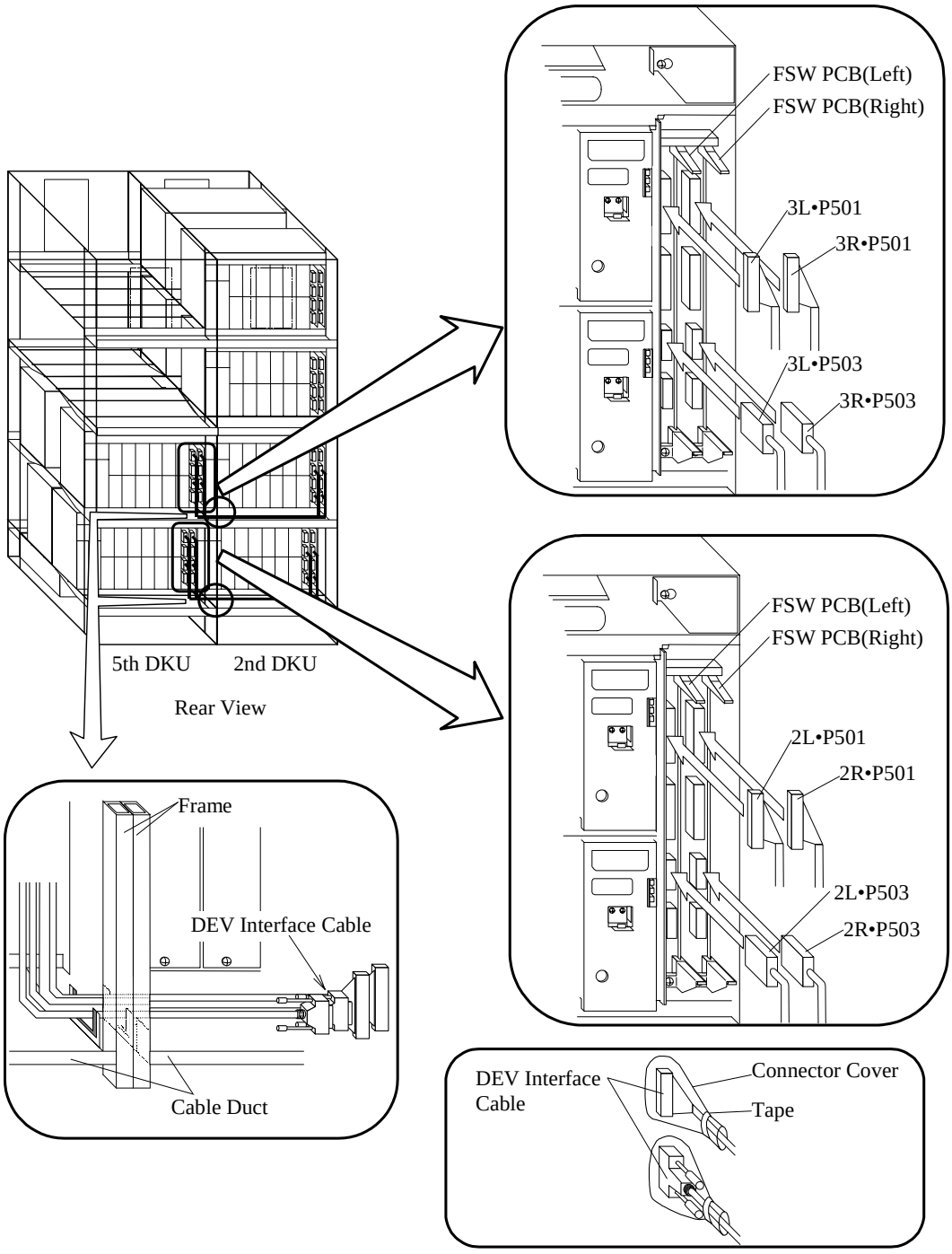


Fig. 3.12.3.7-5 Connection of the DEV Interface Cables

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4. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the First DKU frame (HDU-R10-R13) and the Second DKU frame (HDU-R20-R23) and between the Second DKU frame (HDU-R20-R23) and the Fifth DKU frame (HDU-R30-R33) at the same time), return to INST02-300 ②.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the First DKU frame (HDU-R10-R13) and the Second DKU frame (HDU-R20-R23) and between the Second DKU frame (HDU-R20-R23) and the Fifth DKU frame (HDU-R30-R33) at the same time while the subsystem is operating, go to INST03-2390.

5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the second DKU frame. Refer to figures 3.12.3.7-7 and 3.12.3.7-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

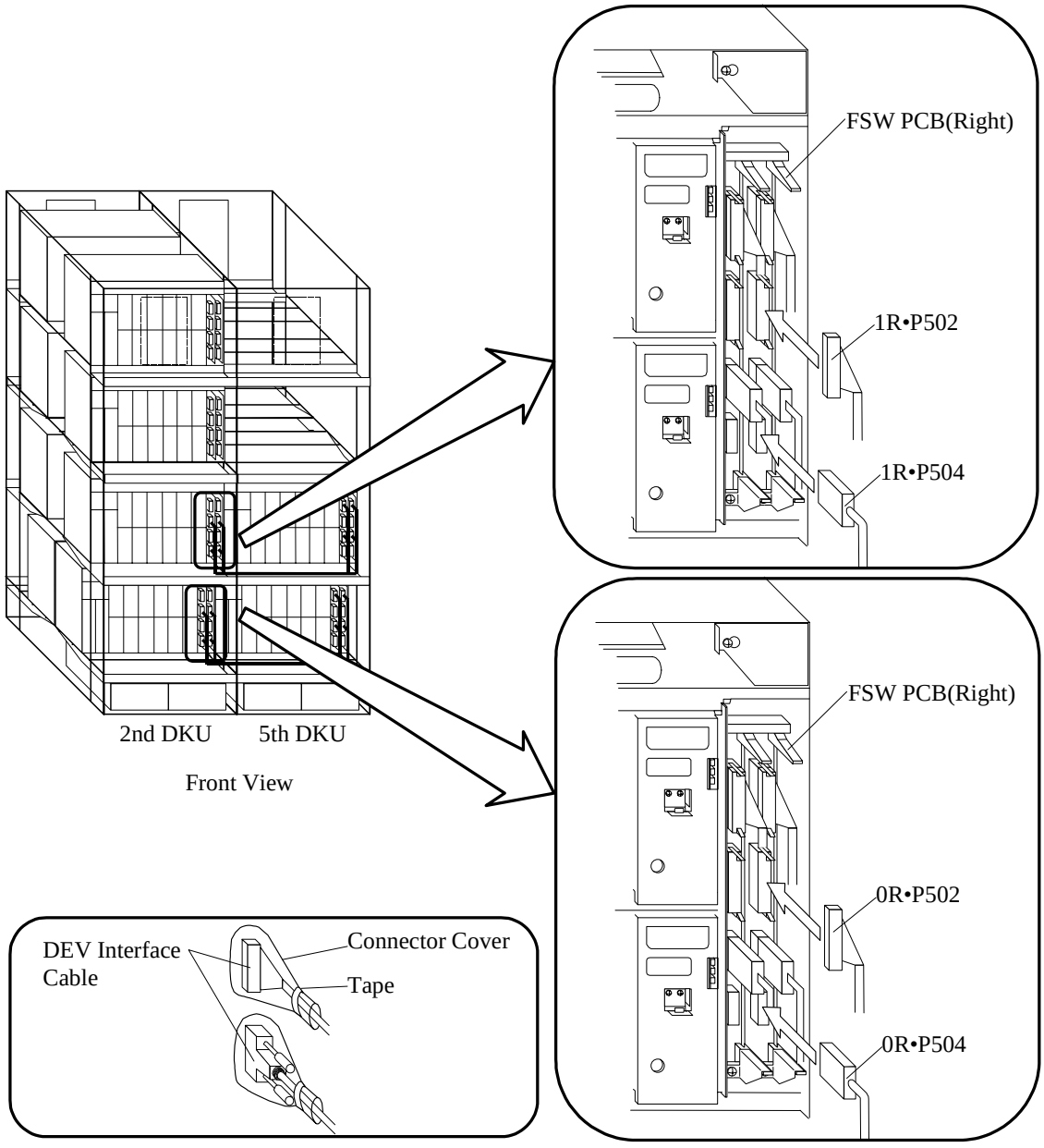


Fig. 3.12.3.7-7 Connection of the DEV Interface Cables

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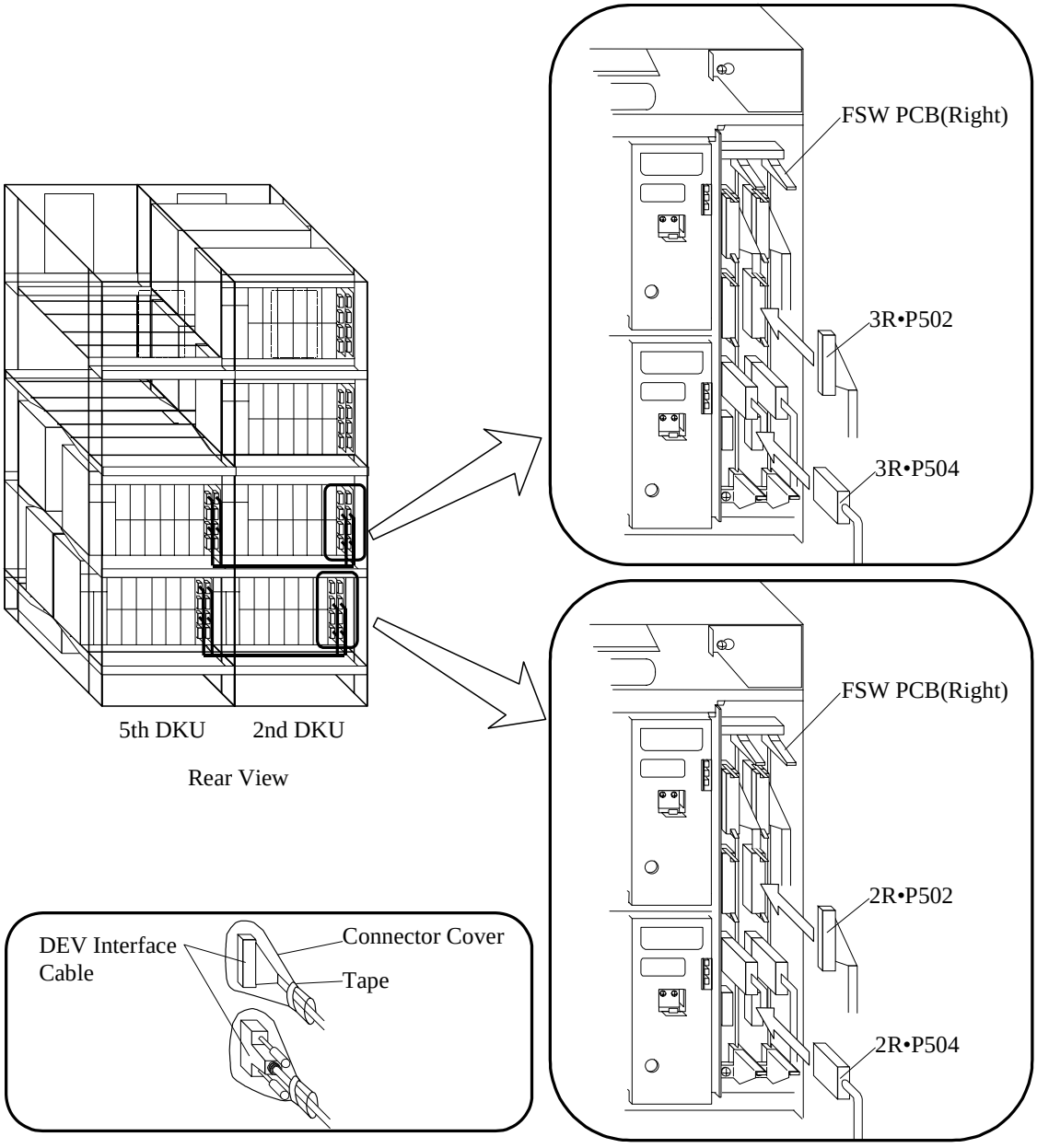


Fig. 3.12.3.7-8 Connection of the DEV Interface Cables

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7. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the First DKU frame (HDU-R10-R13) and the Second DKU frame (HDU-R20-R23) and between the Second DKU frame (HDU-R20-R23) and the Fifth DKU frame (HDU-R30-R33) at the same time), return to INST02-310 ⑤.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the First DKU frame (HDU-R10-R13) and the Second DKU frame (HDU-R20-R23) and between the Second DKU frame (HDU-R20-R23) and the Fifth DKU frame (HDU-R30-R33) at the same time while the subsystem is operating, go to INST03-2420.

8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the second DKU frame. Refer to figures 3.12.3.7-10 and 3.12.3.7-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

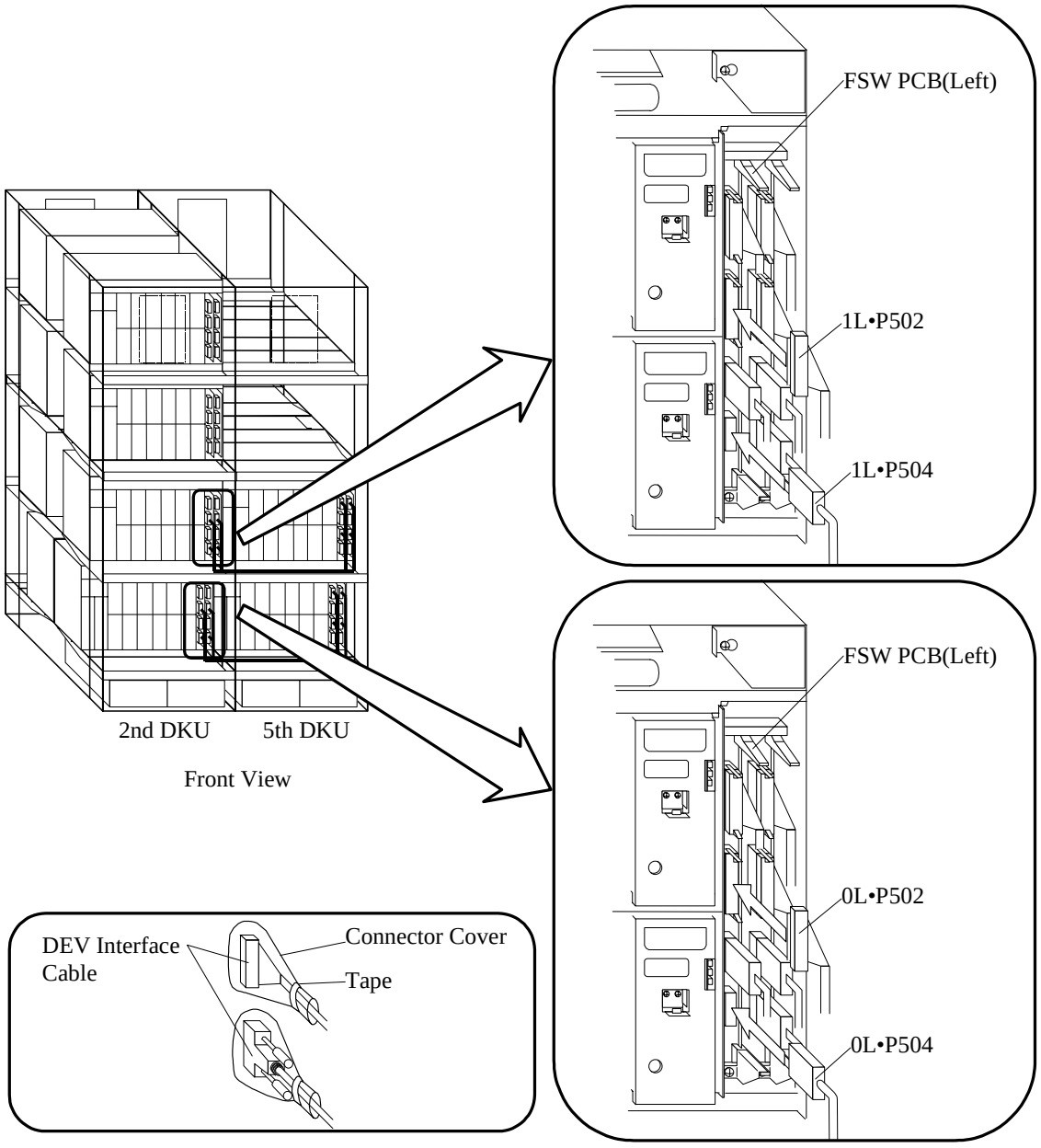


Fig. 3.12.3.7-10 Connection of the DEV Interface Cables

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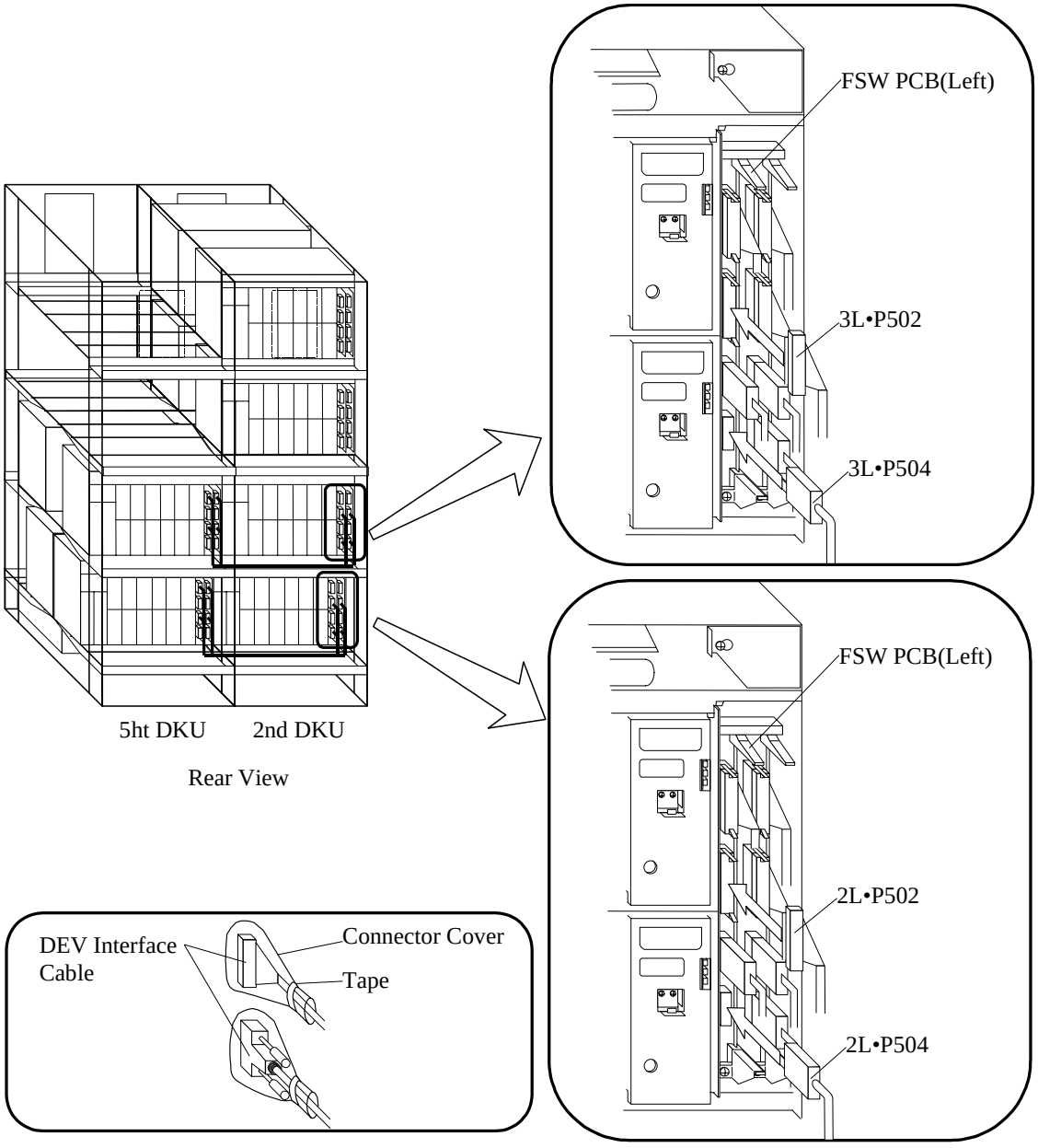


Fig. 3.12.3.7-11 Connection of the DEV Interface Cables

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10. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the First DKU frame (HDU-R10-R13) and the Second DKU frame (HDU-R20-R23) and between the Second DKU frame (HDU-R20-R23) and the Fifth DKU frame (HDU-R30-R33) at the same time), return to INST02-320 ⑦.
    When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the First DKU frame (HDU-R10-R13) and the Second DKU frame (HDU-R20-R23) and between the Second DKU frame (HDU-R20-R23) and the Fifth DKU frame (HDU-R30-R33) at the same time while the subsystem is operating, go to INST03-2440.

11. Attach the side plates in the reverse order of Step 2.

12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

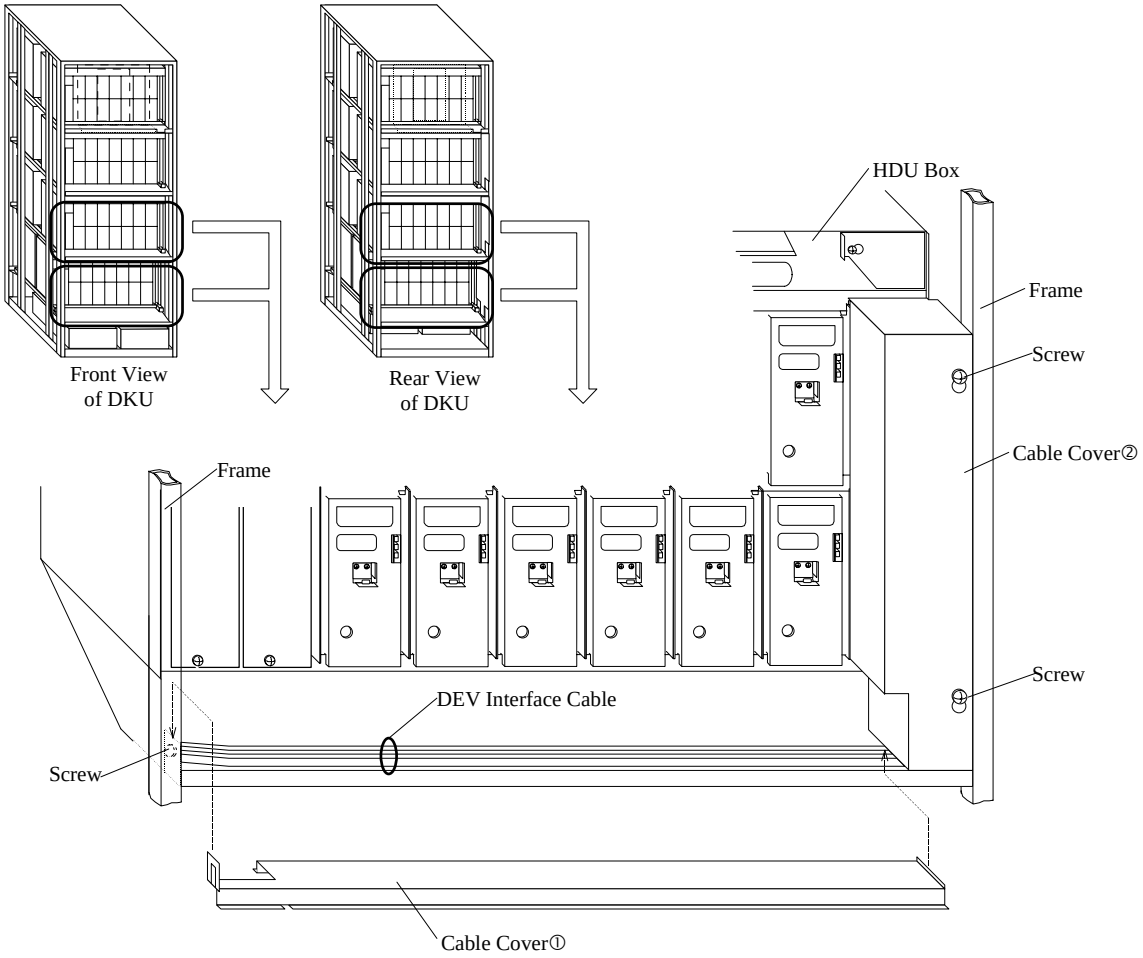


Fig. 3.12.3.7-12 Fixation of the DEV Interface Cables

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13. Attach the nameplate to the Fifth DKU frame.

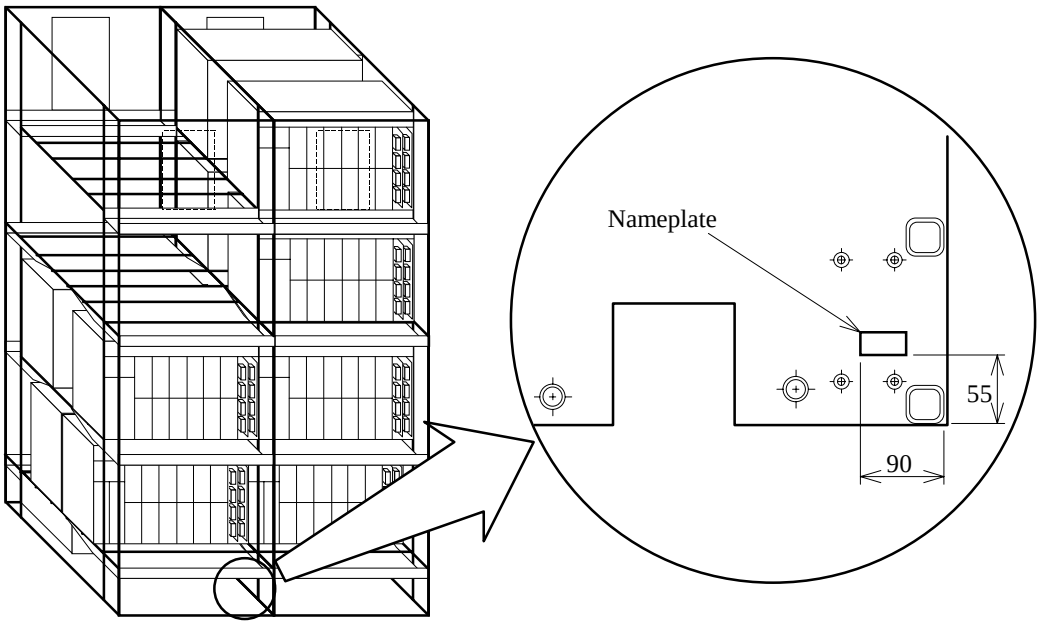


Fig. 3.12.3.7-13 Attachment of the Nameplate

14. When the Fifth DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the Fifth DKU frame with the binders.

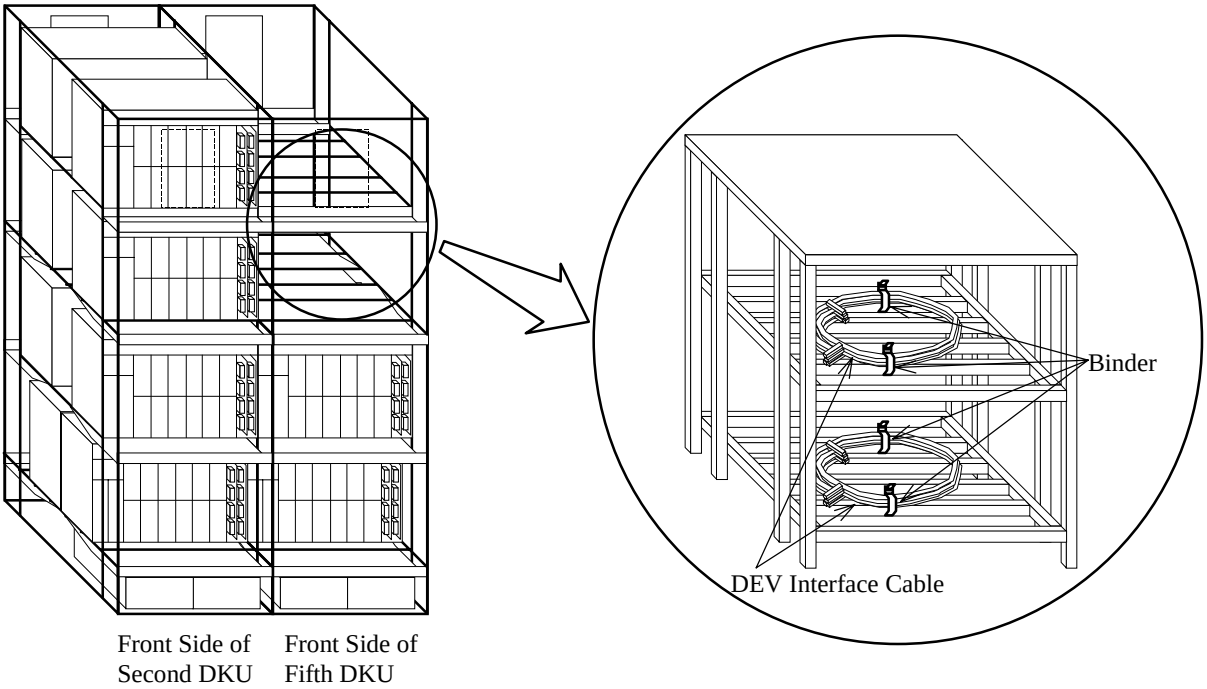


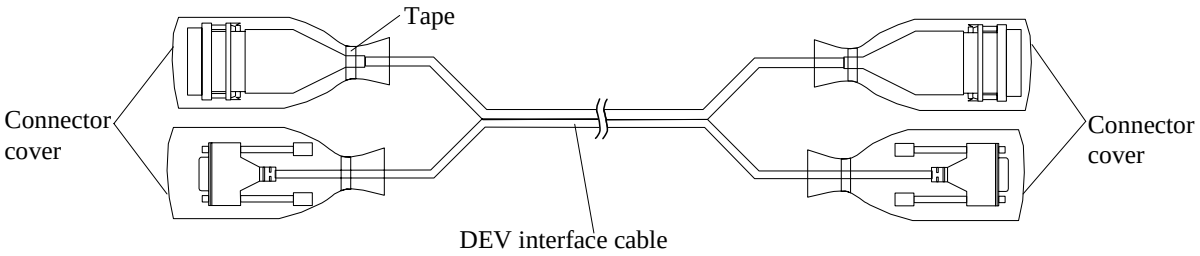
Fig. 3.12.3.7-14 Fixation of the DEV Interface Cables

15. Go to INST02-330 Step ⑨.

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3.12.3.8 Connection Procedure of DEV Interface Cables (In case of HDU-R37 from R34)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

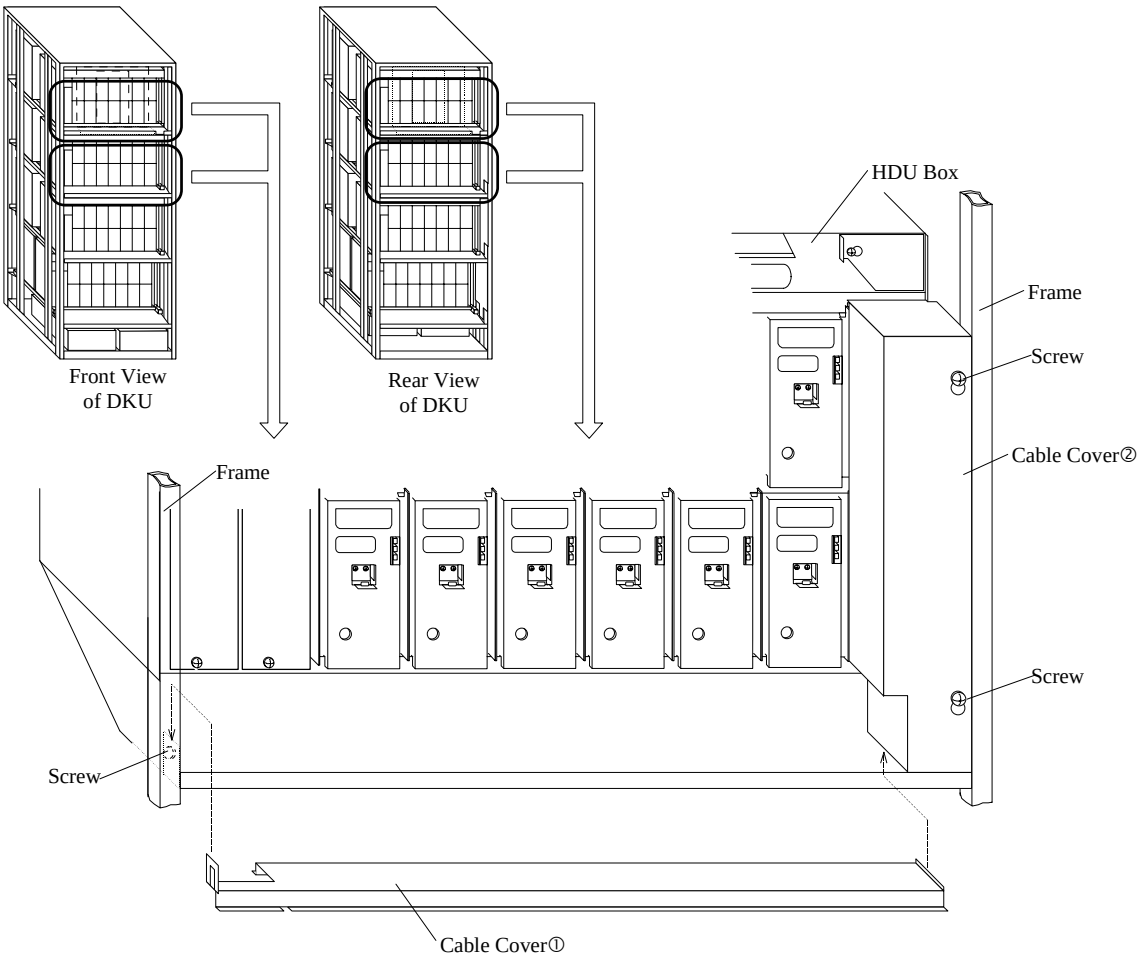


Fig. 3.12.3.8-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

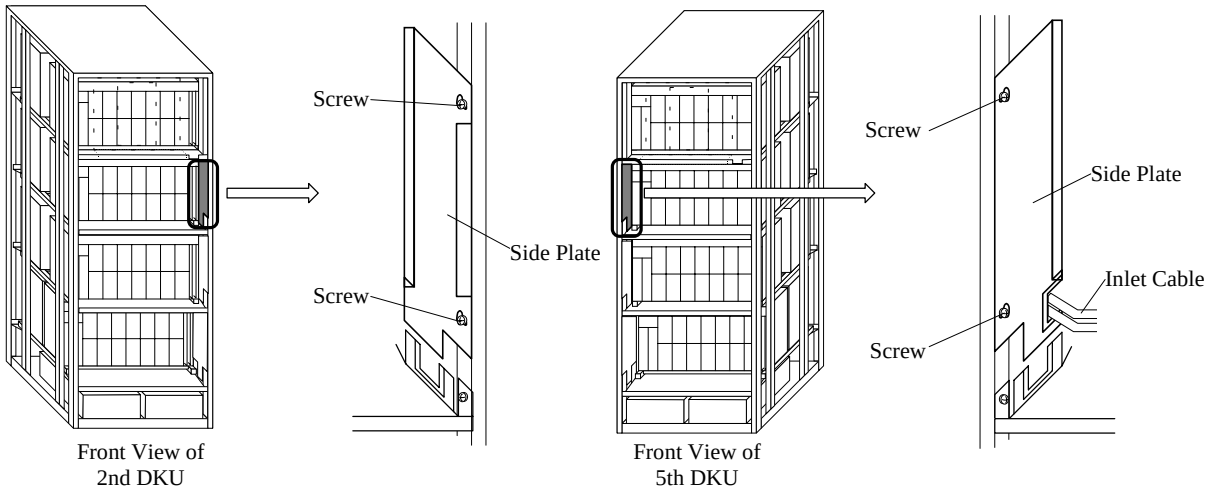


Fig. 3.12.3.8-2 Removal of Side Plates (Front View)

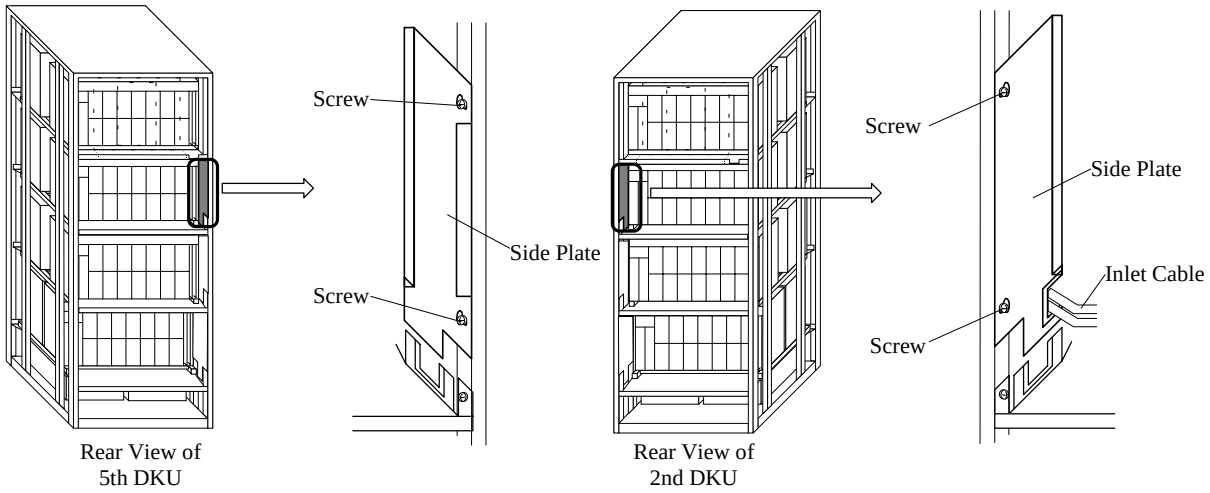


Fig. 3.12.3.8-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the fifth DKU frame. Refer to figures 3.12.3.8-4 and 3.12.3.8-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

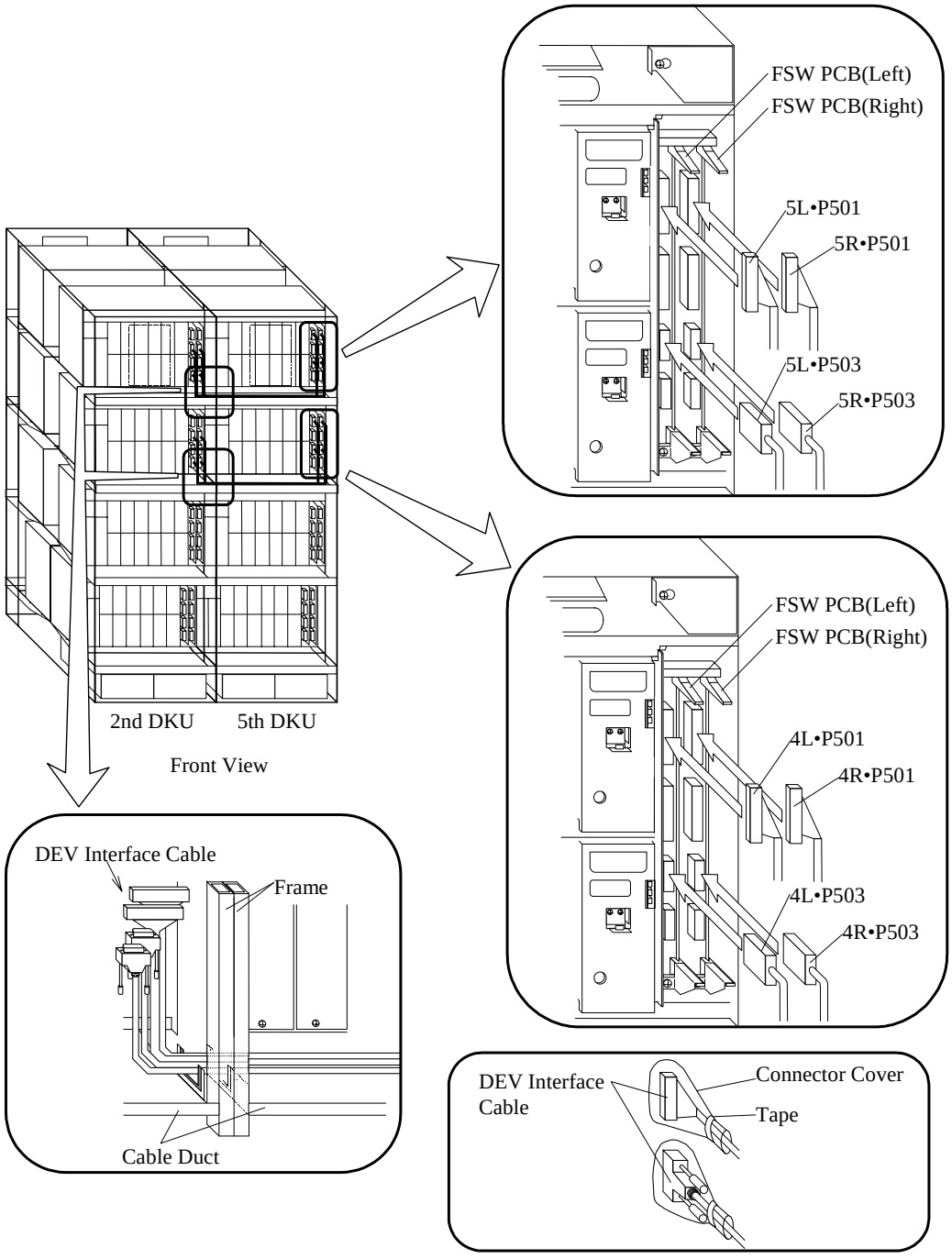


Fig. 3.12.3.8-4 Connection of the DEV Interface Cables

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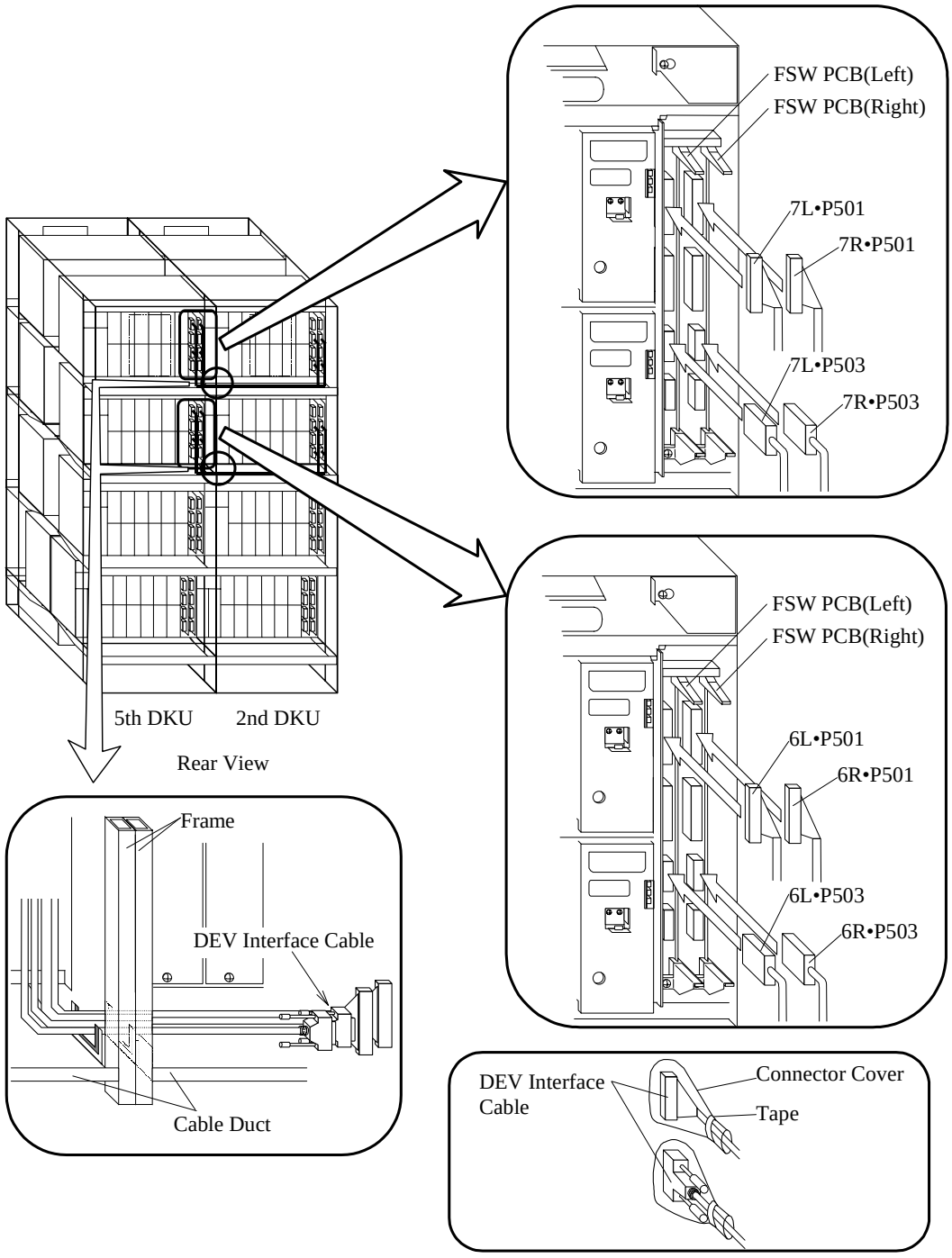


Fig. 3.12.3.8-5 Connection of the DEV Interface Cables

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4. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the First DKU frame (HDU-R14-R17) and the Second DKU frame (HDU-R24-R27) and between the Second DKU frame (HDU-R24-R27) and the Fifth DKU frame (HDU-R34-R37) at the same time), return to INST02-300 ②.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the First DKU frame (HDU-R14-R17) and the Second DKU frame (HDU-R24-R27) and between the Second DKU frame (HDU-R24-R27) and the Fifth DKU frame (HDU-R34-R37) at the same time while the subsystem is operating, go to INST03-2490.

5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the second DKU frame. Refer to figures 3.12.3.8-7 and 3.12.3.8-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

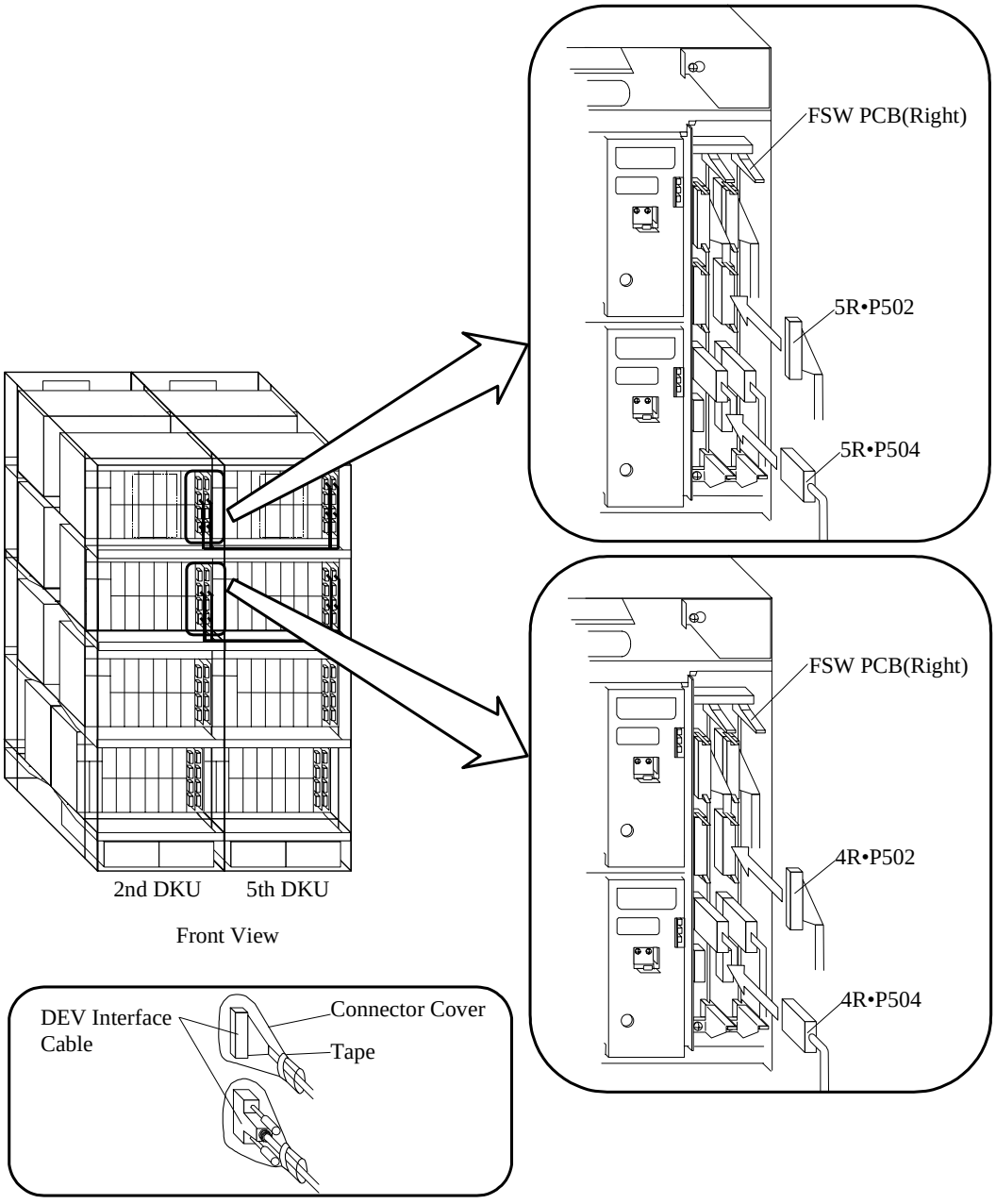


Fig. 3.12.3.8-7 Connection of the DEV Interface Cables

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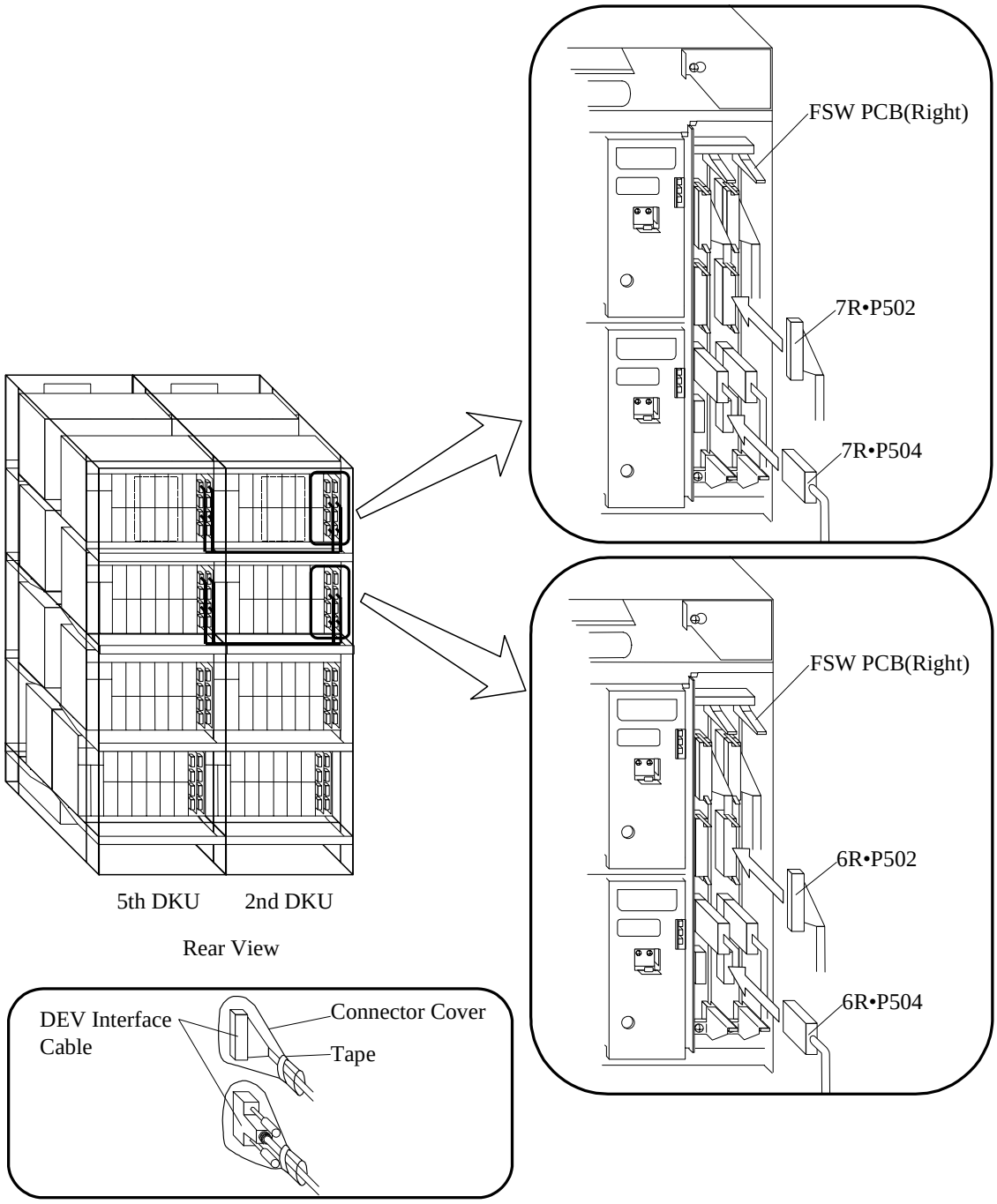


Fig. 3.12.3.8-8 Connection of the DEV Interface Cables

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7. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the First DKU frame (HDU-R14-R17) and the Second DKU frame (HDU-R24-R27) and between the Second DKU frame (HDU-R24-R27) and the Fifth DKU frame (HDU-R34-R37) at the same time), return to INST02-310 ⑤.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the First DKU frame (HDU-R14-R17) and the Second DKU frame (HDU-R24-R27) and between the Second DKU frame (HDU-R24-R27) and the Fifth DKU frame (HDU-R34-R37) at the same time while the subsystem is operating, go to INST03-2520.

8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the second DKU frame. Refer to figures 3.12.3.8-10 and 3.12.3.8-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

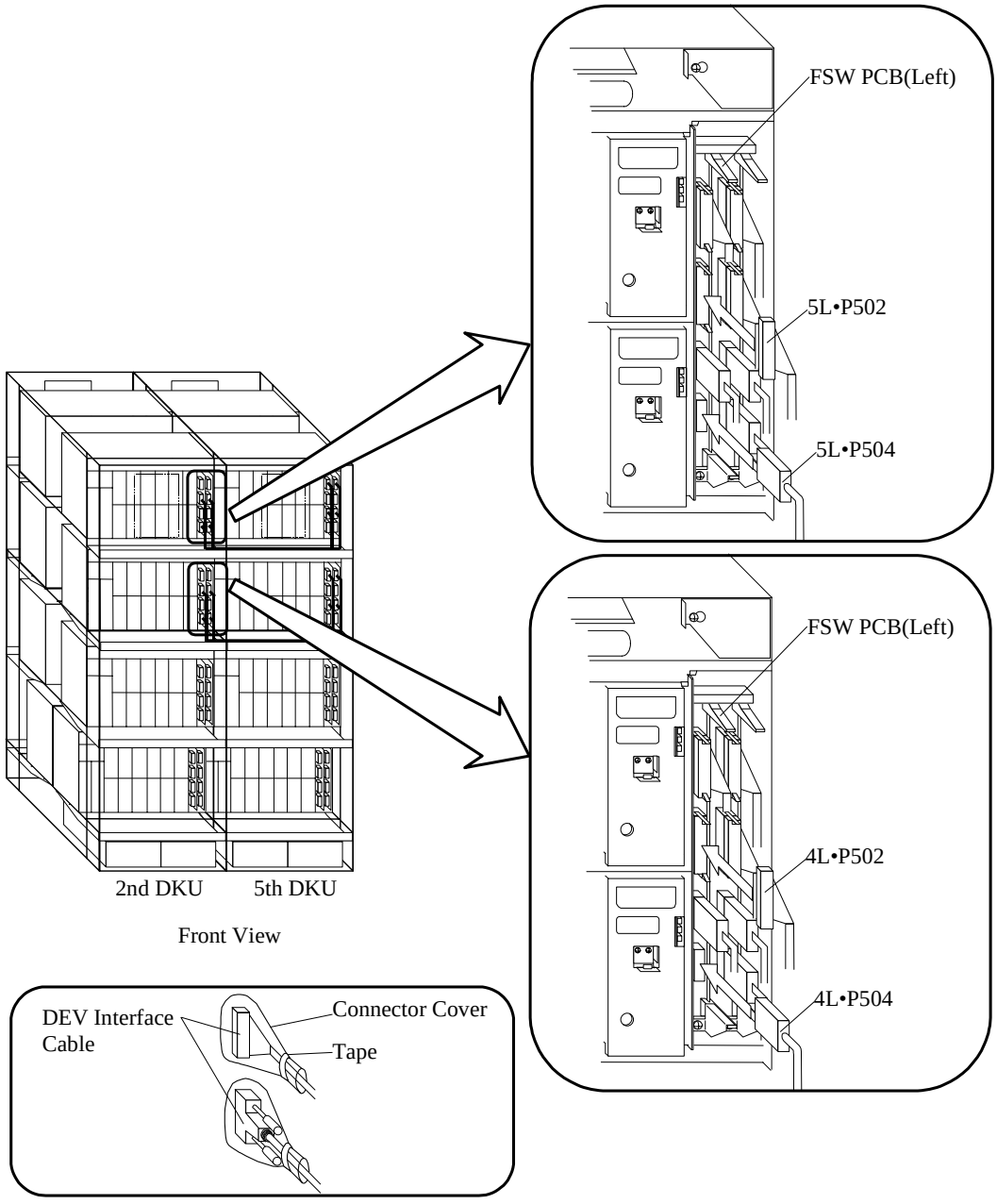


Fig. 3.12.3.8-10 Connection of the DEV Interface Cables

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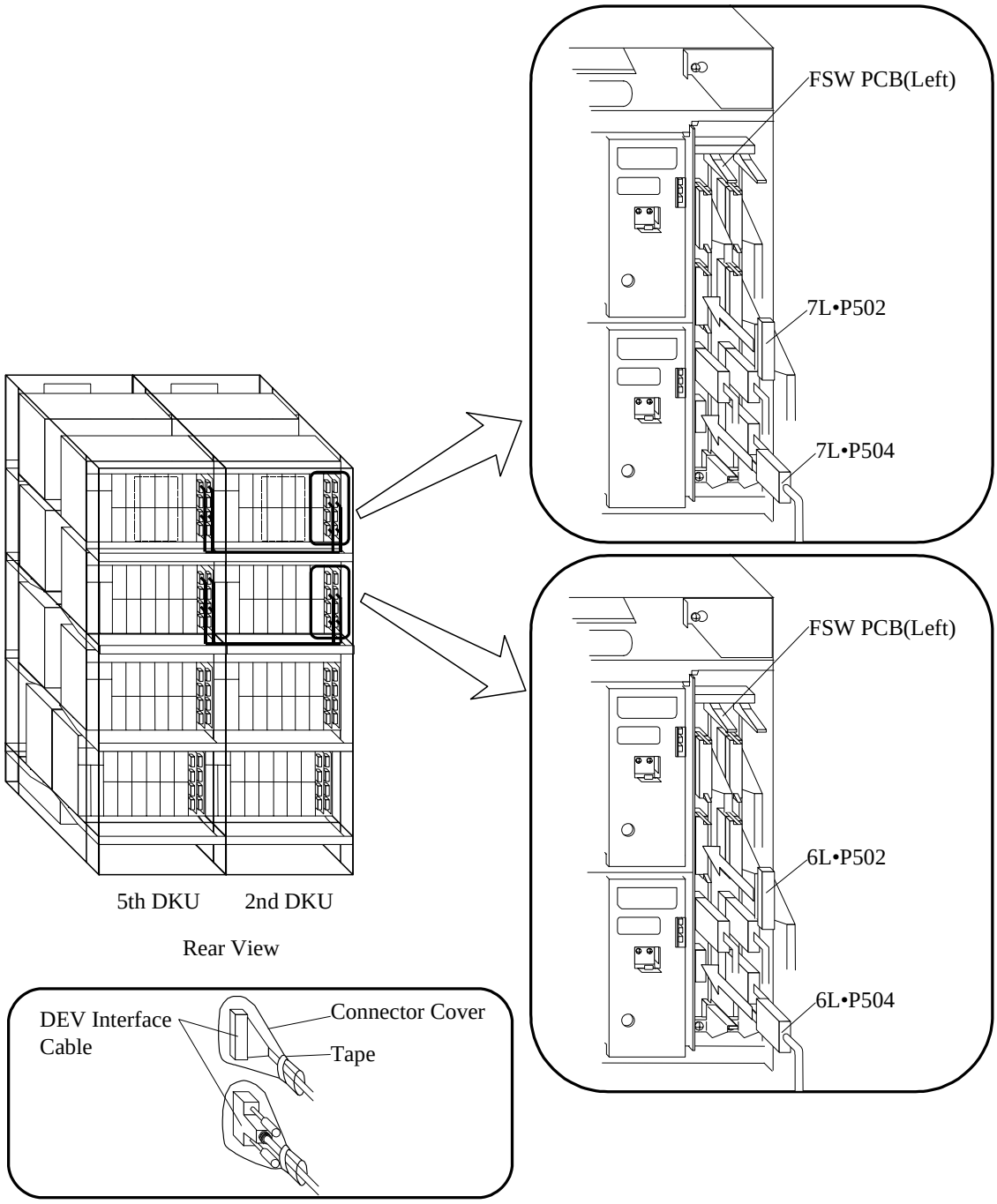


Fig. 3.12.3.8-11 Connection of the DEV Interface Cables

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10. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the First DKU frame (HDU-R14-R17) and the Second DKU frame (HDU-R24-R27) and between the Second DKU frame (HDU-R24-R27) and the Fifth DKU frame (HDU-R34-R37) at the same time), return to INST02-320 ⑦.
    When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the First DKU frame (HDU-R14-R17) and the Second DKU frame (HDU-R24-R27) and between the Second DKU frame (HDU-R24-R27) and the Fifth DKU frame (HDU-R34-R37) at the same time while the subsystem is operating, go to INST03-2540.

11. Attach the side plates in the reverse order of Step 2.

12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

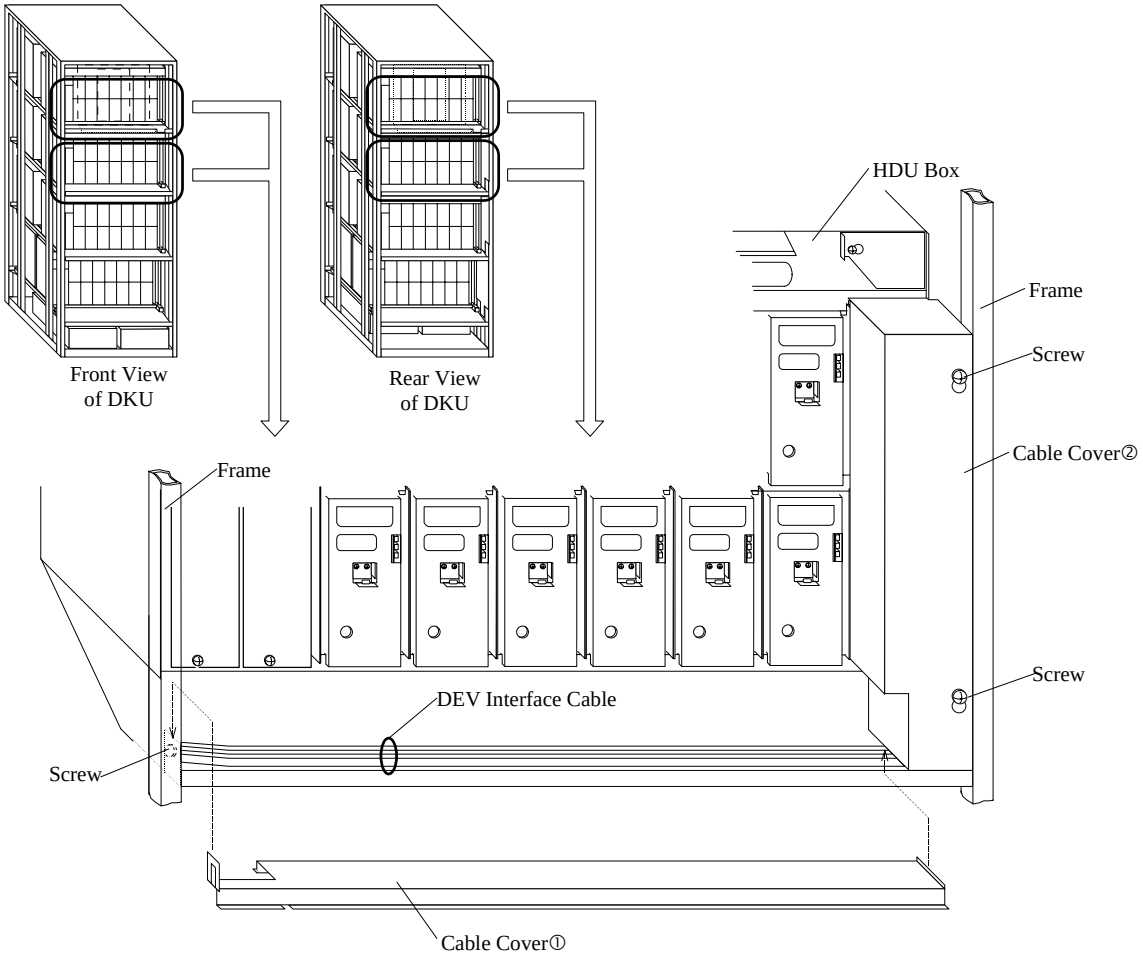


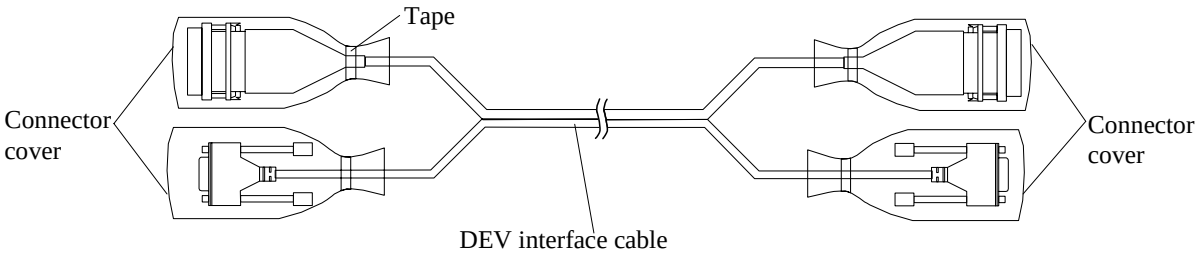
Fig. 3.12.3.8-12 Fixation of the DEV Interface Cables

13. Go to INST02-330 Step ⑨.

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3.12.3.9 Connection Procedure of DEV Interface Cables (In case of HDU-L33 from L30)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

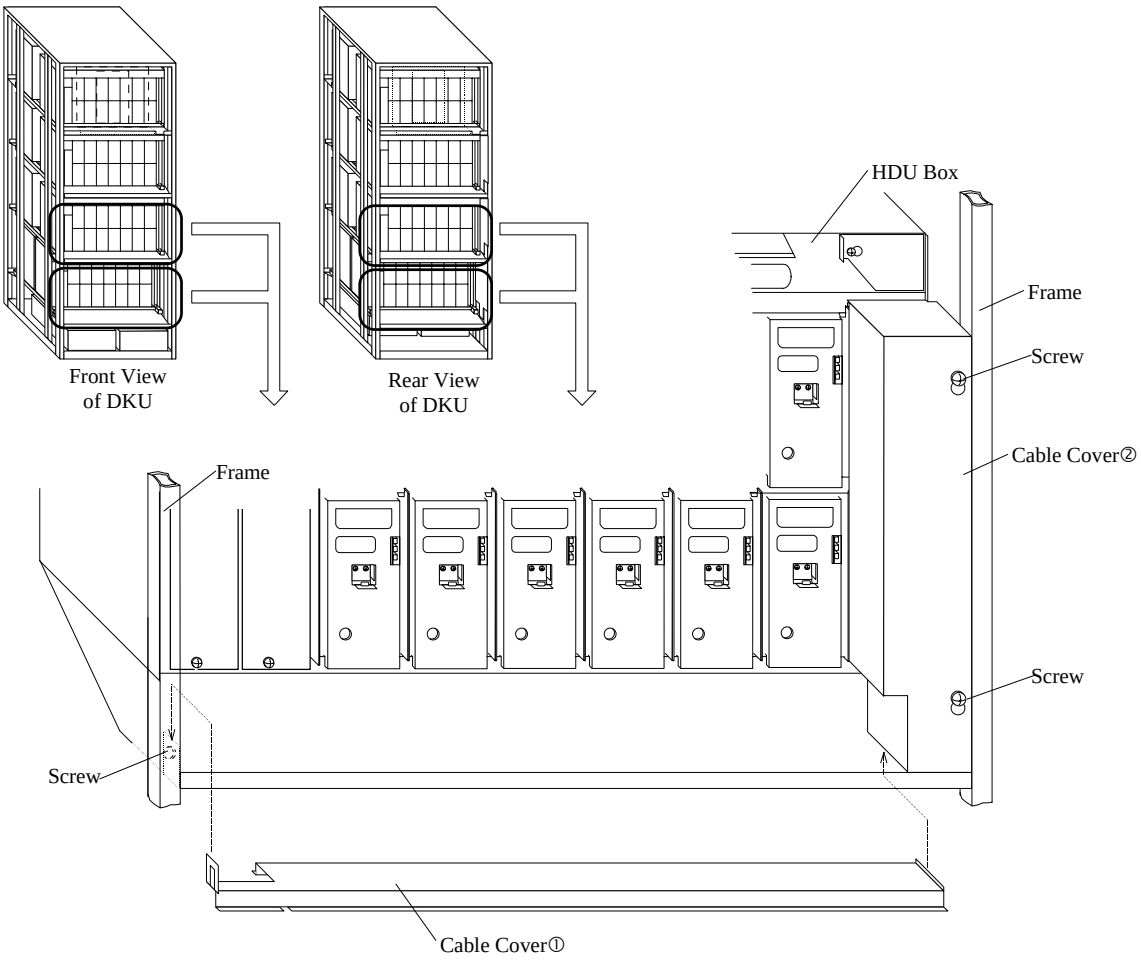


Fig. 3.12.3.9-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

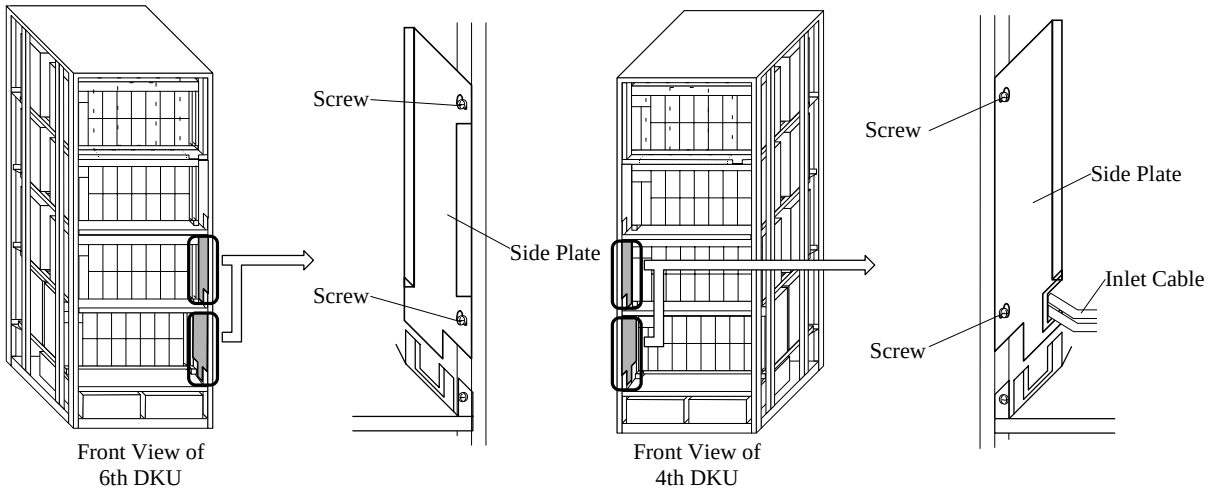


Fig. 3.12.3.9-2 Removal of Side Plates (Front View)

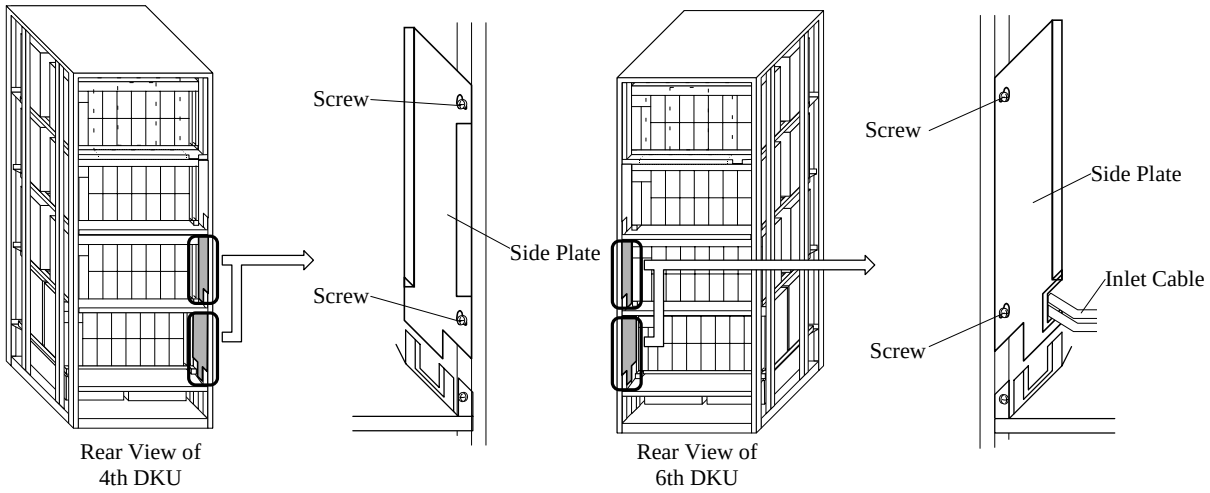


Fig. 3.12.3.9-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Sixth DKU frame. Refer to figures 3.12.3.9-4 and 3.12.3.9-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

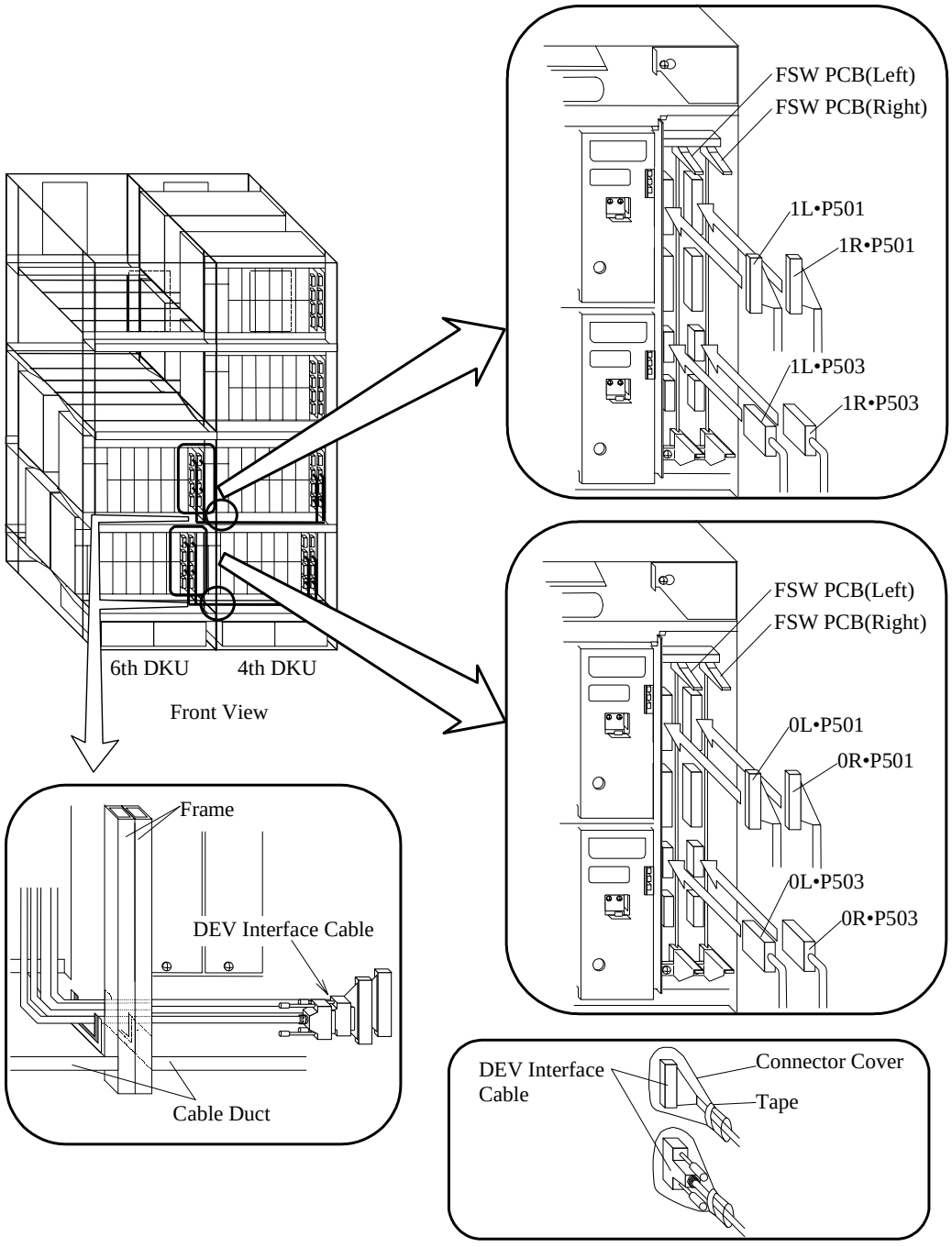


Fig. 3.12.3.9-4 Connection of the DEV Interface Cables

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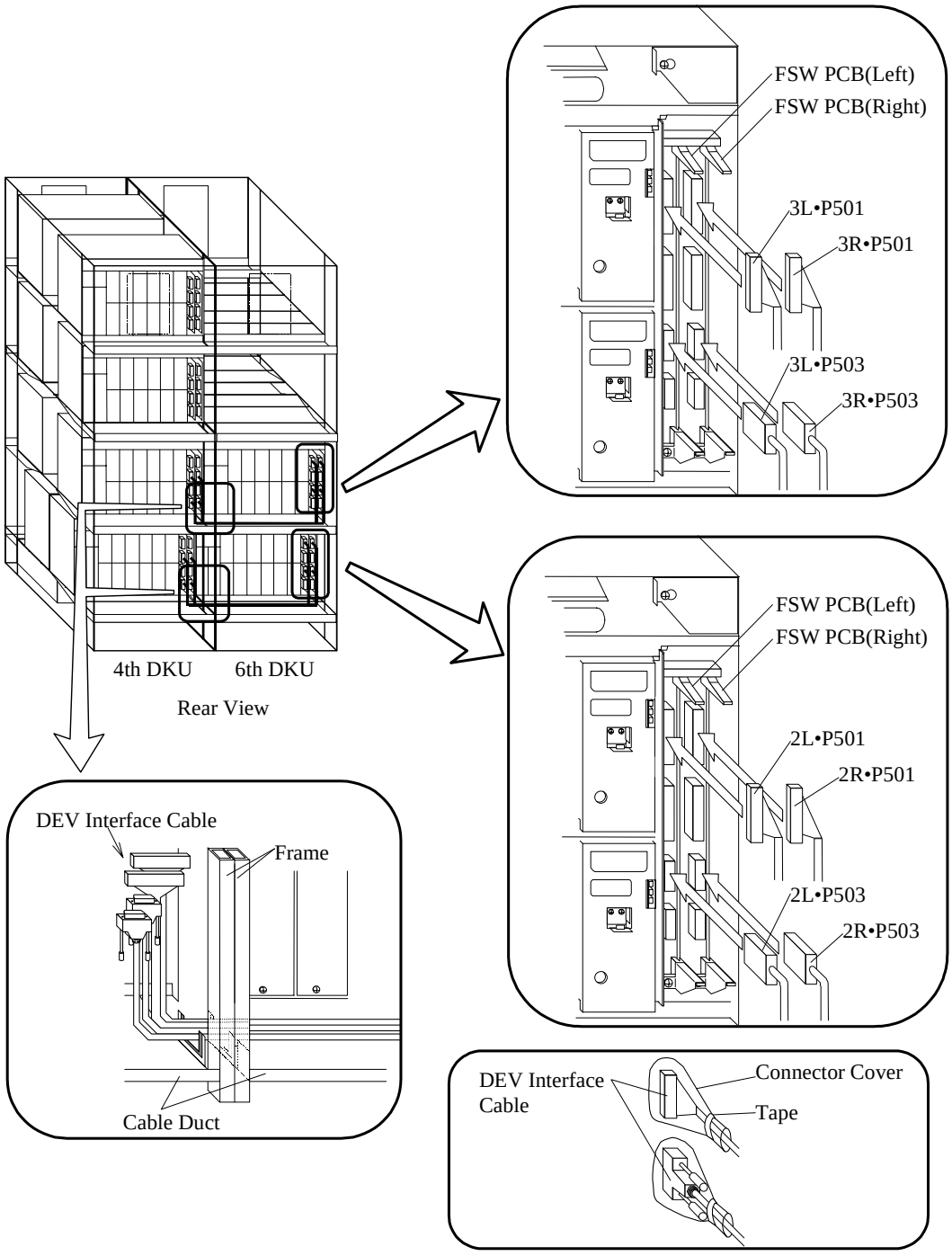


Fig. 3.12.3.9-5 Connection of the DEV Interface Cables

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4. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the Third DKU frame (HDU-L10-L13) and the Fourth DKU frame (HDU-L20-L23) and between the Fourth DKU frame (HDU-L20-L23) and the Sixth DKU frame (HDU-L30-L33) at the same time), return to INST02-300 ②.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the Third DKU frame (HDU-L10-L13) and the Fourth DKU frame (HDU-L20-L23) and between the Fourth DKU frame (HDU-L20-L23) and the Sixth DKU frame (HDU-L30-L33) at the same time while the subsystem is operating, go to INST03-2580.

5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame. Refer to figures 3.12.3.9-7 and 3.12.3.9-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

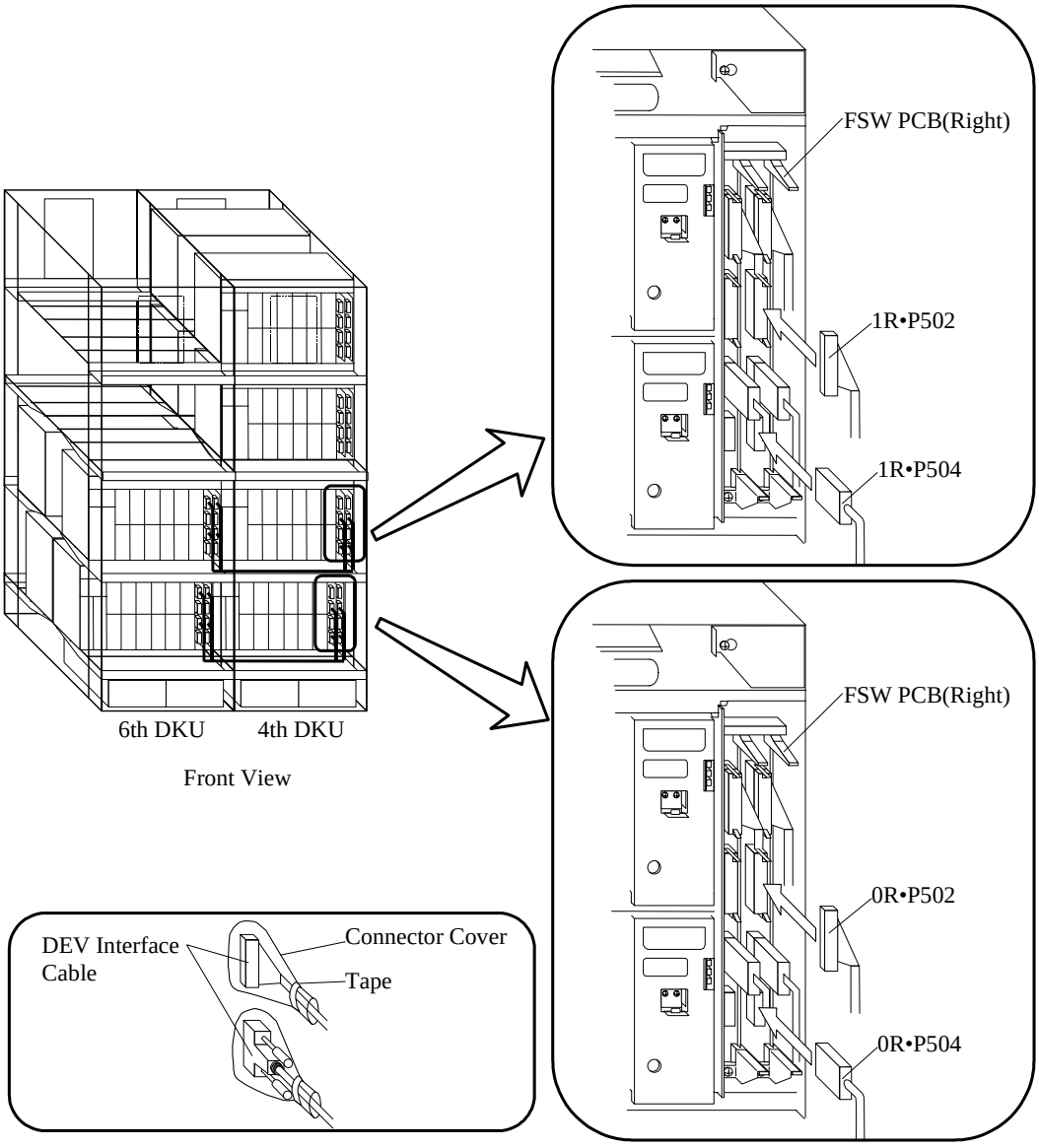


Fig. 3.12.3.9-7 Connection of the DEV Interface Cables

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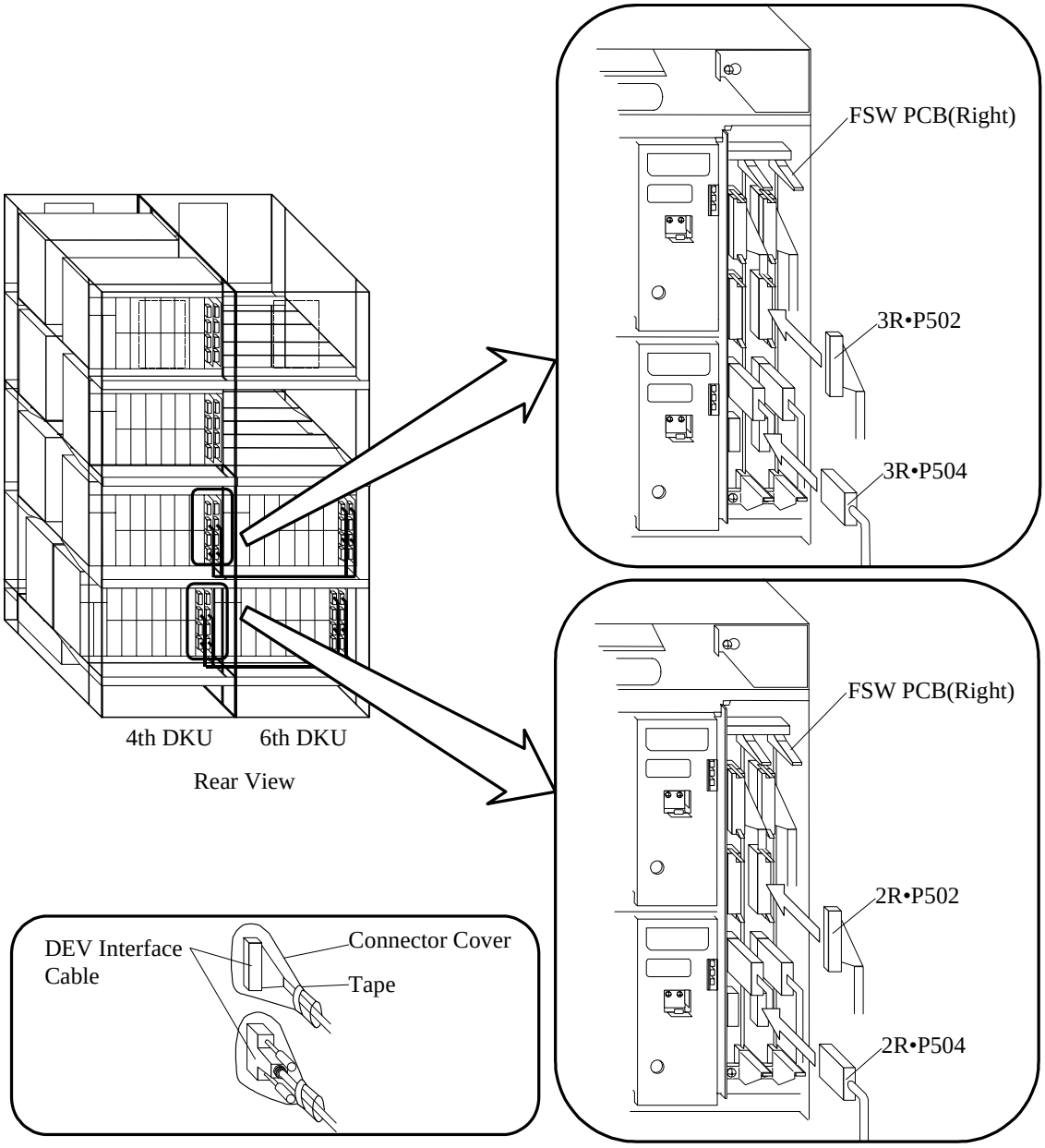


Fig. 3.12.3.9-8 Connection of the DEV Interface Cables

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7. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the Third DKU frame (HDU-L10-L13) and the Fourth DKU frame (HDU-L20-L23) and between the Fourth DKU frame (HDU-L20-L23) and the Sixth DKU frame (HDU-L30-L33) at the same time), return to INST02-310 ⑤.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the Third DKU frame (HDU-L10-L13) and the Fourth DKU frame (HDU-L20-L23) and between the Fourth DKU frame (HDU-L20-L23) and the Sixth DKU frame (HDU-L30-L33) at the same time while the subsystem is operating, go to INST03-2610.

8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame. Refer to figures 3.12.3.9-10 and 3.12.3.9-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

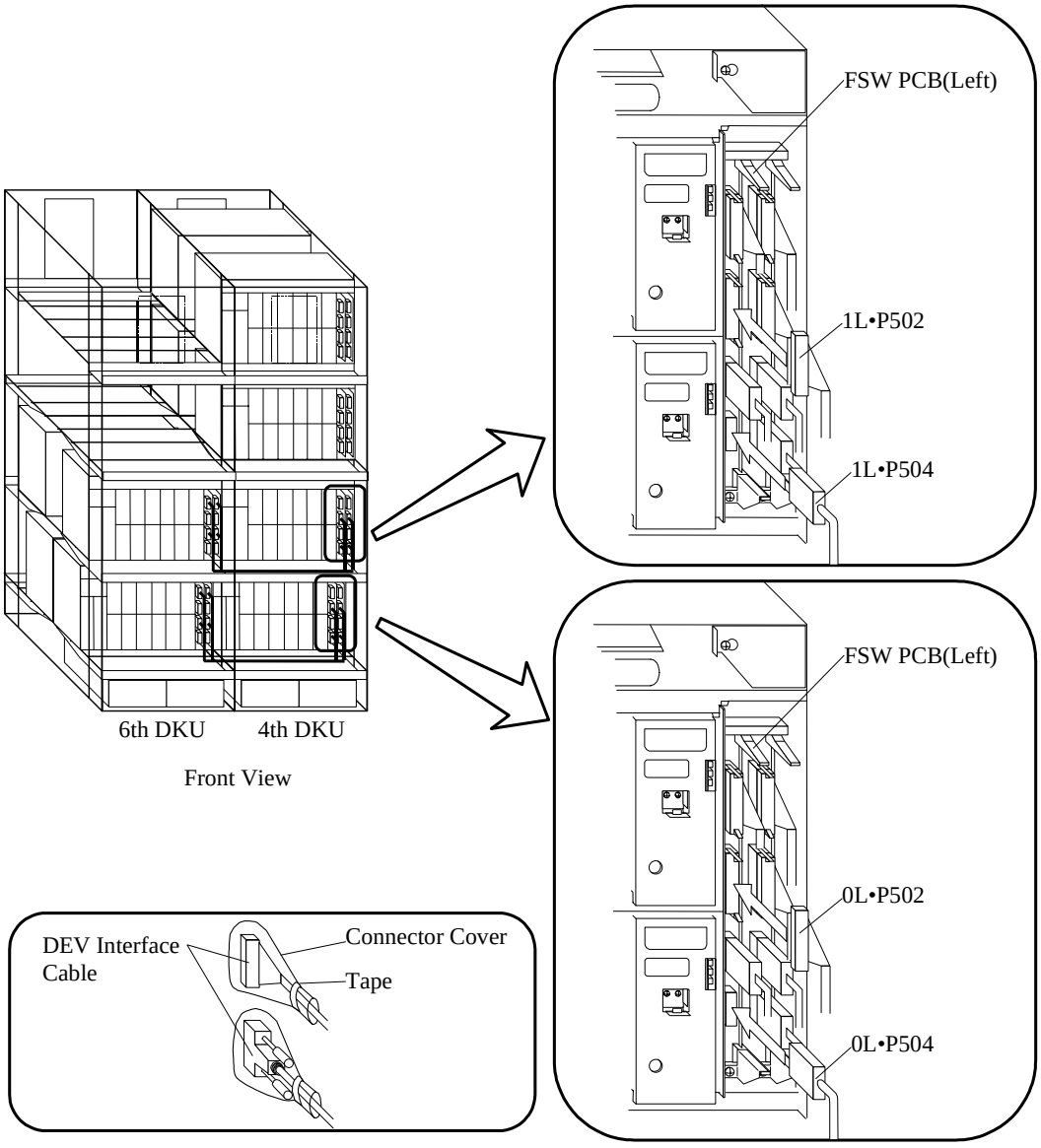


Fig. 3.12.3.9-10 Connection of the DEV Interface Cables

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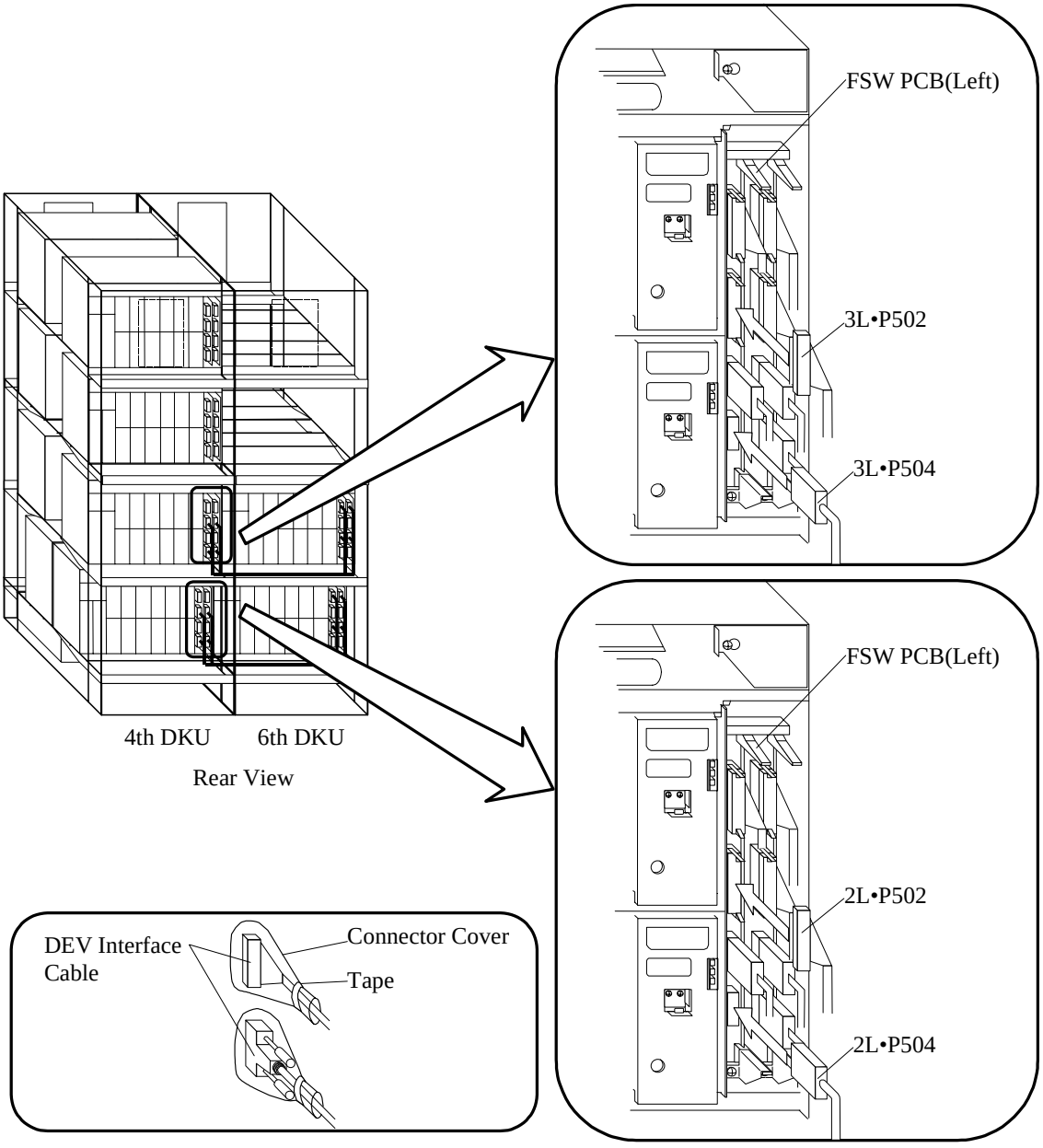


Fig. 3.12.3.9-11 Connection of the DEV Interface Cables

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10. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the Third DKU frame (HDU-L10-L13) and the Fourth DKU frame (HDU-L20-L23) and between the Fourth DKU frame (HDU-L20-L23) and the Sixth DKU frame (HDU-L30-L33) at the same time), return to INST02-320 ⑦.
    When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the Third DKU frame (HDU-L10-L13) and the Fourth DKU frame (HDU-L20-L23) and between the Fourth DKU frame (HDU-L20-L23) and the Sixth DKU frame (HDU-L30-L33) at the same time while the subsystem is operating, go to INST03-2630.

11. Attach the side plates in the reverse order of Step 2.

12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

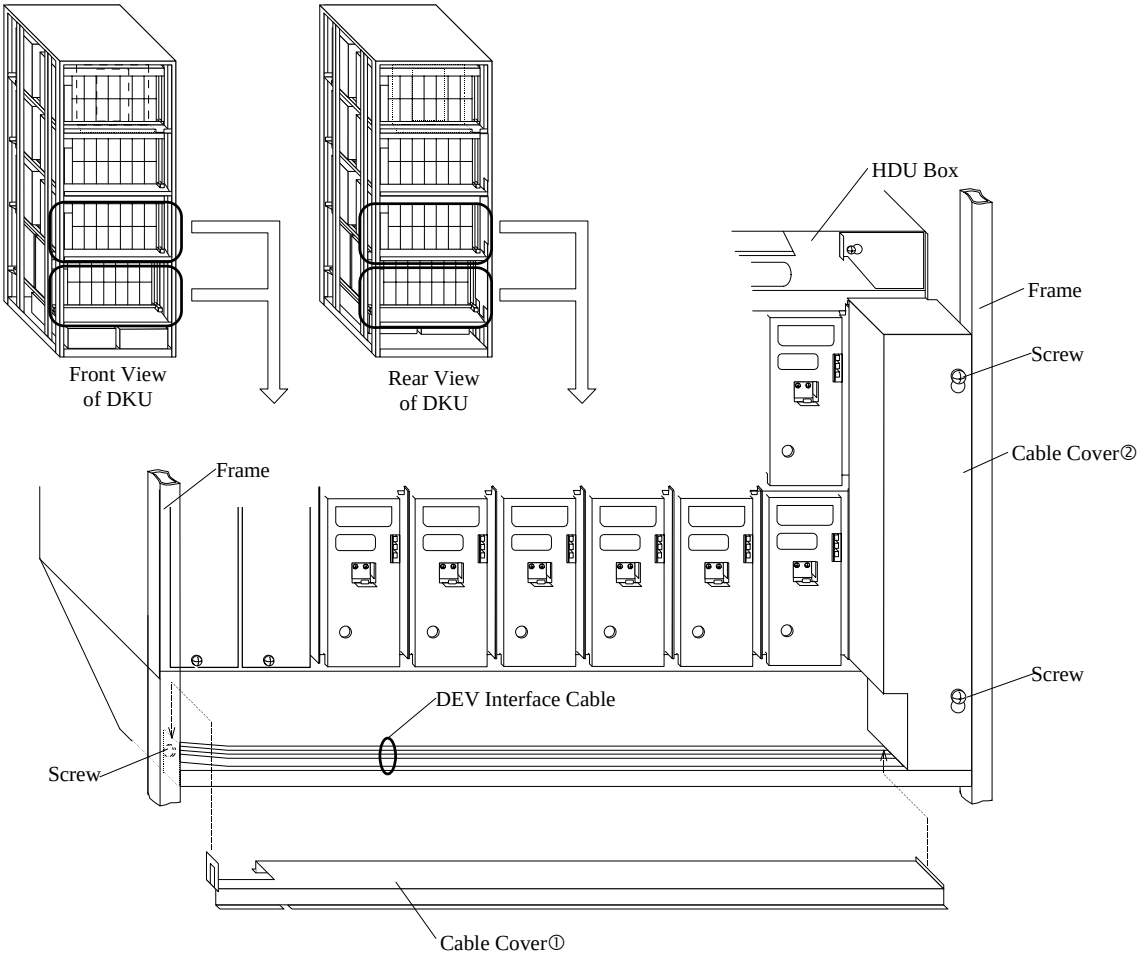


Fig. 3.12.3.9-12 Fixation of the DEV Interface Cables

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13. Attach the nameplate to the Sixth DKU frame.

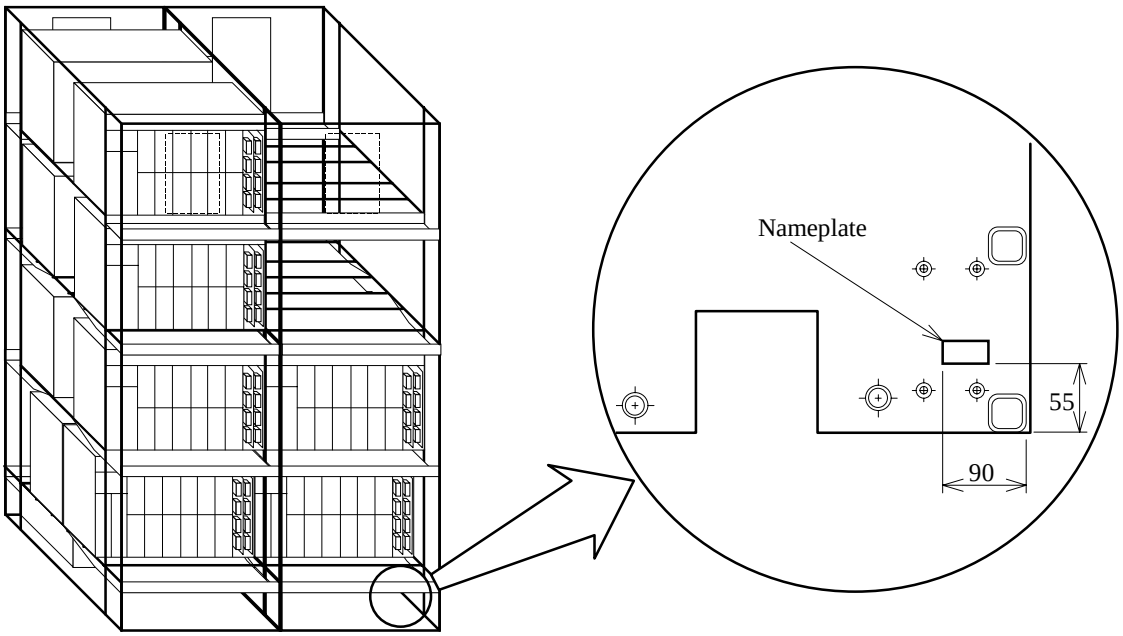


Fig. 3.12.3.9-13 Attachment of the Nameplate

14. When the Sixth DKU frame consists of 4 HDU boxes, fix the rest of the DEV interface cables in the Fourth DKU frame with the binders.

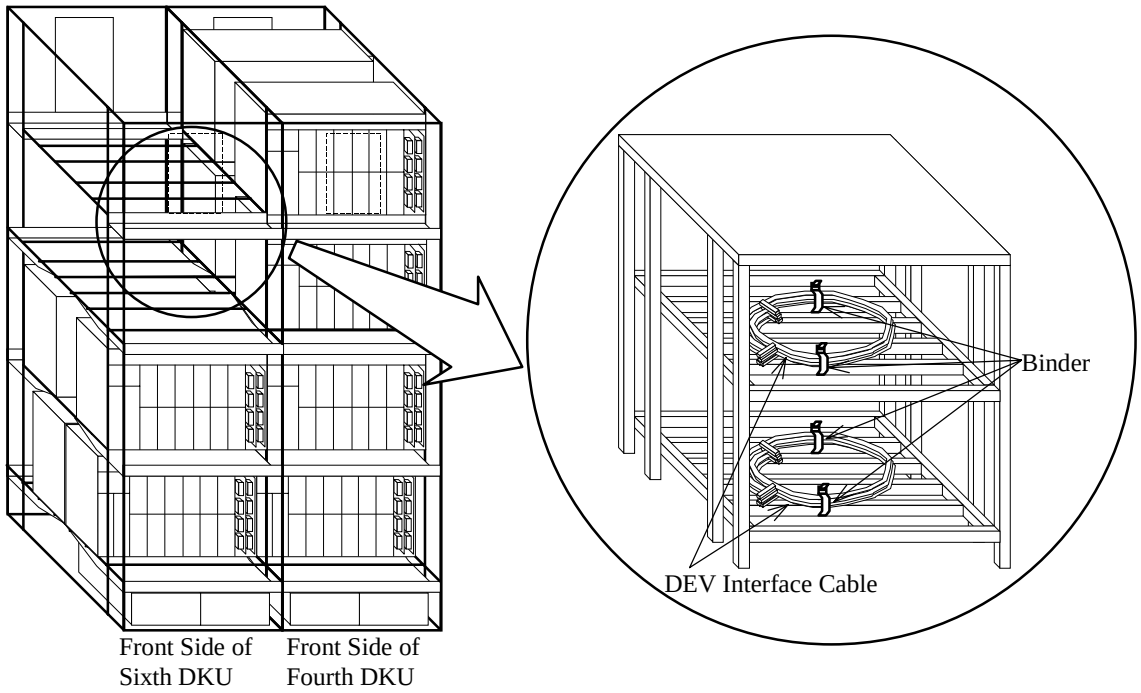


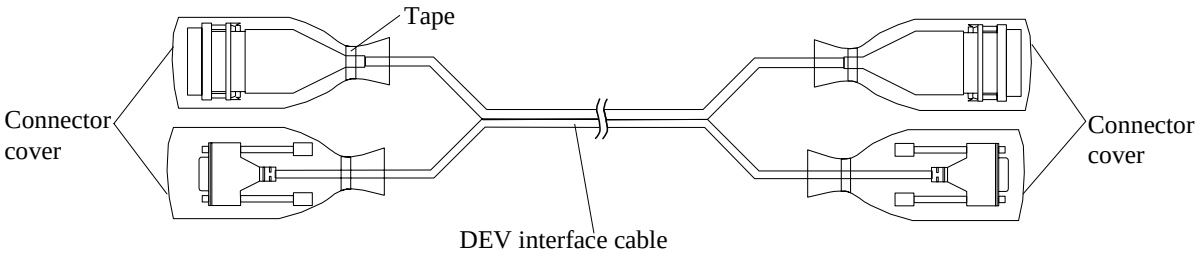
Fig. 3.12.3.9-14 Fixation of the DEV Interface Cables

15. Go to INST02-330 Step ⑨.

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3.12.3.10 Connection Procedure of DEV Interface Cables (In case of HDU-L37 from L34)

Notice: Before starting the work, make sure that the connectors at both ends of the DEV interface cables are put into the connector covers.
If they are not put into the connector covers, put them into insulation pouches such as polyethylene pouches.



1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

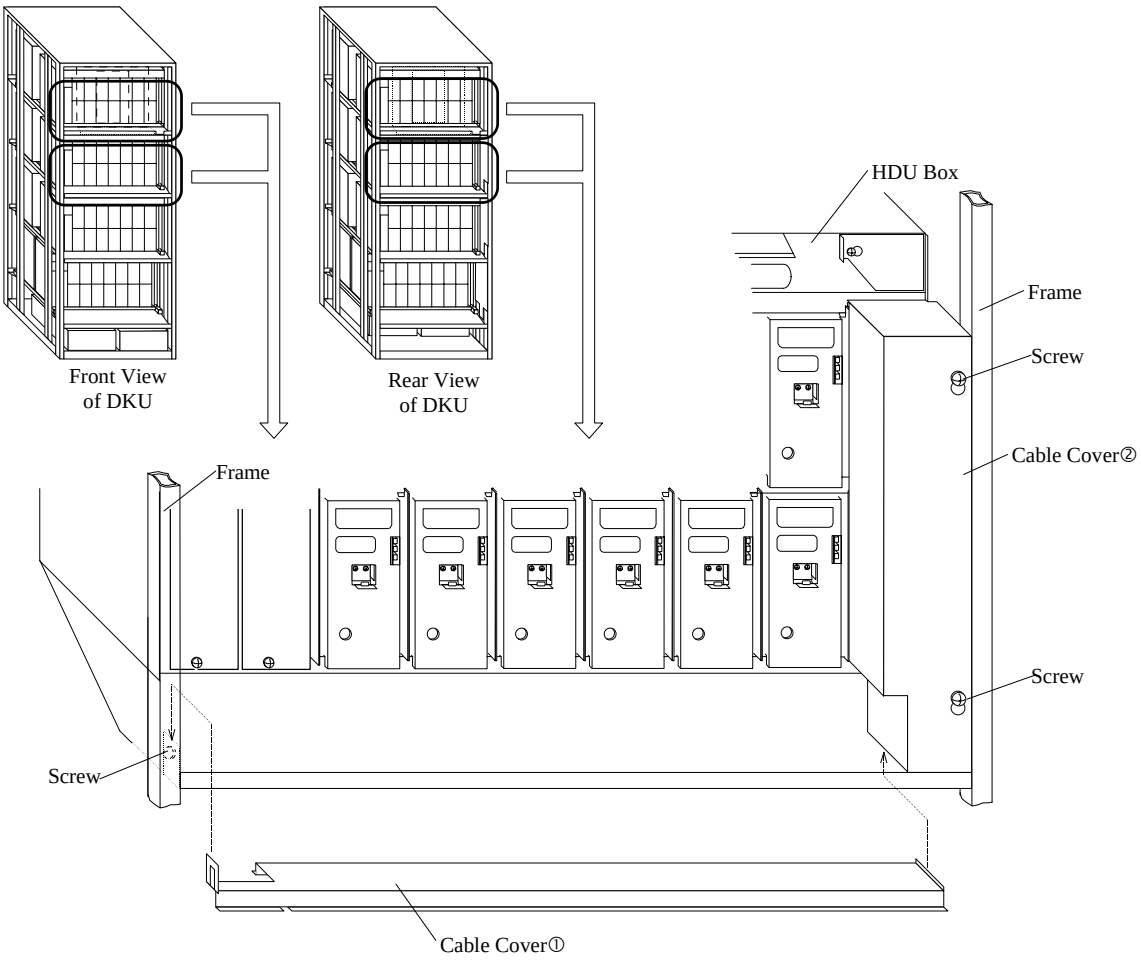


Fig. 3.12.3.10-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

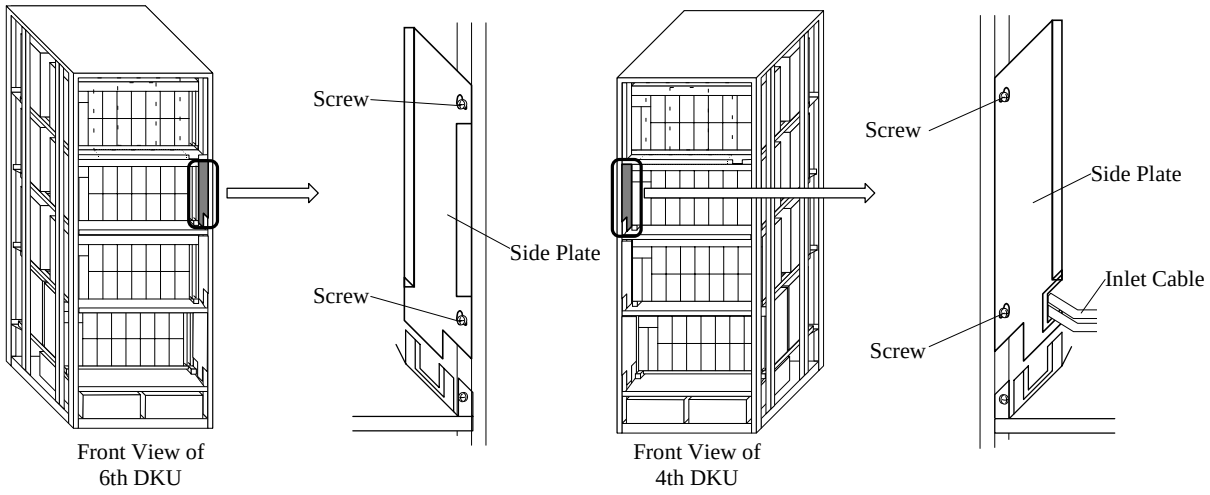


Fig. 3.12.3.10-2 Removal of Side Plates (Front View)

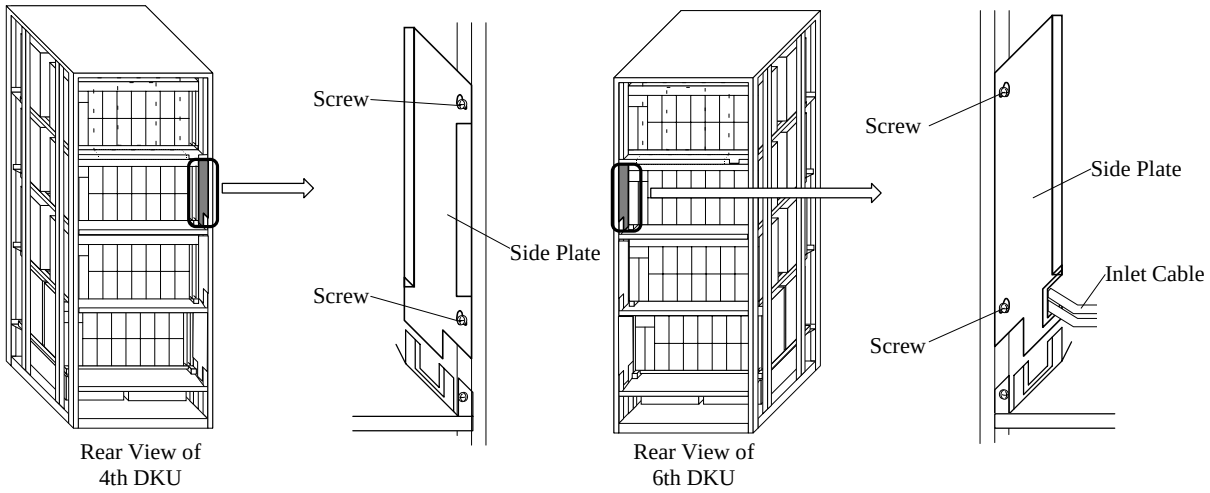


Fig. 3.12.3.10-3 Removal of Side Plates (Rear View)

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3. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Sixth DKU frame. Refer to figures 3.12.3.10-4 and 3.12.3.10-5.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

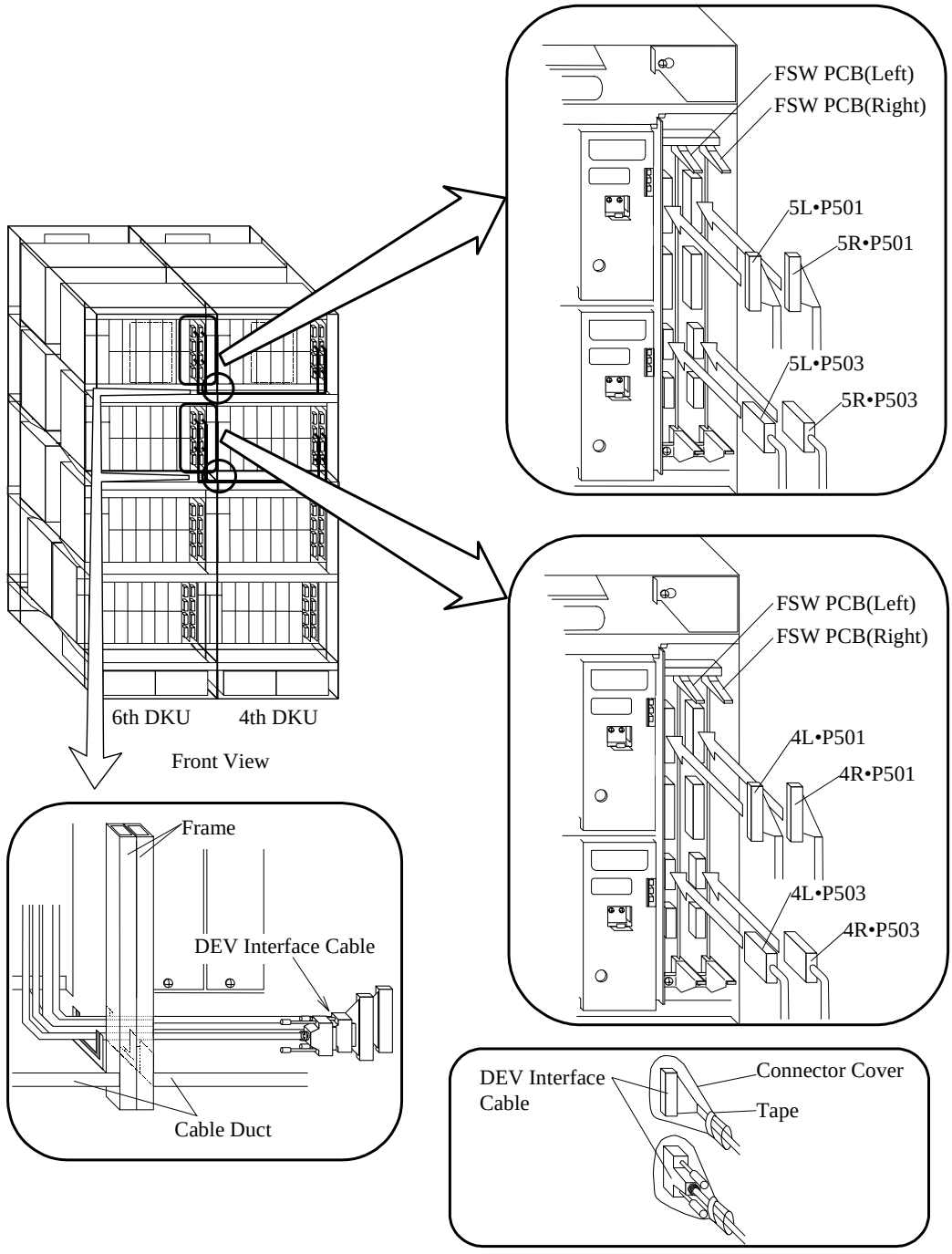


Fig. 3.12.3.10-4 Connection of the DEV Interface Cables

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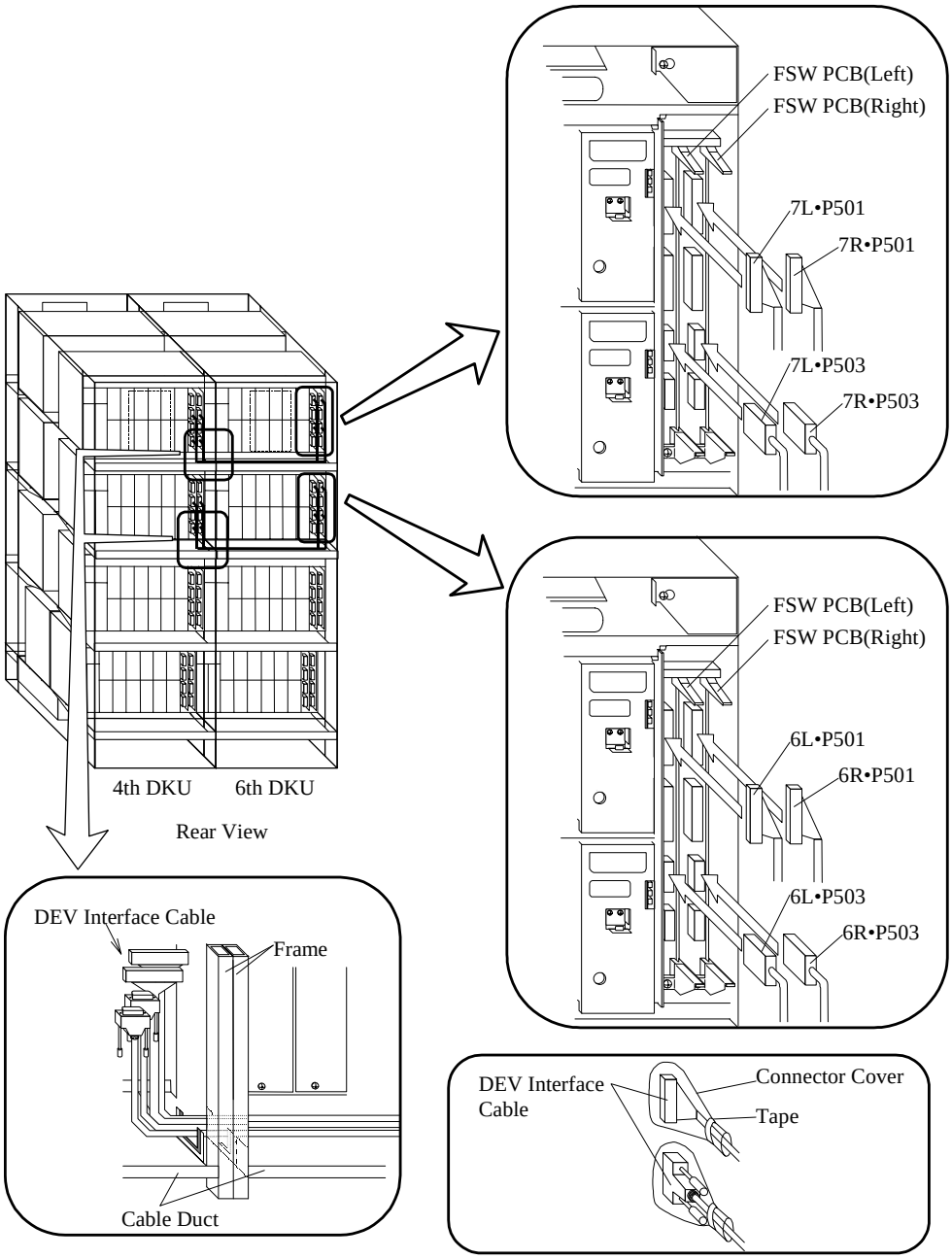


Fig. 3.12.3.10-5 Connection of the DEV Interface Cables

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4. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the Third DKU frame (HDU-L14-L17) and the Fourth DKU frame (HDU-L24-L27) and between the Fourth DKU frame (HDU-L24-L27) and the Sixth DKU frame (HDU-L34-L37) at the same time), return to INST02-300 ②.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the Third DKU frame (HDU-L14-L17) and the Fourth DKU frame (HDU-L24-L27) and between the Fourth DKU frame (HDU-L24-L27) and the Sixth DKU frame (HDU-L34-L37) at the same time while the subsystem is operating, go to INST03-2680.

5. (Dummy Procedure) Go to next step.

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6. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame. Refer to figures 3.12.3.10-7 and 3.12.3.10-8.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

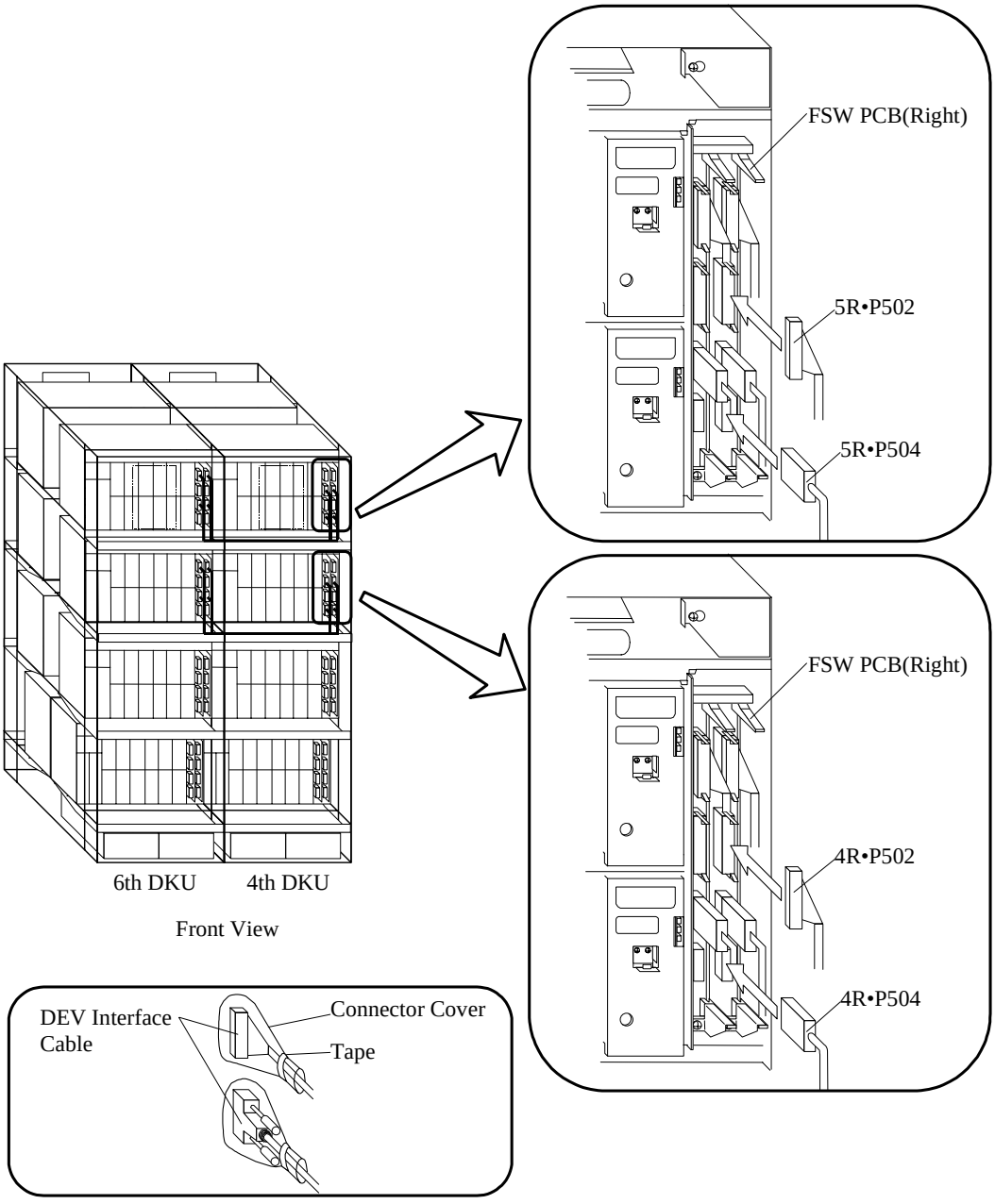


Fig. 3.12.3.10-7 Connection of the DEV Interface Cables

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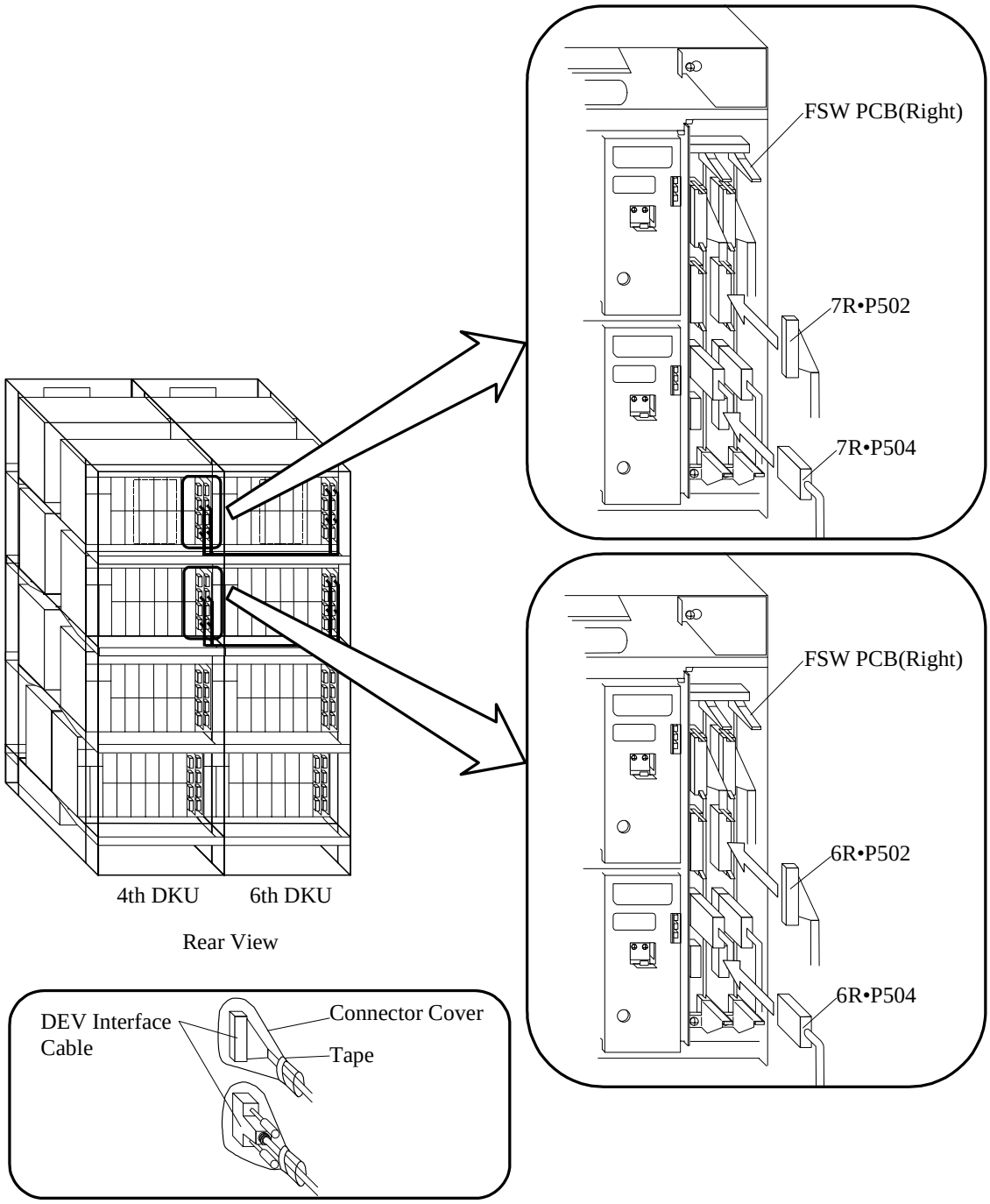


Fig. 3.12.3.10-8 Connection of the DEV Interface Cables

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7. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the Third DKU frame (HDU-L14-L17) and the Fourth DKU frame (HDU-L24-L27) and between the Fourth DKU frame (HDU-L24-L27) and the Sixth DKU frame (HDU-L34-L37) at the same time), return to INST02-310 ⑤.
   When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the Third DKU frame (HDU-L14-L17) and the Fourth DKU frame (HDU-L24-L27) and between the Fourth DKU frame (HDU-L24-L27) and the Sixth DKU frame (HDU-L34-L37) at the same time while the subsystem is operating, go to INST03-2710.

8. (Dummy Procedure) Go to next step.

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9. Remove the connector covers from each connector of the DEV interface cables and connect the DEV interface cables to the FSW PCBs in the Fourth DKU frame. Refer to figures 3.12.3.10-10 and 3.12.3.10-11.

> ⚠ CAUTION
> Precaution against a cutting of a cable : When installing a cable with no protector, take care not to get it cut by letting it caught by a sharp edge of a sheet metal part, etc.

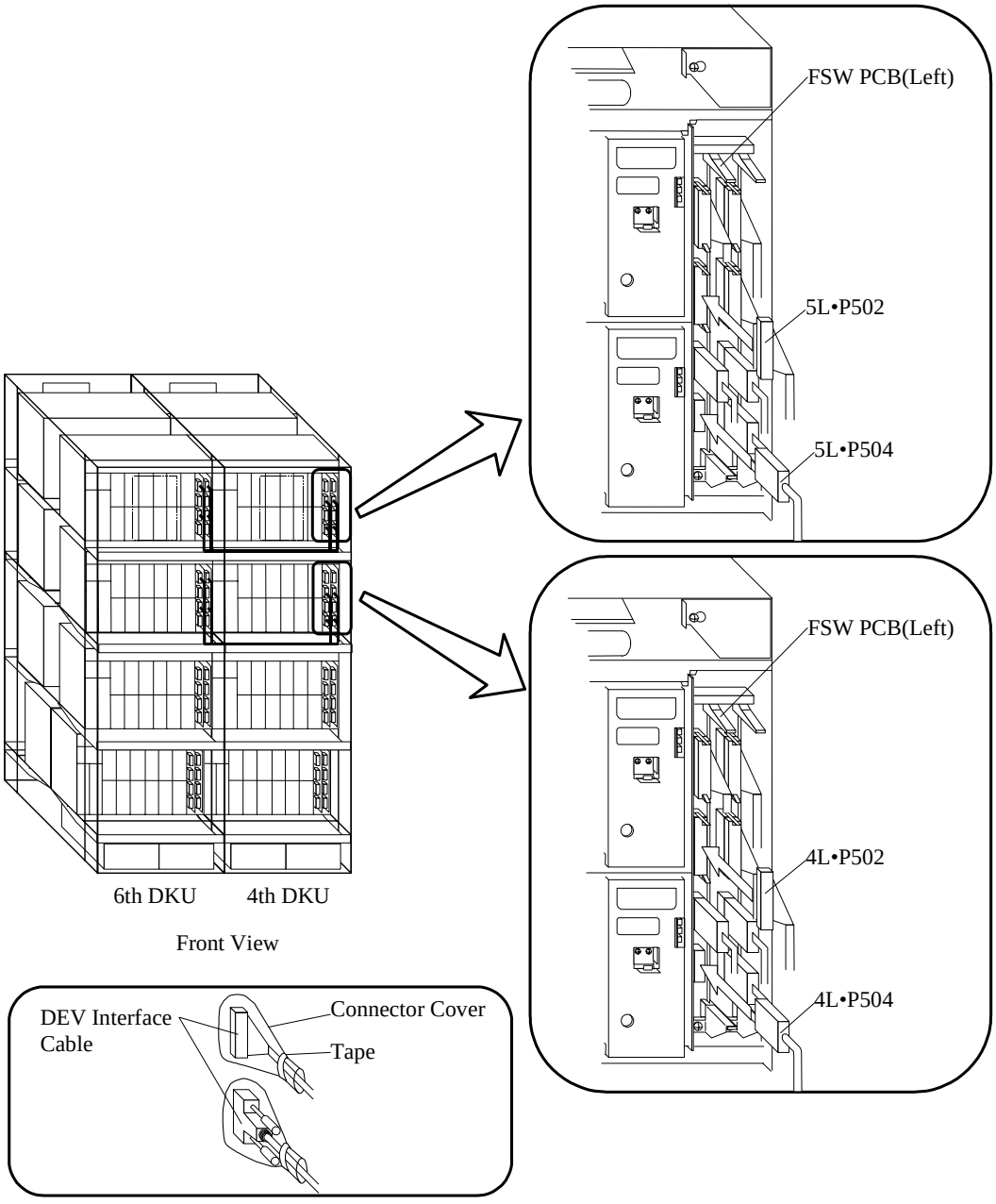


Fig. 3.12.3.10-10 Connection of the DEV Interface Cables

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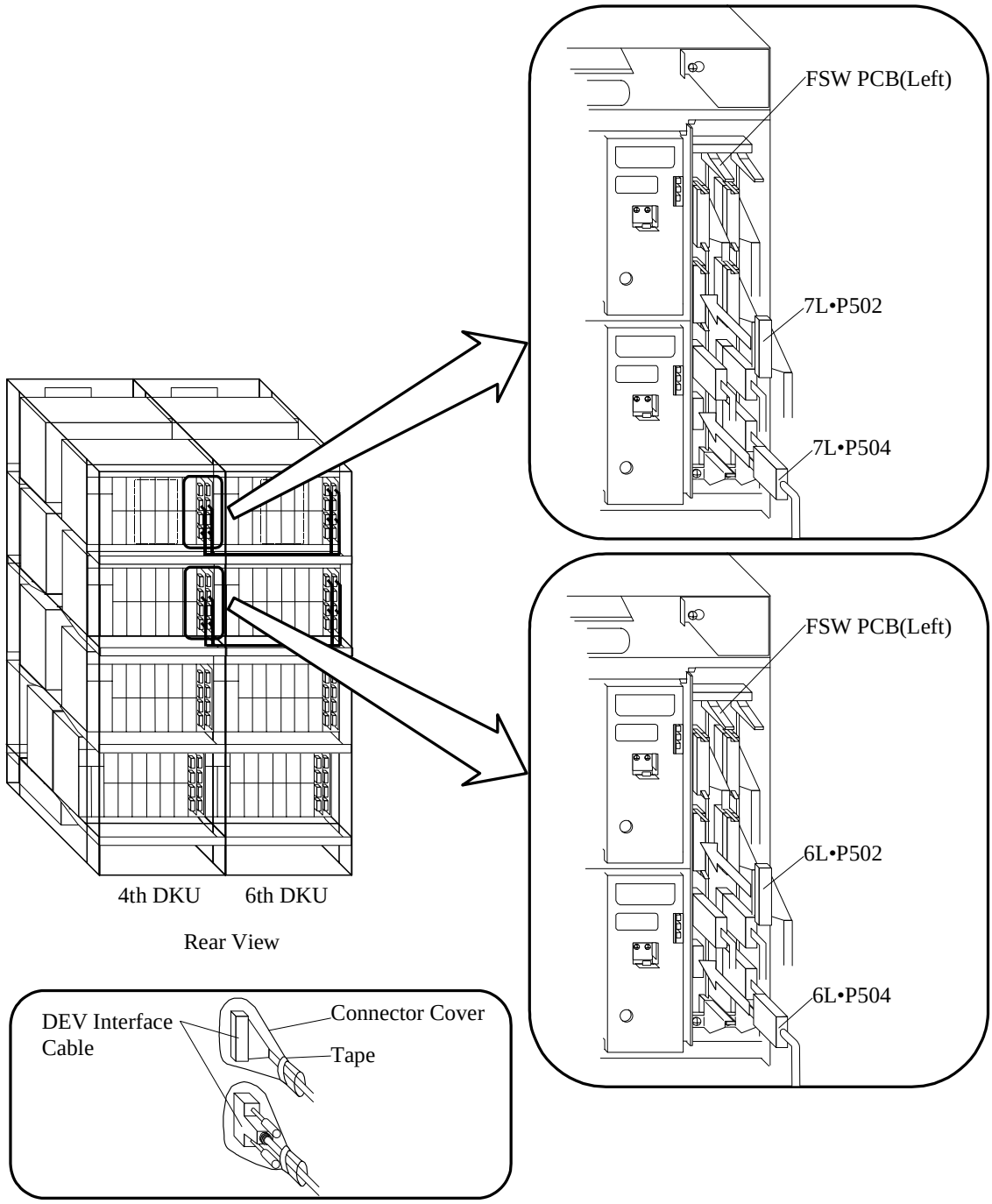


Fig. 3.12.3.10-11 Connection of the DEV Interface Cables

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10. When connecting the DEV interface cable while the subsystem is operating (excluding the case when connecting the DEV interface cables between the Third DKU frame (HDU-L14-L17) and the Fourth DKU frame (HDU-L24-L27) and between the Fourth DKU frame (HDU-L24-L27) and the Sixth DKU frame (HDU-L34-L37) at the same time), return to INST02-320 ⑦.
    When connecting the DEV interface cable while the subsystem power is turned off or connecting the DEV interface cables between the Third DKU frame (HDU-L14-L17) and the Fourth DKU frame (HDU-L24-L27) and between the Fourth DKU frame (HDU-L24-L27) and the Sixth DKU frame (HDU-L34-L37) at the same time while the subsystem is operating, go to INST03-2730.

11. Attach the side plates in the reverse order of Step 2.

12. Attach the cable covers ① and ② with the screw to fix the DEV Interface Cables.

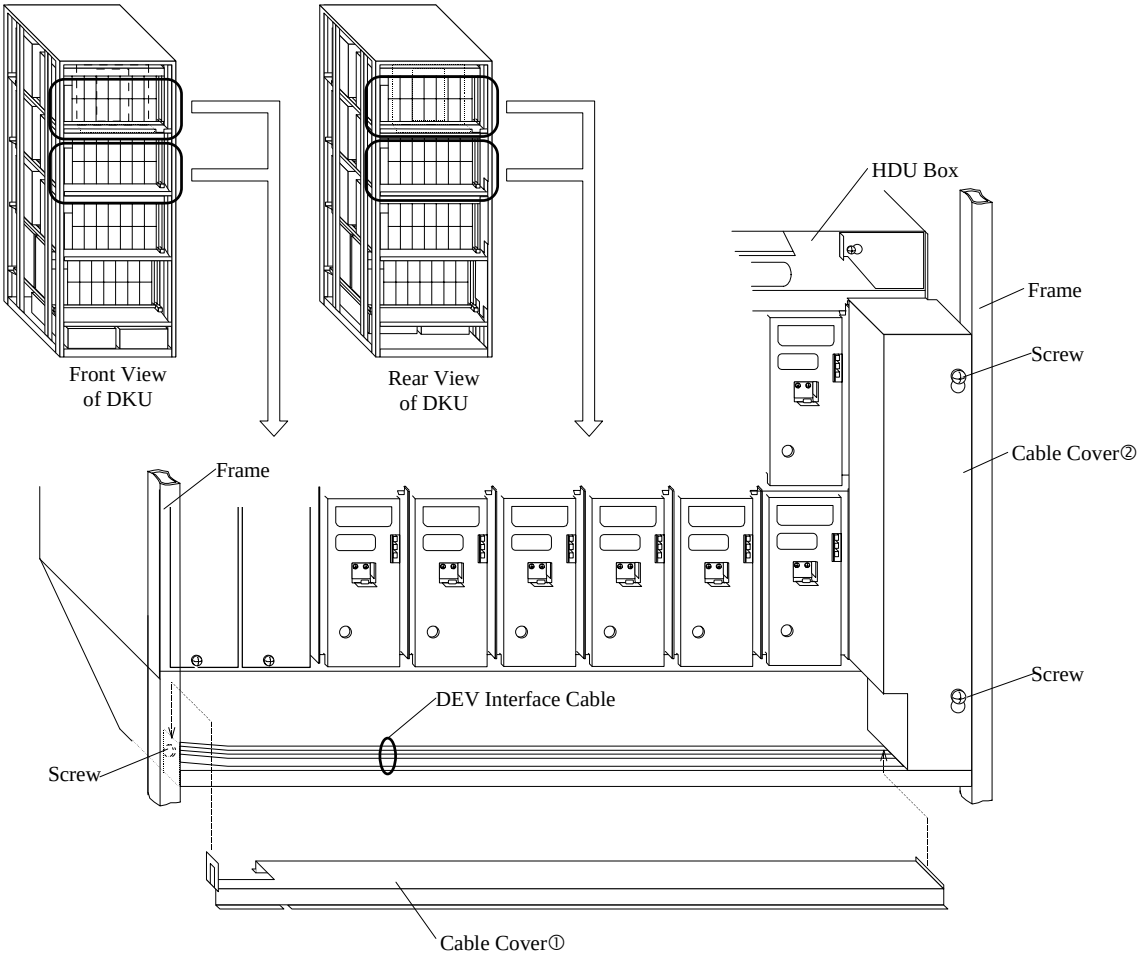


Fig. 3.12.3.10-12 Fixation of the DEV Interface Cables

13. Go to INST02-330 Step ⑨.

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3.13 Installation of Interface Connector

3.13.1 Installation of PCI I/F Connector (DKC-F410I-18)

3.13.1.1 Flowchart

1. Confirm that the REMOTE/LOCAL Switch of DKC Panel is set to LOCAL. If not, set the REMOTE/LOCAL Switch to LOCAL.

↓

2. Connect the "DKC Panel INH" jumper plug to the sockets on the DKCMN.

↓

3. Attach the PCI CON PCB.

↓

4. Set the REMOTE/LOCAL switch and jumper plugs (JP1 and JP2).

↓

5. Disconnect the "CE Panel INH" jumper plug from the socket on the DKCMN.

↓

6. Attach the nameplate.

3.13.1.2 Parts List

Table 3.13.1.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-18	PCI CON	5509131-A	1	
		Nameplate	3257216-11	1	

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3.13.1.3 Installation Procedure of PCI I/F Connector

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.

1. Confirm that the REMOTE/LOCAL Switch of DKC Panel is set to LOCAL. If not, set the REMOTE/LOCAL Switch to LOCAL.

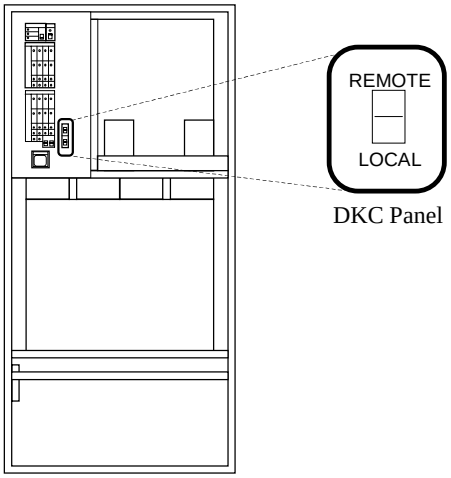


Fig. 3.13.1.3-1 Setting of REMOTE/LOCAL Switch

2. Connect the "CE Panel INH" jumper plug to the sockets on the DKCMN.

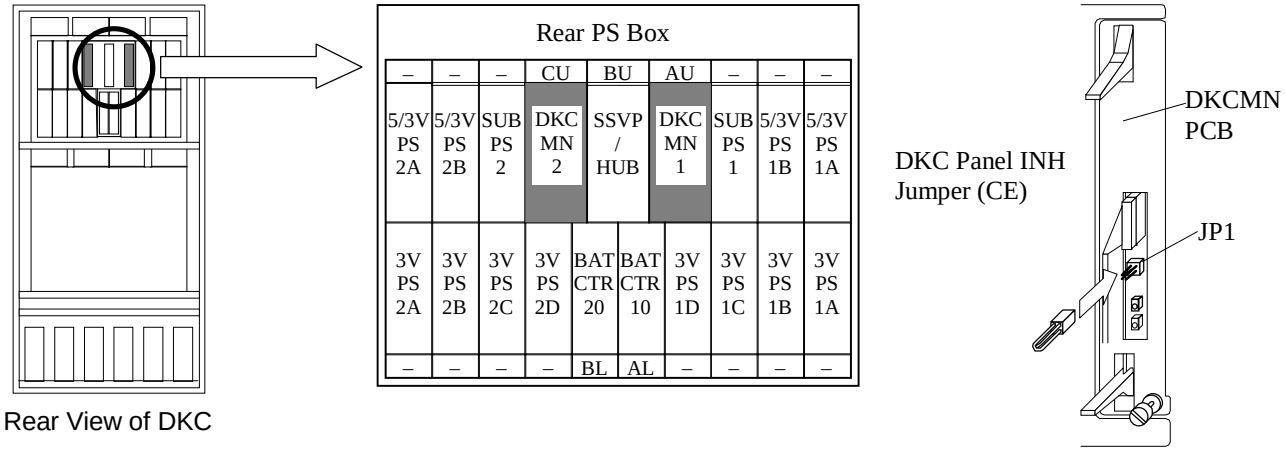


Fig. 3.13.1.3-2 Insertion of Jumper Plug

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3. Attach the PCI CON PCB.
   a. Remove the screw① and remove the plate.
   b. Attach the PCI CON PCB and fasten the screw②.
   c. Attach the plate and fasten the screw①.
   d. Connect the cable.

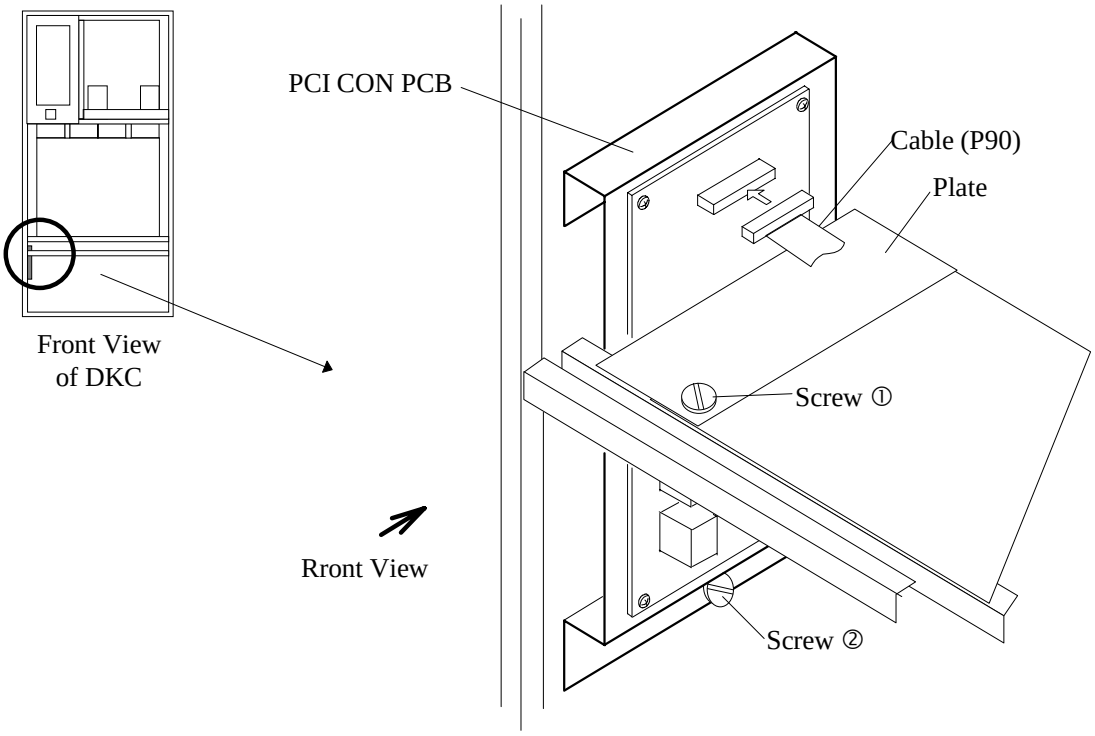


Fig. 3.13.1.3-3 Attachment of PCI CON PCB

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4. Set the REMOTE/LOCAL switch and jumper plugs (JP1 and JP2).
   a. Restore the REMOTE/LOCAL switch on the DKC panel set in step 1 to its previous setting.
   b. Set the jumper plugs (JP1 and JP2) of the PCI CON referring to Fig. 3.13.1.3-4 and Table 3.13.1.3-1.

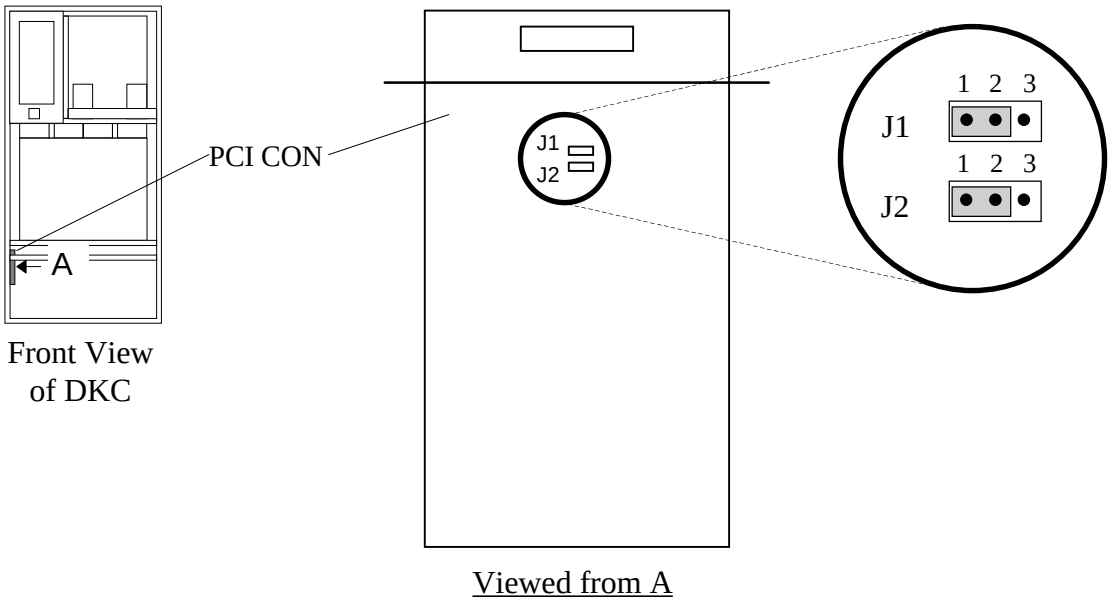
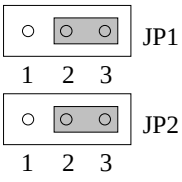
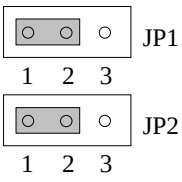


Fig. 3.13.1.3-4 Setting of Jumper Plugs

Table 3.13.1.3-1 Jumper setting of PCI CON

No.	Description	JP1 and JP2 Setting
1	When power is controlled from the host (at least one PCI cable attached to JP1-JP8 on PCI CON PCB), set the jumpers as shown.	
2	When power is not controlled from the host, no PCI Cable attached to JP1-JP8 PCI CON PCB, to disable the EPO of host, set the jumpers as shown.	

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5. Disconnect the "CE Panel INH" jumper plug from the socket on the DKCMN.

6. Attach the nameplate.
   a. Attach the nameplate of DKC-F410I-18.

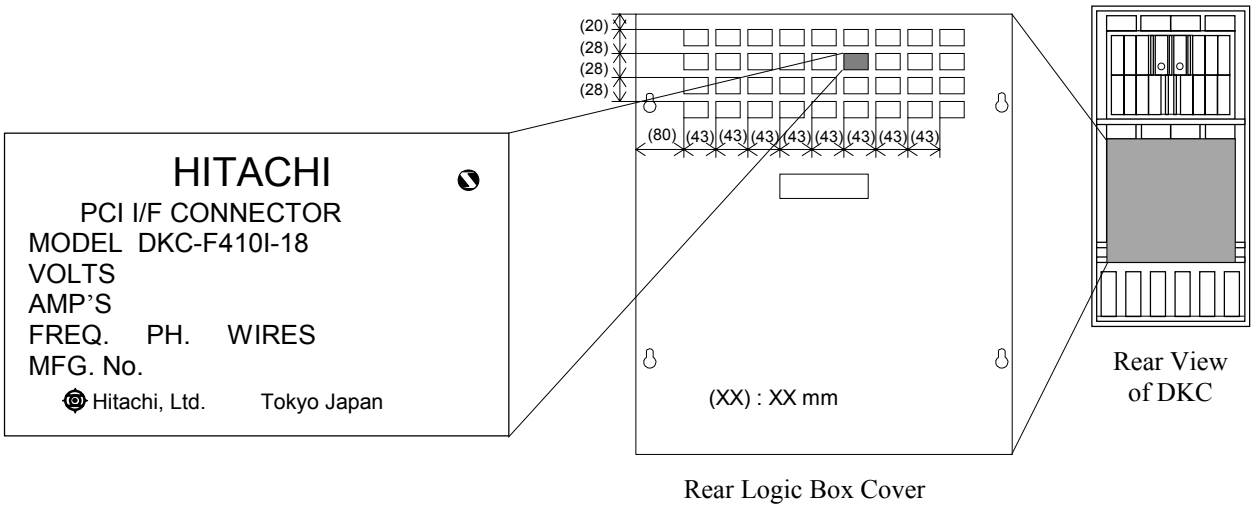


Fig. 3.13.1.3-5 Location of the Nameplate

7. Return to General Flow.
   New Installation : Go to INST02-10 step (2)-2.
   Non-Disruptive Installation : Go to INST02-120 step (9)-2.
   Disruptive Installation : Go to INST02-210 step (7).

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3.14 Installation of AC Box Kit

3.14.1 Installation of AC Box Kit for DKU (DKU-F405I-3PS/1PS)

3.14.1.1 Flowchart

1. Remove the Plate.
↓
2. Attach the DKU AC Boxes.
↓
3. Attach the Nameplate.
↓
4. Connect the Cables.
↓
5. Attach the Plate.

3.14.1.2 Parts List

Table 3.14.1.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-3PS	DKU AC Box	5502383-A	2	
		Nameplate	2103308-13	1	
			3259625-1	1	
2	DKU-F405I-1PS	DKU AC Box	5502396-A	2	
		Nameplate	2103308-18	1	
			3259625-6	1	

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3.14.1.3 Installation Procedure of AC Box Kit for DKU

1. Remove the Plate.
   a. Remove the two screws.
   b. Slide the plate toward the rear side to remove.

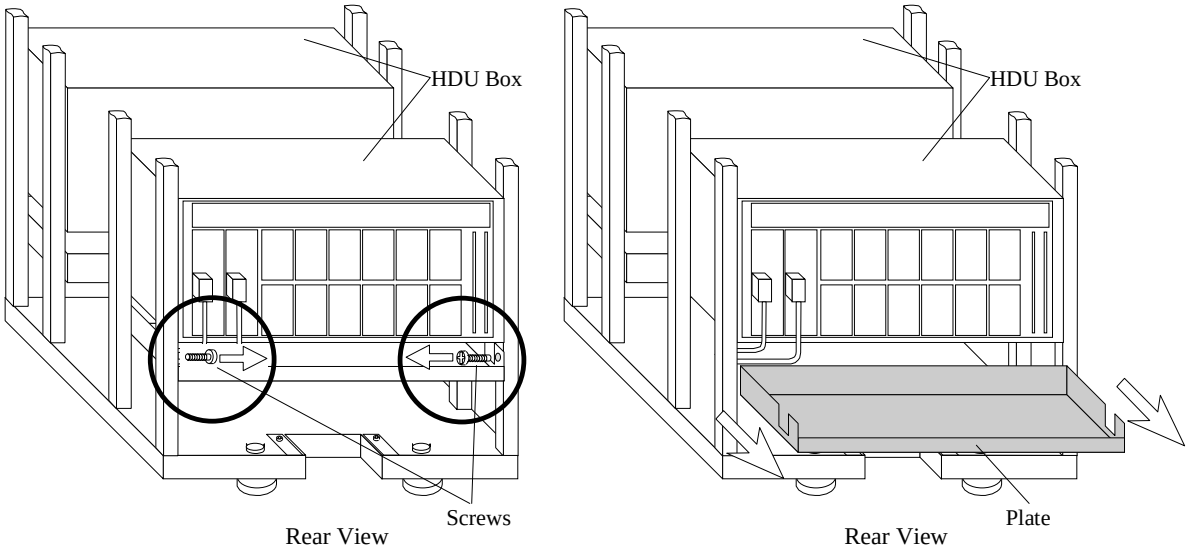


Fig. 3.14.1.3-1 Removal of Plate

2. Attach the DKU AC Boxes.
   a. Slide the DKU AC Boxes from the front to the rear.

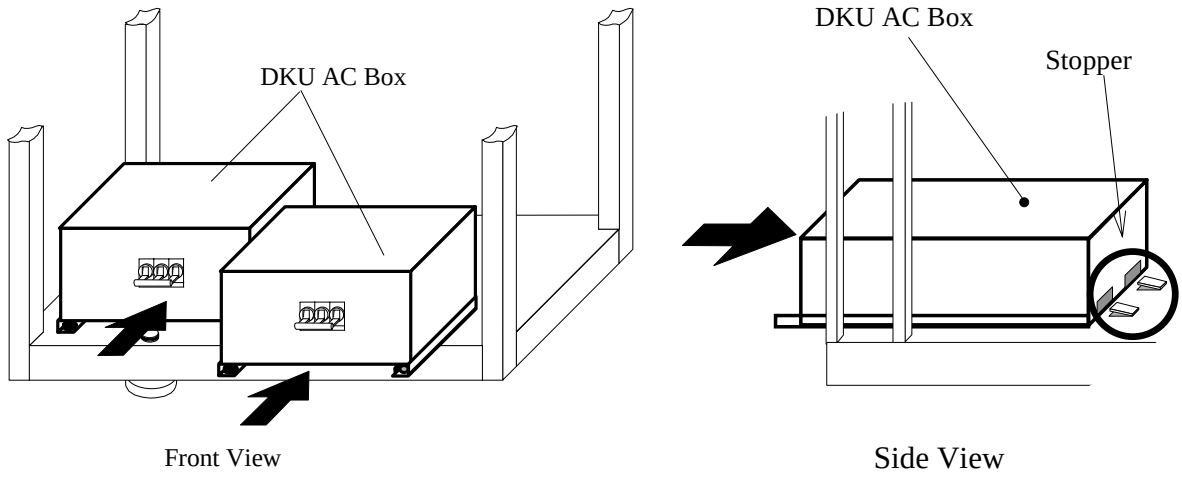
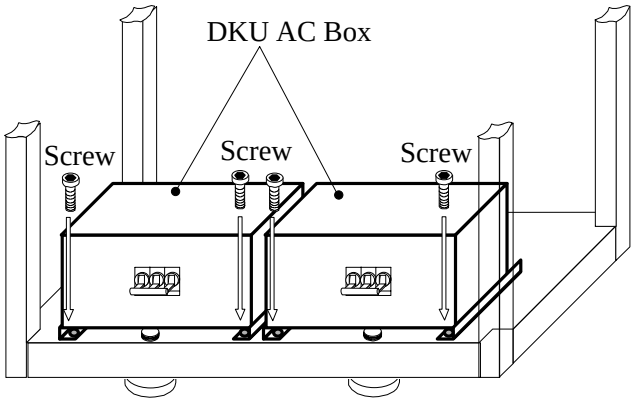


Fig. 3.14.1.3-2 Attachment of DKU AC Boxes

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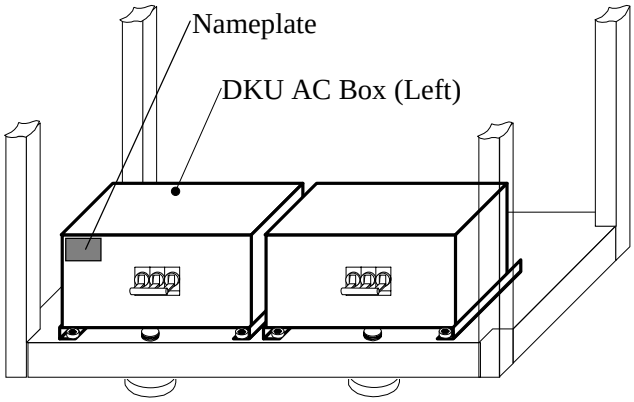
b. Secure the DKU AC Boxes with the screws.



Front View
of DKU

Fig. 3.14.1.3-3 Attachment of Screws

3. Attach the Nameplate.
   a. Attach the corresponding nameplate to the left DKU AC Box.



Front View
of DKU

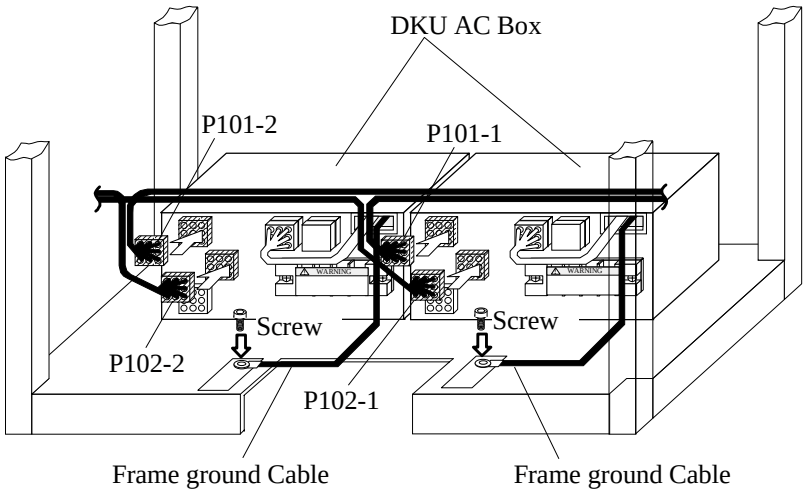
Fig. 3.14.1.3-4 Attachment of Nameplate

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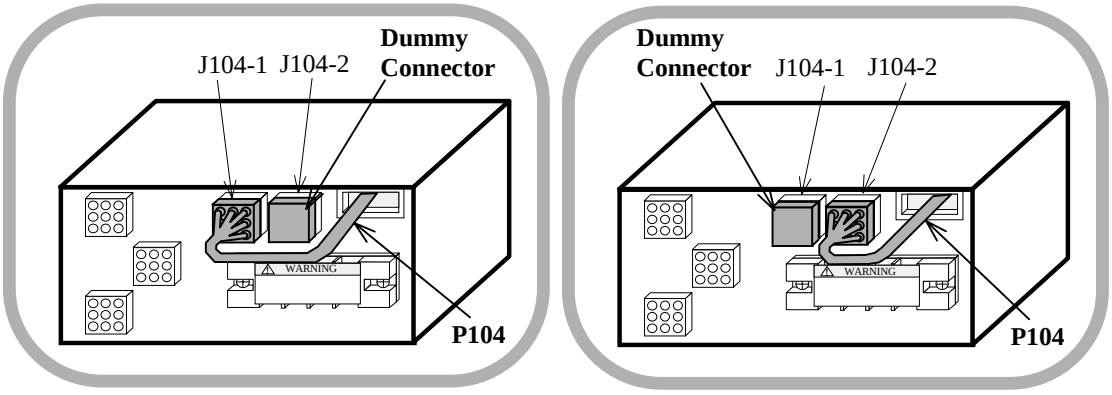
4. Connect the Cables.

DKU-F405I-3PS

a. Secure the frame ground cables with the screws.
b. Connect the cables (P101-1, P102-1, P101-2, P102-2 and P104) and dummy connector to the DKU AC Boxes.



Rear View



Input AC Voltage : 200 - 240V Input AC Voltage : 380 - 415V

Fig. 3.14.1.3-5 Connection of Cables

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DKU-F405I-1PS

a. Secure the frame ground cables with the screws.
b. Connect the cables (P101-1, P102-1, P101-2 and P102-2) to the DKU AC Boxes.

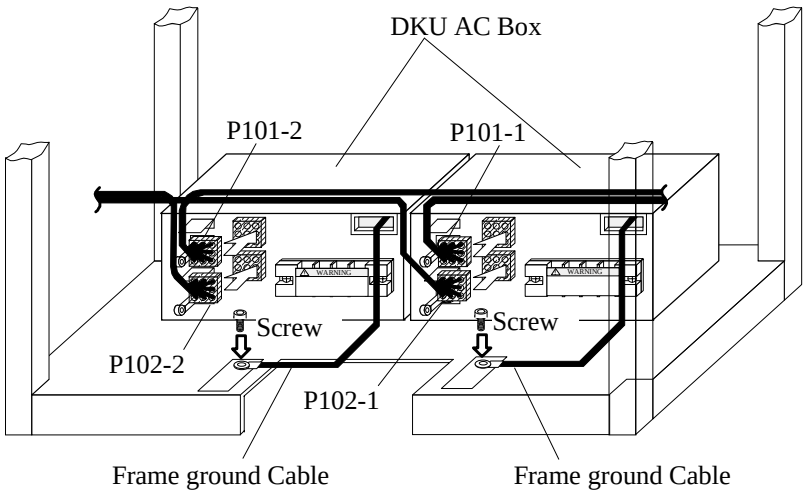


Fig. 3.14.1.3-6 Connection of Cables

5. Attach the Plate.
   a. Attach the plate with the two screws.

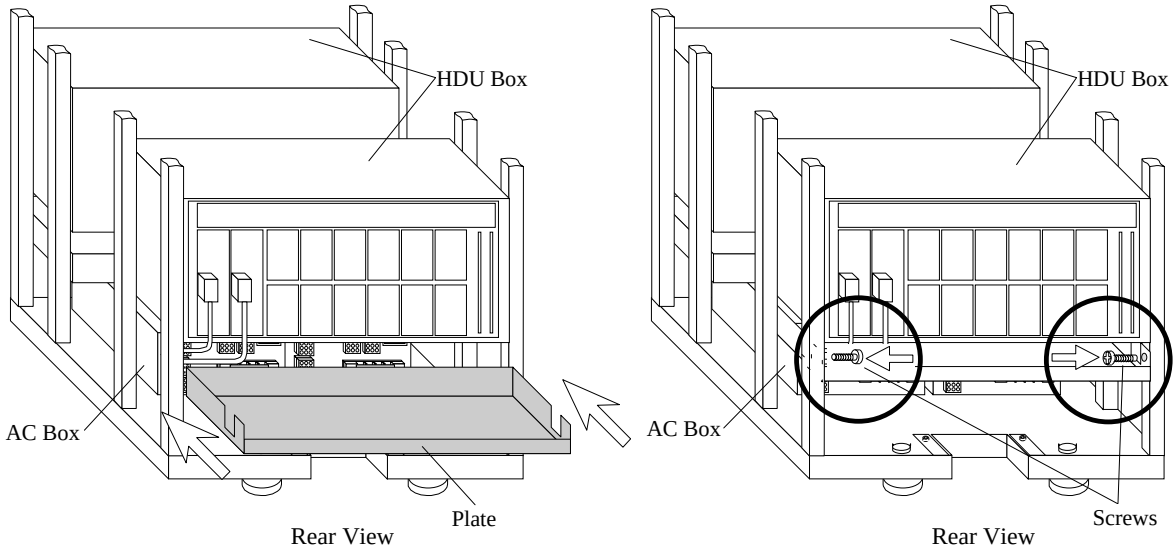


Fig. 3.14.1.3-7 Attachment of Plate

6. Return to General Flow.
   New Installation
      Basic Disk Unit Installation : Go to INST02-10 step (2)-3.
      Additional Disk Units : Go to INST02-20 step (7)-2.
   Non-Disruptive Installation : Go to INST02-90 step (5)-2.
   Disruptive Installation : Go to INST02-210 step (8)-2.

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3.14.2 Installation of AC Box Kit for DKC (DKC-F410I-1PS)

3.14.2.1 Flowchart

1. Remove the Cover.
↓
2. Change the Dummy Plate.
↓
3. Attach the DKC AC Boxes.
↓
4. Attach the Partition (Door).
↓
5. Attach the Nameplate and the Labels.

3.14.2.2 Parts list

Table 3.14.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-1PS	DKC AC Box	5509371-A	2	
		Dummy PNL ASSY	5510616-A	1	
		Base(AC BOX)	5510614-B	1	
		Upper Support	5510614-A	1	
		Partition(AC BOX)	3259558-1	1	
		Partition(Door)	5509372-1	1	
		Label(UL5)	5466325-1	1	
		Screw	SB306	6	
		Screw	SB408	14	
		Toothed Washer	WT004	4	Lock Washer
		WA Socket Bolt	3183095-408	2	
		Label	3257223-1	1	P250-1, P250-2
		Label(V/Hz)	2103353-1	1	
		Nameplate	2103342-3	1	DKC-F410I-1PS
		Nameplate	3259765-1	1	A5951-60005

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3.14.2.3 Installation Procedure of AC Box Kit for DKC

1. Remove the Cover.
   a. Remove the Front Logic Box cover from the Front Logic Box. Refer to page INST03-20.

2. Change the Dummy Plate.
   a. Open the repeat binder and remove the AC cables (P103-1 and P103-2).

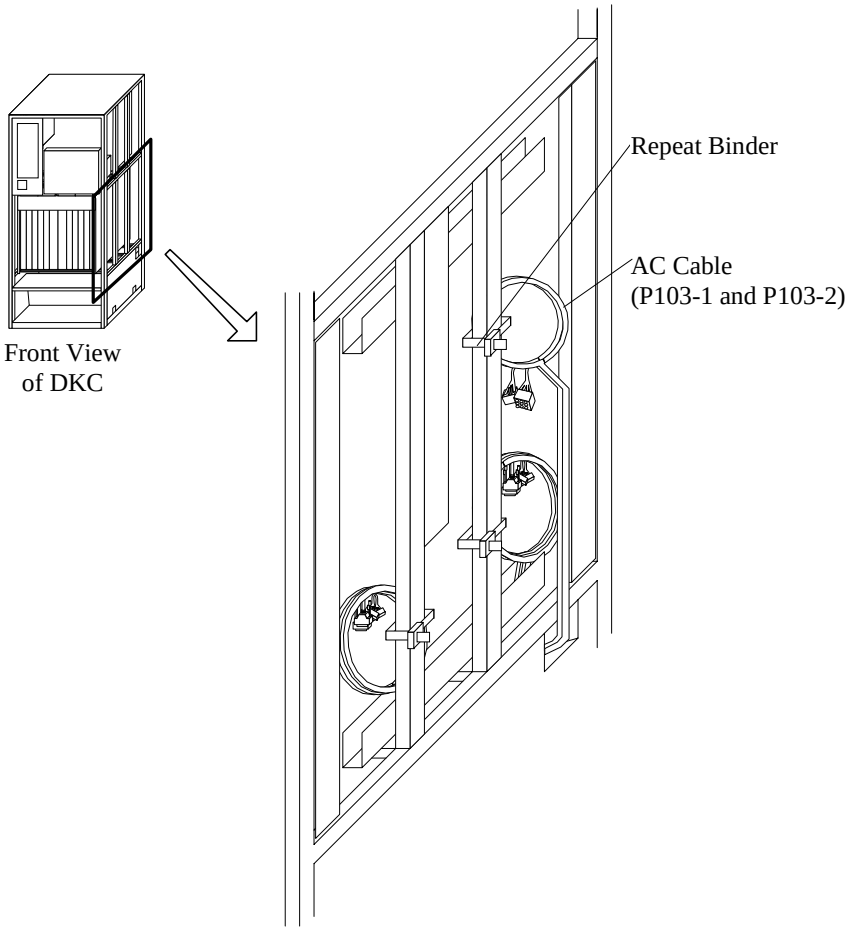


Fig. 3.14.2.3-1 Removal of AC Cables

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b. Remove the AC cables from the cable duct.

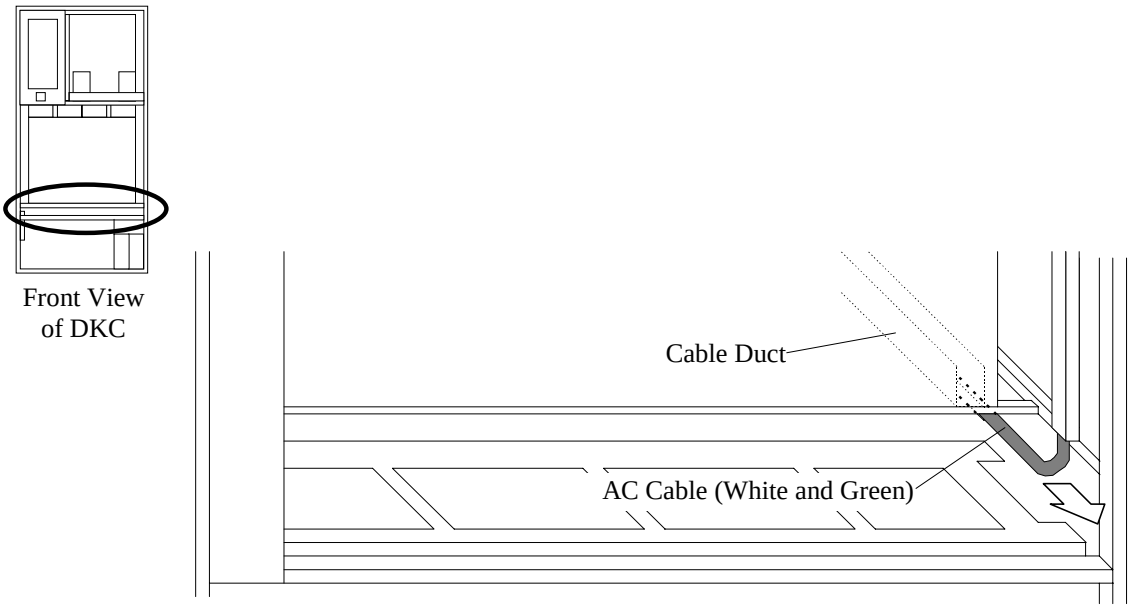


Fig. 3.14.2.3-2 Removal of AC Cable

c. Insert the extra cables to the cable duct.

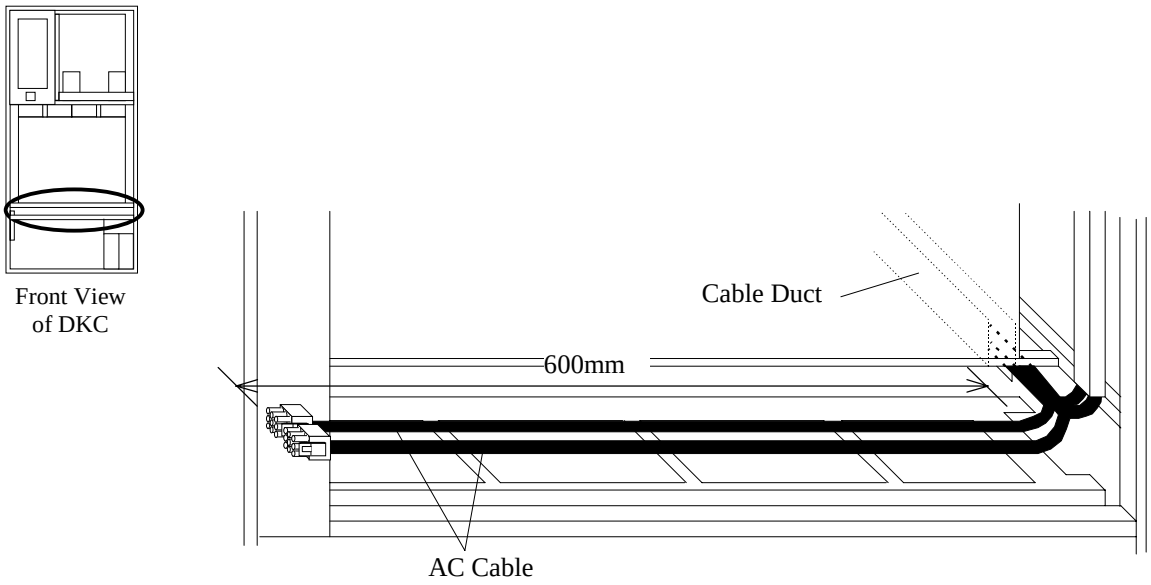


Fig. 3.14.2.3-3 Insertion of AC Cables

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d. Remove the four screws and remove the dummy plate.

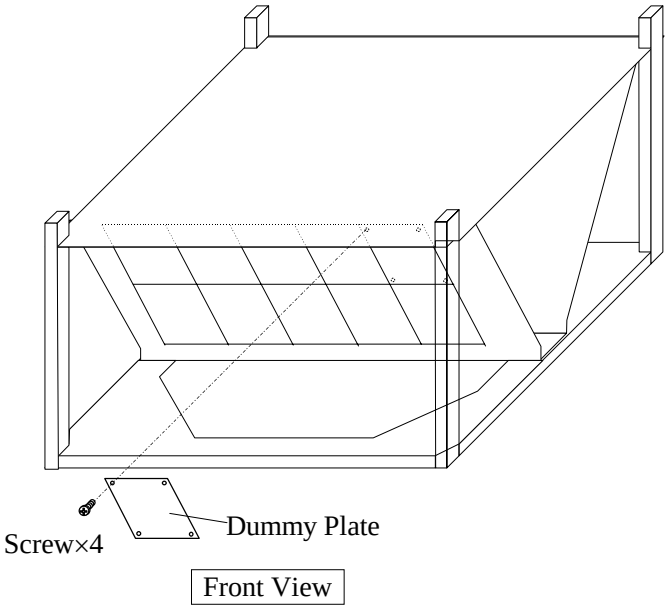


Fig. 3.14.2.3-4 Removal of Dummy Plate

e. Pull out AC cable from cut out for cable and close the edging saddle.
f. Attach the Dummy PNL ASSY with the four screws.
g. Bind the AC cables with the repeat binder.

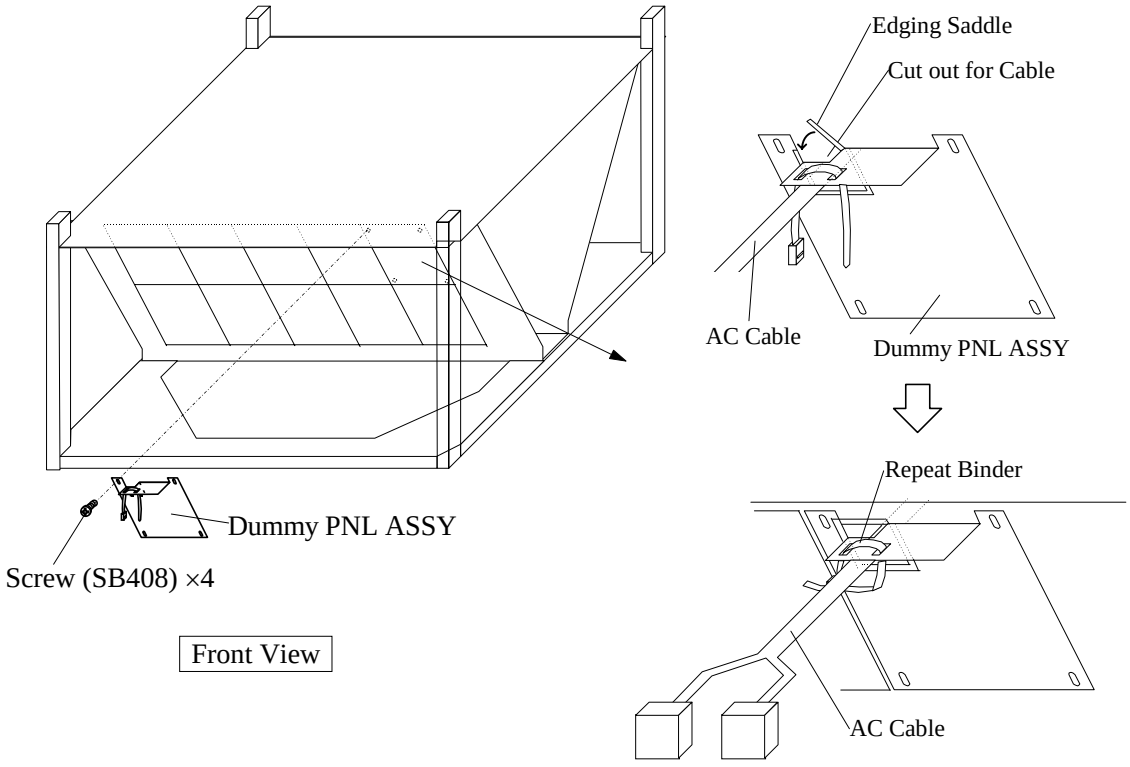


Fig. 3.14.2.3-5 Attachment of Dummy PNL ASSY

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3. Attach the DKC AC Boxes.
   a. Remove the two screws ① fixing the dummy plate.
   b. Attach the Base(AC Box) with the two screws ② and the two WA socket bolts. And then attach the Upper Support with the two screws ③.

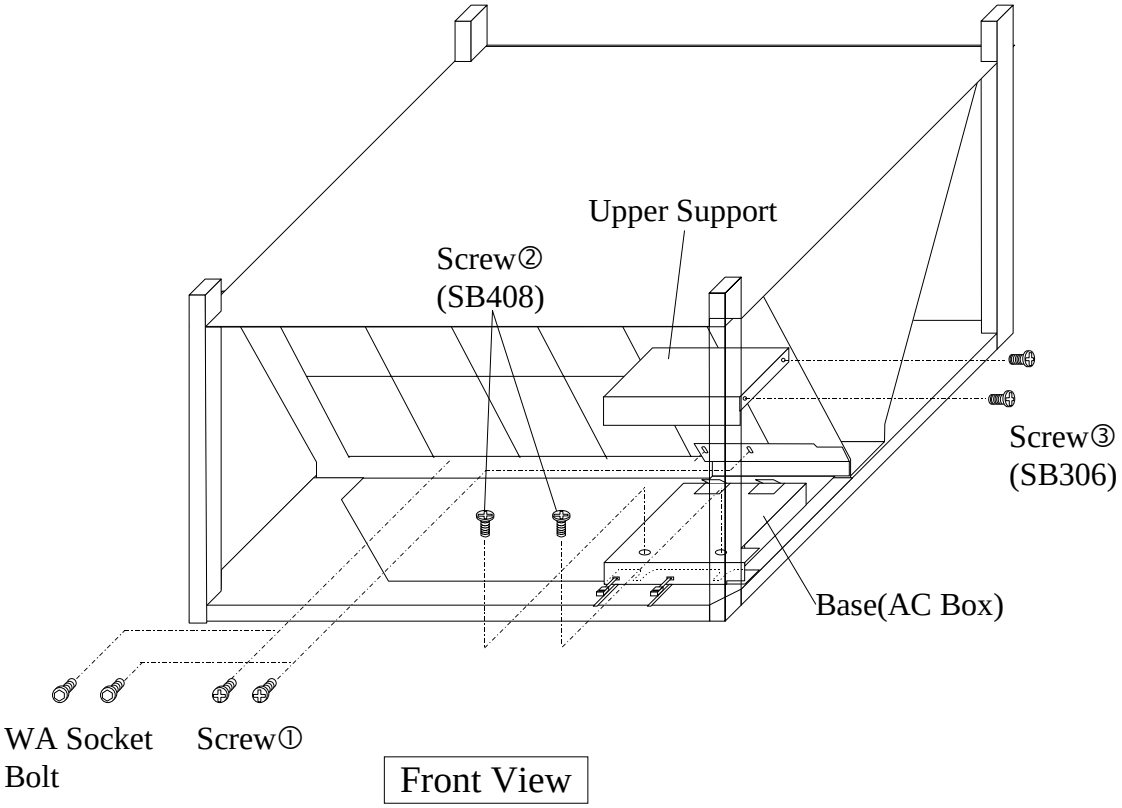


Fig. 3.14.2.3-6 Attachment of Base(AC Box) and Upper Support

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c. Attach the Partition(AC Box) with the four screws.

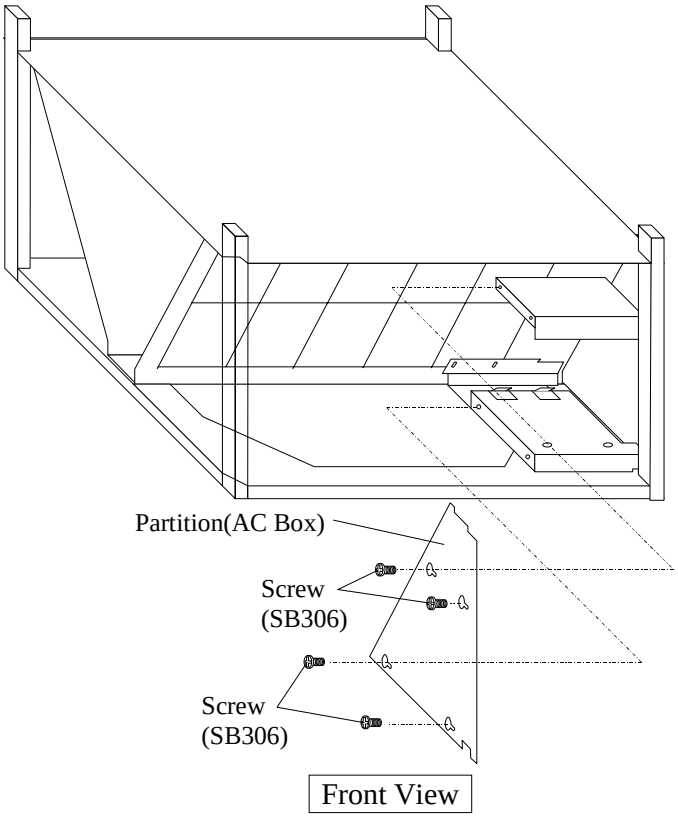


Fig. 3.14.2.3-7 Attachment of Partition(AC Box)

d. Attach the two DKC AC Boxes with the four screws.

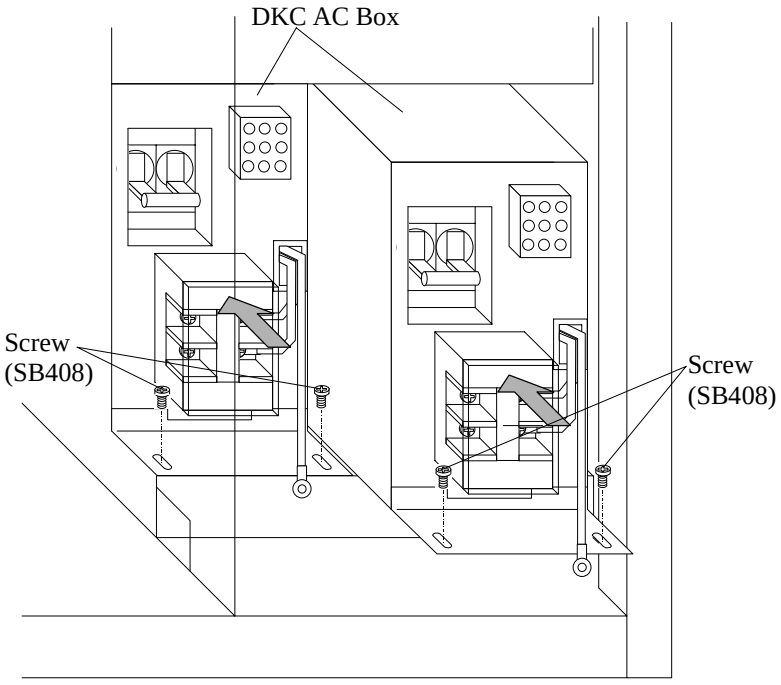


Fig. 3.14.2.3-8 Attachment of DKC AC Boxes

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e. Attach the frame ground cables with the two screws and the two lock washers. And attach the two screws and the two lock washers for Power Cable Unit.

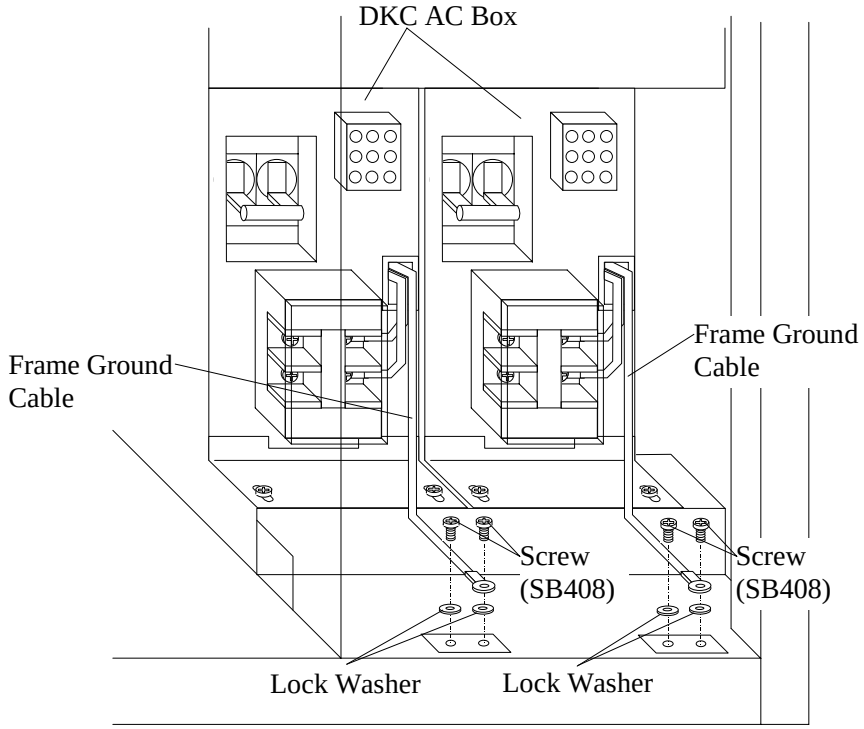
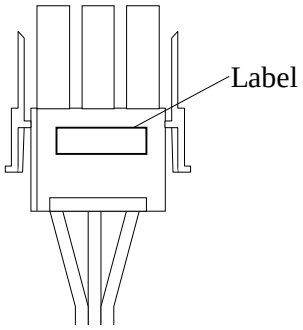


Fig. 3.14.2.3-9 Attachment of Screws

f. Remove the old labels from the cables and attach the new labels.



Cable	Old Label	New Label	Remarks
1	P103-1	→ P250-1	
2	P103-2	→ P250-2	

Fig. 3.14.2.3-10 Exchange of Labels

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g. Connect the cables (P250-1 and P250-2) to the DKC AC Boxes.

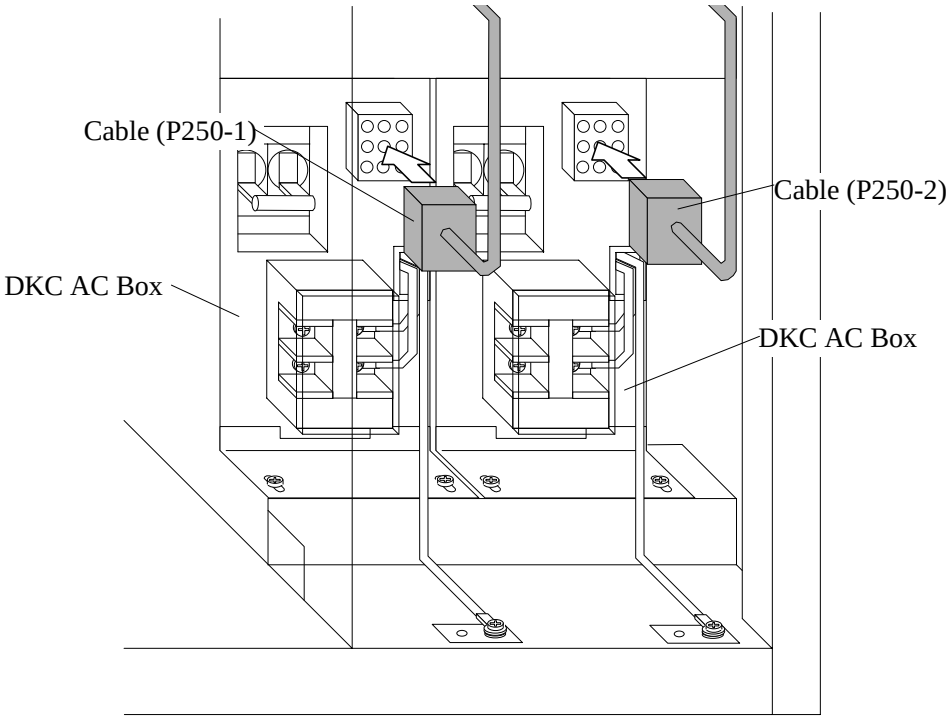


Fig. 3.14.2.3-11 Connection of Cables

4. Attach the Partition (Door).
   a. Loosen the screw.
   b. Attach the Partition (Door) inside the front door and fasten the screw.

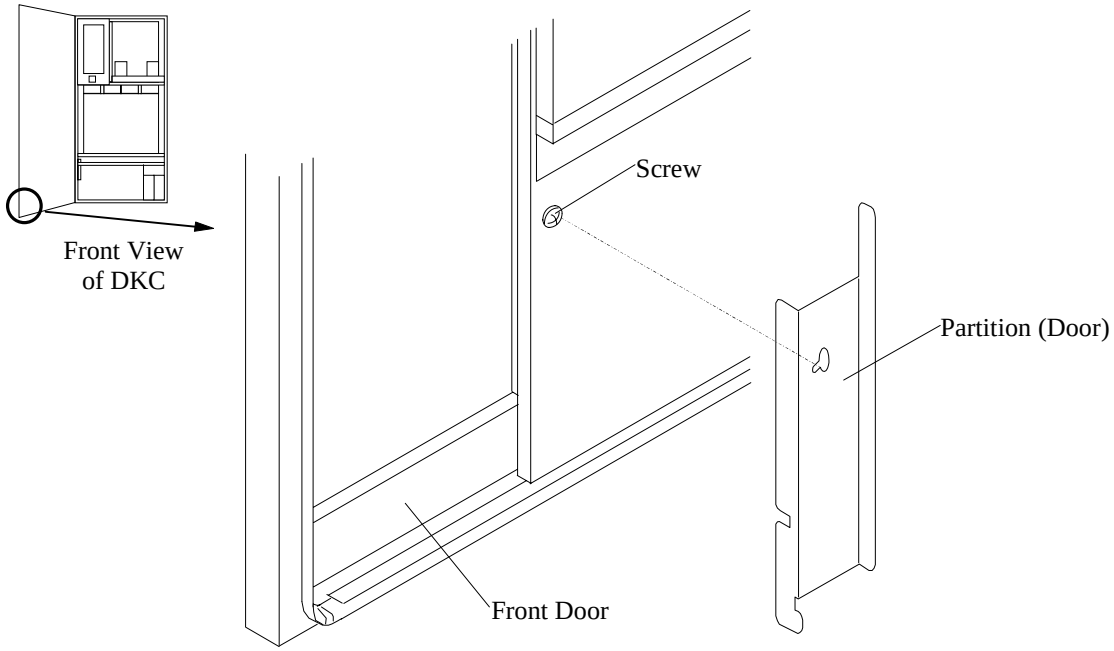


Fig. 3.14.2.3-12 Attachment of Partition (Door)

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5. Attach the Nameplate and the Labels.
   a. Attach the nameplate to the Upper Support.
   b. Attach the label (V/Hz) to the Base (AC Box). Label (V/Hz) should be selected among the sheet of Label(V/Hz) corresponding to the operating voltage and frequency.
   c. Attach the label (UL5) to the frame.

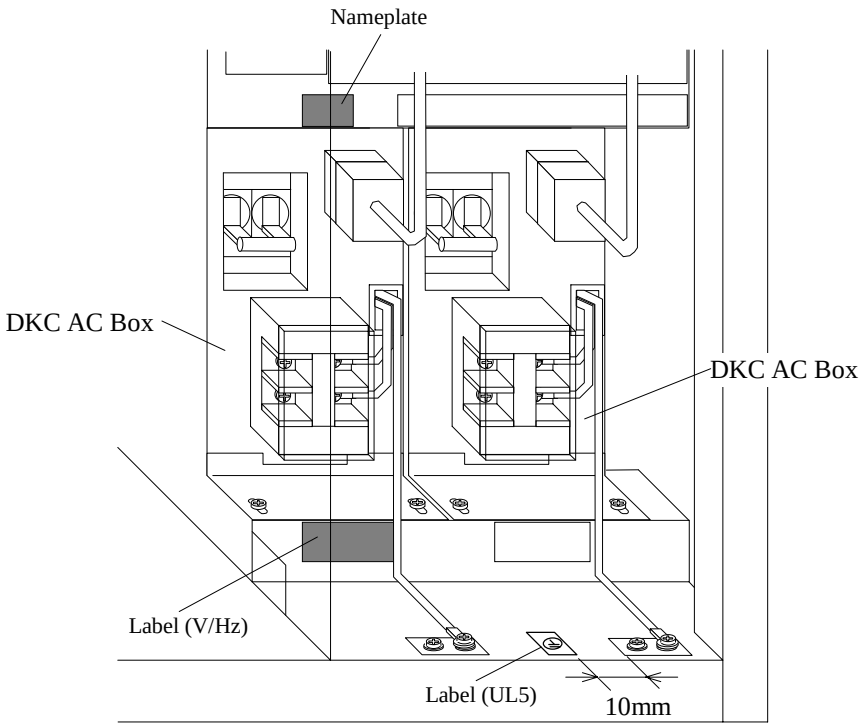


Fig. 3.14.2.3-13 Attachment of Nameplate and labels

   d. Attach the Front Logic Box cover to the Front Logic Box. Refer to page INST03-20.

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3.15 Installation of SNMP Support Kit (DKC-F410I-SNMP)

3.15.1 Flowchart

(1) The file on Flash Memory Card are moved to HD.
↓
(2) Remove the SVP Cover.
↓
(3) Replace or remove the Flash Memory Card.
↓
(4) Attach the LAN Port.
↓
(5) Attach the SVP Cover.
↓
(6) Attach the Nameplate.
↓
(7) LAN Adapter Driver install.
↓
(8) Insert the Flash Memory Card (For FLORA270SX, FLORA270GX).

3.15.2 Parts List

Table 3.15.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-SNMP	LAN Port	5509116-A	1	
		USB-LAN Driver FD		1	
		Flash Memory Card	5509140-A	1	64MB Flash Memory
		Repeat Binder	5409042-3	1	
		Nameplate	3257216-36	1	

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3.15.3 Installation Procedure of SNMP Support Kit

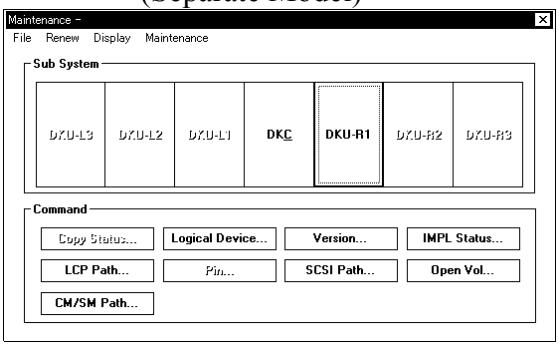
1. The file on Flash Memory Card are moved to HD.
   New Installation, Disruptive Installation: Go to 2.
   Non-Disruptive Installation: Go to (1)

(1) Set the “SVP PS ON/OFF INH jumper” (JP2) [LOCATION06-50]

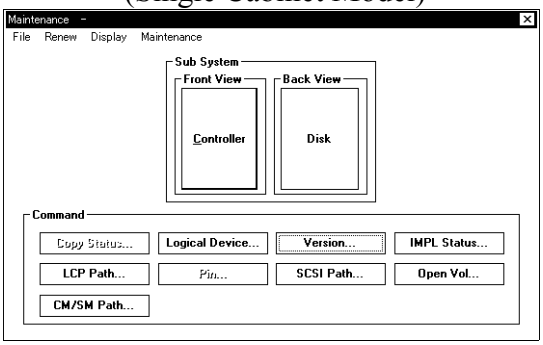
(2) <Operation mode change>
Change the mode to [Modify Mode].
Select (CL) [Maintenance].

(3) <Maintenance window>
‘Maintenance’ window is displayed.

(Separate Model)



(Single Cabinet Model)



NOTICE
Complete SIM before operation.

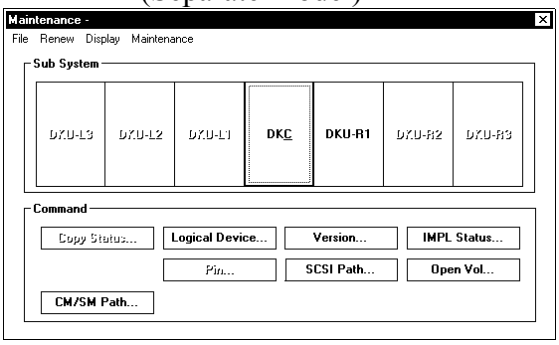
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(4) <Maintenance window>
'Maintenance' window is displayed.

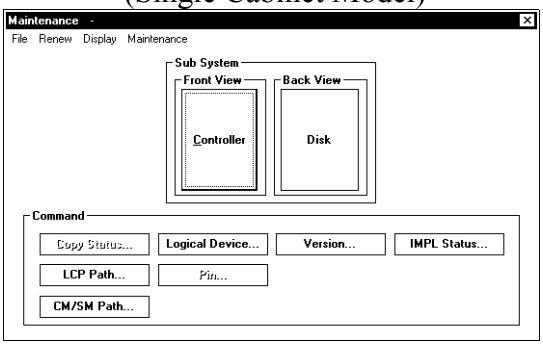
(Separate Model)
In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

(Single Cabinet Model)
In the "Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)

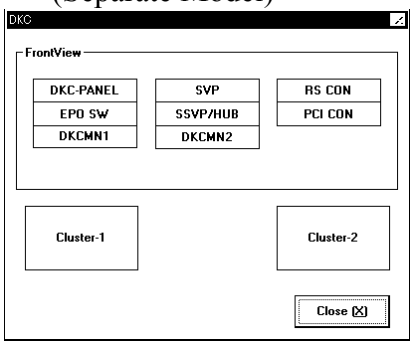


(5) <Specify special part>

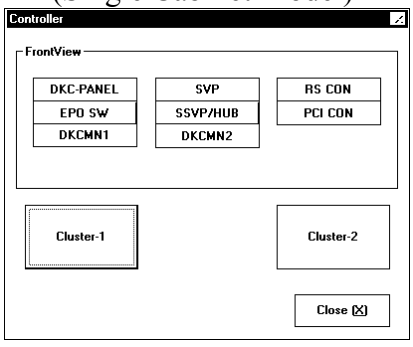
(Separate Model)
Select (CL) part [SVP] to be replaced from 'DKC'.

(Single Cabinet Model)
Select (CL) part [SVP] to be replaced from 'Controller'.

(Separate Model)

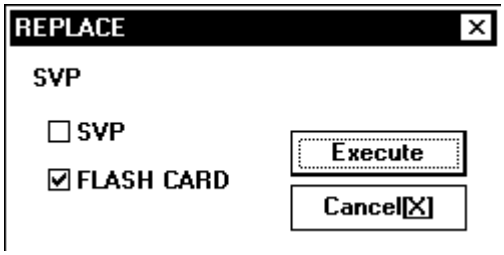


(Single Cabinet Model)

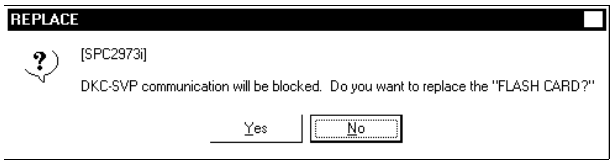


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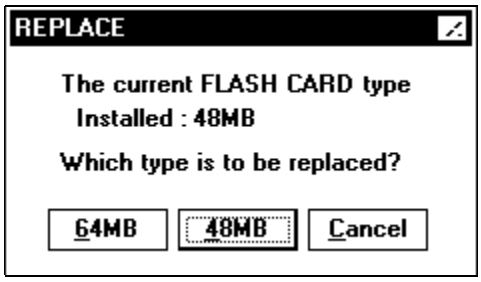
(6) <Execute>
a) Select (CL) replacement parts “FLASH CARD”. (with a check mark)
b) Check box on the left of “SVP” is ☐. (without a check mark)
c) Select (CL) [Execute].



(7) <Check beginning of special part Replacement>
Select (CL) [Yes] in response to “Do you want to replace the "FLASH CARD"”.

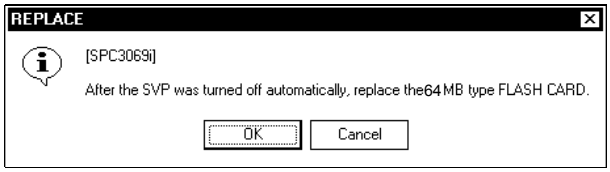


(8) <Select the type of maintenance part>
Select (CL) [64MB] in response to “The current FLASH CARD type Installed : xxxx
Which type is to be replaced?”.
xxxx : The installed FLASH CARD type
48MB : 48MB type
64MB : 64MB type
UNKNOWN : The FLASH CARD type cannot be gotten.



(ex. 48MB type is installed)

(9) <Check beginning of FLASH CARD Replacement>
The message “After the SVP was turned off automatically, replace the 64MB type FLASH CARD.” is displayed.



Select (CL) [OK], so it will reboot the SVP, and the files on FLASH CARD are moved to HD. Then SVP is turned off automatically.

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2. Remove the SVP Cover.
   a. Open the SVP Assy.
   b. Loosen the two screws and remove the SVP cover.

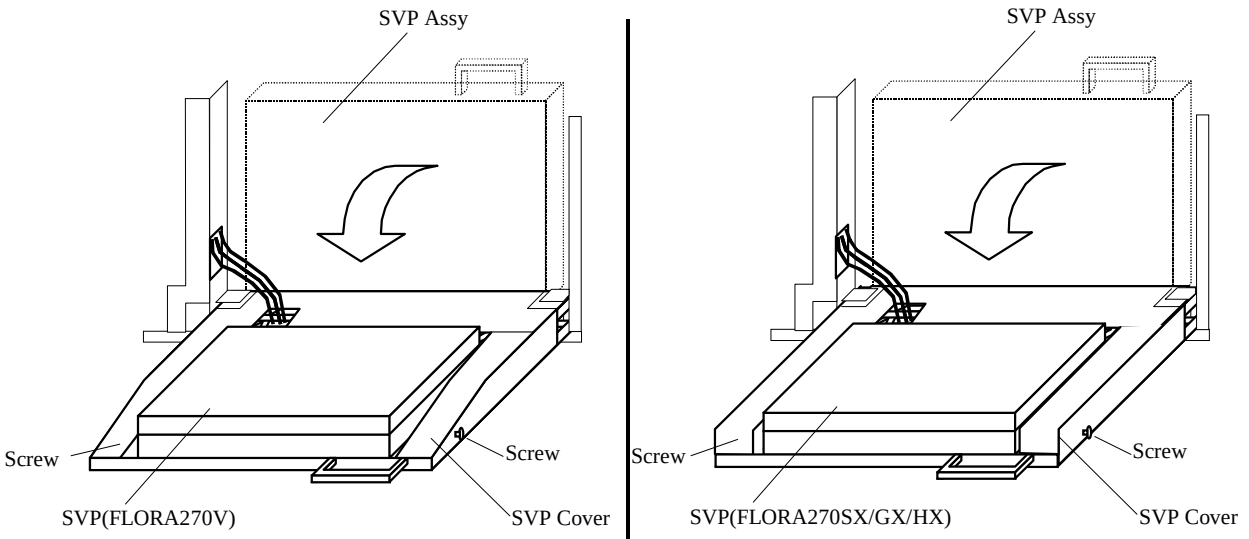
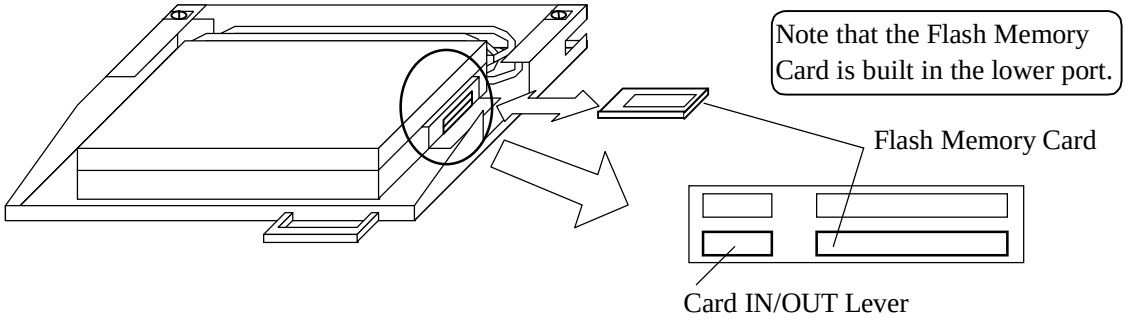


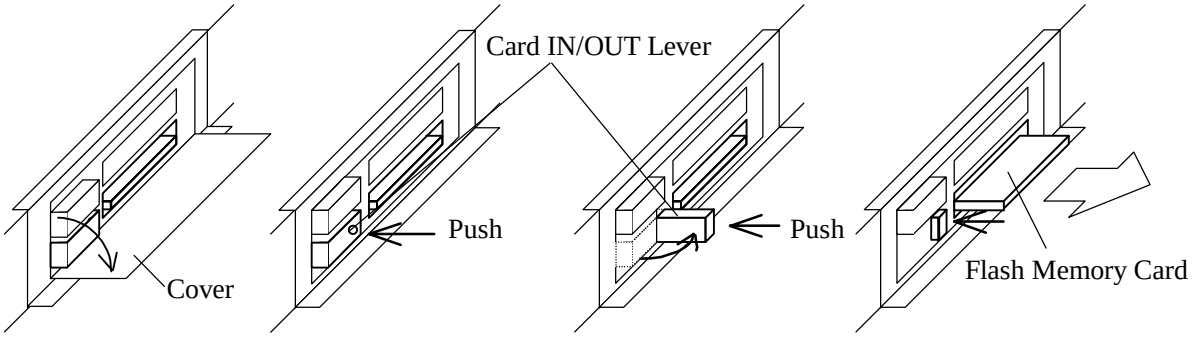
Fig. 3.15.3-1 Removal of SVP Cover

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3. Replace or remove the Flash Memory Card.
   a. Operate the card IN/OUT lever to remove the Flash Memory Card (48MB Flash Memory Card) from SVP referring to Fig.3.15.3-2, Fig. 3.15.3-3, Fig. 3.15.3-4 or Fig. 3.15.3-5.
   b. [FLORA270V, FLORA270HX]
      Insert the Flash Memory Card.
      [FLORA270SX, FLORA270GX]
      In this step, do not insert the Flash Memory Card because it will be inserted in [Post-Procedure t1].

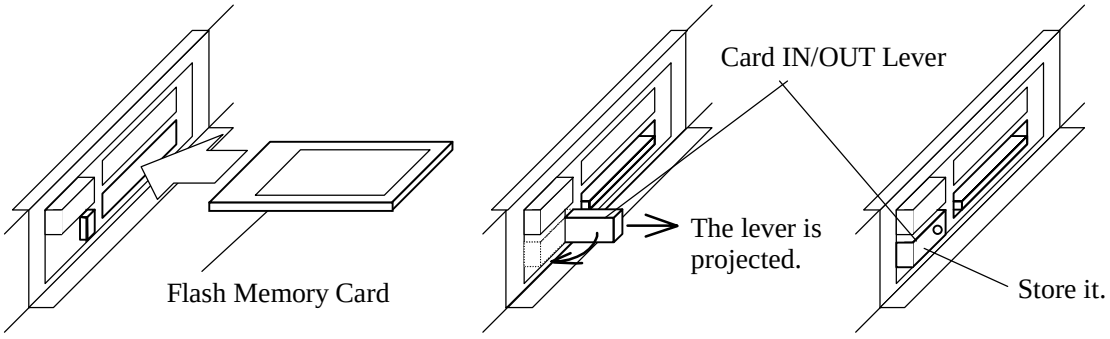
For FLORA270V





① Open the cover.
② Push the right side of the card IN/OUT lever to stand the lever.
③ Push the lever to remove the Flash Memory Card.

How to remove the Flash Memory Card



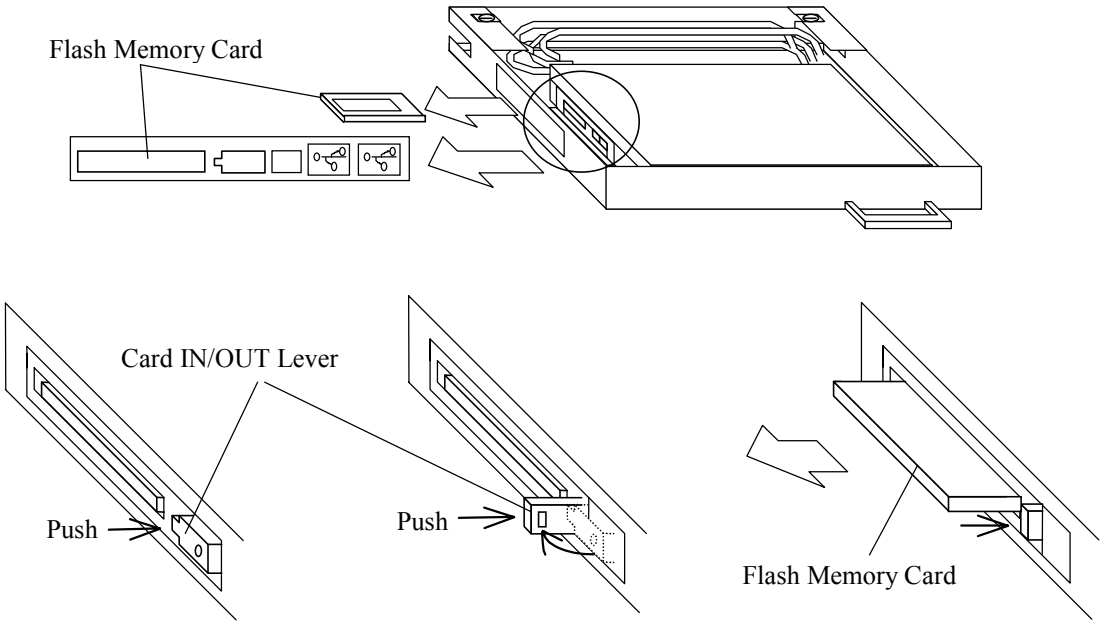
④ Insert the Flash Memory Card.(At this time, the IN/OUT lever is projected.)
⑤ Store the projected lever.

Installing the Flash Memory Card

Fig. 3.15.3-2 Replacement of Flash Memory Card

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For FLORA270SX



① Push the right side of the card IN/OUT lever to stand the lever.

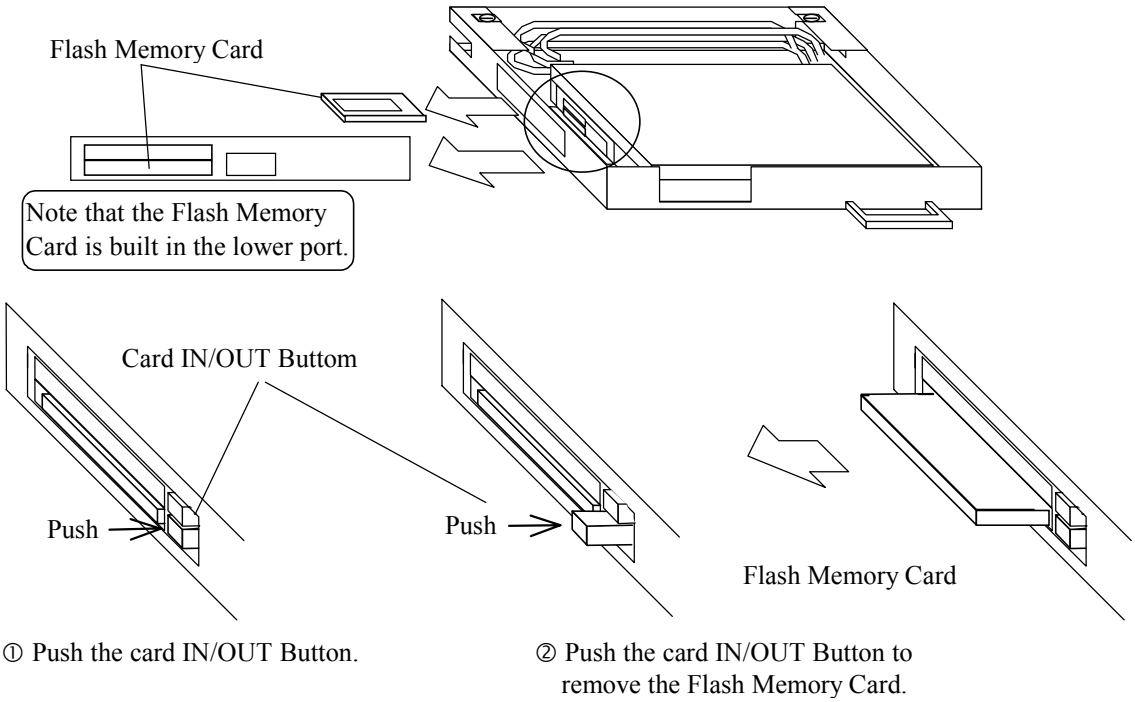
② Push the lever to remove the Flash Memory Card.

How to remove the Flash Memory Card

Fig. 3.15.3-3 Removal of Flash Memory Card

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For FLORA270GX

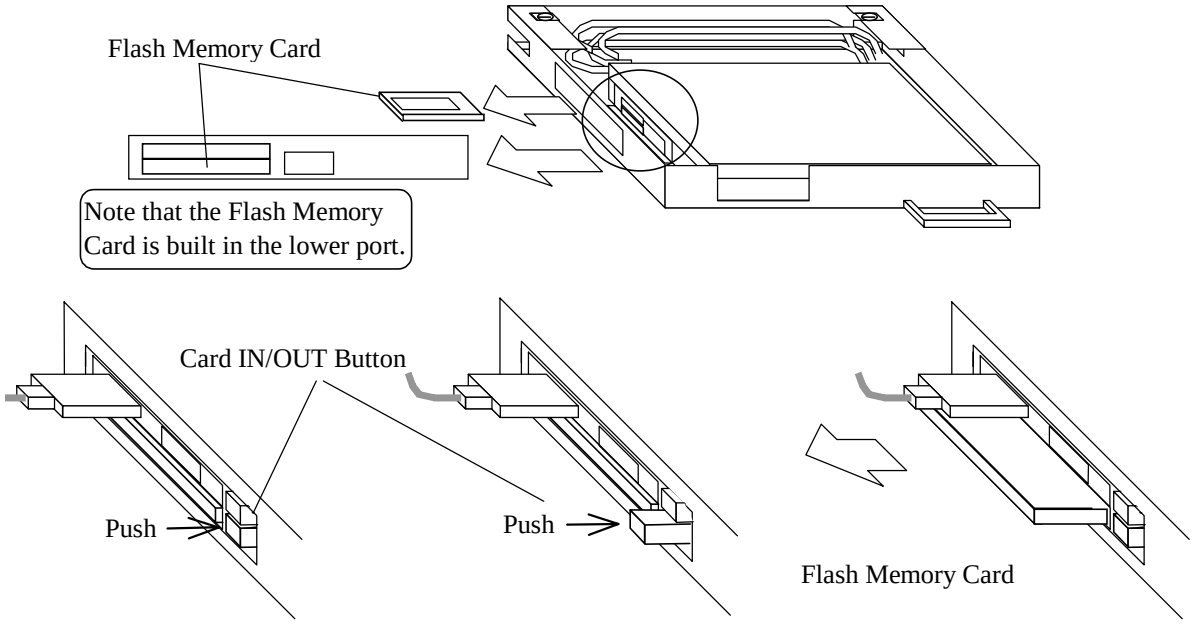


How to remove the Flash Memory Card

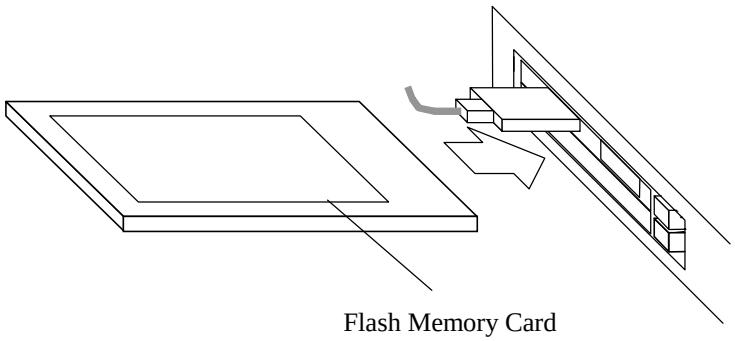
Fig. 3.15.3-4 Removal of Flash Memory Card

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For FLORA270HX



How to remove the Flash Memory Card



Installing the Flash Memory Card

Fig. 3.15.3-5 Replacement of Flash Memory Card

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4. Attach the LAN Port.
   a. When the FLORA270HX SVP is installed, USB-LAN does not use it.
      LAN+MODEM card that is installed to FLORA270HX is used.
      Connect the external connection cable to the LAN adapter. Go to 9.
      When the FLORA270V SVP is installed, loosen the screw and remove the cable cover.
      When the FLORA270V SVP is not installed, go to step b.

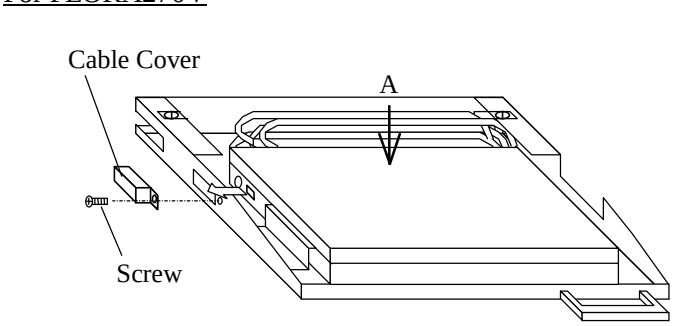


Fig. 3.15.3-5 Removal of Cable Cover

   b. Fix the LAN Port with the repeat binder referring to Fig. 3.15.3-6 , Fig. 3.15.3-7 or Fig. 3.15.3-8.
   c. When the FLORA270GX SVP is installed, pass the LAN cable through the ferrite filter.
      When the FLORA270GX SVP is not installed, go to step d.
   d. Connect the external connection cable to the USB adapter.

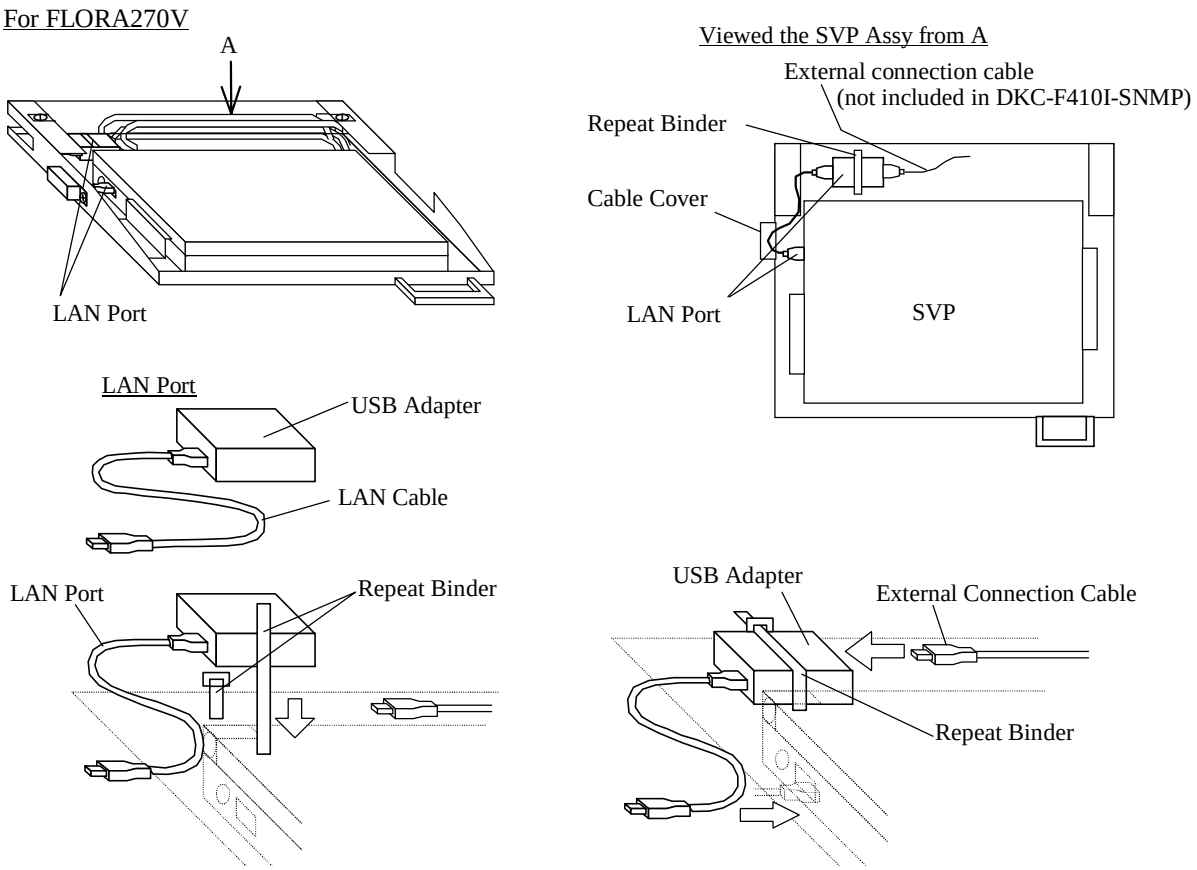


Fig. 3.15.3-6 Attachment of LAN Port

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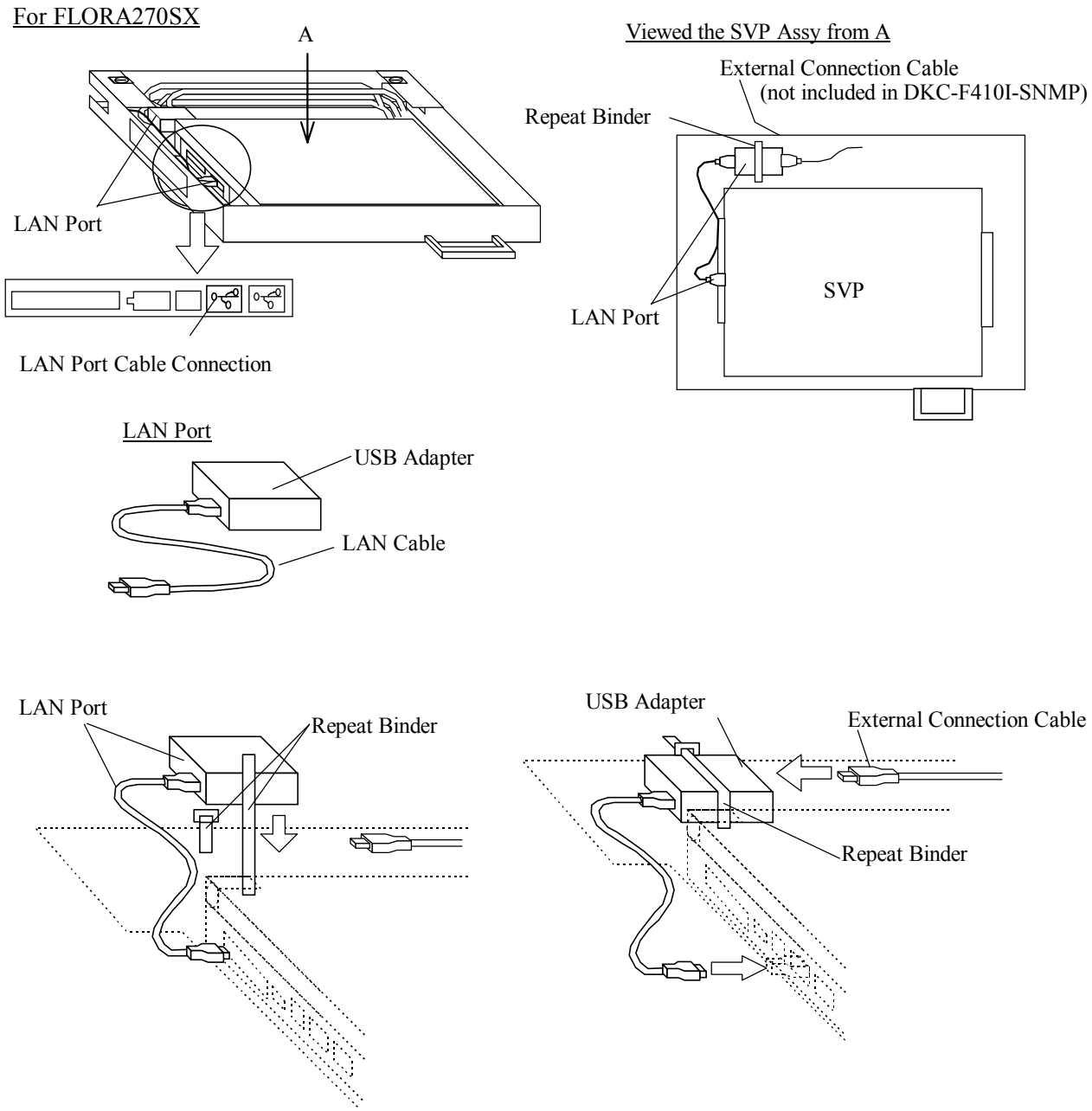


Fig. 3.15.3-7 Attachment of LAN Port

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For FLORA270GX

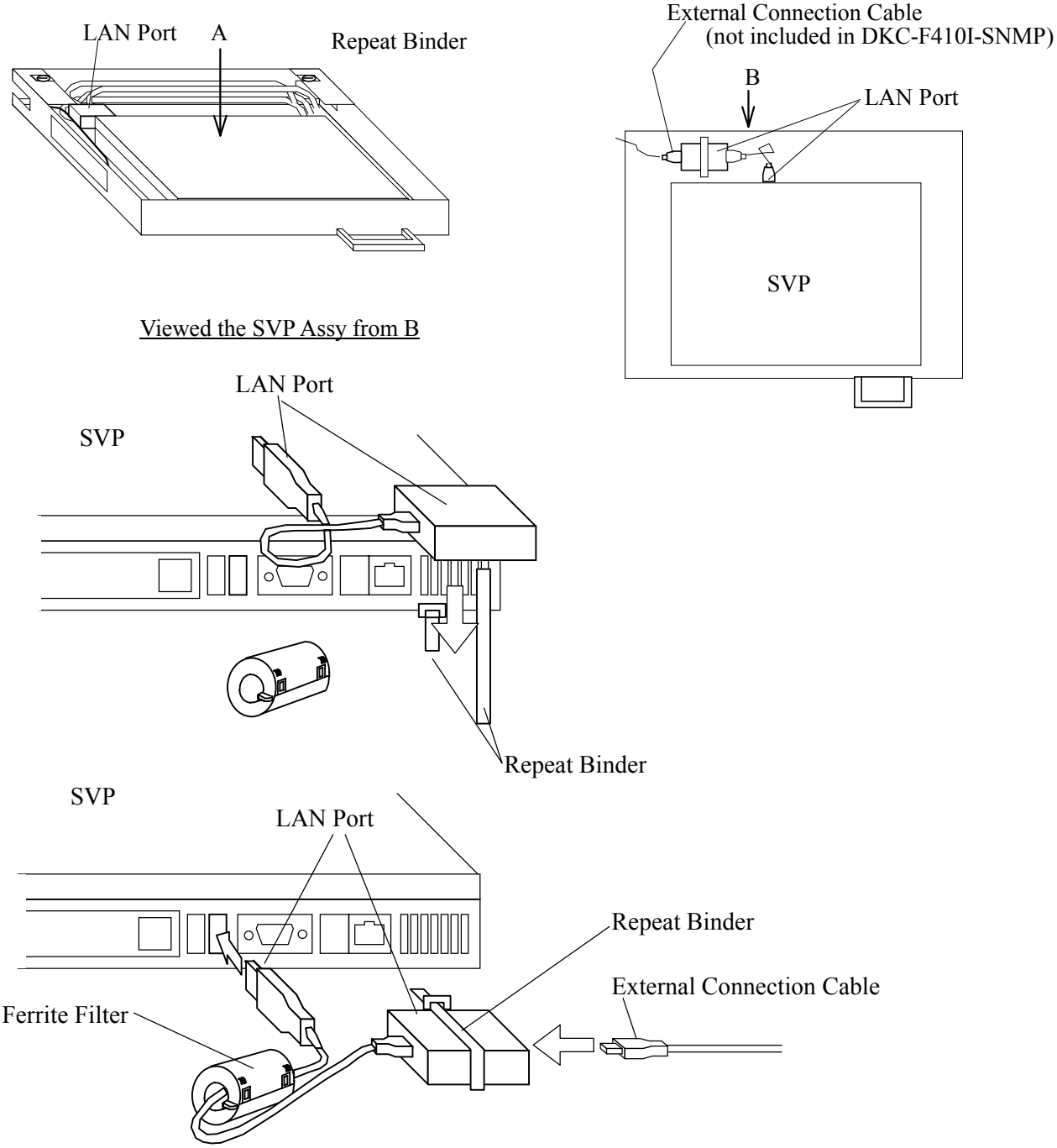


Fig. 3.15.3-8 Attachment of LAN Port

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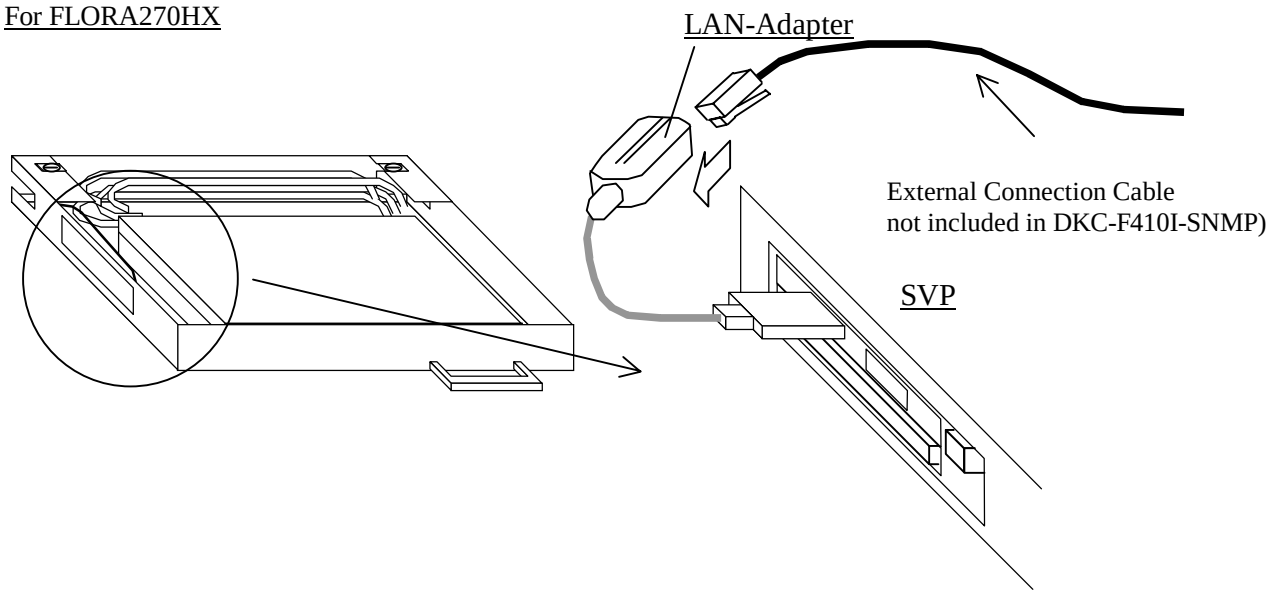


Fig. 3.15.3-9 Attachment of LAN Port

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5. Attach the SVP Cover.
   a. Attach the SVP Cover with the two screws referring to Fig. 3.15.3-1.

6. Attach the Nameplate.

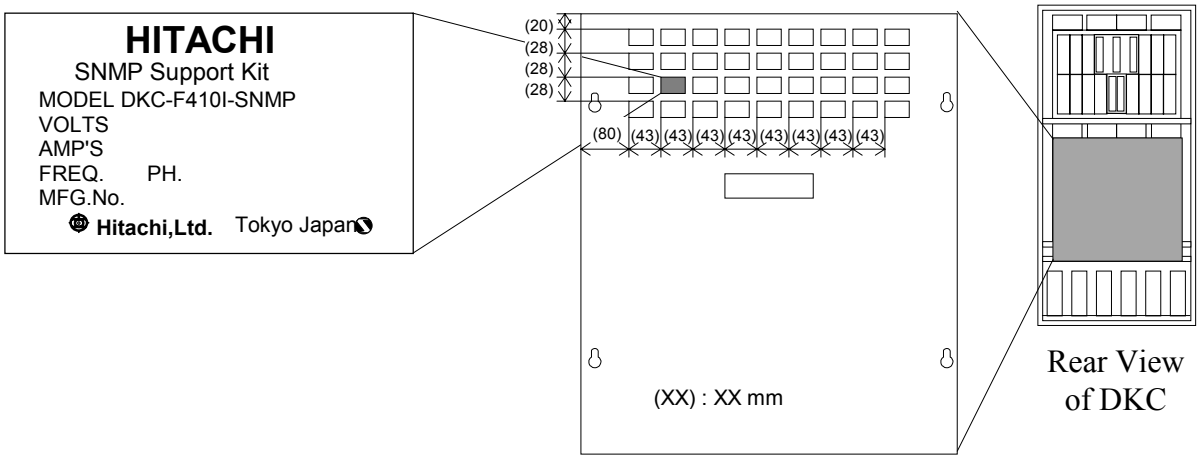


Fig. 3.15.3-9 Attachment of Nameplate

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7. LAN Adapter Driver install.
   [Windows95] : Go to 7.1
   [Windows98] : Go to 7.2

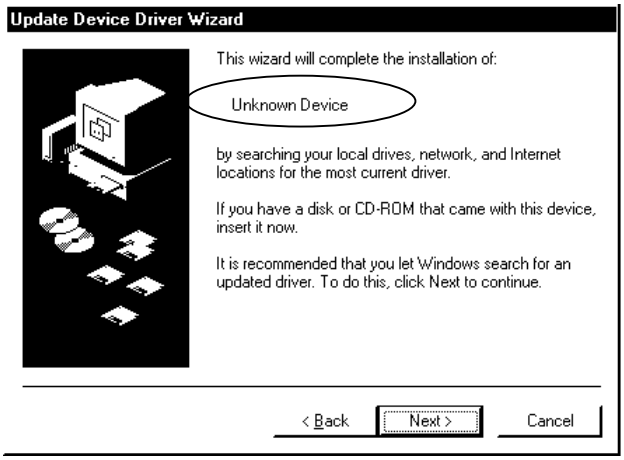
7.1 LAN Adapter Driver install for Windows95

(1) Powering up the SVP.

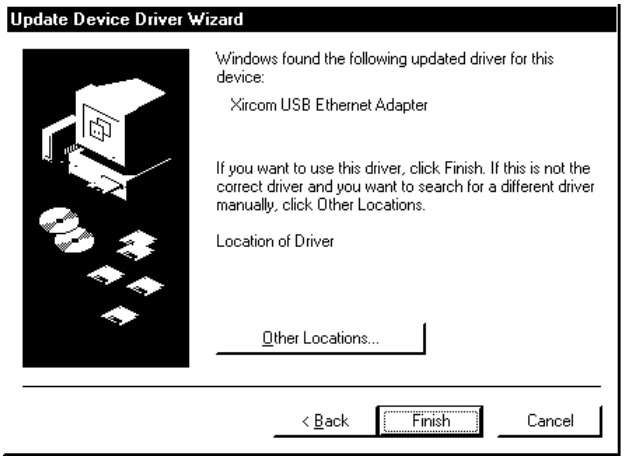
- New Installation, Disruptive Installation
  a) Set the "SVP PS ON/OFF INH jumper"(JP2) [LOCATION06-50]
  b) Breaker on (DKU and DKC)
     (Don't turn on the "POWER ON/OFF" switch on the DKC panel PCB.)
     [Power ON procedures of Disk Subsystem:INST03-3030-INST03-3040]

- Non-Disruptive Installation
  Turn on the "POWER ON/OFF" switch on the SVP.

(2) If SVP displays a message, "Unknown Device" from "Update Device Driver Wizard".
  a) Insert the USB-LAN Driver FD into the FD Drive.
     Select (CL) [Next] from "Update Device Driver Wizard".

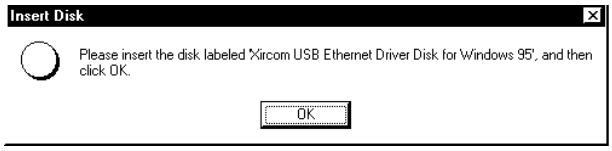


  b) Select (CL) [Finish] from "Update Device Driver Wizard".

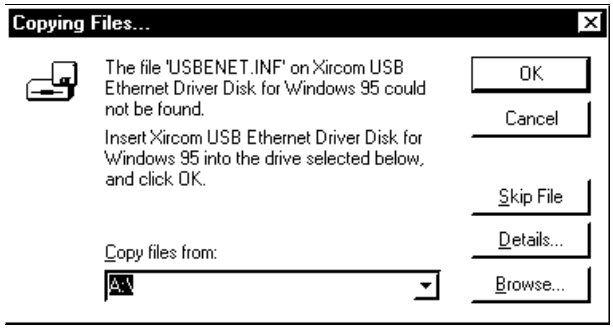


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c) Select (CL) [OK] from “Insert Disk”



d) Input “A:\”, and Select(CL) [OK].

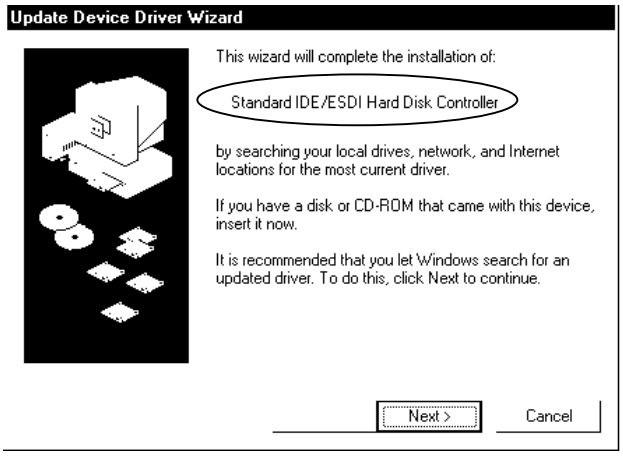


e) Remove the USB-LAN Driver FD.

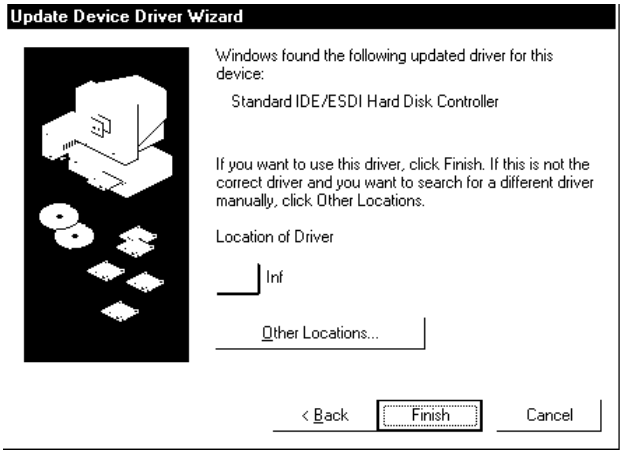
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(3) If SVP displays a message, “Standard IDE/ESDI Hard Disk Controller” from “Update Device Driver Wizard”.

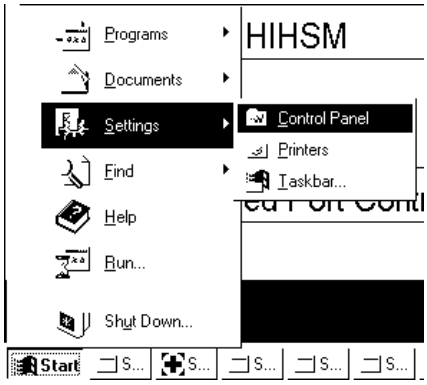
a) Select (CL) [Next] from “Update Device Driver Wizard”.



b) Select (CL) [Finish] from “Update Device Driver Wizard”.

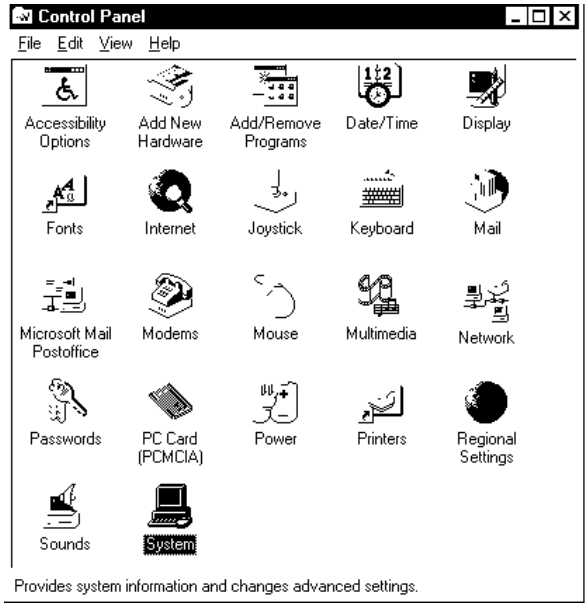


(4) <Open “Control Panel”>
Select (DR) [Settings] and then [Control Panel] from [Start]

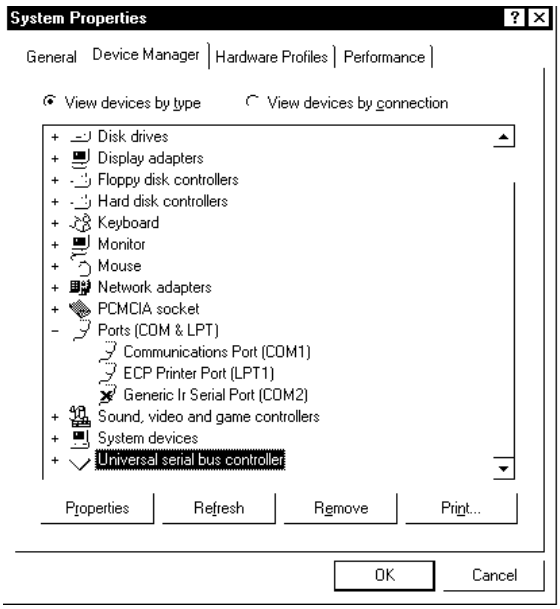


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(5) <Open “System”>
Select (DC) “System” from “Control Panel”



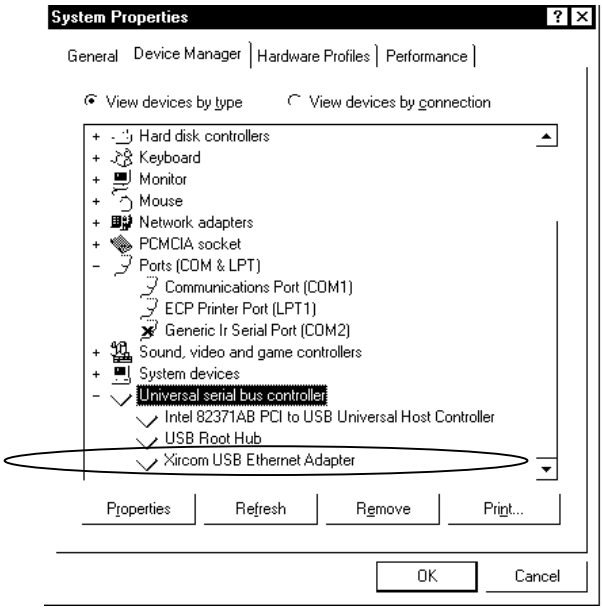
(6) <Open “Universal serial bus controller”>
Select (CL) “Device Manager” from “System Properties”.
Select (DL) “Universal serial bus controller”.



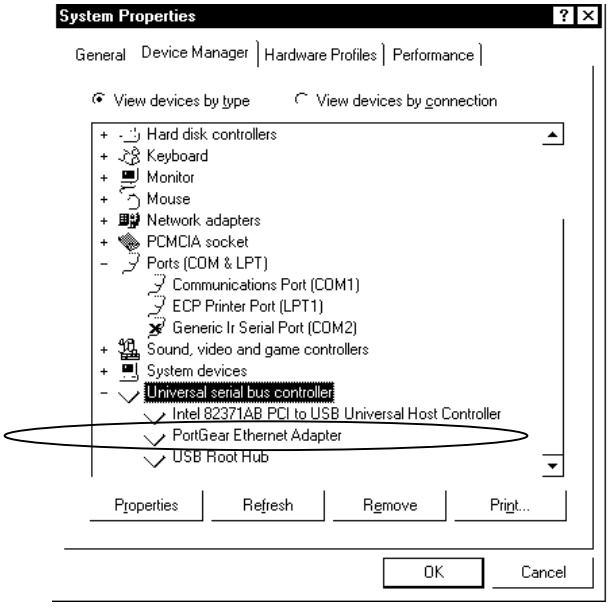
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(7) <Check USB LAN Driver>
Check “Universal serial bus controller” from “System Properties”.

- In the case that “Xircom USB Ether Adapter” was displayed.
  Select (CL) [Cancel] from “System Properties”.
  Go to (8).

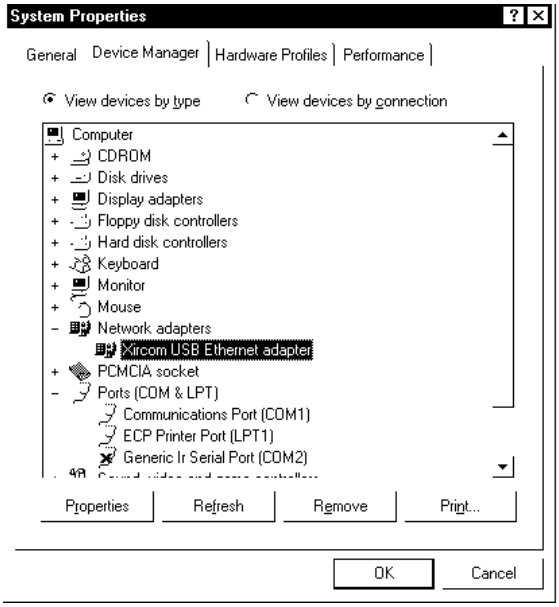


- In the case that “PortGear Ether Adapter” was displayed.
  Select (CL) [Cancel] from “System Properties”.
  Go to (36).



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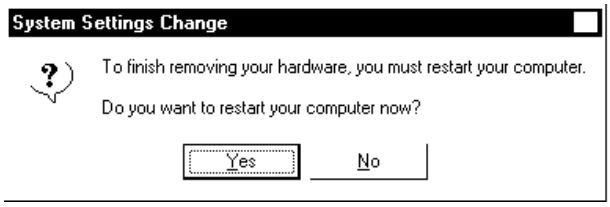
(8) <Delete “Xircom USB Ethernet adapter”>
Select (DL) “Network adapters” from “System Properties”..
Select (CL) “Xircom USB Ethernet adapter”, and Select (CL) [Remove].



(9) <Confirm Device Removal>
Select (CL) [OK] from “Confirm Device Removal”

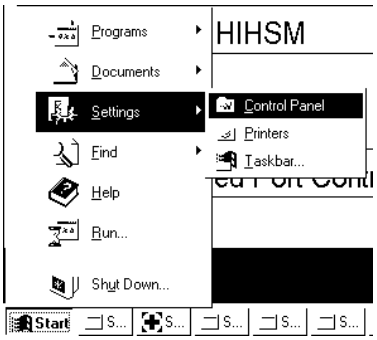


(10) <Check reboot SVP>
Select (CL) [Yes] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.

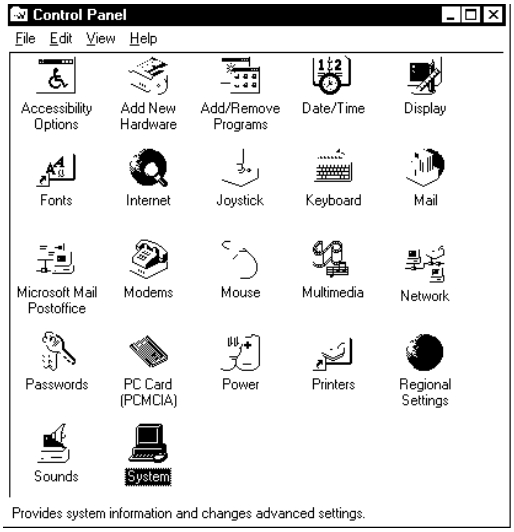


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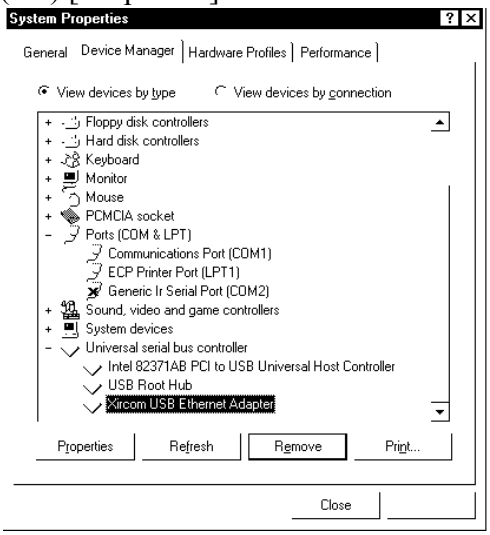
(11) <Open “Control Panel”>
Select (DR) [Settings] and then [Control Panel] from [Start]



(12) <Open “System”>
Select (DC) “System” from “Control Panel”



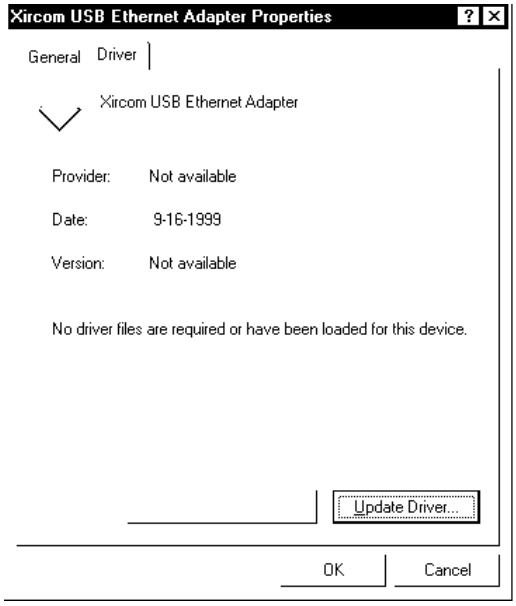
(13) <Open “Xircom USB Ethernet adapter”>
Select (CL) “Device Manager” from “System Properties”.
Select (DL) “Universal serial bus controller”.
Select (CL) “Xircom USB Ethernet adapter” , and Select (CL) [Properties].



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(14) <Update Driver>

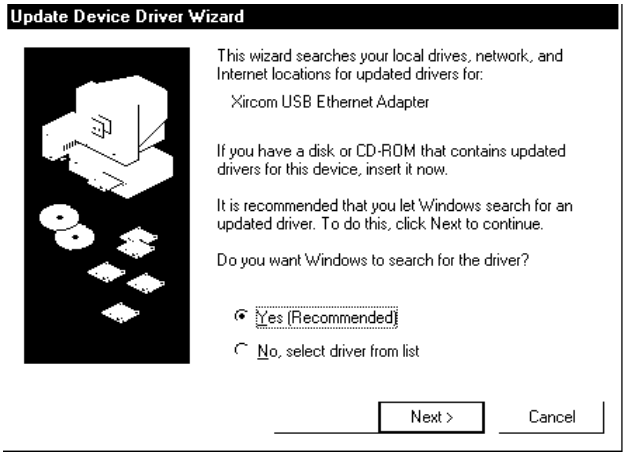
Select “Driver” from “Xircom USB Ethernet Adapter Properties”, and select (CL) [Update Driver].



(15) <Insert Driver FD>

Insert the USB-LAN Driver FD into the FD Drive.

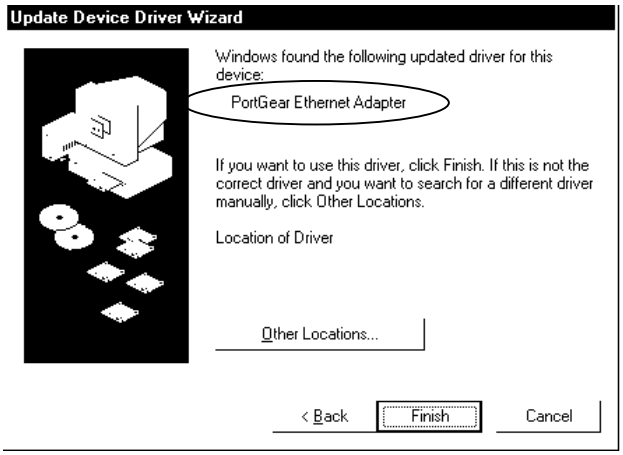
Select (CL) [Next] from “Update Device Driver Wizard”.



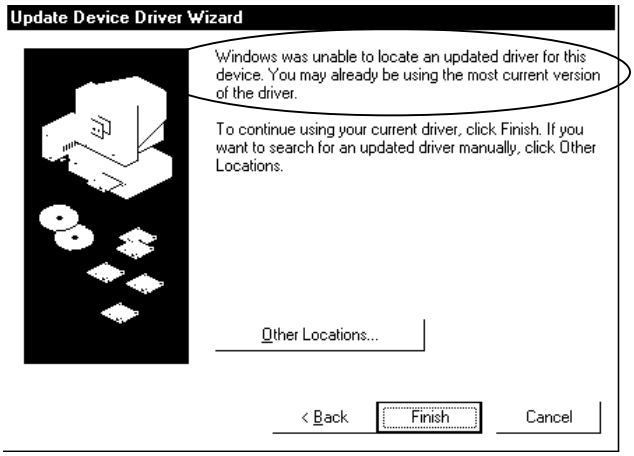
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(16) <Check “Update Device Driver Wizard”>
Check “Windows found the following driver for this device:” from “Update Device Driver Wizard”.

- In the case that “PortGear Ether Adapter” was displayed.
  Select (CL) [Finish] from “Update Device Driver Wizard”.
  Go to (19).



- In the case that “Windows was unable to locate an update driver for this device. you may already be using the most current version of the driver.” was displayed.
  Select (CL) [<Back] from “Update Device Driver Wizard”.
  Go to (17).

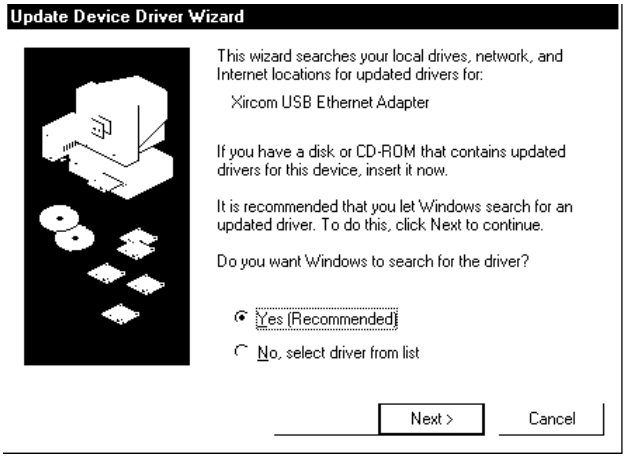


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(17) <Select Driver List>

Select (CL) “No, select driver from list”.

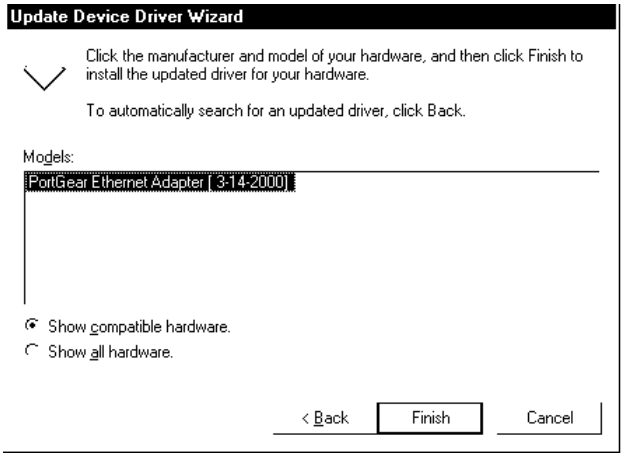
Select (CL) [Next] from “Update Device Driver Wizard”.



(18) <Select Driver>

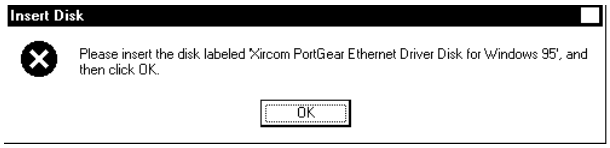
Select (CL) “PortGear Ethernet Adapter [3-14-2000] from “Update Device Driver Wizard”.

Select (CL) [Finish] from “Update Device Driver Wizard”.

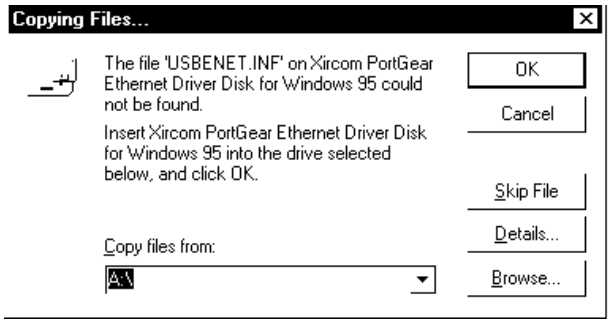


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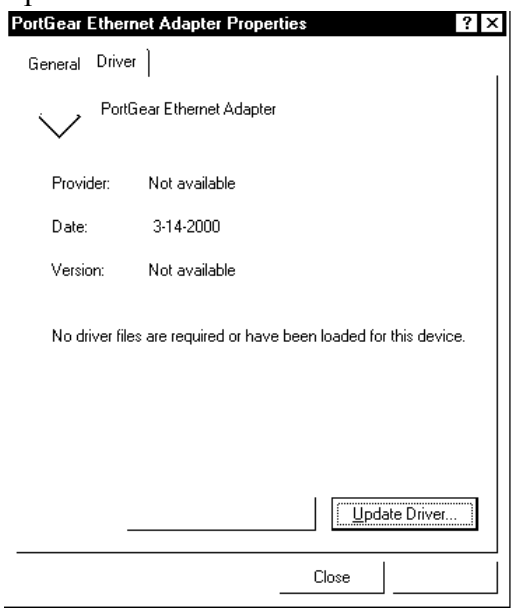
(19) <Close “Insert Disk”>
Select (CL) [OK] “Insert Disk”.



(20) <Copying Files>
Input “A:\”, and Select (CL) [OK] from “Copying Files”.

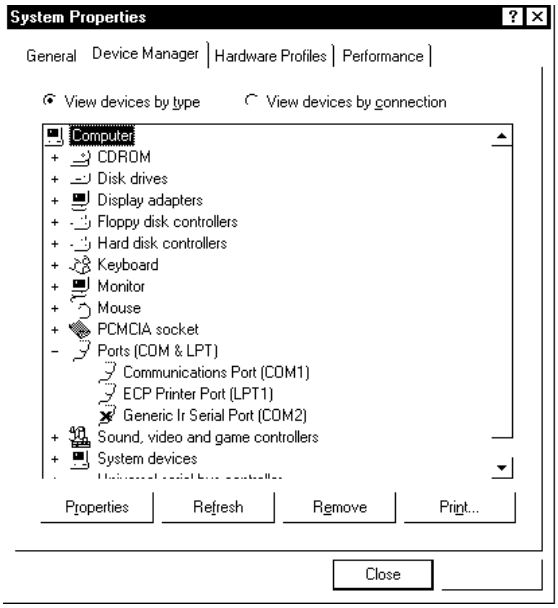


(21) <Close “PortGear Ethernet Adapter Properties”>
Select (CL) [Close] from “PortGear Ethernet Adapter Properties”.

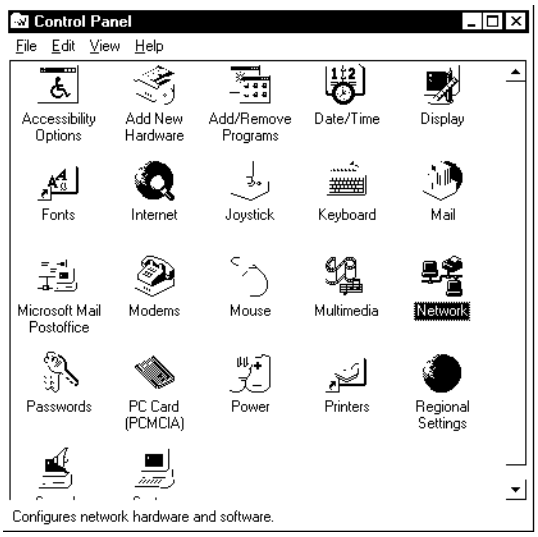


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(22) <Close “System Properties”>
Select (CL) [Close] from “System Properties”

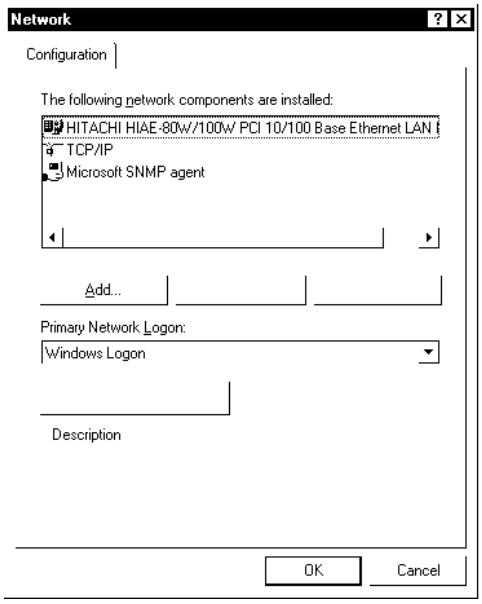


(23) <Open “Network”>
Select (DC) “Network” from “Control Panel”.

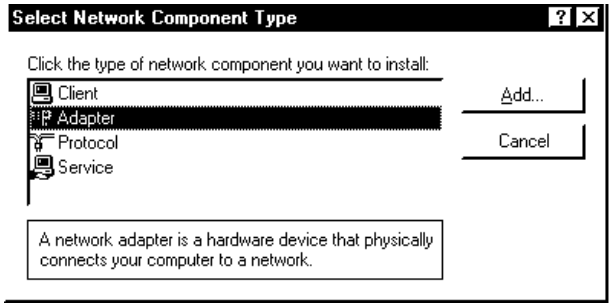


Copyright ©2000, Hitachi, Ltd.

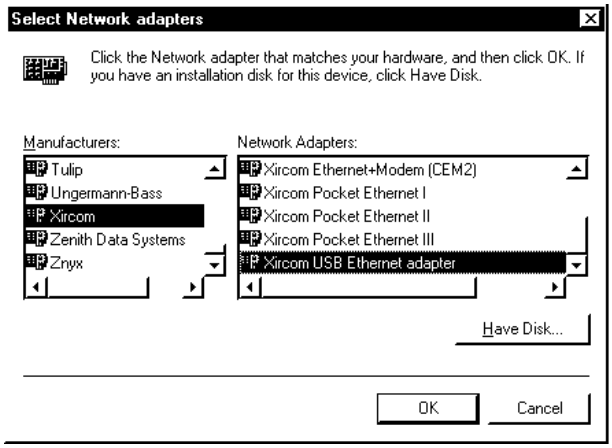
(24) <Add “Network components”>
Select (CL) [Add…] from “Configuration” of “Network”.



(25) <Add “Adapter”>
Select (CL) “Adapter” from “Select Network Components Type” , and select (CL) [Add…].

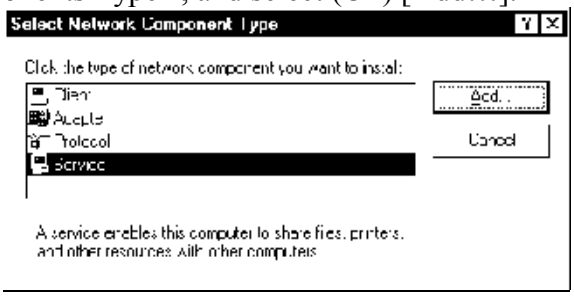


(26) <Select “Adapter”>
Select (CL) “Xircom” form Manufacturers” , and “Xircom USB Ethernet adapter” from “Network Adapter” , and select (CL) [OK].

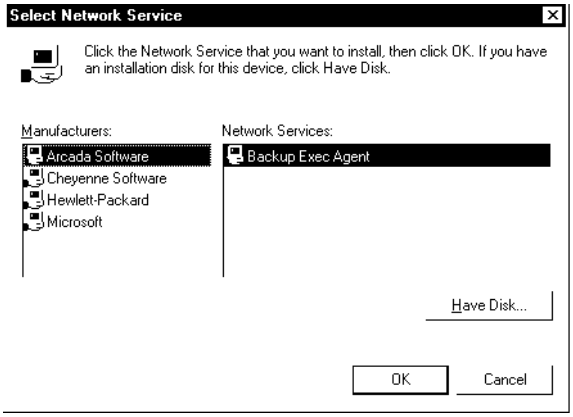


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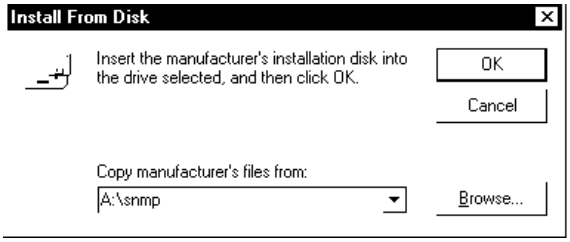
(27) <Add “Service”>
Select (CL) “Service” from “Select Network Components Type” , and select (CL) [Add…].



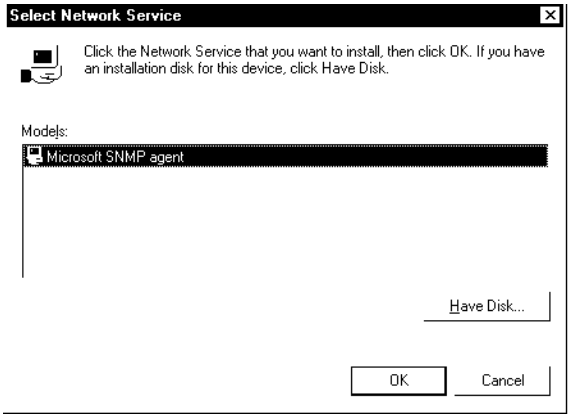
(28) <Select “Network Service”>
Select (CL) [Have Disk].



(29) <Install from Disk>
Input “A:\snmp”, and Select (CL) [OK].

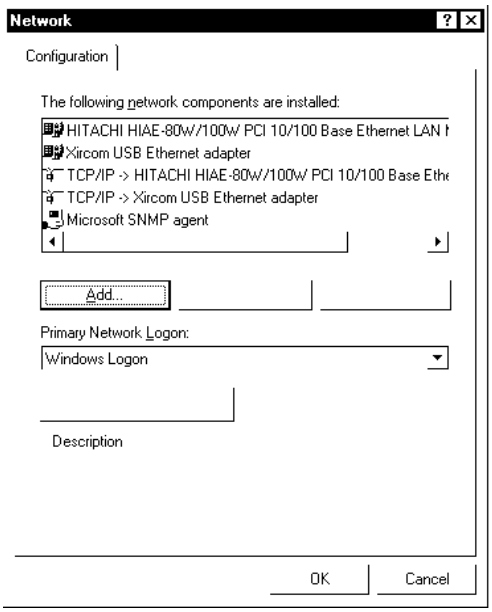


(30) <Select Network Service>
Select (CL) [OK].

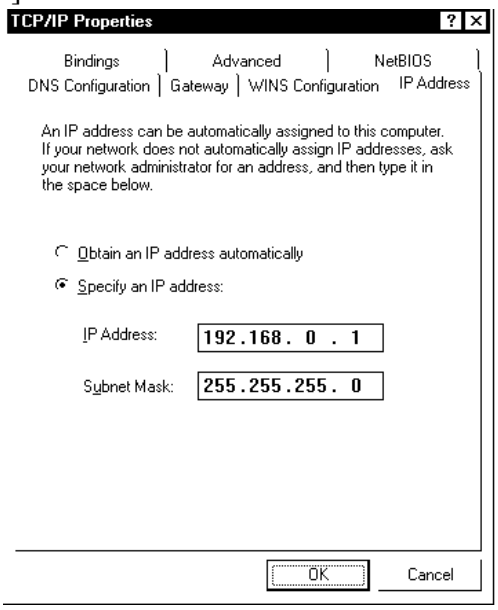


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(31) <Open “TCP/IP” for “Xircom USB Ethernet adapter”>
Select (CL) “TCP/IP -> Xircom USB Ethernet adapter” from “Configuration”, and select (CL) [Properties].

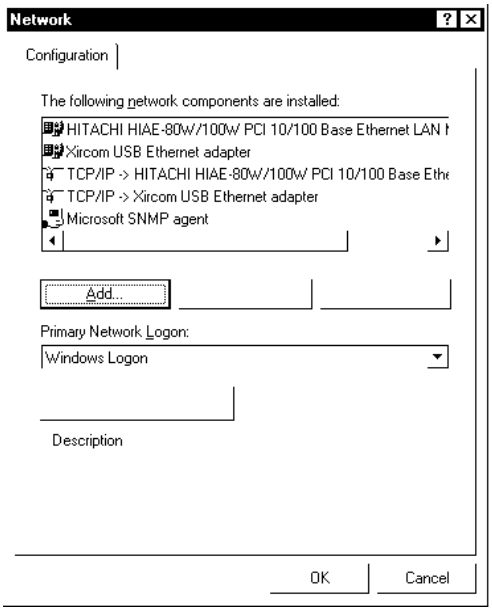


(32) <Select “IP Address”>
Select (CL) “IP Address”
Select (CL) Specify an IP Address”, and set “192.168.0.1” for “IP Address”, and set “255.255.255.0” for “Subnet Mask”, and select (CL) [OK]

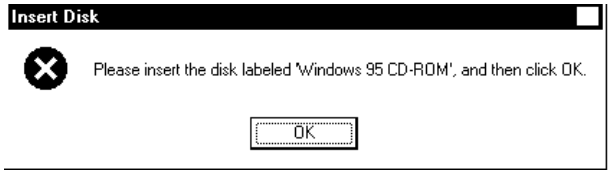


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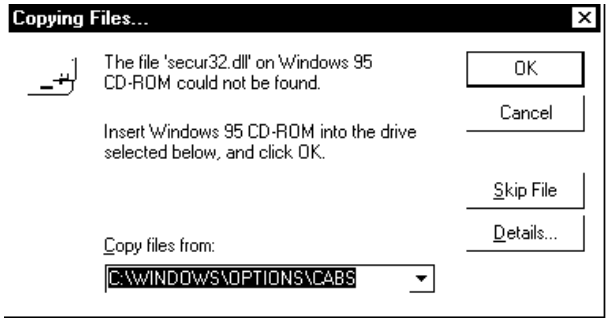
(33) <Close “Network”>
Select (CL) [OK] from “Configuration” of “Network”.



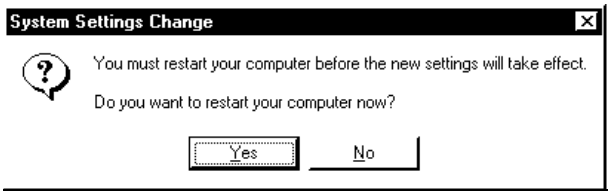
(34) If SVP displays a message, “Please insert the disk labeled 'Windows 95 CD-ROM', and then click”.
a) Select (CL) [OK] from “Insert Disk”



b) Input “C:\WINDOWS\OPTIONS\CABS", and Select (CL) [OK].

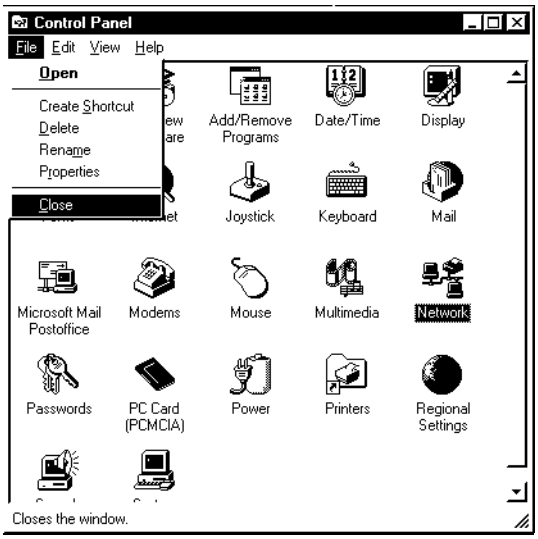


(35) <Check reboot SVP>
Select (CL) [No] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.



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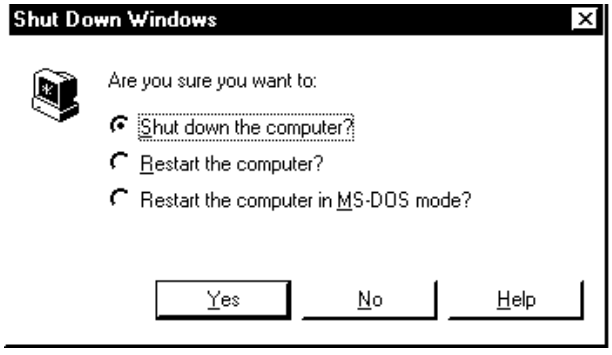
(36) <Close “Control Panel”>
Select (CL) [File] on “Control Panel”.
Select (CL) [Close].



(37) <Shutdown the SVP>
(a) Select (CL) [Start].
(b) Select (CL) [ShutDown].



(c) Select (CL) “Shut down the computer” from “Shut Down Windows”,and select (CL) [Yes] in response to “Are you sure you want to:”



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(38) Powering down the SVP.

- New Installation , Disruptive Installation
  Breaker off (DKU and DKC)
  [Power OFF procedures of Disk Subsystem:INST03-3110-INST03-3130]

- Non-Disruptive Installation
  Turn on the “POWER ON/OFF” switch on the SVP.

(39) Remove the “SVP PS ON/OFF INH jumper” (JP2) [LOCATION06-50]

(40) Go to 9.

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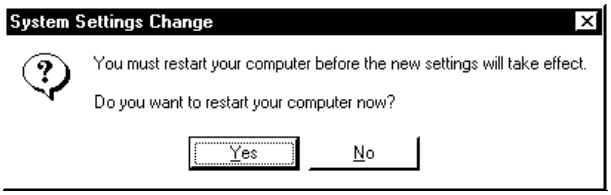
7.2 LAN Adapter Driver install for Windows98

(1) Powering up the SVP.

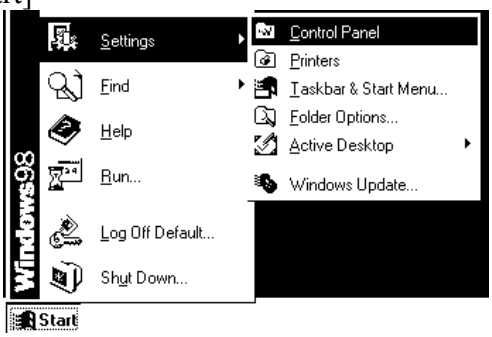
- New Installation, Disruptive Installation
  a) Set the "SVP PS ON/OFF INH jumper" (JP2) [LOCATION06-50]
  b) Breaker on (DKU and DKC)
  (Don't turn on the "POWER ON/OFF" switch on the DKC panel PCB.)
  [Power ON procedures of Disk Subsystem:INST03-3030-INST03-3040]

- Non-Disruptive Installation
  Turn on the "POWER ON/OFF" switch on the SVP.

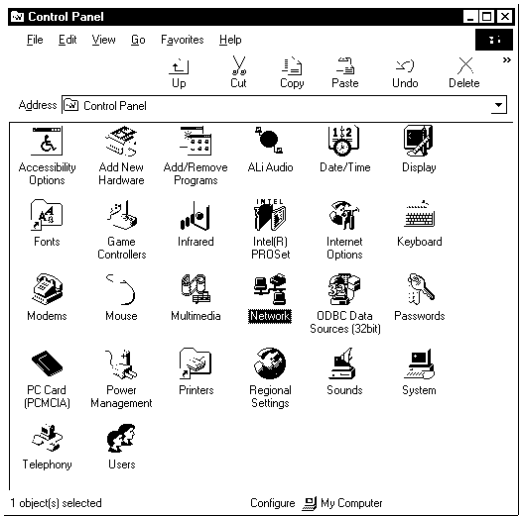
(2) <Check reboot SVP>
Select (CL) [Yes] in response to "To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer."



(3) <Open "Control Panel">
Select (DR) [Settings] and then [Control Panel] from [Start]

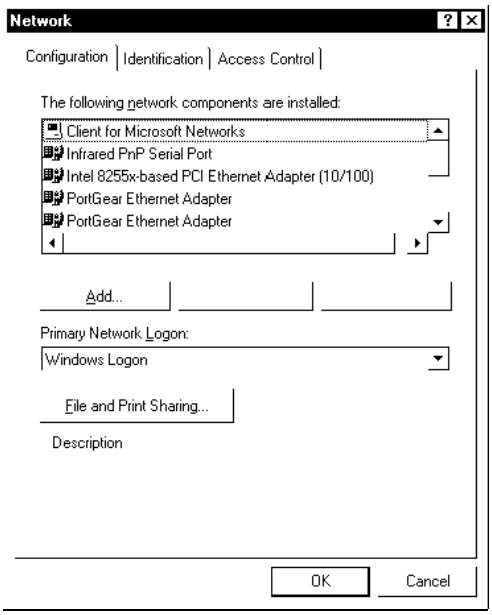


(4) <Open "Network">
Select (DC) "Network" from "Control Panel".

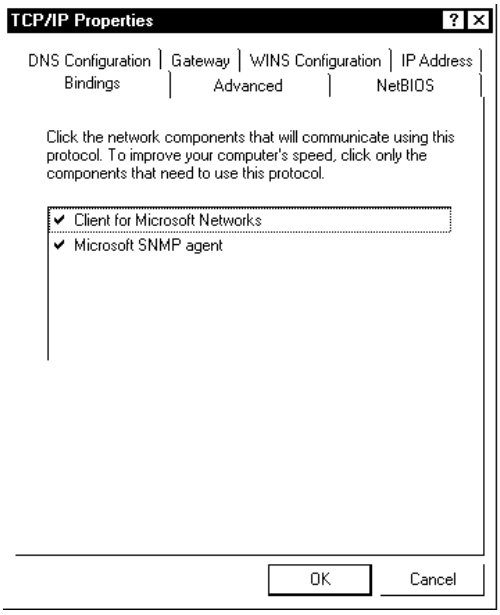


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(5) <Set “TCP/IP”>
Select (CL) “TCP/IP -> Intel 8255x-based PCI Ethernet Adapter (10/100)” from “Configuration”, and select (CL) [Properties].

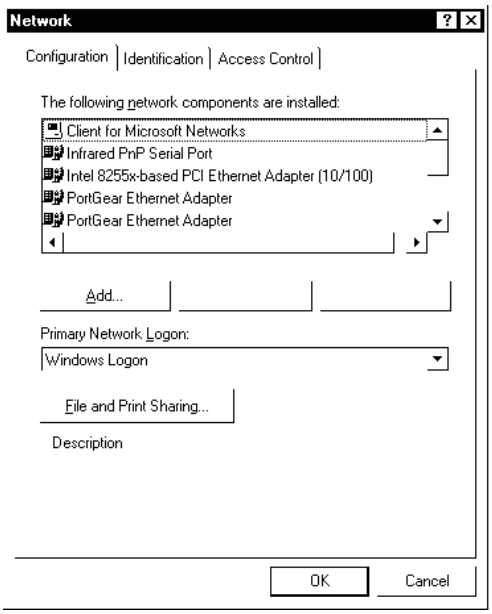


(6) <Select “Bindings”>
Select (CL) “Bindigns”
Check box on the left of “Client for Microsoft Networks” (with a check mark)
Select (CL) [OK].

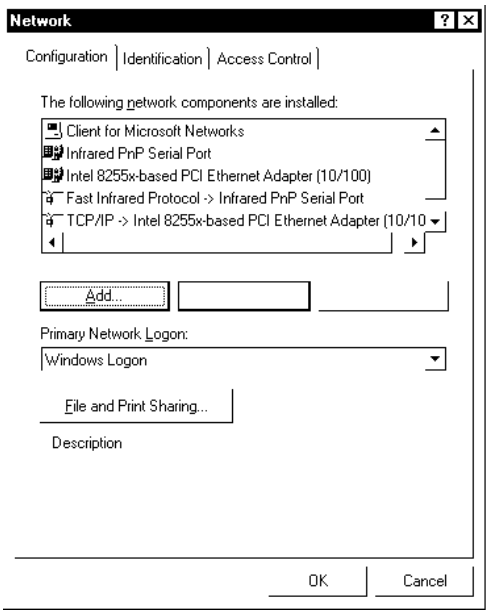


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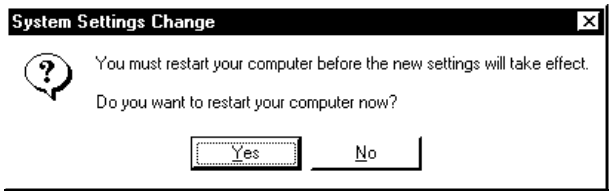
(7) <Delete “PortGear Ethernet Adapter”>
Select (CL) one of the “PortGear Ethernet Adapter” from “Configuration” of “Network”, and Select (CL) [Remove].
Delete other all “PortGear Ethernet Adapter” for this operation.



(8) <Close “Network”>
Select (CL) “OK” from “Network”.



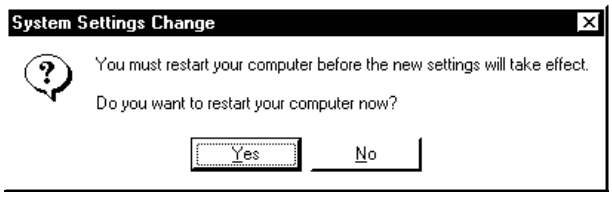
(9) <Check reboot SVP>
Select (CL) [Yes] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.



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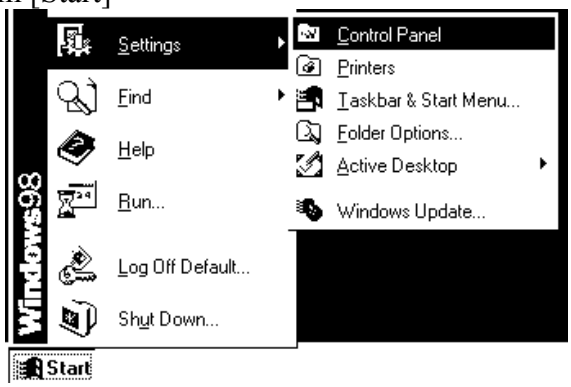
(10) <Check reboot SVP>

Select (CL) [Yes] in response to “To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer?”.



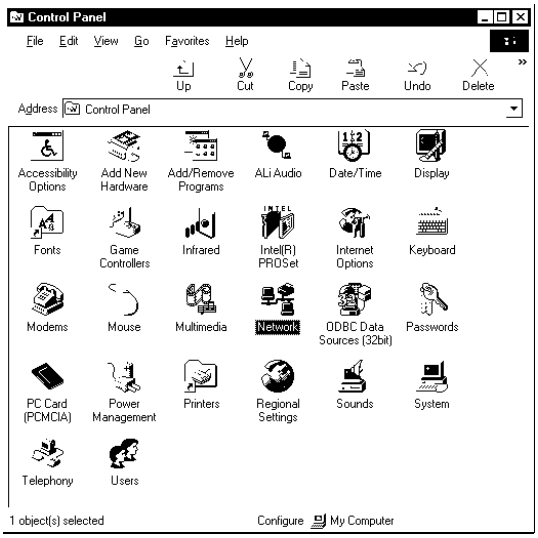
(11) <Open “Control Panel”>

Select (DR) [Settings] and then [Control Panel] from [Start]



(12) <Open “Network”>

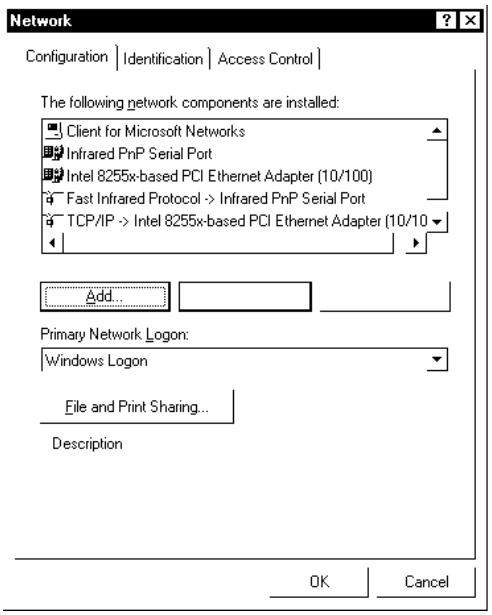
Select (DC) “Network” from “Control Panel”.



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(13) <Set “TCP/IP”>

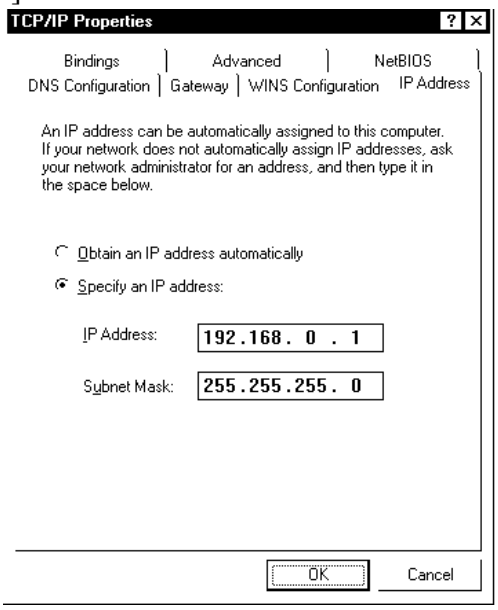
Select (CL) “TCP/IP -> PortGear Ethernet Adapter” from “Configuration” , and select (CL) [Properties].



(14) <Select “IP Address”>

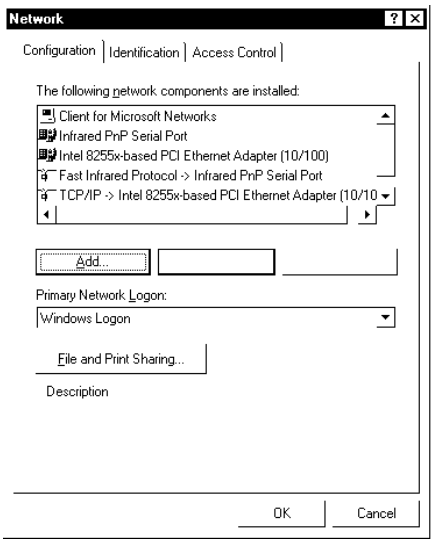
Select (CL) “IP Address”

Select (CL) Specify an IP Address”, and set “192.168.0.1” for “IP Address”, and set “255.255.255.0” for “Subnet Mask”, and select (CL) [OK]

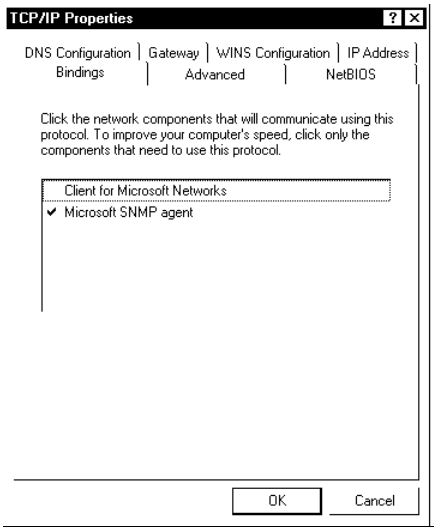


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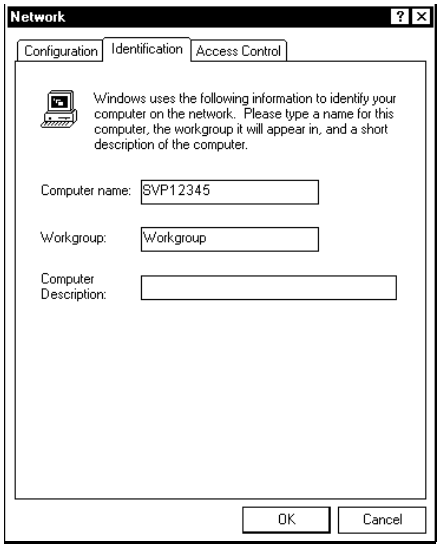
(15) <Set “TCP/IP”>
Select (CL) “TCP/IP -> Intel 8255x-based PCI Ethernet Adapter (10/100)” from “Configuration”, and select (CL) [Properties].



(16) <Select “Bindings”>
Select (CL) “Bindings”
Check box on the left of “Client for Microsoft Networks” (without a check mark)
Select (CL) [OK].

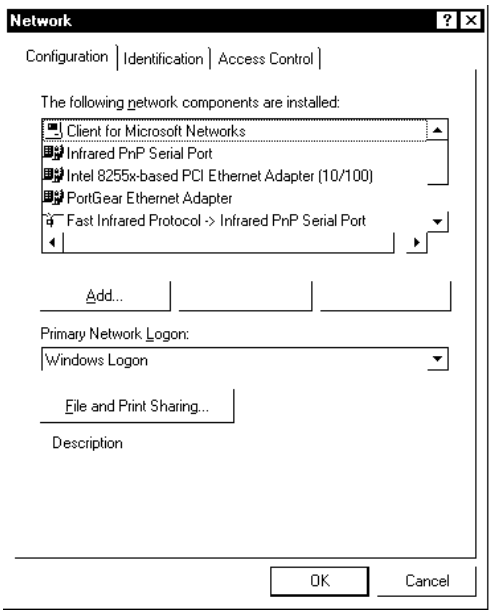


(17) < Set “Identification”>
Select (CL) “Identification”.
Set “SVPxxxxx” for “Computer name”.
(xxxxx: DKC Serial Number)

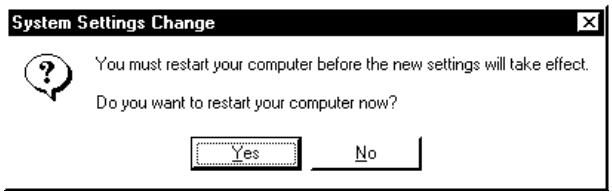


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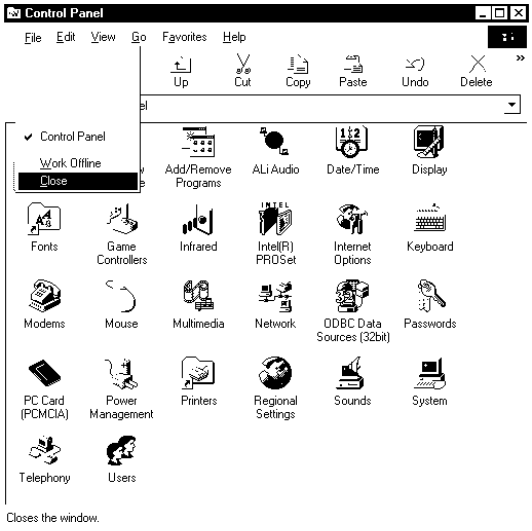
(18) <Close “Network”>
Select (CL) “OK” from “Network”.



(19) <Check reboot SVP>
Select (CL) [No] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.



(20) <Close “Control Panel”>
Select (CL) [File] on “Control Panel”.
Select (CL) [Close].



(21) Go to 9.

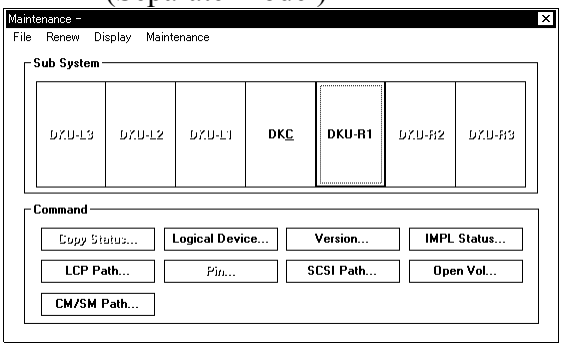
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8. Insert the Flash Memory Card.

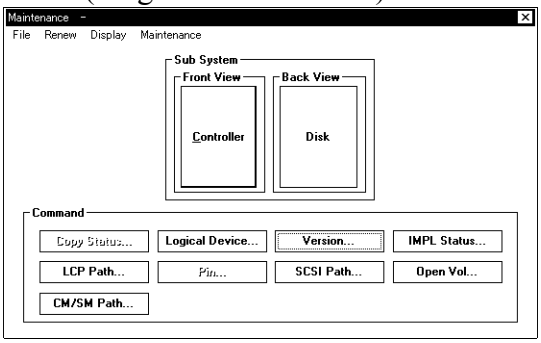
(1) <Operation mode change>
Change the mode to [Modify Mode].
Select (CL) [Maintenance].

(2) <Maintenance window>
'Maintenance' window is displayed.

(Separate Model)



(Single Cabinet Model)



NOTICE:
Complete SIM before operation.

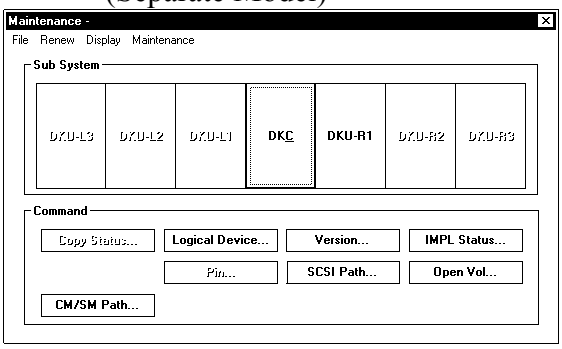
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(3) <Maintenance window>
'Maintenance' window is displayed.

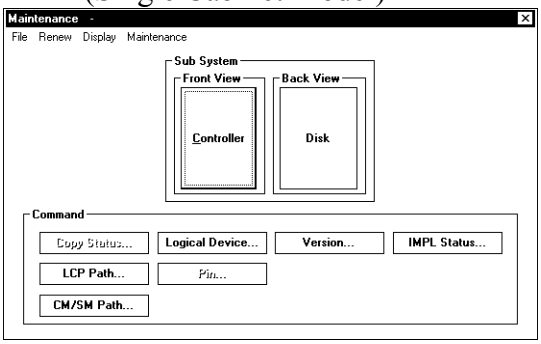
(Separate Model)
In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

(Single Cabinet Model)
In the 'Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)

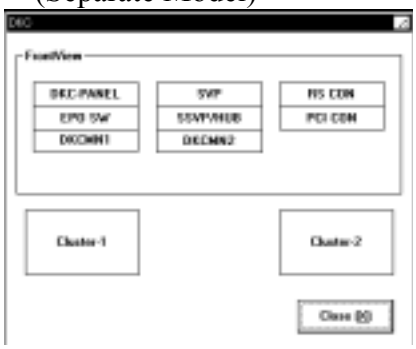


(4) <Specify special part>

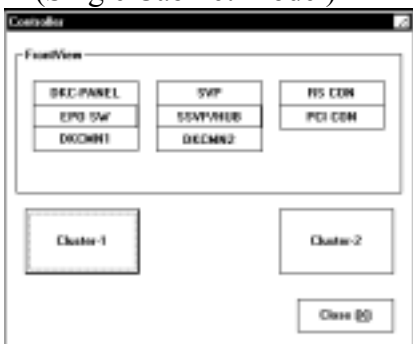
(Separate Model)
Select (CL) part [SVP] to be replaced from 'DKC'.

(Single Cabinet Model)
Select (CL) part [SVP] to be replaced from 'Controller'.

(Separate Model)



(Single Cabinet Model)



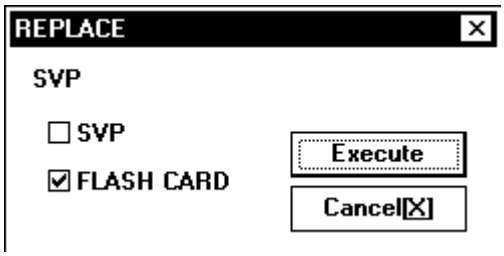
Copyright ©2000, Hitachi, Ltd.

(5) <Execute>

a) Select (CL) replacement parts “FLASH CARD”. (with a check mark)

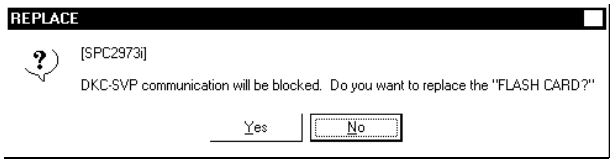
b) Check box on the left of “SVP” is ☐ (without a check mark).

c) Select (CL) [Execute].



(6) <Check beginning of special part Replacement>

Select (CL) [Yes] in response to “Do you want to replace the "FLASH CARD"”.



(7) <Select the type of maintenance part>

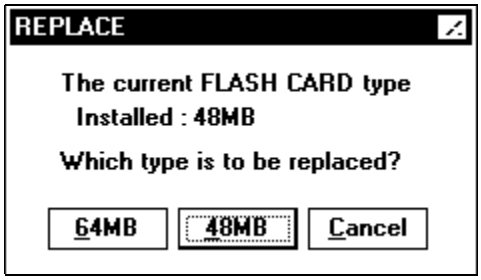
Select (CL) [64MB] in response to “The current FLASH CARD type Installed : xxxx Which type is to be replaced?”.

xxxx : The installed FLASH CARD type

48MB : 48MB type

64MB : 64MB type

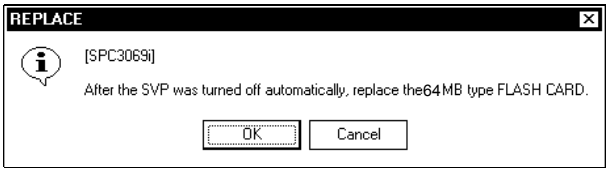
UNKNOWN: The FLASH CARD type cannot be gotten.



(ex. 48MB type is installed)

(8) <Check beginning of FLASH CARD Replacement>

The message “After the SVP was turned off automatically, replace the 64MB type FLASH CARD.” is displayed.



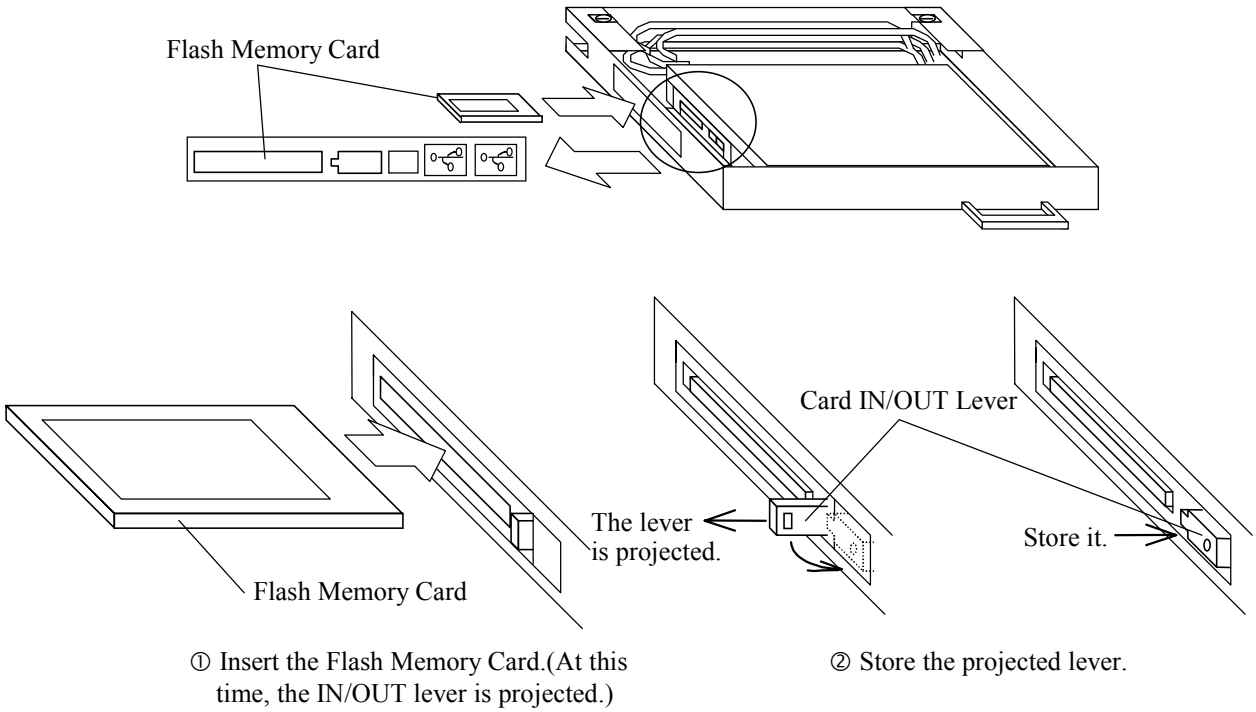
Select (CL) [OK], so it will reboot the SVP, and the files on FLASH CARD are moved to HD. Then SVP is turned off automatically.

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(9) Insert the Flash Memory Card (64MB Flash Memory Card)

a) Insert the Flash Memory Card.

For FLORA270SX

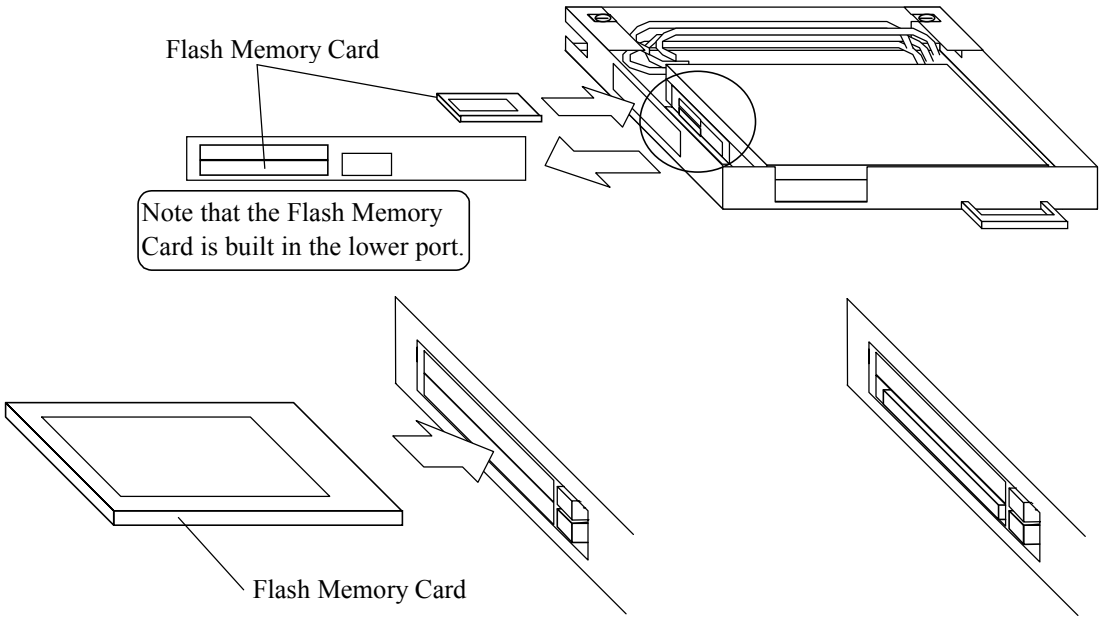


Installing the Flash Memory Card

Fig. 3.9.3-10 Insertion of Flash Memory Card

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For FLORA270GX



Installing the Flash Memory Card

Fig. 3.9.3-11 Insertion of Flash Memory Card

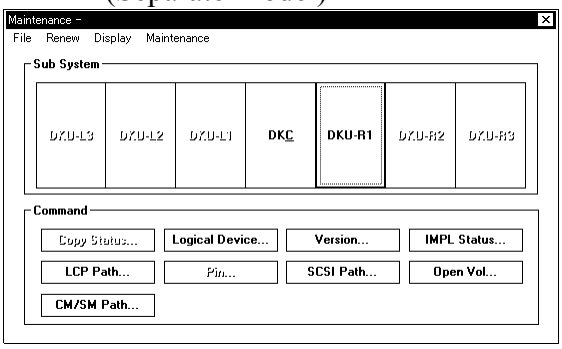
b) Press Power Switch on the SVP keyboard to start SVP.

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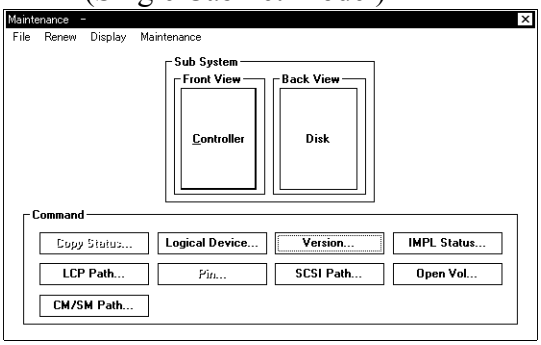
(10) <Operation mode change>
Wait a few minutes, message “Loading SVP Program… SVP requests to DKC can not be performed presently. Please wait…” will be extinguished.
Then change the mode to [Modify Mode].
Select (CL) [Maintenance].

(11) <Maintenance window>
‘Maintenance’ window is displayed.

(Separate Model)



(Single Cabinet Model)



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(12) <Maintenance window>

'Maintenance' window is displayed.

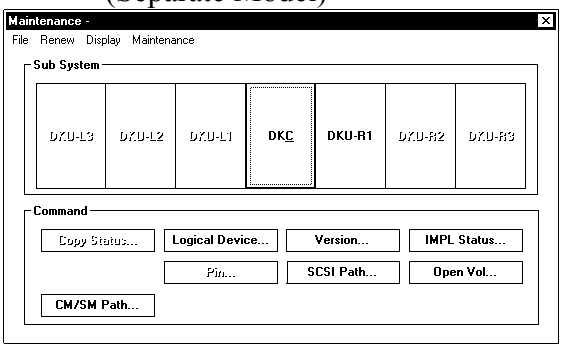
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKC].

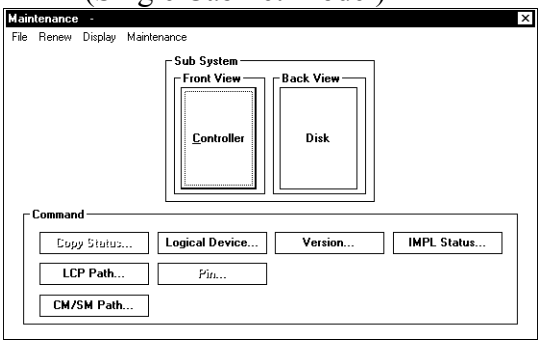
(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Controller].

(Separate Model)



(Single Cabinet Model)



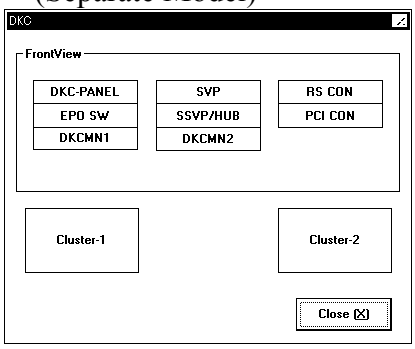
Copyright ©2000, Hitachi, Ltd.

(13) <Confirm the status>

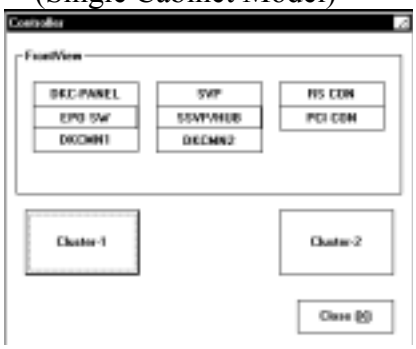
(Separate Model)
'DKC' window is displayed.

(Single Cabinet Model)
'Controller' window is displayed.

(Separate Model)



(Single Cabinet Model)



Confirm the status display.
If [SVP] button is valid.
(Separate Model)
Close 'DKC' window.
Close 'Maintenance' window.

(Single Cabinet Model)
Close 'Controller' window.
Close 'Maintenance' window.

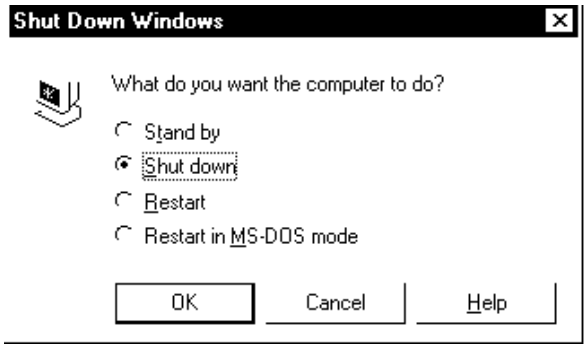
If button is blinking, refer to SIM and replace the target part again, or see TROUBLE SHOOTING SECTION.

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(14) <Shutdown the SVP>
(a) Select (CL) [Start].
(b) Select (CL) [ShutDown].



(c) Select (CL) "Shut down the computer" from "Shut Down Windows", and select (CL) [Yes] in response to "Are you sure you want to:"



(15) Powering down the SVP.
- New Installation , Disruptive Installation
  Breaker off (DKU and DKC)
  [Power OFF procedures of Disk Subsystem:INST03-3110-INST03-3130]

- Non-Disruptive Installation
  Turn on the "POWER ON/OFF" switch on the SVP.

(16) Remove the "SVP PS ON/OFF INH jumper" (JP2) [LOCATION06-50]

(17) Go to 9.

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9. Return to General Flow.
   New Installation : Go to INST02-30 step (12).
   Non-Disruptive Installation : Go to INST02-120 “END”.
   Disruptive Installation : Go to INST02-210 step (8).

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3.18 Check and Testing

NOTICE:
Install all of the remaining optional parts.

3.18.1 Checking Input Voltage

⚠WARNING

Do not touch the internal parts of the AC power cable the AC Box or the Breaker Box. Line voltage is present even if the circuit breaker is off.

1. Check the AC input voltage using a voltmeter at the customer's AC power source (at the distribution board or receptacle for R & S connectors).

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3.18.2 Checking Input Power Cable and Voltage Select Jumper Cable

3Phase Model

Check the input power cable and jumper cable (P104) at the AC BOX-R10 and AC BOX-R11 in the Basic Disk Unit. See Table 3.18.2-1 and figures 3.18.2-1 and 3.18.2-2 for check items.

Table 3.18.2-1 AC Input Cable Conductors and Jumper Cable (P104) Positions

Input Voltage	AC Input Cable Conductors	Jumper Cable (P104) Position	Remarks
200-240Vac	4 conductors (R,S,T,FG)	J104-1	J104-2 dummy connector
380-415Vac	5 conductors (R,S,T,N,FG)	J104-2	J104-1 dummy connector

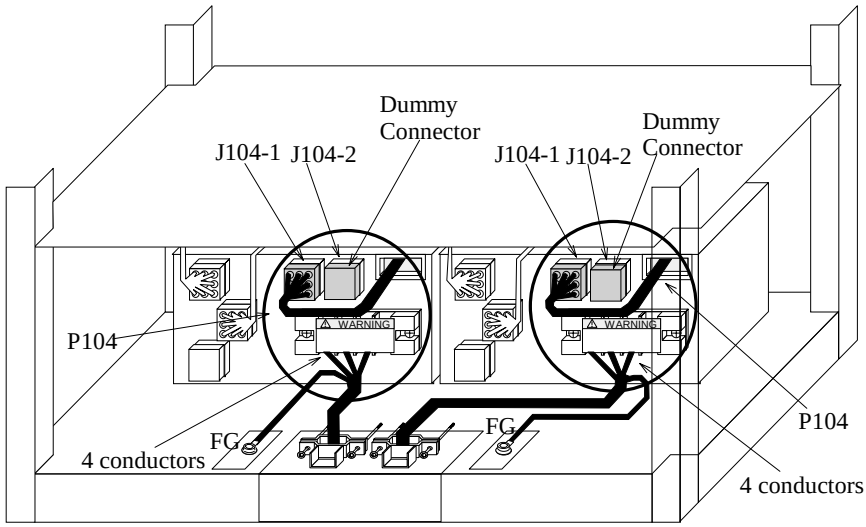


Fig. 3.18.2-1 AC Input Cable Conductors and Jumper Cable (P104) Positions 200-240Vac

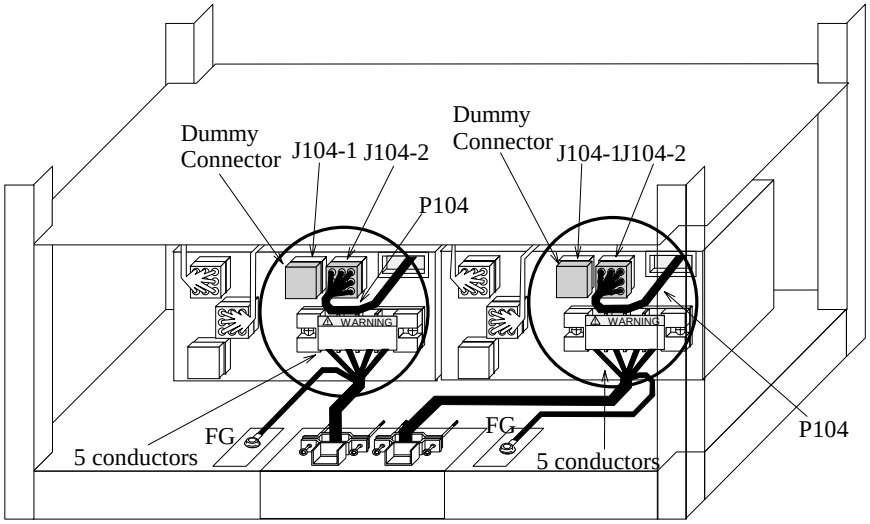


Fig. 3.18.2-2 AC Input Cable Conductors and Jumper Cable (P104) Positions 380-415Vac

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Single Phase Model

Check the input power cable at the AC BOXes in the DKC and DKU. See table 3.18.2-2 and figures 3.18.2-3 and 3.18.2-4 for check items.

Table 3.18.2-2 AC Input Cable Conductors

UNIT	AC BOX	Input Voltage	AC Input Cable Conductors	Remarks
DKC	DKC AC BOX (AC BOX-C1, C2)	200-240Vac	3 conductors (U, V, FG)	
DKU	DKU AC BOX (AC BOX-##0, ##1)	200-240Vac	3 conductors (U, V, FG)	

(Note) ## : DKU Location No. (R1, R2, R3, L1, L2, L3)

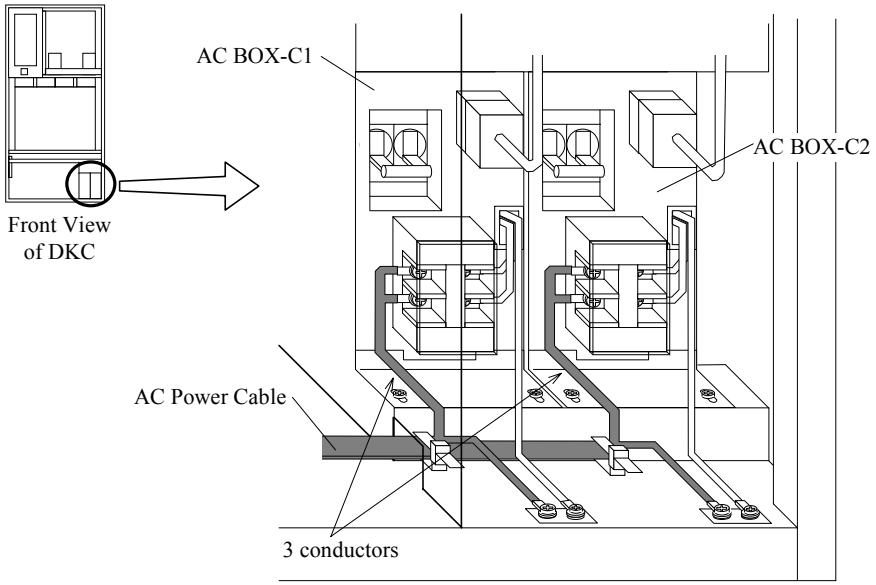


Fig. 3.18.2-3 AC Input Cable Conductors (DKC)

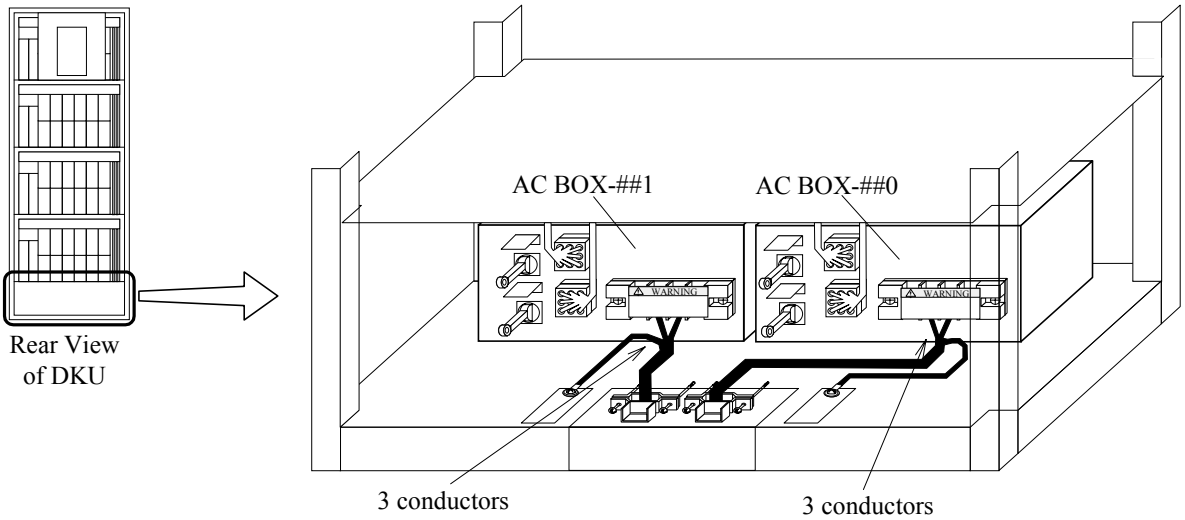


Fig. 3.18.2-4 AC Input Cable Conductors (DKU)

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3.18.3 Power On/Off Check

1. Install all the remaining optional parts except SNMP Support Kit (DKC-F410I-SNMP).

2. Turn on the disk controller according to the procedure shown in SECTION 3.19 POWER ON/OFF PROCEDURE. Refer to INST03-3030 through 3080.

3. Check the power supply output voltage to verify that it indicates the required level. Refer to PERIOD.

4. Turn off the Disk Subsystem according to the procedure shown in SECTION 3.19 POWER ON/OFF PROCEDURE. Refer to INST03-3090 through 3130.

5. New Installation: Go to INST02-30 step (11).

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3.19 Power ON/OFF Procedure

3.19.1 Power ON Procedure

3.19.1.1 Power ON Procedure of Disk Subsystem

Power on procedures are shown below. Refer to the details and start the operation.

1. Turn on the main circuit breaker at the AC Box on the Disk Unit.

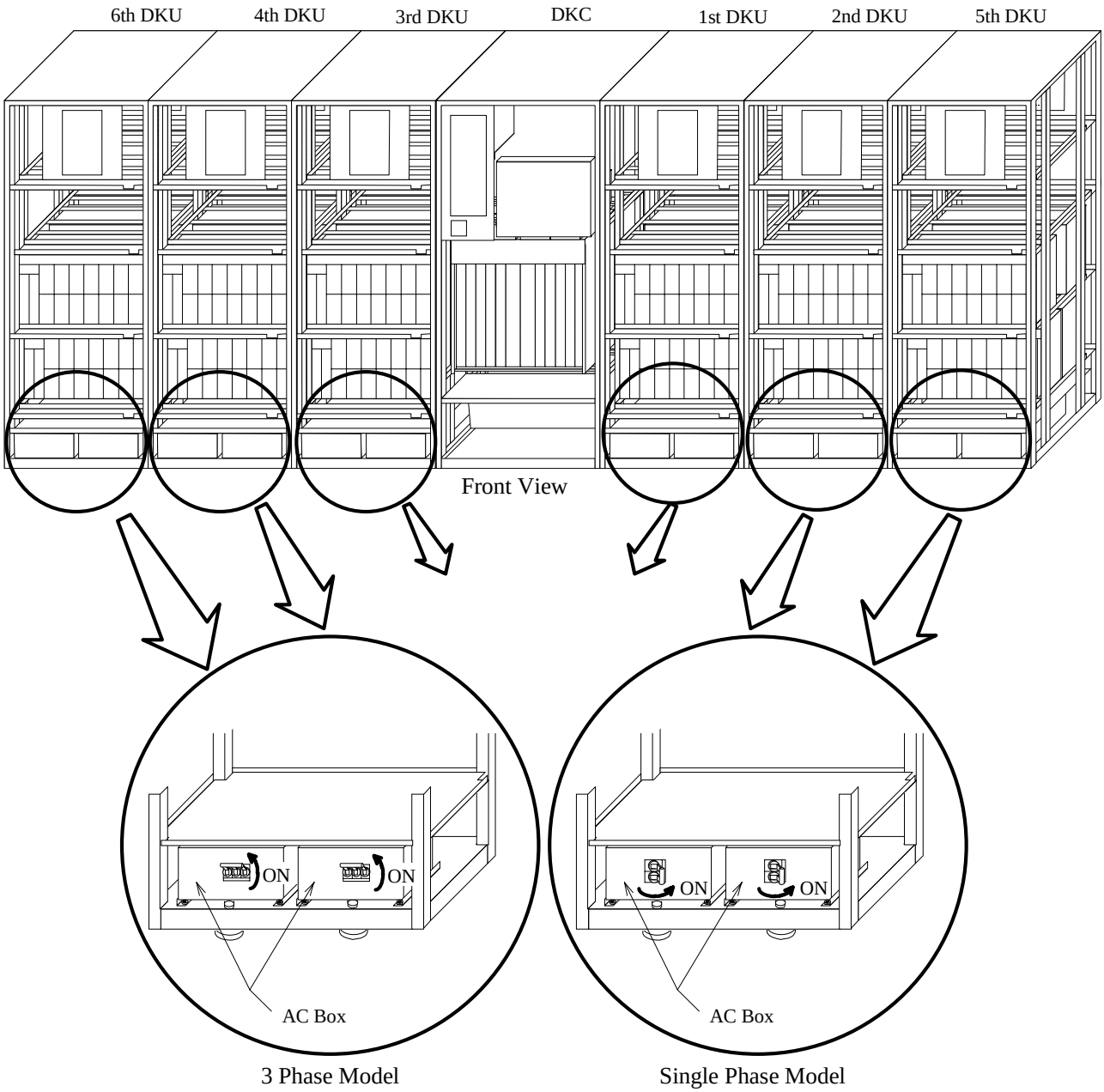


Fig. 3.19.1.1-1 Main Circuit Breaker on AC Box

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2. When the AC Box Kit for Single Phase (DKC-F410I-1PS) is installed, turn on the circuit breaker at AC Box on the Disk Controller.
   When the AC Box Kit for Single Phase (DKC-F410I-1PS) is not installed, go to step 3.

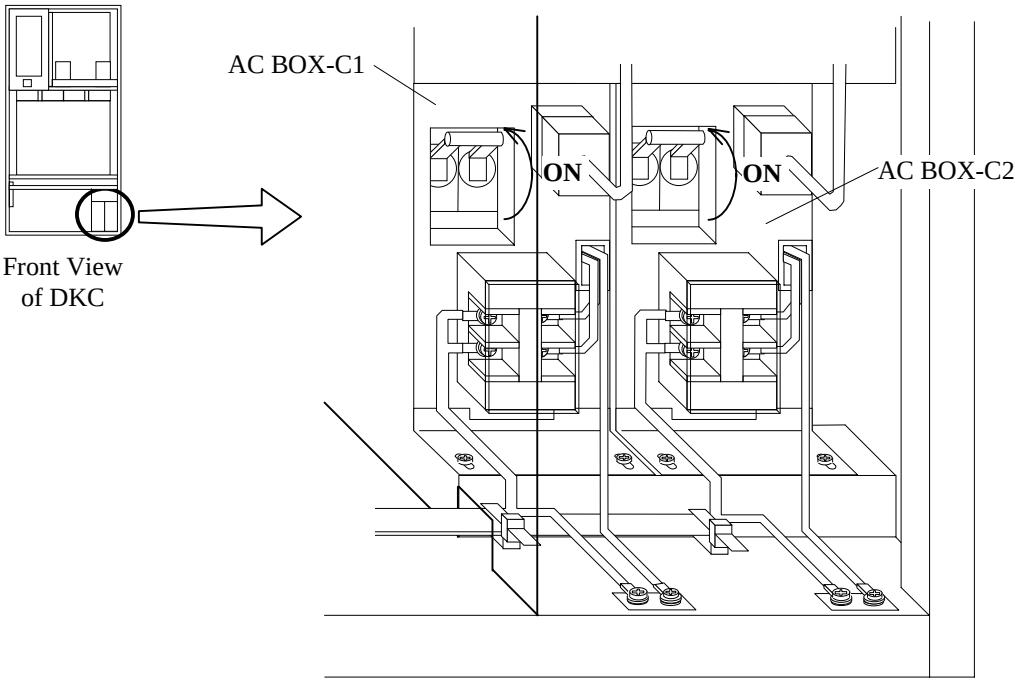


Fig. 3.19.1.1-2 Circuit Breaker on DKC AC Box

3. Turn on the circuit breaker at the Breaker Box-1 and 2 in the Disk Controller.

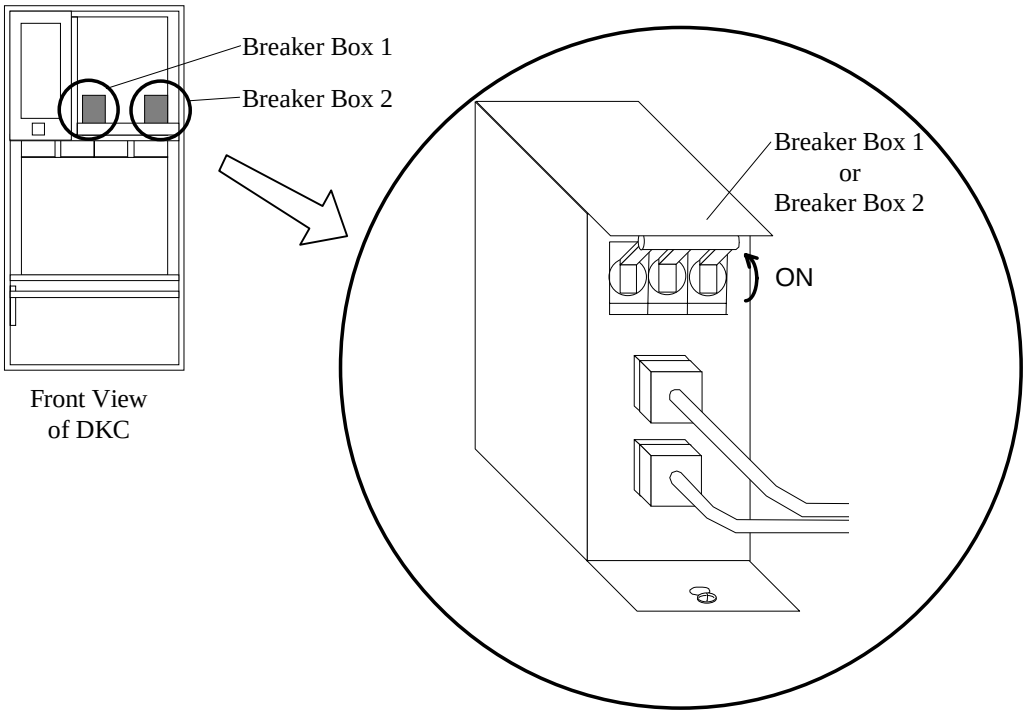


Fig. 3.19.1.1-3 Circuit Breaker in Breaker Box-1 and 2

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4. Check battery charge voltage and fuse blow up on Battery Controller PCBs.
   Check charge voltage on BATTERY 10 through 12 and BATTERY 20 through 22.
   a. Disconnect the cable ①.
   b. Insert the pins of the digital voltmeter into the cable ① removed from battery to make sure that battery charge voltage is within the allowable charge voltage.
      If the battery charge voltage is not within the allowable charge voltage, replace the BATCTR PCB.
   c. Connect the cable ①.

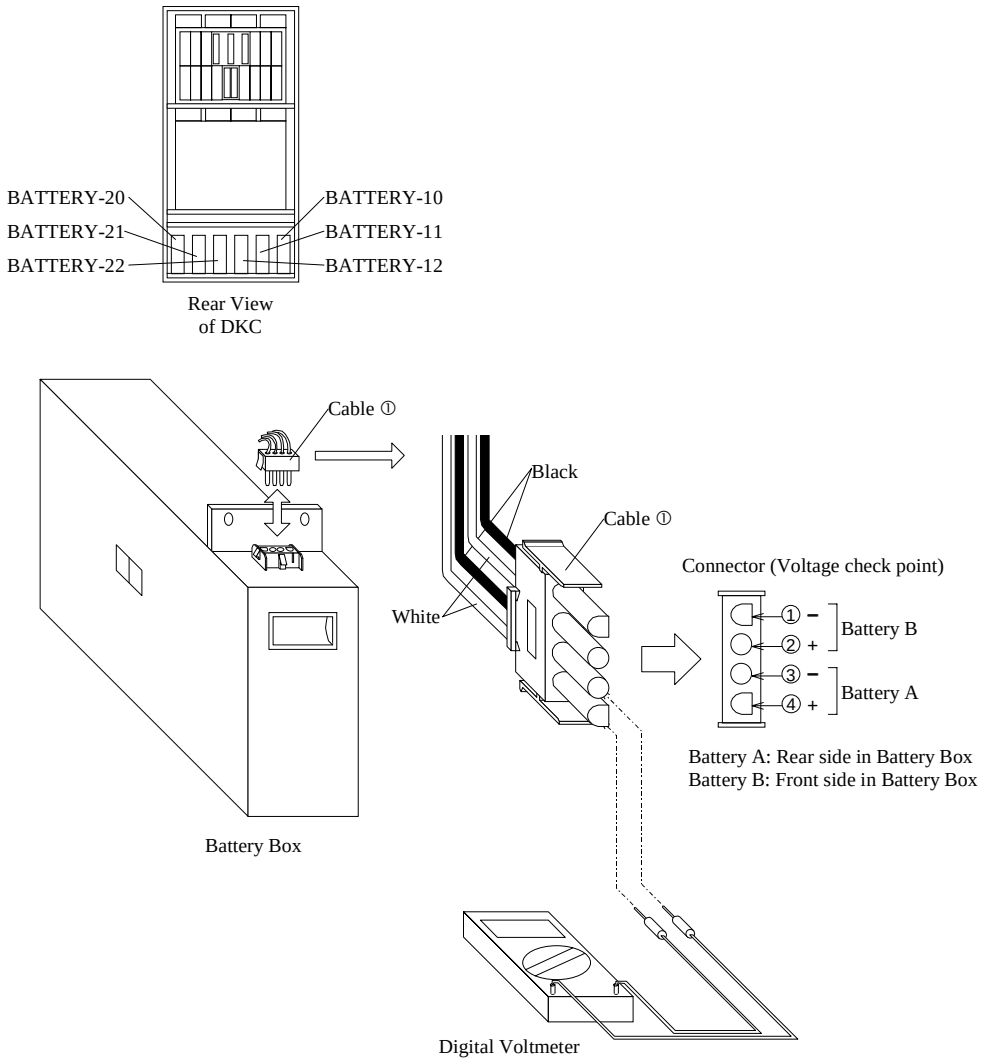


Fig. 3.19.1.1-4 Voltage Checkpoint

Table 3.19.1.1-1 Voltage Checkpoint and Allowable Voltage

No.	Pin No.		Allowable charge voltage
	+	-	
1	②	①	DC13V through DC13.8V
2	④	③	DC13V through DC13.8V

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5. Check battery voltage.
   Check battery voltage of the BATTERY 10 through 12 and BATTERY 20 through 22.
   a. Disconnect the cable ①.
   b. Insert the pins of the digital voltmeter into the connector on battery box to make sure that battery voltage is within the allowable battery voltage.
   c. If the battery voltage is not within the allowable battery voltage, replace the battery assembly.
   d. Connect the cable ①.

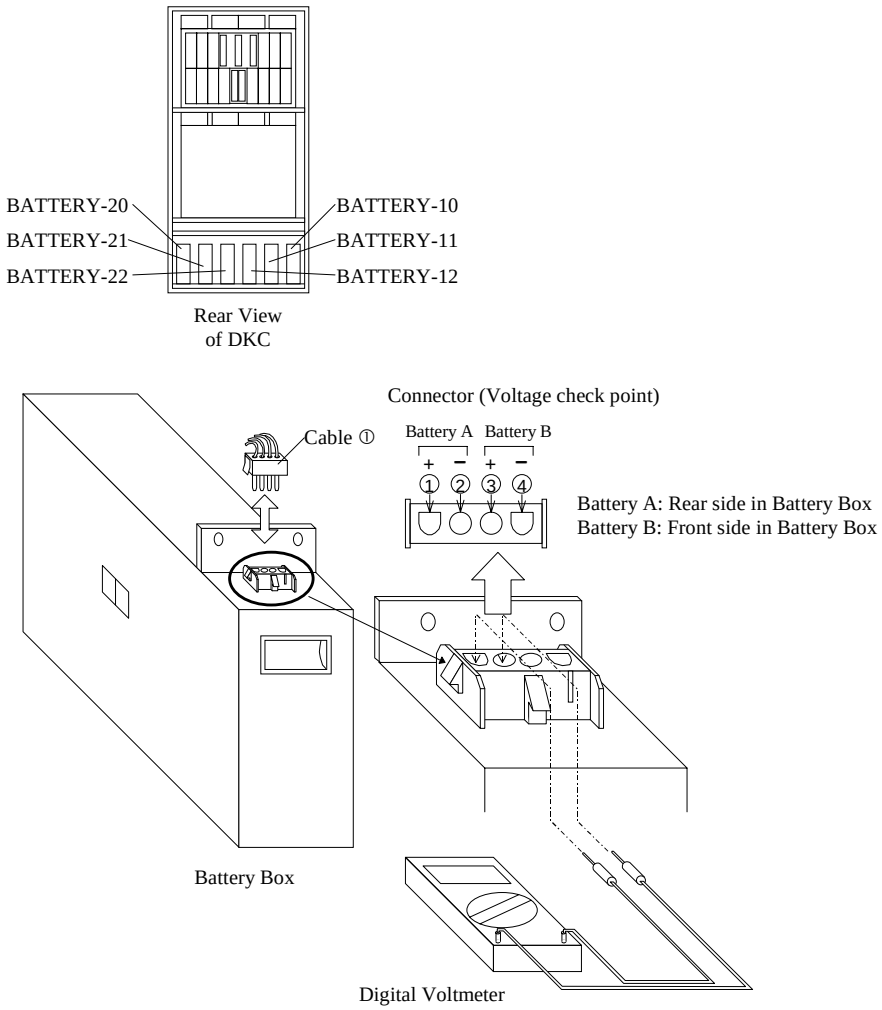


Fig. 3.19.1.1-5 Voltage Checkpoint

Table 3.19.1.1-2 Voltage Checkpoint and Allowable battery Voltage

No.	Pin No.		Allowable battery voltage
	+	-	
1	①	②	DC11.6V through DC13.8V
2	③	④	DC11.6V through DC13.8V

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6. Turn the “ENABLE/DISABLE” switch on the DKUMN PCB’s to “ENABLE”.

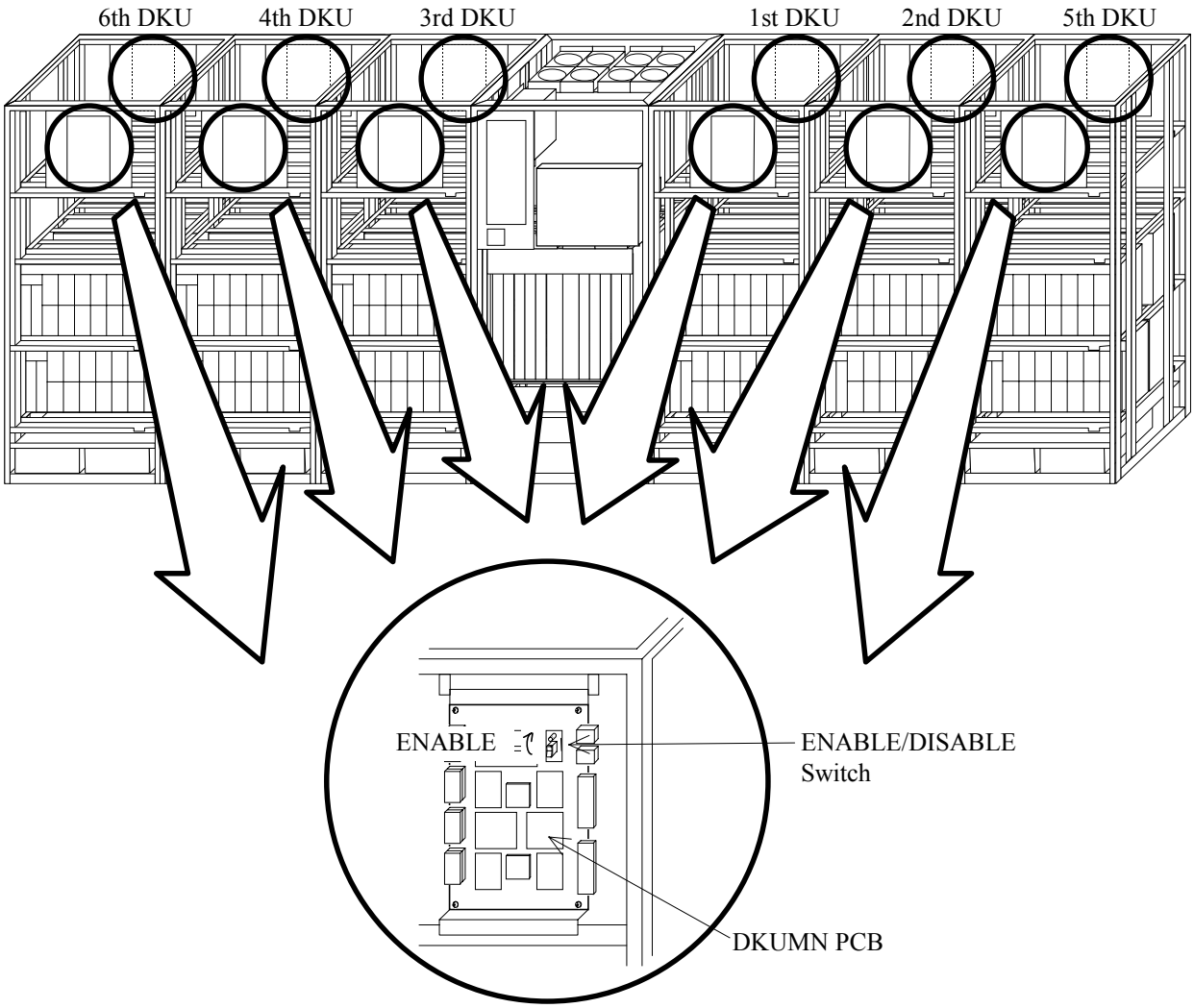


Fig. 3.19.1.1-6 ENABLE/DISABLE Switch on DKUMN PCBs

7. Return to General Flow.
   New Installation: Go to INST02-30 step (14).
   Disruptive Installation: Go to INST03-3080 step “8”.
   Disruptive De-installation: Go to INST03-3080 step “8”.

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8. [Case as custom engineer operates]
   Turn the “REMOTE/LOCAL” switch to “LOCAL”.
   Turn the “POWER ON/OFF” switch to “ON”, while turning the POWER ON/OFF ENABLE switch to the ENABLE position.
   [Case as that operate from CPU]
   Turn the “REMOTE/LOCAL” switch to “REMOTE”.
   Turn on the power supply from CPU.

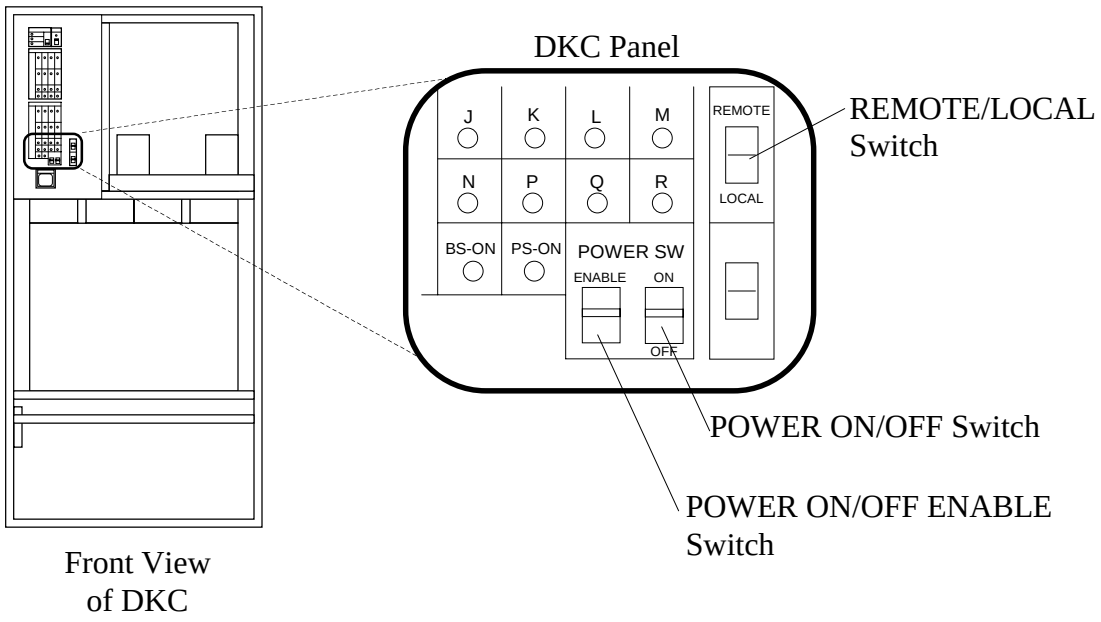


Fig. 3.19.1.1-7 DKC Panel PCB

9. Return to General Flow.
   Disruptive Installation : Go to INST02-230 step (12).
   Disruptive De-installation : Go to INST02-290 step (17).

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3.19.1.2 Power ON Procedure of Additional Disk Unit

Before turning the power of AC BOX on, make sure that the Enable/Disable switch on the DKU Monitor is in “Disable” position. If the switch is in “Enable” position, turn the switch to “Disable” position.

1. Power on procedures are shown below. Refer to the details and start the operation.
   a. Turn on the main circuit breaker at the AC Box on the Disk Unit.

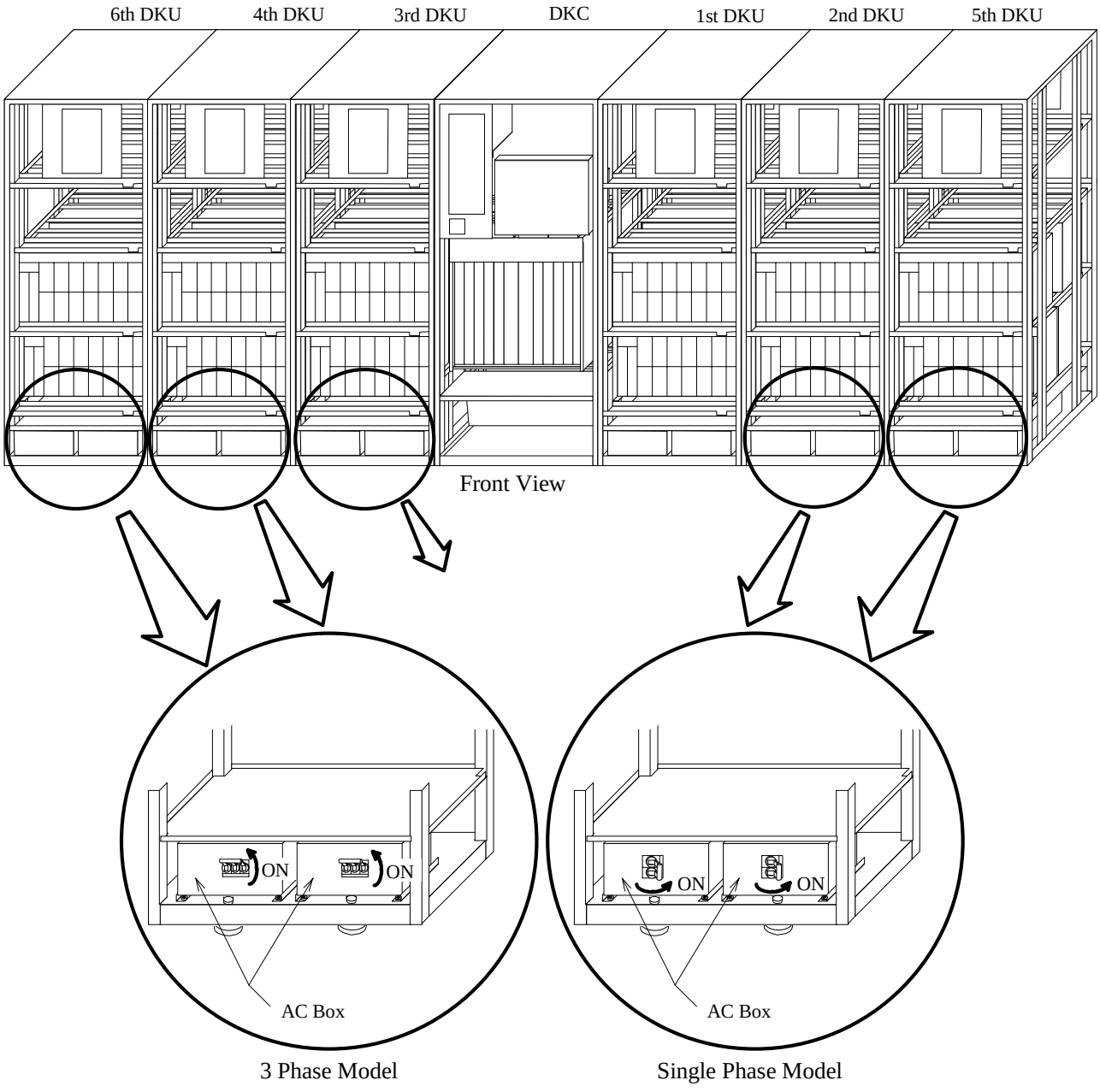


Fig. 3.19.1.2-1 Main Circuit Breaker on AC Box

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b. Turn the “ENABLE/DISABLE” switch on the DKUMN PCB’s to “ENABLE”.

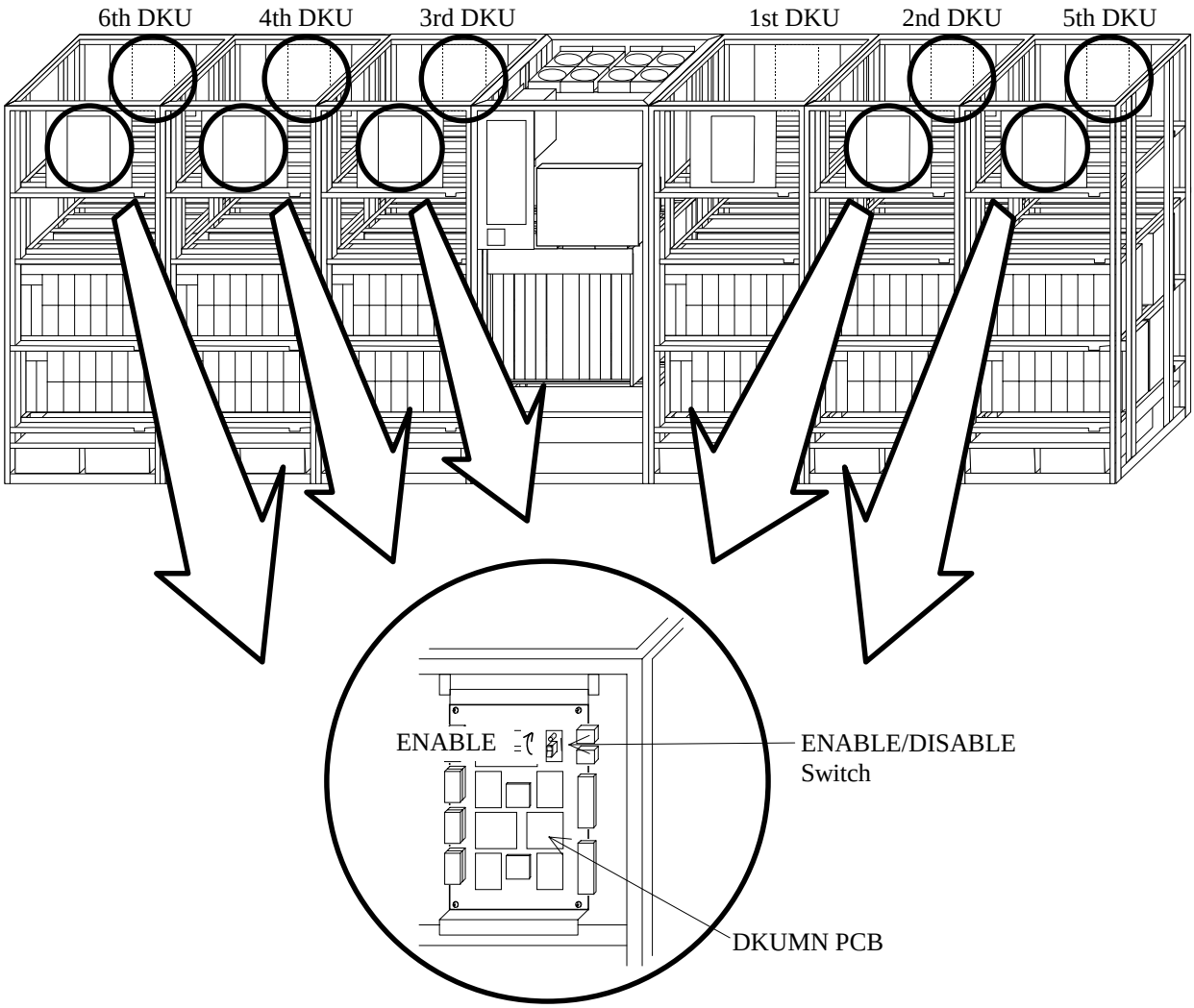


Fig. 3.19.1.2-2 ENABLE/DISABLE Switch on DKUMN PCBs

c. Return to General Flow.
Non-Disruptive Installation : Go to INST02-90 step (5)-5.

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3.19.2 Power OFF Procedure

3.19.2.1 Power OFF Procedure of Disk Subsystem

1. Power off procedures are shown below. Refer to the details and start the operation.
   a. [Case as custom engineer operates]
      Turn the “REMOTE/LOCAL” switch to “LOCAL”.
      Turn the “POWER ON/OFF” switch to “OFF”, while turning the POWER ON/OFF ENABLE switch to the ENABLE position.
      [Case as that operate from CPU]
      Turn the “REMOTE/LOCAL” switch to “REMOTE”.
      Turn off the power supply from CPU.
   b. After checking that the PS-ON LED is off, stop the SVP.

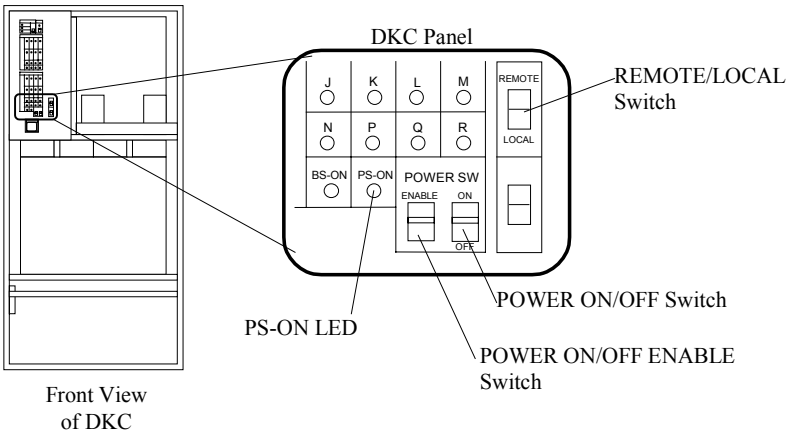


Fig. 3.19.2.1-1 DKC Panel PCB

   c. Turn off the circuit breaker at the Breaker Box-1 and 2 in the Disk Controller.
   d. When the AC Box Kit for Single Phase (DKC-F410I-1PS) is installed, turn off the circuit breaker at AC Box on the Disk Controller.
      When the AC Box Kit for Single Phase (DKC-F410I-1PS) is not installed, go to step e.

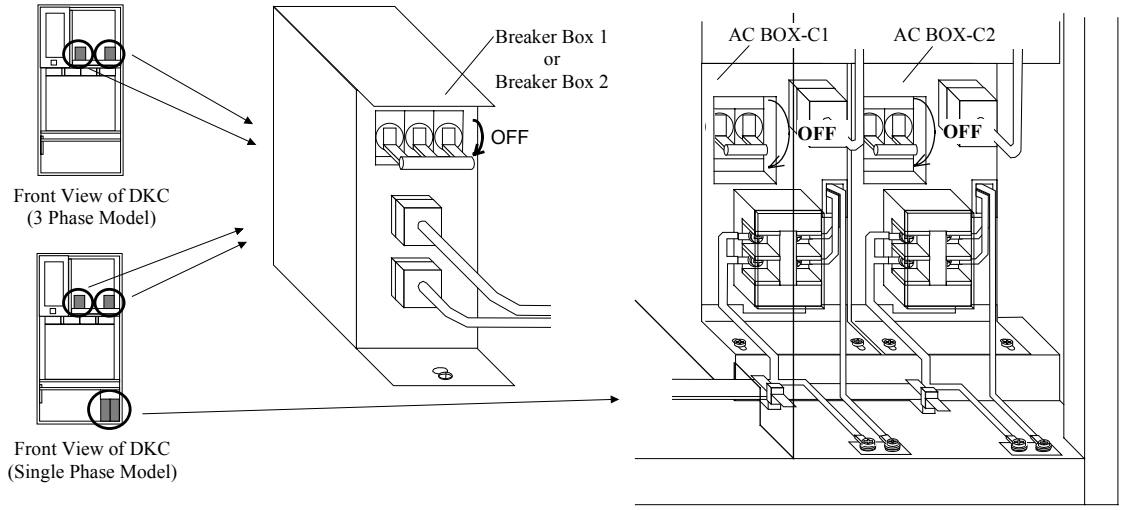


Fig. 3.19.2.1-2 Circuit Breaker on DKC AC Box

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e. Turn off the main circuit breaker at the AC Box on the Disk Unit.

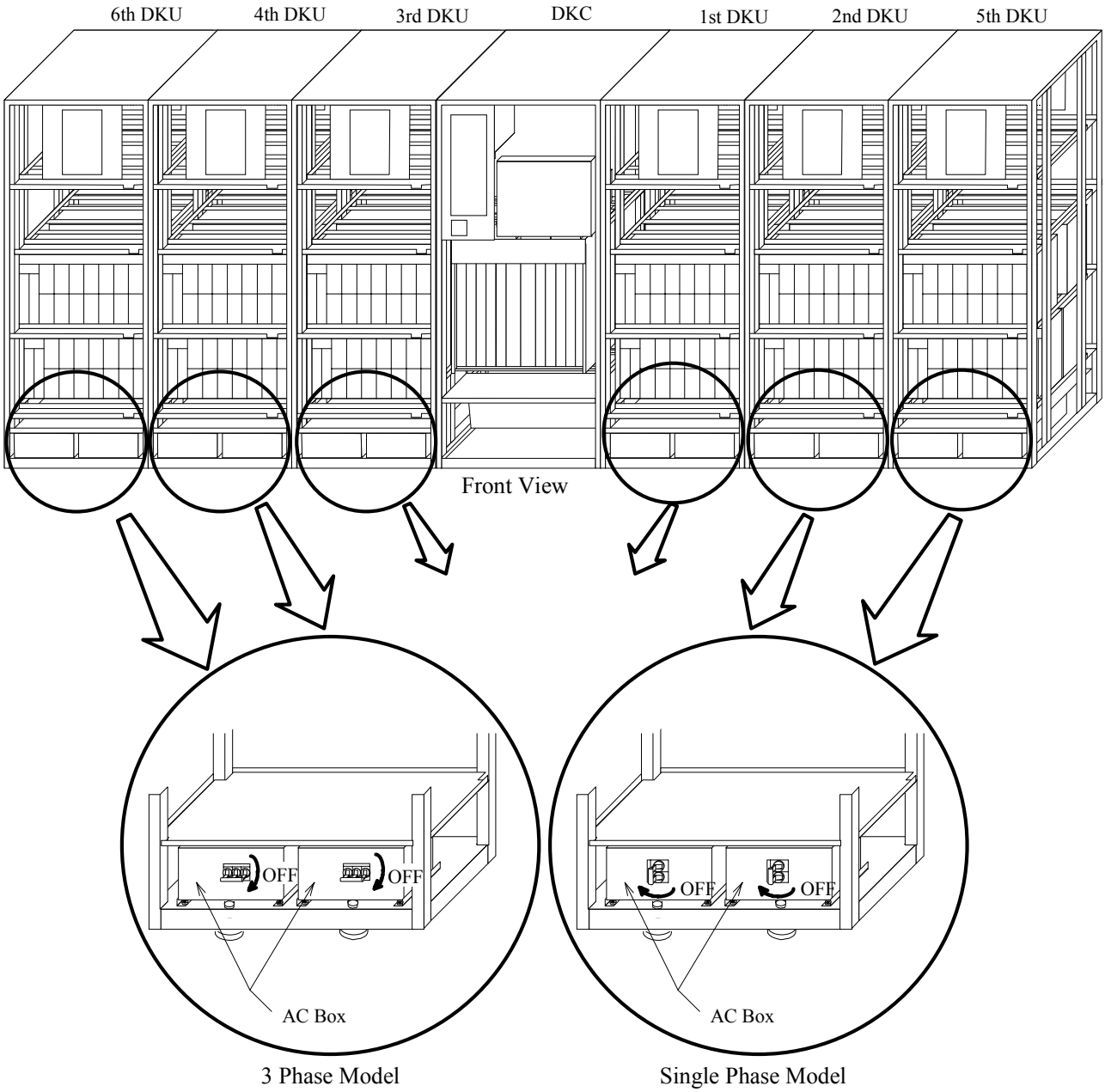


Fig. 3.19.2.1-3 Main Circuit Breaker on AC Box

f. Return to General Flow.
Disruptive Installation : Go to INST02-200 step (3).
Disruptive De-installation : Go to INST02-260 step (8).

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3.19.2.2 Power OFF Procedure of Additional Disk Unit

1. Power off procedures are shown below. Refer to the details and start the operation.
   a. Turn off the main circuit breaker at the AC Box on the Disk Unit.

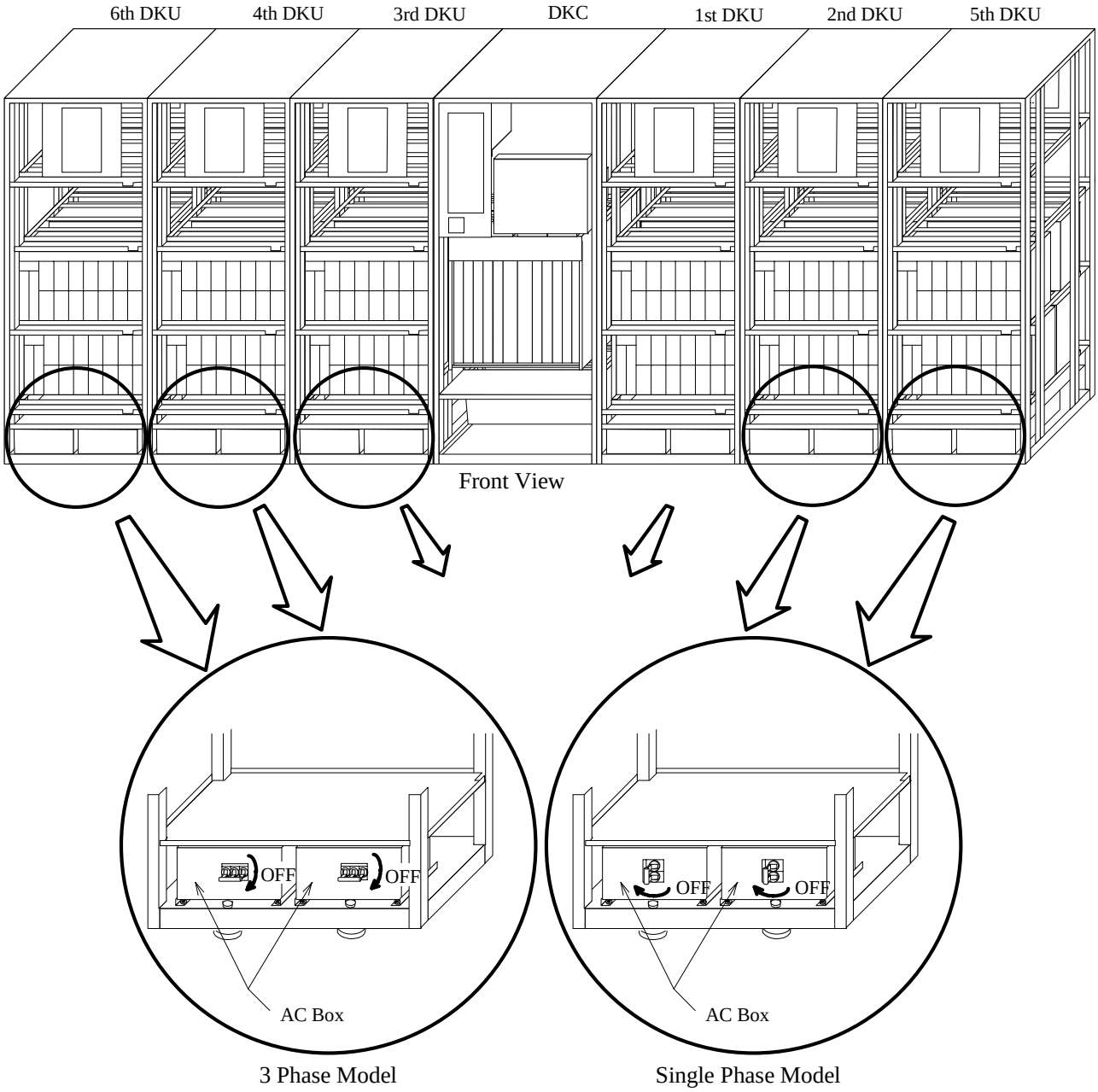


Fig. 3.19.2.2-1 Main Circuit Breaker on AC Box

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4. Hardware De-Installation

4.1 De-Installation of Shared Memory and Cache Memory

a. When only Shared Memory is to be de-installed,
go to "4.1.1 De-Installation of Additional Shared Memory (DKC-F410I-S256)".
b. When only Cache Memory is to be de-installed or when Shared Memory and Cache Memory are to be de-installed at the same time,
go to "4.1.2 De-Installation of Additional Cache Memory (DKC-F410I-20/21/22/512/1024)". (INST04-110)

4.1.1 De-Installation of Additional Shared Memory (DKC-F410I-S256)

4.1.1.1 Flowchart

(1) Blockade the Shared Memory on the cluster 1 from SVP.
↓
(2) Remove the Shared Memory on the Cluster 1.
↓
(3) Restore the Shared Memory on the cluster 1 and blockade the Shared Memory on the cluster 2 from SVP.
↓
(4) Remove the Shared Memory on the Cluster 2.
↓
(5) Restore the Shared Memory on the cluster 2 from SVP.
↓
(6) Change the nameplate.

4.1.1.2 Parts List

Table 4.1.1.2-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F410I-S256	SH184-B	5509138-B	2	Shared Memory Module(128MB)

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4.1.1.3 De-Installation Procedure of Additional Shared Memory

1. Blockade the Shared Memory on the cluster 1 from SVP.
   a. Go to INST02-410 step ⑨.

2. Remove the Shared Memory on the Cluster 1.
   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. Remove the PCB.
   a. While referring to Fig. 4.1.1.3-1 and Table 4.1.1.3-1, check the Shut Down LED on the Cache Memory PCB in the Rear Logic Box. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

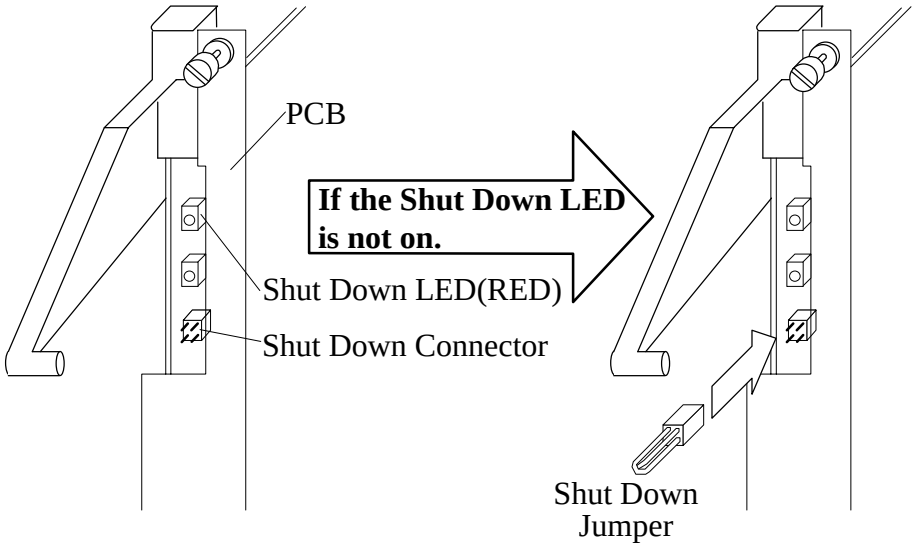


Fig. 4.1.1.3-1 Location of the Shut Down LED

Table 4.1.1.3-1 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB

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b. Remove the two screws and remove the Cache Memory PCB. Refer to Fig. 4.1.1.3-2 and Table 4.1.1.3-1.

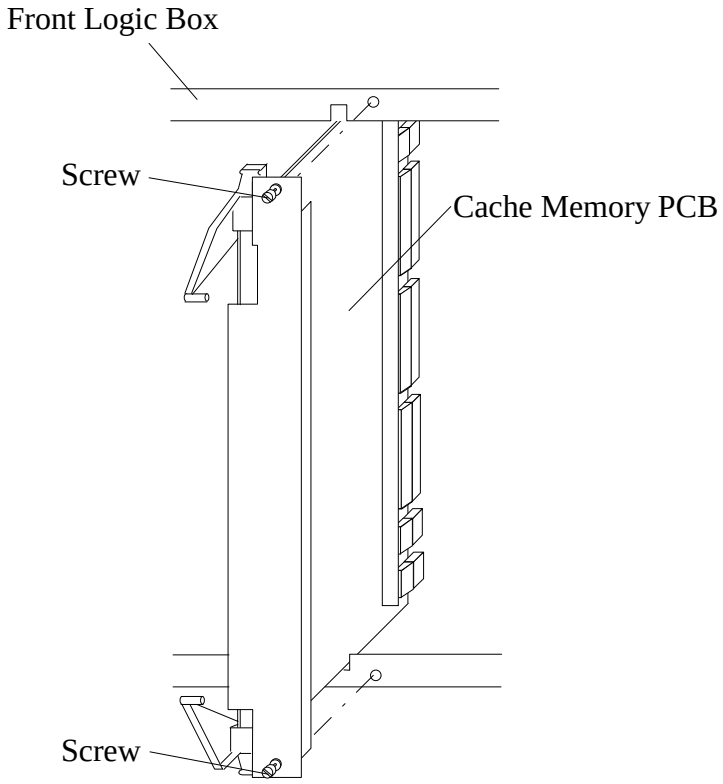


Fig. 4.1.1.3-2 Removal of the Cache Memory PCB

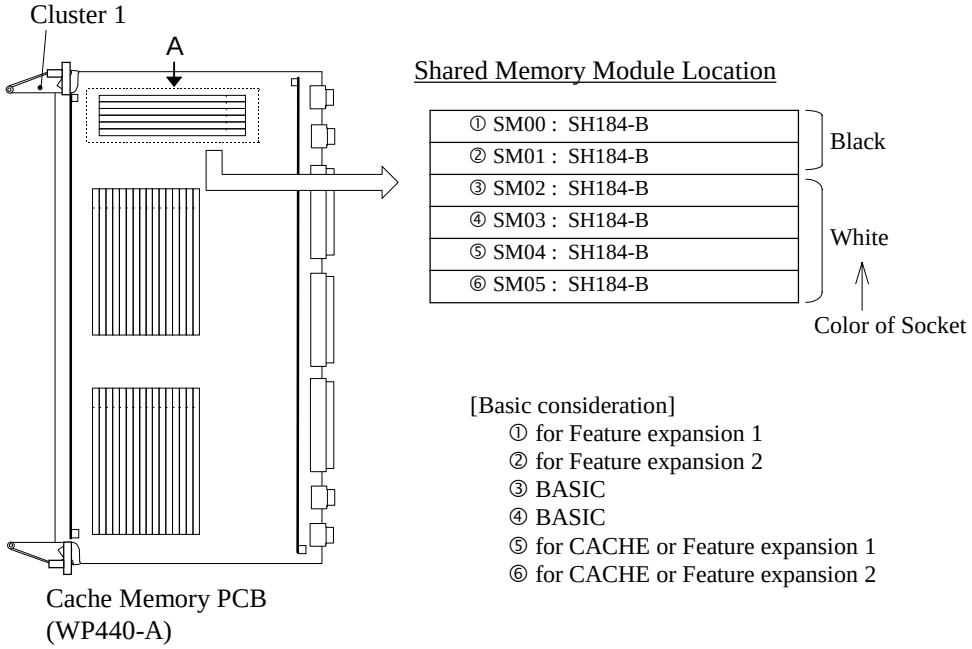
c. Remove the Shut Down Jumper if it is mounted.

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2-2. Remove the Shared Memory Modules.

a. Remove the extra Shared Memory Modules according to the required Shared Memory capacity referring to Fig. 4.1.1.3-3, Table 4.1.1.3-2 and Table 4.1.1.3-2A.

b. Insert the dust covers into the vacant sockets.



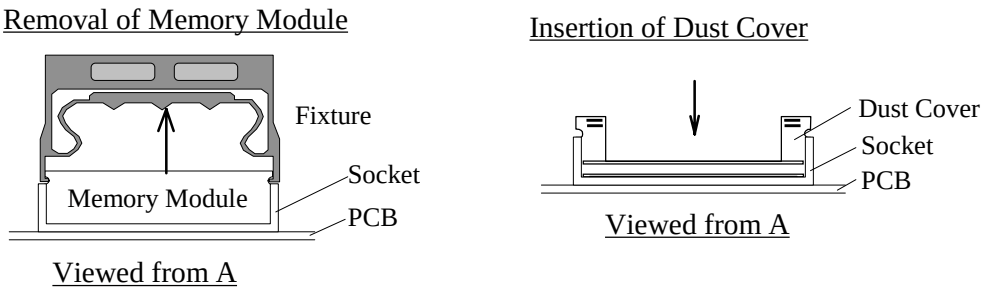


Fig. 4.1.1.3-3 Inserting Location of the Shared Memory Module

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Table 4.1.1.3-2 Number of SMs and Corresponding Shared Memory Capacity (except for 180GB HDD)

Cache Memory	Number of CU:1-4 (to 1024LDEV)			Number of CU:1-8 (to 2048LDEV)			Number of CU:1-16 (to 4096LDEV)			TPF(Number of CU:1-16) (to 4096LDEV)		
Capacity (MB)	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1
512	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,024	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,536	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,048	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,560	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,072	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,584	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
4,096	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
5,120	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
6,144	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
7,168	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
8,192	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
9,216	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
10GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
11GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
12GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
13GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
14GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
15GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
16GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
17GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
18GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
19GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
20GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
21GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
22GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
23GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
24GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
25GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
26GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
27GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
28GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
29GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
30GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
31GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
32GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥

Note. *1 : Location ① through ⑥ shows actual location of Shared Memory on Cache Memory PCB.

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Table 4.1.1.3-2A Number of SMs and Corresponding Shared Memory Capacity
(applicable for 180GB HDD only)

Cache Memory	Number of CU:1-4 (to 1024LDEV)			Number of CU:1-8 (to 2048LDEV)			Number of CU:1-16 (to 4096LDEV)			TPF(Number of CU:1-16) (to 4096LDEV)		
Capacity (MB)	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1	SM (MB)	S256	Install loc. *1
512	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,024	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
1,536	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,048	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
2,560	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,072	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
3,584	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
4,096	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
5,120	512	2	③,④	768	3	③,④,①	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
6,144	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
7,168	512	2	③,④	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
8,192	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
9,216	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
10GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
11GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
12GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,②,⑤
13GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
14GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
15GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
16GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
17GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
18GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
19GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
20GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
21GB	768	3	③,④,⑤	1024	4	③,④,①,⑤	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
22GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
23GB	768	3	③,④,⑤	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
24GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
25GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
26GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
27GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
28GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	1280	5	③,④,①,⑤,⑥	1536	6	③,④,①,②,⑤,⑥
29GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
30GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
31GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—
32GB	1024	4	③,④,⑤,⑥	1280	5	③,④,①,⑤,⑥	—	—	—	—	—	—

Note. *1: Location ①-⑥ shows actual location of shared memory module on Cache PCB.

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2-3. Insert the PCB.

a. Insert the Cache Memory PCB into the Front Logic Box referring to Table 4.1.1.3-3.

b. Fasten the two screws.

Table 4.1.1.3-3 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB

c. Go to INST02-410 step ⑪.

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3. Restore the Shared Memory on the cluster 1 and blockade the Shared Memory on the cluster 2 from SVP.
   a. Go to INST02-410 step ⑪.

4. Remove the Shared Memory on the Cluster 2.
   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. While referring to Fig. 4.1.1.3-4 and Table 4.1.1.3-4, check the Shut Down LED on the Cache Memory PCB in the Rear Logic Box. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

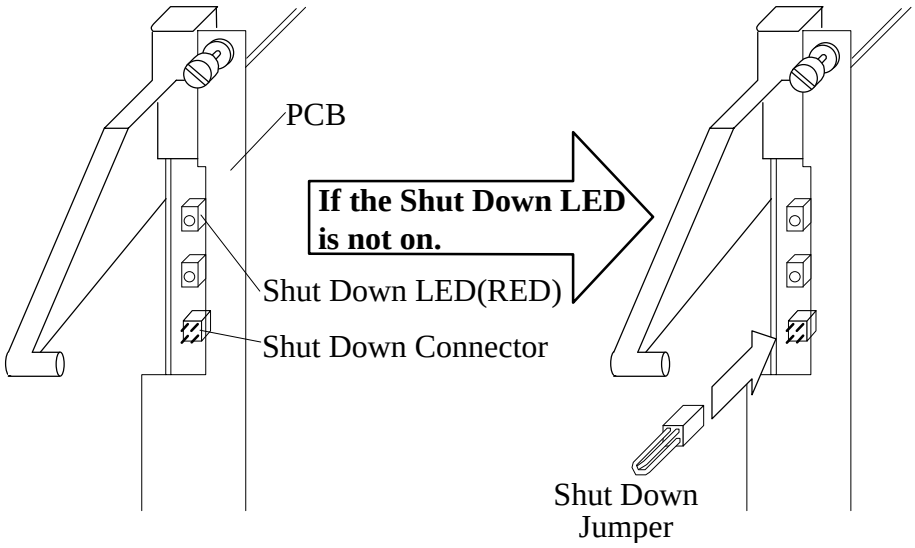


Fig. 4.1.1.3-4 Location of the Shut Down LED

Table 4.1.1.3-4 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB

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b. Remove the two screws and remove the Cache Memory PCB. Refer to Fig. 4.1.1.3-5 and Table 4.1.1.3-6.

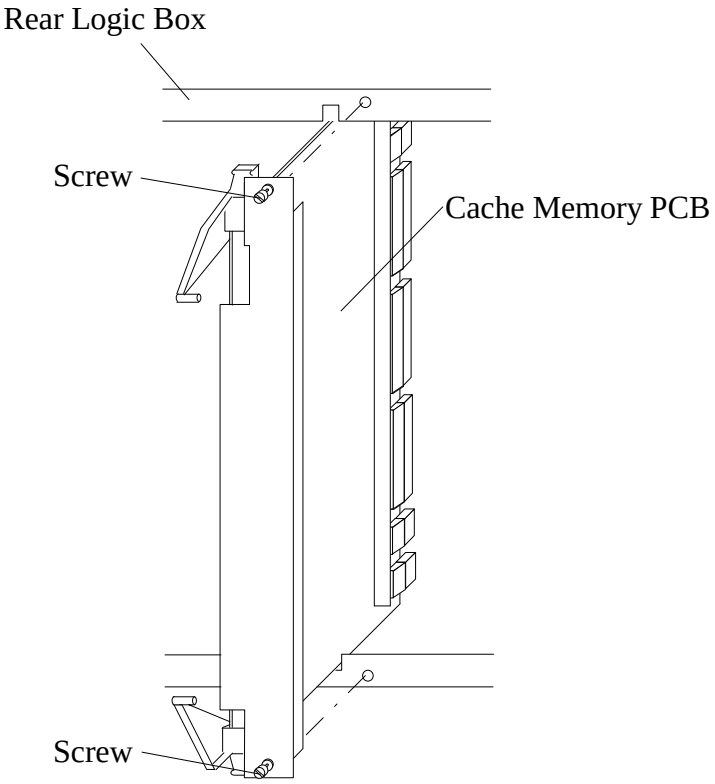


Fig. 4.1.1.3-5 Removal of the Cache Memory PCB

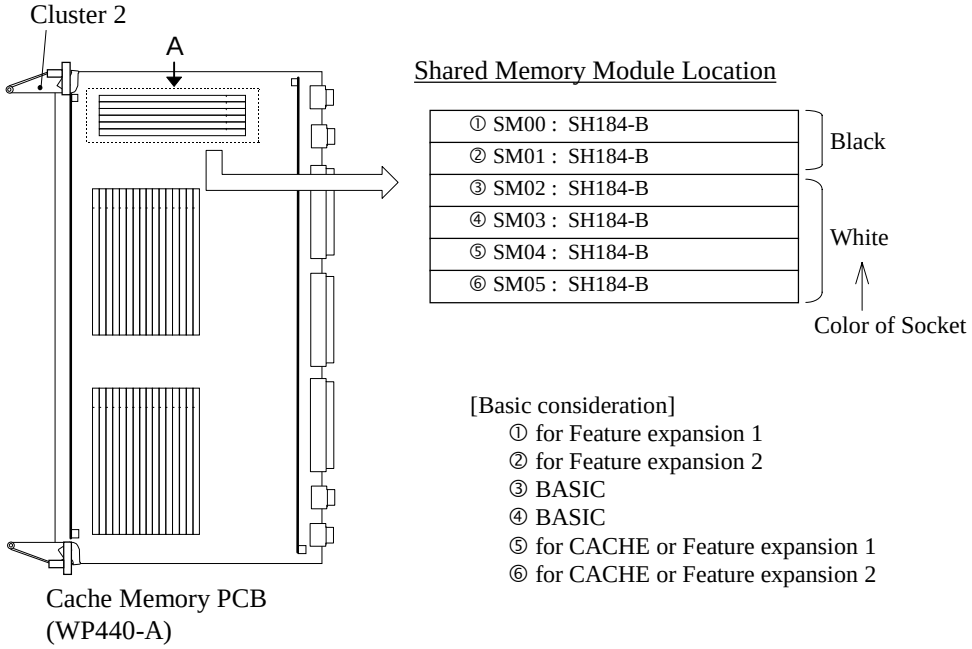
c. Remove the Shut Down Jumper if it is mounted.

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4-2. Remove the Shared Memory Modules.

a. Remove the extra Shared Memory Modules according to the required Shared Memory capacity referring to Fig. 4.1.1.3-6, Table 4.1.1.3-2 and Table 4.1.1.3-2A.

b. Insert the dust covers into the vacant sockets.



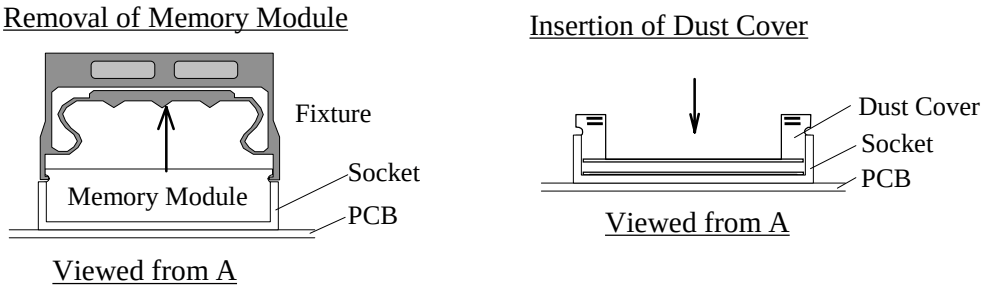


Fig. 4.1.1.3-6 Inserting Location of the Shared Memory Module

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4-3. Insert the PCB.

a. Insert the Cache Memory PCB into the Rear Logic Box referring to Table 4.1.1.3-5.

b. Fasten the two screws.

Table 4.1.1.3-5 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB

c. Go to INST02-410 step ⑬.

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5. Restore the Shared Memory on the cluster 2 from SVP.
   a. Go to INST02-410 step ⑬.

6. Change the nameplate.
   a. Refer to Fig. 4.1.1.3-7 and Table 4.1.1.3-6 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding nameplate can be seen.

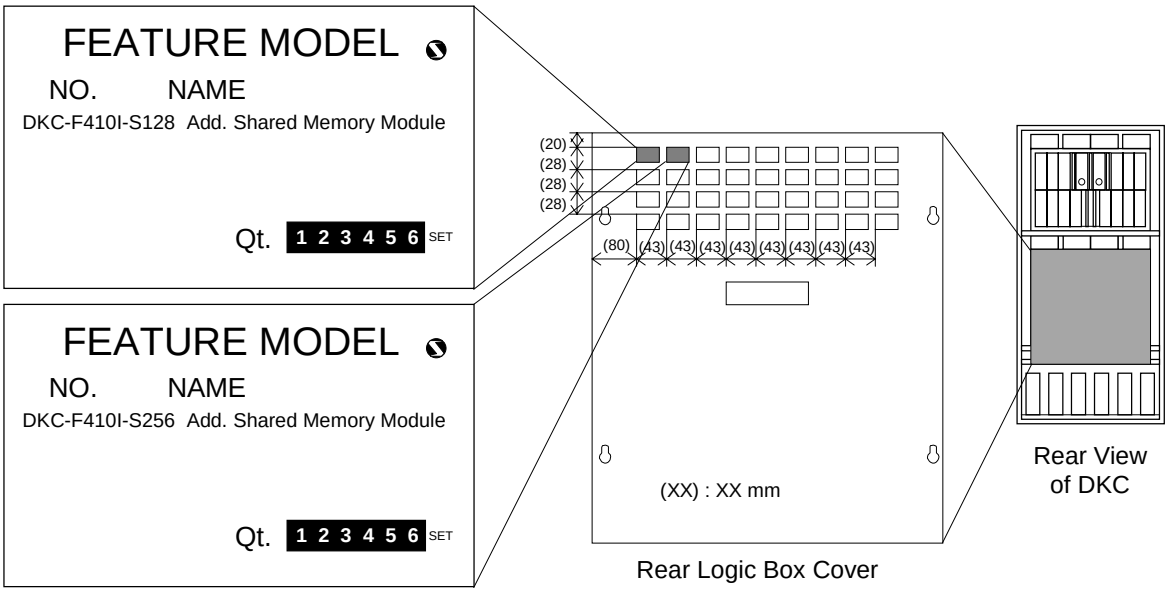


Fig. 4.1.1.3-7 Location of the Nameplate

Table 4.1.1.3-6 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F410I-S256 sets	Qt.
1	1 set	1
2	2 sets	2
3	3 sets	3
4	4 sets	4
5	5 sets	5
6	6 sets	6

7. Return to General Flow.
   Go to INST02-410 step ⑮.

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4.1.2 De-Installation of Additional Cache Memory (DKC-F410I-20/21/22/512/1024)

4.1.2.1 Flowchart

(1) Blockade the Cache Memory on the cluster 1 from SVP.

↓

(2) Remove the Cache Memory and Shared Memory on the cluster 1.

↓

(3) Restore the Cache Memory on the cluster 1 and blockade the Cache Memory on the cluster 2 from SVP.

↓

(4) Remove the Cache Memory and Shared Memory on the cluster 2.

↓

(5) Restore the Cache Memory on the cluster 2 from SVP.

↓

(6) When the Additional Cache Board (DKC-F410I-20) is removed, remove the Battery Boxes and BATCTR PCBs
When the Additional Cache Board (DKC-F410I-20) is not removed, go to step (7).

↓

(7) Change the nameplate.

4.1.2.2 Parts List

Table 4.1.2.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-20	WP440-B	5509137-B	2	Cache Memory PCB
		Battery Box	5509125-A	2	
		SH199-A	5509217-A	2	BATCTR PCB
		Jumper (Battery)	3254715-A	2	Jumper Connector (BTJP2)
		Nameplate	3257216-1	1	
2	DKC-F410I-21	WP440-B	5509137-B	2	Cache Memory PCB
		Nameplate		1	
3	DKC-F410I-22	Battery Box	5509125-A	2	BATCTR PCB
		SH199-A	5509217-A	2	Jumper Connector (BTJP2)
		Jumper (Battery)	3254715-A	2	
		Nameplate		1	
4	DKC-F410I-512	SH185-A	5509139-A	4	Cache Memory Module (128 MB)
5	DKC-F410I-1024	SH185-B	5509139-B	4	Cache Memory Module (256 MB)

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4.1.2.3 De-Installation Procedure of Additional Cache Memory

Notice : Confirm the quantity of the options to be removed prior to de-installing the Cache Memory. Refer to Table 1.1.2-1, Table 1.1.2-2 and Table 1.1.2-3 (INST01-40 through 60) for the required quantity of options.

1. Blockade the Cache Memory on the cluster 1 from SVP.
   a. Go to INST02-400 step ①.

2. Remove the Cache Memory and Shared Memory on the cluster 1.
   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. Remove the PCBs.
   a. While referring to Fig. 4.1.2.3-1 and Table 4.1.2.3-1 or 2, check the Shut Down LED on the Cache Memory PCB. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

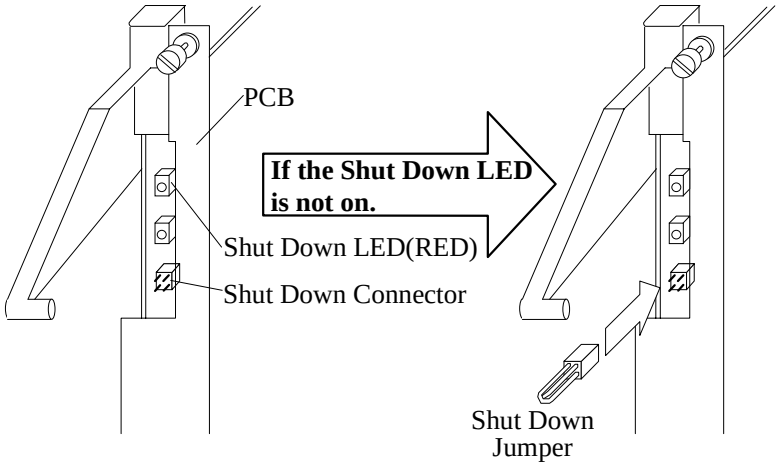


Fig. 4.1.2.3-1 Location of the Shut Down LED

Table 4.1.2.3-1 Location of the Cache Memory PCB (Standard Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB (Note 1)
	WP440-B	Front Logic Box	U	CACHE-1U	Cache Memory PCB (Note 2)

Note 1: No PCB needs to be removed if 16 or more DKC-F410I-512 or DKC-F410I-1024 sets are left after de-installation, except when installing DKC-F410I-S256 sets.
Note 2: Remove the PCB only when it is installed.

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Table 4.1.2.3-2 Location of the Cache Memory PCB
(High Performance Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB (Note 3)
	WP440-B	Front Logic Box	U	CACHE-1U	Cache Memory PCB (Note 3)

Note 3: When a mix of DKC-F410I-512(s) and the DKC-F410I-1024(s) is to be removed, there is a case where the PCB removal is not necessary.

b. Remove the two screws and remove the Cache Memory PCB. Refer to Fig. 4.1.2.3-2 and Table 4.1.2.3-1 or 2.

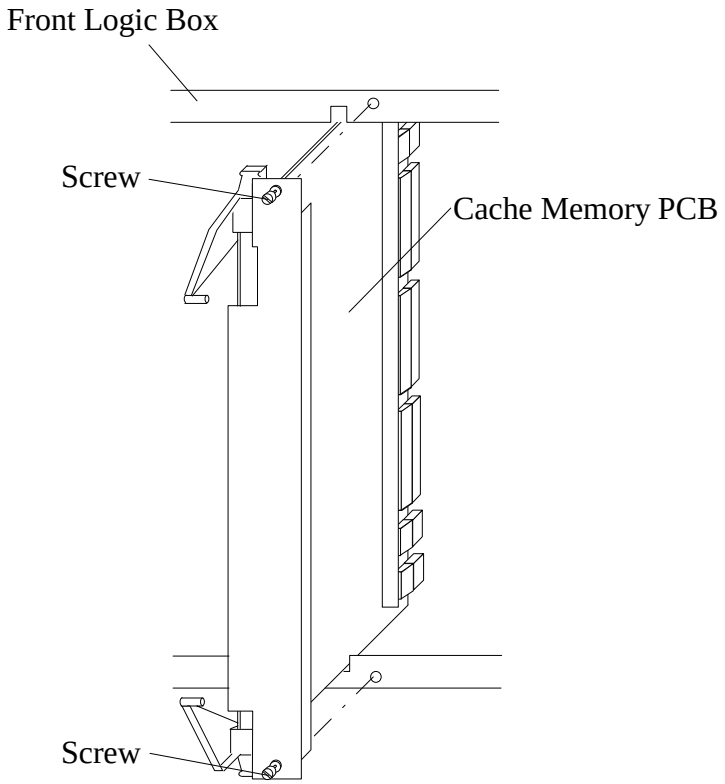


Fig. 4.1.2.3-2 Removal of the Cache Memory PCB

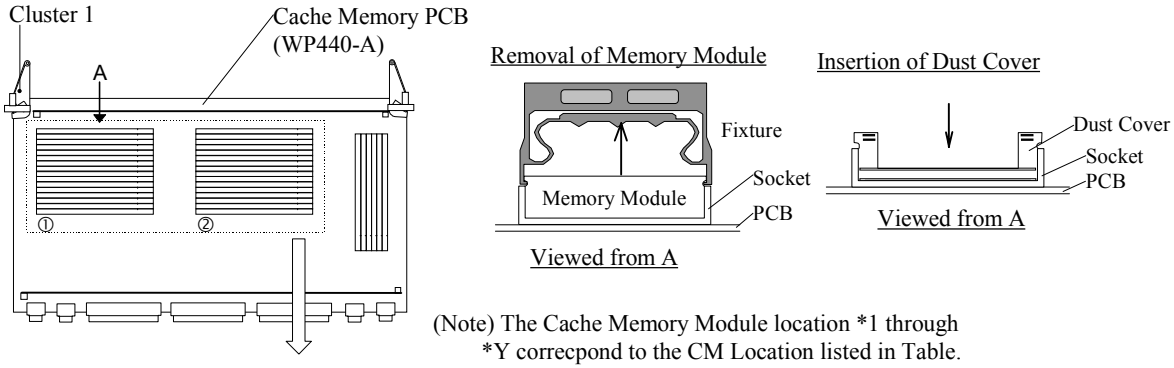
c. Remove the Shut Down Jumper if it is mounted.

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2-2. Remove the Cache Memory Modules.

a. Remove the extra Cache Memory Modules according to the required Cache Memory capacity referring to Fig. 4.1.2.3-3 and Table 4.1.2.3-3 or 4.

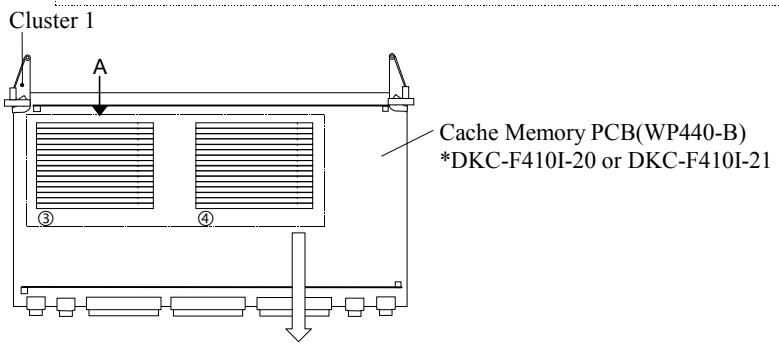
b. Insert the dust covers into the vacant sockets.



(Note) The Cache Memory Module location *1 through *Y correcpond to the CM Location listed in Table.

Cache Memory Module Location

①		②	
CM000 : SH185-A or SH185-B	*1	CM100 : SH185-A or SH185-B	*1
CM001 : SH185-A or SH185-B	*2	CM101 : SH185-A or SH185-B	*2
CM002 : SH185-A or SH185-B	*3	CM102 : SH185-A or SH185-B	*3
CM003 : SH185-A or SH185-B	*4	CM103 : SH185-A or SH185-B	*4
CM004 : SH185-A or SH185-B	*5	CM104 : SH185-A or SH185-B	*5
CM005 : SH185-A or SH185-B	*6	CM105 : SH185-A or SH185-B	*6
CM006 : SH185-A or SH185-B	*7	CM106 : SH185-A or SH185-B	*7
CM007 : SH185-A or SH185-B	*8	CM107 : SH185-A or SH185-B	*8
CM010 : SH185-A or SH185-B	*9	CM110 : SH185-A or SH185-B	*9
CM011 : SH185-A or SH185-B	*A	CM111 : SH185-A or SH185-B	*A
CM012 : SH185-A or SH185-B	*B	CM112 : SH185-A or SH185-B	*B
CM013 : SH185-A or SH185-B	*C	CM113 : SH185-A or SH185-B	*C
CM014 : SH185-A or SH185-B	*D	CM114 : SH185-A or SH185-B	*D
CM015 : SH185-A or SH185-B	*E	CM115 : SH185-A or SH185-B	*E
CM016 : SH185-A or SH185-B	*F	CM116 : SH185-A or SH185-B	*F
CM017 : SH185-A or SH185-B	*G	CM117 : SH185-A or SH185-B	*G



Cache Memory Module Location

③		④	
CM000 : SH185-A or SH185-B	*H	CM100 : SH185-A or SH185-B	*H
CM001 : SH185-A or SH185-B	*J	CM101 : SH185-A or SH185-B	*J
CM002 : SH185-A or SH185-B	*K	CM102 : SH185-A or SH185-B	*K
CM003 : SH185-A or SH185-B	*L	CM103 : SH185-A or SH185-B	*L
CM004 : SH185-A or SH185-B	*M	CM104 : SH185-A or SH185-B	*M
CM005 : SH185-A or SH185-B	*N	CM105 : SH185-A or SH185-B	*N
CM006 : SH185-A or SH185-B	*P	CM106 : SH185-A or SH185-B	*P
CM007 : SH185-A or SH185-B	*Q	CM107 : SH185-A or SH185-B	*Q
CM010 : SH185-A or SH185-B	*R	CM110 : SH185-A or SH185-B	*R
CM011 : SH185-A or SH185-B	*S	CM111 : SH185-A or SH185-B	*S
CM012 : SH185-A or SH185-B	*T	CM112 : SH185-A or SH185-B	*T
CM013 : SH185-A or SH185-B	*U	CM113 : SH185-A or SH185-B	*U
CM014 : SH185-A or SH185-B	*V	CM114 : SH185-A or SH185-B	*V
CM015 : SH185-A or SH185-B	*W	CM115 : SH185-A or SH185-B	*W
CM016 : SH185-A or SH185-B	*X	CM116 : SH185-A or SH185-B	*X
CM017 : SH185-A or SH185-B	*Y	CM117 : SH185-A or SH185-B	*Y

Fig. 4.1.2.3-3 Inserting Location of the Cache Memory Module

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Table 4.1.2.3-3 Number of CMs and Corresponding Cache Memory Capacity (Standard Model Installation)

Cache Memory Capacity (MB)	SH185-A only		SH185-B only		SH185-A/SH185-B mixture		
	DKC-F410I -512	CM Location (Note 1)	DKC-F410I -1024	CM Location (Note 1)	DKC-F410I -512	DKC-F410I -1024	CM Location (Note 1)
512	1 set	*1	—	—	1 set	—	*1
1,024	2 sets	*2	1 set	*1	2 sets	—	*2
1,536	3 sets	*3	—	—	3 sets	—	*3
2,048	4 sets	*4	2 sets	*2	4 sets	—	*4
2,560	5 sets	*5	—	—	5 sets	—	*5
3,072	6 sets	*6	3 sets	*3	6 sets	—	*6
3,584	7 sets	*7	—	—	7 sets	—	*7
4,096	8 sets	*8	4 sets	*4	8 sets	—	*8
5,120	10 sets	*9,*A	5 sets	*5	10 sets	—	*9,*A
6,144	12 sets	*B,*C	6 sets	*6	12 sets	—	*B,*C
7,168	14 sets	*D,*E	7 sets	*7	14 sets	—	*D,*E
8,192	16 sets	*F,*G	8 sets	*8	16 sets	—	*F,*G
9,216	18 sets	*H,*J	9 sets	*9	16 sets	1 set	*H
10GB	20 sets	*K,*L	10 sets	*A	16 sets	2 sets	*J
11GB	22 sets	*M,*N	11 sets	*B	16 sets	3 sets	*K
12GB	24 sets	*P,*Q	12 sets	*C	16 sets	4 sets	*L
13GB	26 sets	*R,*S	13 sets	*D	16 sets	5 sets	*M
14GB	28 sets	*T,*U	14 sets	*E	16 sets	6 sets	*N
15GB	30 sets	*V,*W	15 sets	*F	16 sets	7 sets	*P
16GB	32 sets	*X,*Y	16 sets	*G	16 sets	8 sets	*Q
17GB	—	—	17 sets	*H	16 sets	9 sets	*R
18GB	—	—	18 sets	*J	16 sets	10 sets	*S
19GB	—	—	19 sets	*K	16 sets	11 sets	*T
20GB	—	—	20 sets	*L	16 sets	12 sets	*U
21GB	—	—	21 sets	*M	16 sets	13 sets	*V
22GB	—	—	22 sets	*N	16 sets	14 sets	*W
23GB	—	—	23 sets	*P	16 sets	15 sets	*X
24GB	—	—	24 sets	*Q	16 sets	16 sets	*Y
25GB	—	—	25 sets	*R	—	—	—
26GB	—	—	26 sets	*S	—	—	—
27GB	—	—	27 sets	*T	—	—	—
28GB	—	—	28 sets	*U	—	—	—
29GB	—	—	29 sets	*V	—	—	—
30GB	—	—	30 sets	*W	—	—	—
31GB	—	—	31 sets	*X	—	—	—
32GB	—	—	32 sets	*Y	—	—	—

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.4.1.2.3-3.

Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

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Table 4.1.2.3-4 Number of CMs and Corresponding Cache Memory Capacity (High Performance Model Installation)

Cache Memory Capacity (MB)	DKC-F410I -20/21 (Add.PCB)	DKC-F410I-512			DKC-F410I-1024			DKC-F410I-512/1024mixture		
		Install PCB		CM Location (Note 1)	Install PCB		CM Location (Note 1)	Install PCB		CM Location (Note 1)
		Basic PCB	Add. PCB		Basic PCB	Add. PCB		Basic PCB	Add. PCB	
512	0	—	—	—	—	—	—			
1,024	1	1	1	*1,*H	—	—	—			
1,536	1	—	—	—	—	—	—			
2,048	1	2	2	*2,*J	1	1	*1,*H			
2,560	1	—	—	—	—	—	—			
3,072	1	3	3	*3,*K	—	—	—			
3,584	1	—	—	—	—	—	—			
4,096	1	4	4	*4,*L	2	2	*2,*J			
5,120	1	5	5	*5,*M	—	—	—			
6,144	1	6	6	*6,*N	3	3	*3,*K			
7,168	1	7	7	*7,*P	—	—	—			
8,192	1	8	8	*8,*Q	4	4	*4,*L			
9,216	1	9	9	*9,*R	—	—	—			
10GB	1	10	10	*A,*S	5	5	*5,*M			
11GB	1	11	11	*B,*T	—	—	—			
12GB	1	12	12	*C,*U	6	6	*6,*N			
13GB	1	13	13	*D,*V	—	—	—			
14GB	1	14	14	*E,*W	7	7	*7,*P			
15GB	1	15	15	*F,*X	—	—	—			
16GB	1	16	16	*G,*Y	8	8	*8,*Q			
17GB	1	—	—	—	—	—	—			
18GB	1	—	—	—	9	9	*9,*R			
19GB	1	—	—	—	—	—	—			
20GB	1	—	—	—	10	10	*A,*S			
21GB	1	—	—	—	—	—	—			
22GB	1	—	—	—	11	11	*B,*T			
23GB	1	—	—	—	—	—	—			
24GB	1	—	—	—	12	12	*C,*U			
25GB	1	—	—	—	—	—	—			
26GB	1	—	—	—	13	13	*D,*V			
27GB	1	—	—	—	—	—	—			
28GB	1	—	—	—	14	14	*E,*W			
29GB	1	—	—	—	—	—	—			
30GB	1	—	—	—	15	15	*F,*X			
31GB	1	—	—	—	—	—	—			
32GB	1	—	—	—	16	16	*G,*Y			

- **Mixed installation with F512 and F1024 in the same PCB is not allowed.**
- **When different type of memory option installed between at Basic PCB and Add. PCB, each memory size of PCB is recommended with same capacity.**

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.4.1.2.3-3.
Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

c. When the Additional Shared Memory Module (DKC-F410I-S256) is removed, remove the Shared Memory Modules. Refer to Section 4.1.1.3 De-Installation Procedure of Additional Shared Memory Step 2-2 Remove the Shared Memory Modules (INST04-40).
When the Additional Shared Memory Module (DKC-F410I-S256) is not removed, go to step 2-3.

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2-3. Insert the PCBs.

a. When the Additional Cache Board (DKC-F410I-20) or Cache Throughput Expansion Kit (DKC-F410I-21) is removed, attach the dummy plate and fasten the two screws. Refer to Fig. 4.1.2.3-4.
When the Additional Cache Board (DKC-F410I-20) or Cache Throughput Expansion Kit (DKC-F410I-21) is not removed, go to step b.

b. Install the Cache Memory PCB referring to Table 4.1.2.3-5.

c. Fasten the two screws.

Table 4.1.2.3-5 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP440-A	Front Logic Box	T	CACHE-1T	Cache Memory PCB (Note 1)
	WP440-B	Front Logic Box	U	CACHE-1U	Cache Memory PCB (Note 2)

Note 1: Insert the PCB when it is removed in step 2-1.
Note 2: Insert the PCB when DKC-F410I-20 or DKC-F410I-21 is installed.

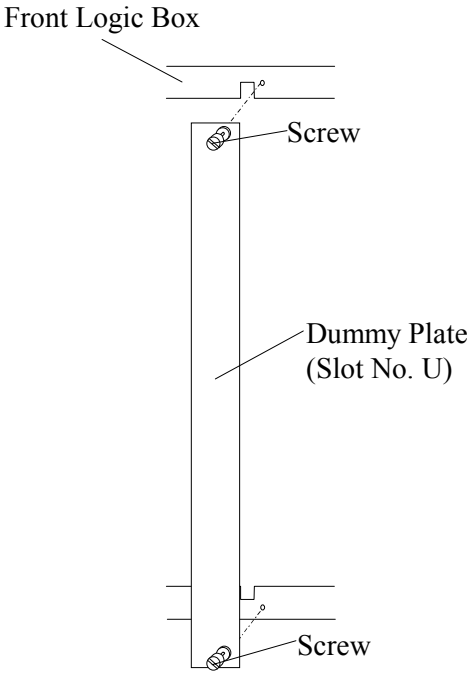


Fig. 4.1.2.3-4 Removal of the Dummy Plate

d. Go to INST02-400 step ③.

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3. Restore the Cache Memory on the cluster 1 and blockade the Cache Memory on the cluster 2 from SVP.
   a. Go to INST02-400 step ③.

4. Remove the Cache Memory and Shared Memory on the cluster 2.
   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 PCBs.
   a. While referring to Fig. 4.1.2.3-5 and Table 4.1.2.3-6 or 7, check the Shut Down LED on the Cache Memory PCB. Connect the Shut Down Jumper to the Shut Down Connector if the Shut Down LED is not on.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

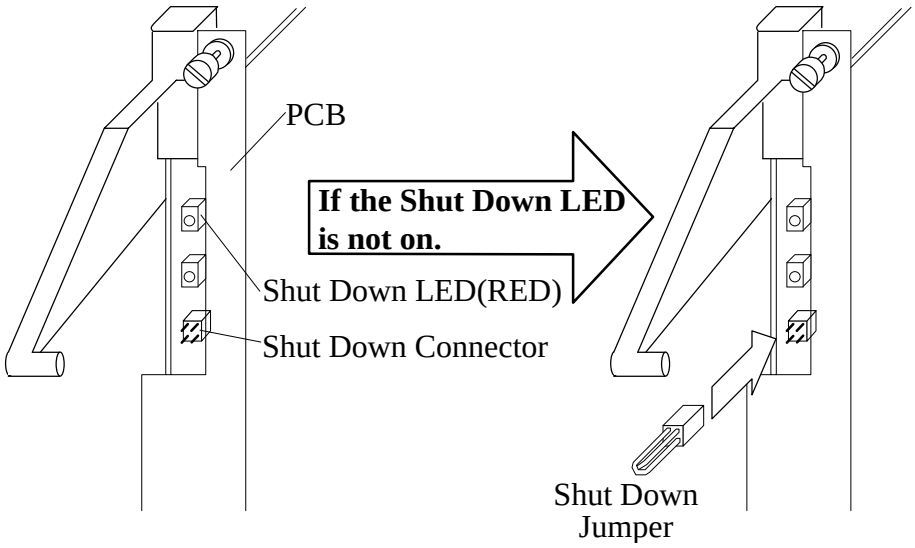


Fig. 4.1.2.3-5 Location of the Shut Down LED

Table 4.1.2.3-6 Location of the Cache Memory PCB (Standard Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB (Note 1)
	WP440-B	Rear Logic Box	F	CACHE-2F	Cache Memory PCB (Note 2)

Note 1: No PCB needs to be removed if 16 or more DKC-F410I-512 or DKC-F410I-1024 sets are left after de-installation, except when installing DKC-F410I-S256 sets.
Note 2: Remove the PCB only when it is installed.

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Table 4.1.2.3-7 Location of the Cache Memory PCB
(High Performande Model Installation)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB (Note 3)
	WP440-B	Rear Logic Box	F	CACHE-2F	Cache Memory PCB (Note 3)

Note 3: When a mix of the DKC-F410I-512(s) and the DKC-F410I-1024(s) is to be installed, there is a case where the PCB removal is not necessary.

b. Remove the two screws and remove the Cache Memory PCB. Refer to Fig.4.1.2.3-6 and Table 4.1.2.3-6 or 7.

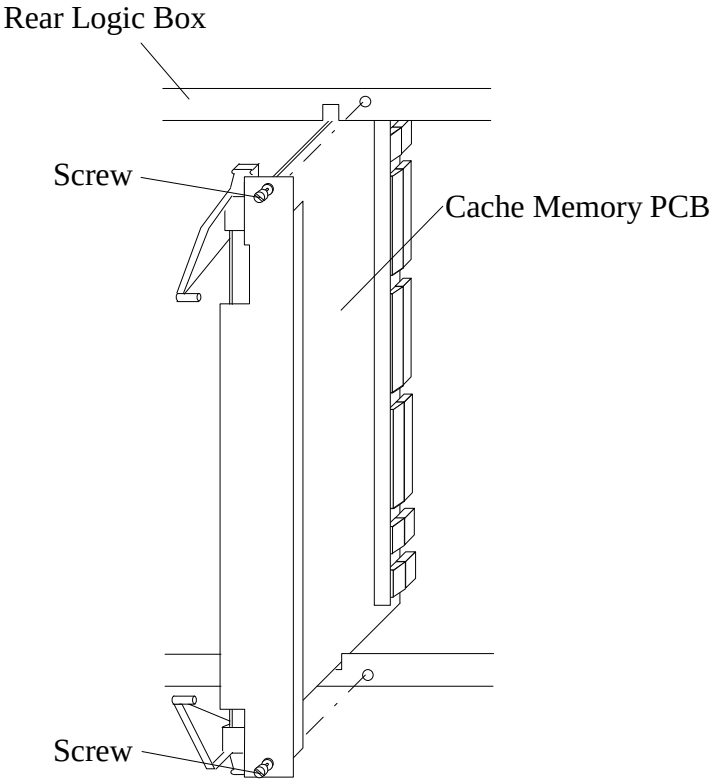


Fig. 4.1.2.3-6 Removal of the Cache Memory PCB

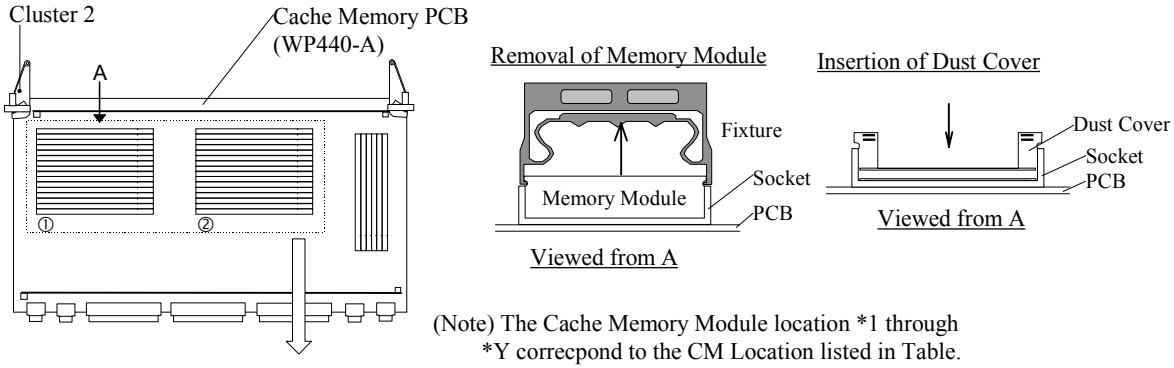
c. Remove the Shut Down Jumper if it is mounted.

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4-2. Remove the Cache Memory Modules.

a. Remove the Cache Memory Modules according to the required Cache Memory capacity referring to Fig. 4.1.2.3-7 and Table 4.1.2.3-8 or 9.

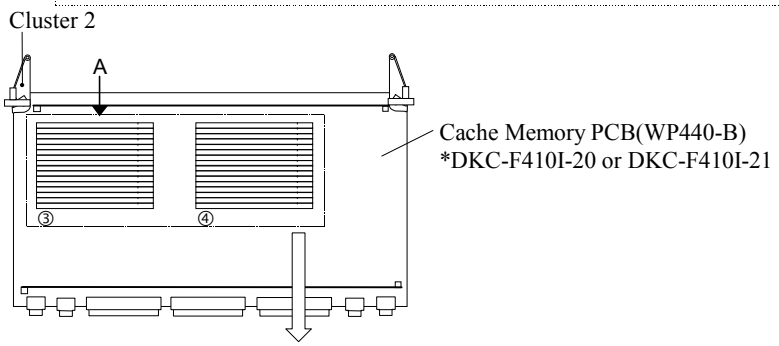
b. Insert the dust covers into the vacant sockets.



(Note) The Cache Memory Module location *1 through *Y correcpond to the CM Location listed in Table.

Cache Memory Module Location

①		②	
CM000 : SH185-A or SH185-B	*1	CM100 : SH185-A or SH185-B	*1
CM001 : SH185-A or SH185-B	*2	CM101 : SH185-A or SH185-B	*2
CM002 : SH185-A or SH185-B	*3	CM102 : SH185-A or SH185-B	*3
CM003 : SH185-A or SH185-B	*4	CM103 : SH185-A or SH185-B	*4
CM004 : SH185-A or SH185-B	*5	CM104 : SH185-A or SH185-B	*5
CM005 : SH185-A or SH185-B	*6	CM105 : SH185-A or SH185-B	*6
CM006 : SH185-A or SH185-B	*7	CM106 : SH185-A or SH185-B	*7
CM007 : SH185-A or SH185-B	*8	CM107 : SH185-A or SH185-B	*8
CM010 : SH185-A or SH185-B	*9	CM110 : SH185-A or SH185-B	*9
CM011 : SH185-A or SH185-B	*A	CM111 : SH185-A or SH185-B	*A
CM012 : SH185-A or SH185-B	*B	CM112 : SH185-A or SH185-B	*B
CM013 : SH185-A or SH185-B	*C	CM113 : SH185-A or SH185-B	*C
CM014 : SH185-A or SH185-B	*D	CM114 : SH185-A or SH185-B	*D
CM015 : SH185-A or SH185-B	*E	CM115 : SH185-A or SH185-B	*E
CM016 : SH185-A or SH185-B	*F	CM116 : SH185-A or SH185-B	*F
CM017 : SH185-A or SH185-B	*G	CM117 : SH185-A or SH185-B	*G



Cache Memory Module Location

③		④	
CM000 : SH185-A or SH185-B	*H	CM100 : SH185-A or SH185-B	*H
CM001 : SH185-A or SH185-B	*J	CM101 : SH185-A or SH185-B	*J
CM002 : SH185-A or SH185-B	*K	CM102 : SH185-A or SH185-B	*K
CM003 : SH185-A or SH185-B	*L	CM103 : SH185-A or SH185-B	*L
CM004 : SH185-A or SH185-B	*M	CM104 : SH185-A or SH185-B	*M
CM005 : SH185-A or SH185-B	*N	CM105 : SH185-A or SH185-B	*N
		CM106 : SH185-A or SH185-B	*P
CM007 : SH185-A or SH185-B	*Q	CM107 : SH185-A or SH185-B	*Q
CM010 : SH185-A or SH185-B	*R	CM110 : SH185-A or SH185-B	*R
CM011 : SH185-A or SH185-B	*S	CM111 : SH185-A or SH185-B	*S
CM012 : SH185-A or SH185-B	*T	CM112 : SH185-A or SH185-B	*T
CM013 : SH185-A or SH185-B	*U	CM113 : SH185-A or SH185-B	*U
CM014 : SH185-A or SH185-B	*V	CM114 : SH185-A or SH185-B	*V
CM015 : SH185-A or SH185-B	*W	CM115 : SH185-A or SH185-B	*W
CM016 : SH185-A or SH185-B	*X	CM116 : SH185-A or SH185-B	*X
CM017 : SH185-A or SH185-B	*Y	CM117 : SH185-A or SH185-B	*Y

Fig. 4.1.2.3-7 Inserting Location of the Cache Memory Module

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Table 4.1.2.3-8 Number of CMs and Corresponding Cache Memory Capacity (Standard Model Installation)

Cache Memory Capacity (MB)	SH185-A only		SH185-B only		SH185-A/SH185-B mixture		
	DKC-F410I -512	CM Location (Note 1)	DKC-F410I -1024	CM Location (Note 1)	DKC-F410I -512	DKC-F410I -1024	CM Location (Note 1)
512	1 set	*1	—	—	1 set	—	*1
1,024	2 sets	*2	1 set	*1	2 sets	—	*2
1,536	3 sets	*3	—	—	3 sets	—	*3
2,048	4 sets	*4	2 sets	*2	4 sets	—	*4
2,560	5 sets	*5	—	—	5 sets	—	*5
3,072	6 sets	*6	3 sets	*3	6 sets	—	*6
3,584	7 sets	*7	—	—	7 sets	—	*7
4,096	8 sets	*8	4 sets	*4	8 sets	—	*8
5,120	10 sets	*9,*A	5 sets	*5	10 sets	—	*9,*A
6,144	12 sets	*B,*C	6 sets	*6	12 sets	—	*B,*C
7,168	14 sets	*D,*E	7 sets	*7	14 sets	—	*D,*E
8,192	16 sets	*F,*G	8 sets	*8	16 sets	—	*F,*G
9,216	18 sets	*H,*J	9 sets	*9	16 sets	1 set	*H
10GB	20 sets	*K,*L	10 sets	*A	16 sets	2 sets	*J
11GB	22 sets	*M,*N	11 sets	*B	16 sets	3 sets	*K
12GB	24 sets	*P,*Q	12 sets	*C	16 sets	4 sets	*L
13GB	26 sets	*R,*S	13 sets	*D	16 sets	5 sets	*M
14GB	28 sets	*T,*U	14 sets	*E	16 sets	6 sets	*N
15GB	30 sets	*V,*W	15 sets	*F	16 sets	7 sets	*P
16GB	32 sets	*X,*Y	16 sets	*G	16 sets	8 sets	*Q
17GB	—	—	17 sets	*H	16 sets	9 sets	*R
18GB	—	—	18 sets	*J	16 sets	10 sets	*S
19GB	—	—	19 sets	*K	16 sets	11 sets	*T
20GB	—	—	20 sets	*L	16 sets	12 sets	*U
21GB	—	—	21 sets	*M	16 sets	13 sets	*V
22GB	—	—	22 sets	*N	16 sets	14 sets	*W
23GB	—	—	23 sets	*P	16 sets	15 sets	*X
24GB	—	—	24 sets	*Q	16 sets	16 sets	*Y
25GB	—	—	25 sets	*R	—	—	—
26GB	—	—	26 sets	*S	—	—	—
27GB	—	—	27 sets	*T	—	—	—
28GB	—	—	28 sets	*U	—	—	—
29GB	—	—	29 sets	*V	—	—	—
30GB	—	—	30 sets	*W	—	—	—
31GB	—	—	31 sets	*X	—	—	—
32GB	—	—	32 sets	*Y	—	—	—

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.4.1.2.3-7.

Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

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Table 4.1.2.3-9 Number of CMs and Corresponding Cache Memory Capacity (High Performance Model Installation)

Cache Memory Capacity (MB)	DKC-F410I -20/21 (Add.PCB)	DKC-F410I-512			DKC-F410I-1024			DKC-F410I-512/1024mixture		
		Install PCB		CM	Install PCB		CM	Install PCB		CM
		Basic PCB	Add. PCB	Location (Note 1)	Basic PCB	Add. PCB	Location (Note 1)	Basic PCB	Add. PCB	Location (Note 1)
512	0	—	—	—	—	—	—			
1,024	1	1	1	*1,*H	—	—	—			
1,536	1	—	—	—	—	—	—			
2,048	1	2	2	*2,*J	1	1	*1,*H			
2,560	1	—	—	—	—	—	—			
3,072	1	3	3	*3,*K	—	—	—			
3,584	1	—	—	—	—	—	—			
4,096	1	4	4	*4,*L	2	2	*2,*J			
5,120	1	5	5	*5,*M	—	—	—			
6,144	1	6	6	*6,*N	3	3	*3,*K			
7,168	1	7	7	*7,*P	—	—	—			
8,192	1	8	8	*8,*Q	4	4	*4,*L			
9,216	1	9	9	*9,*R	—	—	—			
10GB	1	10	10	*A,*S	5	5	*5,*M			
11GB	1	11	11	*B,*T	—	—	—			
12GB	1	12	12	*C,*U	6	6	*6,*N			
13GB	1	13	13	*D,*V	—	—	—			
14GB	1	14	14	*E,*W	7	7	*7,*P			
15GB	1	15	15	*F,*X	—	—	—			
16GB	1	16	16	*G,*Y	8	8	*8,*Q			
17GB	1	—	—	—	—	—	—			
18GB	1	—	—	—	9	9	*9,*R			
19GB	1	—	—	—	—	—	—			
20GB	1	—	—	—	10	10	*A,*S			
21GB	1	—	—	—	—	—	—			
22GB	1	—	—	—	11	11	*B,*T			
23GB	1	—	—	—	—	—	—			
24GB	1	—	—	—	12	12	*C,*U			
25GB	1	—	—	—	—	—	—			
26GB	1	—	—	—	13	13	*D,*V			
27GB	1	—	—	—	—	—	—			
28GB	1	—	—	—	14	14	*E,*W			
29GB	1	—	—	—	—	—	—			
30GB	1	—	—	—	15	15	*F,*X			
31GB	1	—	—	—	—	—	—			
32GB	1	—	—	—	16	16	*G,*Y			

- **Mixed installation with F512 and F1024 in the same PCB is not allowed.**
- **When different type of memory option installed between at Basic PCB and Add. PCB, each memory size of PCB is recommended with same capacity.**

Note 1: The above numbers represent the Cache Memory Module locations shown in Fig.4.1.2.3-7.
Note 2: DKC-F410I-512 (SH185-A) and DKC-F410I-1024 (SH185-B) mixed mounting in the same PCB is inhibited.

b. When the Additional Shared Memory Module (DKC-F410I-S256) is removed, remove the Shared Memory Modules. Refer to Section 4.1.1.3 De-Installation Procedure of Additional Shared Memory Step 4-2 Remove the Shared Memory Modules (INST04-80).
When the Additional Shared Memory Module (DKC-F410I-S256) is not removed, go to step 4-3.

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4-3. Insert the PCBs.

a. When the Additional Cache Board (DKC-F410I-20) or Cache Throughput Expansion Kit (DKC-F410I-21) is removed, attach the dummy plate and fasten the two screws. Refer to Fig. 4.1.2.3-8.
When the Additional Cache Board (DKC-F410I-20) or Cache Throughput Expansion Kit (DKC-F410I-21) is not removed, go to step b.

b. Install the Cache Memory PCB referring to Table 4.1.2.3-10.

c. Fasten the two screws.

Table 4.1.2.3-10 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
2	WP440-A	Rear Logic Box	G	CACHE-2G	Cache Memory PCB (Note 1)
	WP440-B	Rear Logic Box	F	CACHE-2F	Cache Memory PCB (Note 2)

Note 1: Insert the PCB when it is removed in step 4-1.
Note 2: Insert the PCB when DKC-F410I-20 or DKC-F410I-21 is installed.

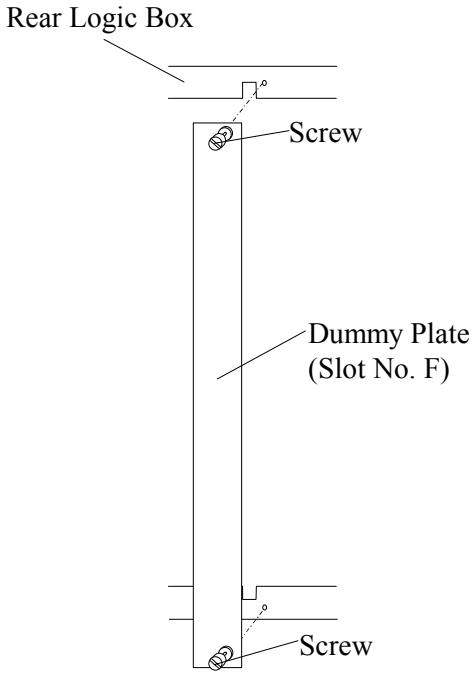


Fig. 4.1.2.3-8 Removal of the Dummy Plate

d. Go to INST02-400 step ⑤.

5. Restore the Cache Memory on the cluster 2 from SVP.
Go to INST02-400 step ⑤.

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6. When the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22) is removed, remove the Battery Boxes and BATCTR PCBs.
   When the Additional Cache Board (DKC-F410I-20) or Additional Cache Battery (DKC-F410I-22) is not removed, go to step 7.

⚠ CAUTION

You must remove the Connectors and Jumper in the Correct order.
Otherwise the cache PCB will be blocked.

a. Disconnect the Jumper Connectors (BTJP2) from BATCTR PCBs.
b. Disconnect the cables (BT-11, BT-13, BT-21 and BT-23).

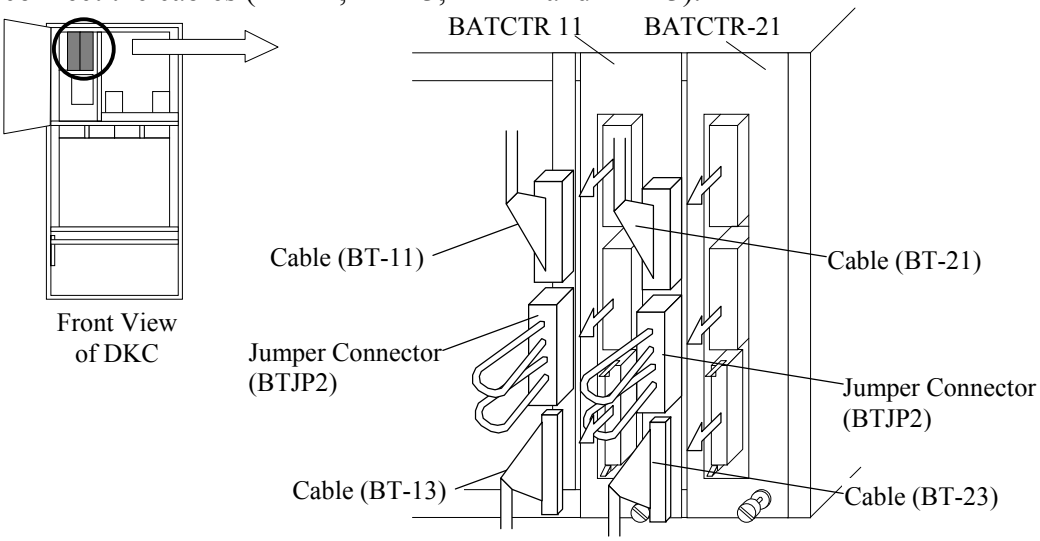


Fig. 4.1.2.3-9 Insertion of the BATCTR

c. Loosen the two screws and remove the BATCTR PCBs (BATCTR-11 and BATCTR-21).

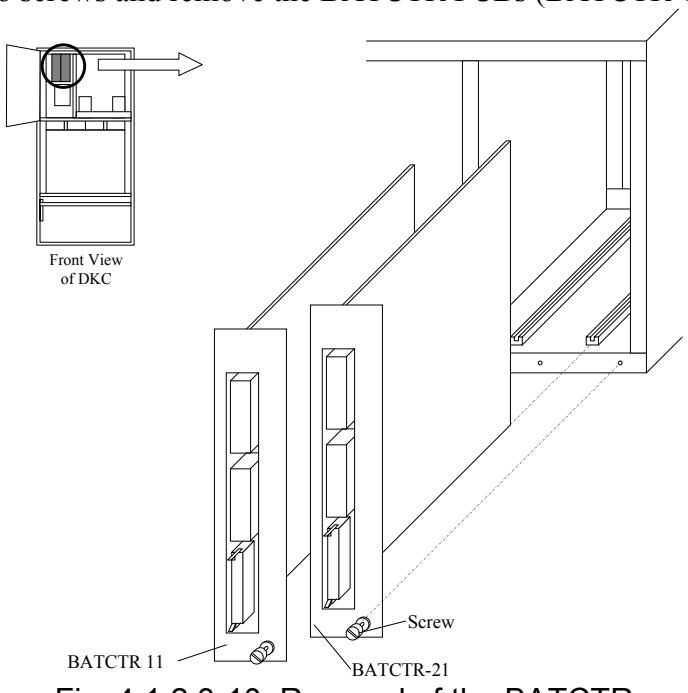


Fig. 4.1.2.3-10 Removal of the BATCTR

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d. Disconnect the cables from the Battery Boxes.

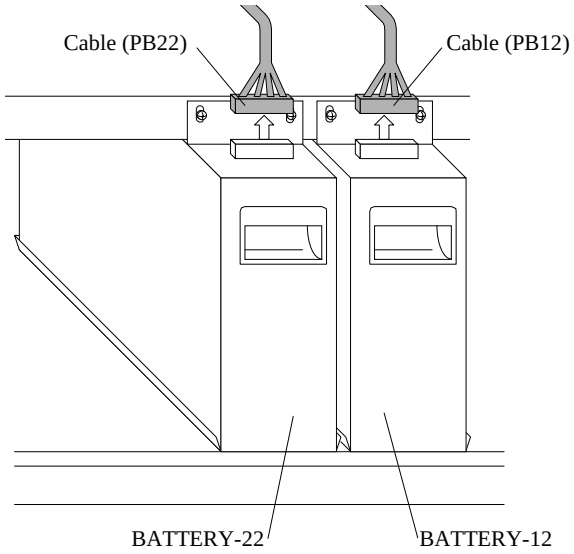


Fig. 4.1.2.3-11 Disconnect of Cables

e. Loosen the screws and remove the Battery Boxes (BATTERY-12 and BATTERY-22).

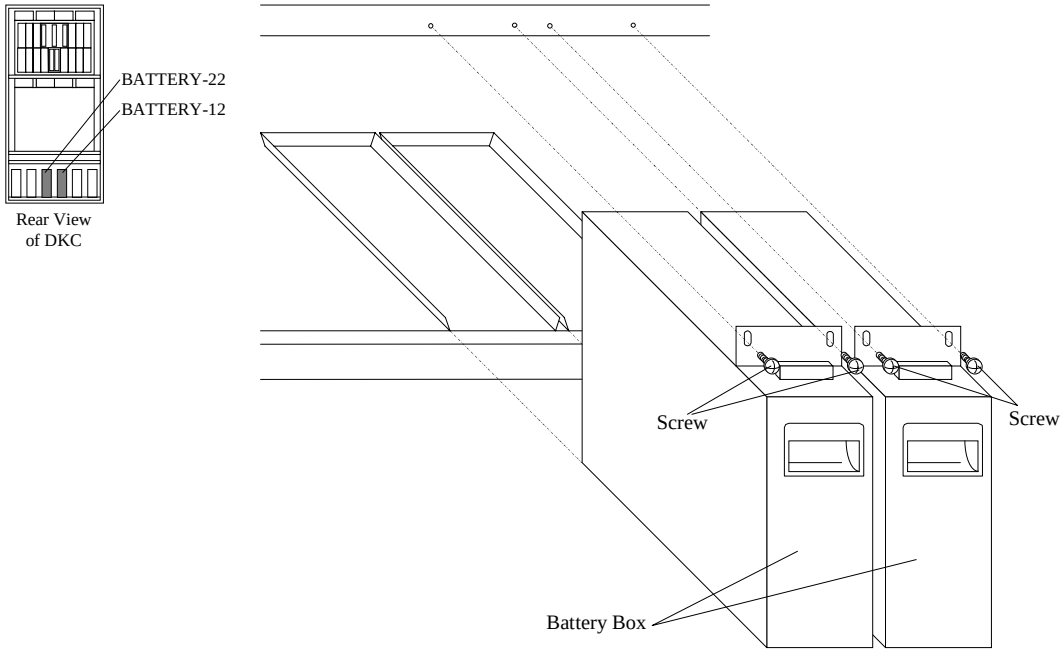


Fig. 4.1.2.3-12 Removal of Battery Boxes

f. Go to INST02-400 step ⑦.

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7. Change the nameplate.
   a. Refer to Fig. 4.1.2.3-13 and Table 4.1.2.3-11 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding nameplate can be seen.

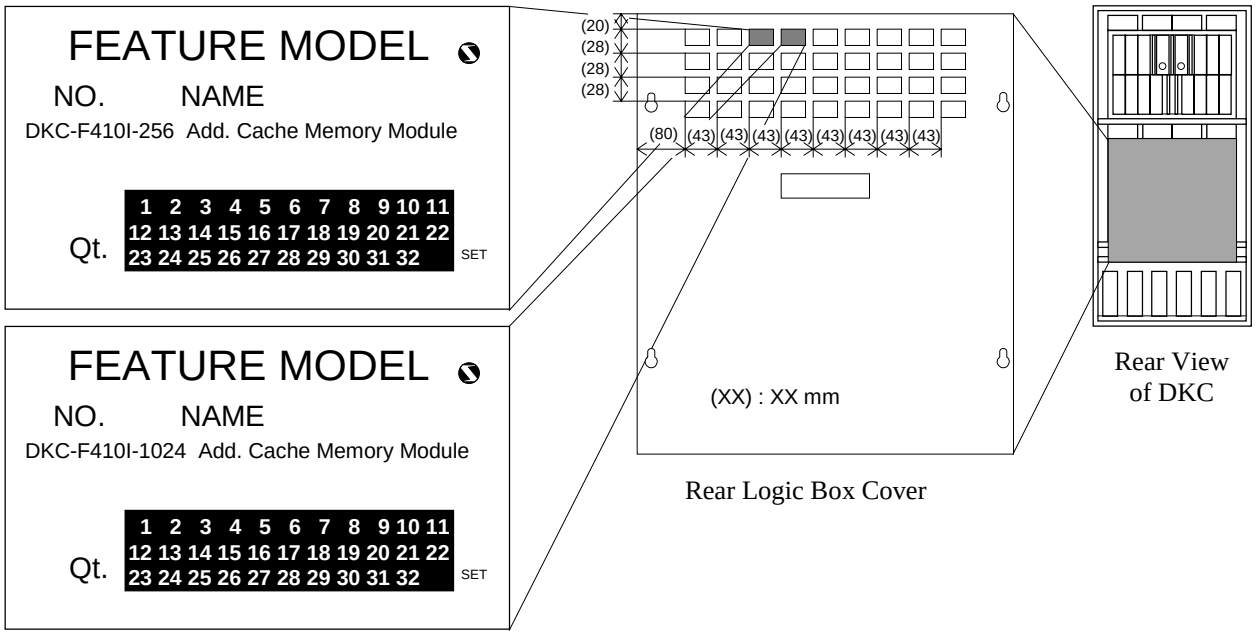


Fig. 4.1.2.3-13 Location of the Nameplate

Table 4.1.2.3-11 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F410I-512/1024 sets	Qt.
1	1 set	1
2	2 sets	2
3	3 sets	3
4	4 sets	4
5	5 sets	5
6	6 sets	6
7	7 sets	7

(To be continued)

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(Continued from the preceding page)

No.	Quantity Marking	
	Number of DKC-F410I-512/1024 sets	Qt.
8	8 sets	[redacted]
9	9 sets	[redacted]
10	10 sets	[redacted]
11	11 sets	[redacted]
12	12 sets	[redacted]
13	13 sets	[redacted]
14	14 sets	[redacted]
15	15 sets	[redacted]
16	16 sets	[redacted]
17	17 sets	[redacted]
18	18 sets	[redacted]
19	19 sets	[redacted]
20	20 sets	[redacted]
21	21 sets	[redacted]
22	22 sets	[redacted]
23	23 sets	[redacted]

(To be continued)

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(Continued from the preceding page)

No.	Quantity Marking	
	Number of DKC-F410I-512/1024 sets	Qt.
24	24 sets	[redacted] 24
25	25 sets	[redacted] 25
26	26 sets	[redacted] 26
27	27 sets	[redacted] 27
28	28 sets	[redacted] 28
29	29 sets	[redacted] 29
30	30 sets	[redacted] 30
31	31 sets	[redacted] 31

b. When the Additional Shared Memory Module (DKC-F410I-S256) is removed, change the nameplate of DKC-F410I-S256. Refer to Section 4.1.1.3 De-Installation Procedure of Additional Shared Memory Step 6 Change the nameplate (INST04-100).
When the Additional Shared Memory Module (DKC-F410I-S256) is not removed, go to step c.

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c. When the Additional Cache Board (DKC-F410I-20), Cache Throughput Expansion Kit (DKC-F410I-21) or Additional Cache Battery (DKC-F410I-22) is removed, detach the nameplate of DKC-F410I-20. Refer to Fig. 4.1.2.3-14.
When the Additional Cache Board (DKC-F410I-20), Cache Throughput Expansion Kit (DKC-F410I-21) or Additional Cache Battery (DKC-F410I-22) is not removed, go to step 8.

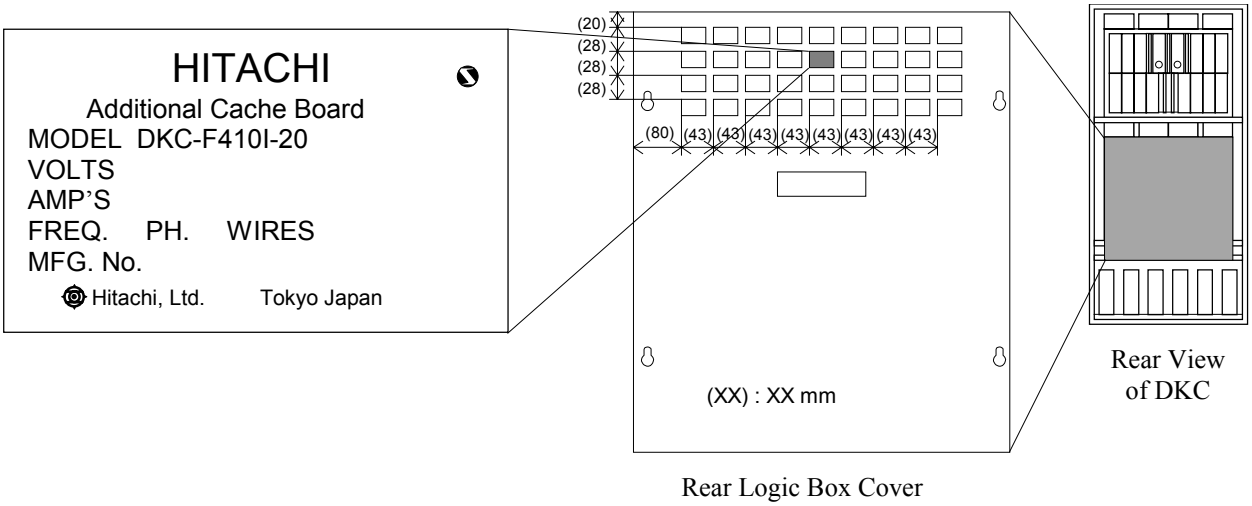


Fig. 4.1.2.3-14 Location of the Nameplate

8. Return to General Flow.
Go to INST02-410 step ⑧.

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4.2 De-installation of Disk Adapter (DKC-F410I-100)

4.2.1 Parts List

Table 4.2-1 Parts List for Disk Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-100	Disk Adapter PCB	5509136-A	2	
		Nameplate	3257216-2	1	

4.2.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).

↓

(2) Disconnect the DEV Interface cables.

↓

(3) Remove the PCBs.

↓

(4) Remove the nameplate.

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4.2.3 De-Installation Procedure of Disk Adapter

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.

1. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on. (Fig. 4.2-1) If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

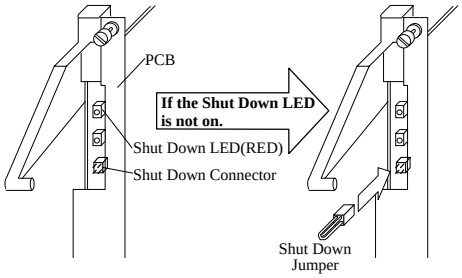


Fig. 4.2-1 Shut Down LED

2. Disconnection of the DEV Interface cables

Table 4.2-2 Removal Location (Rear of the unit)

Cluster	CL2							CL1				
Slot No.	M	L	K	J	H	G	F	E	D	C	B	A
Function	CSW	DKA	DKA	DKA	DKA	CACHE	CACHE	DKA	DKA	DKA	DKA	CSW
Location No.	CSW -2M	DKA -2L	DKA -2K	DKA -2J	DKA -2H	CACHE -2G	CACHE -2F	DKA -1E	DKA -1D	DKA -1C	DKA -1B	CSW -1A
Order of addition		Add.3	Add.2	Add.1	Basic			Add.3	Add.2	Add.1	Basic	

In case of Add.1

a. Disconnect the DEV Interface cables from the Sub-edge connectors on the PCB referring to Table 4.2-2 and Fig. 4.2-2.

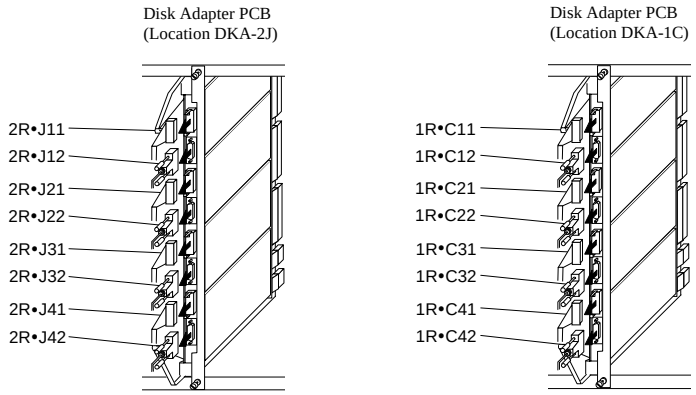


Fig. 4.2-2 Disconnection of DEV Interface Cables (Add.1)

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In case of Add.2

a. Disconnect the DEV Interface cables from the Sub-edge connectors on the PCB referring to Table 4.2-2 and Fig. 4.2-3.

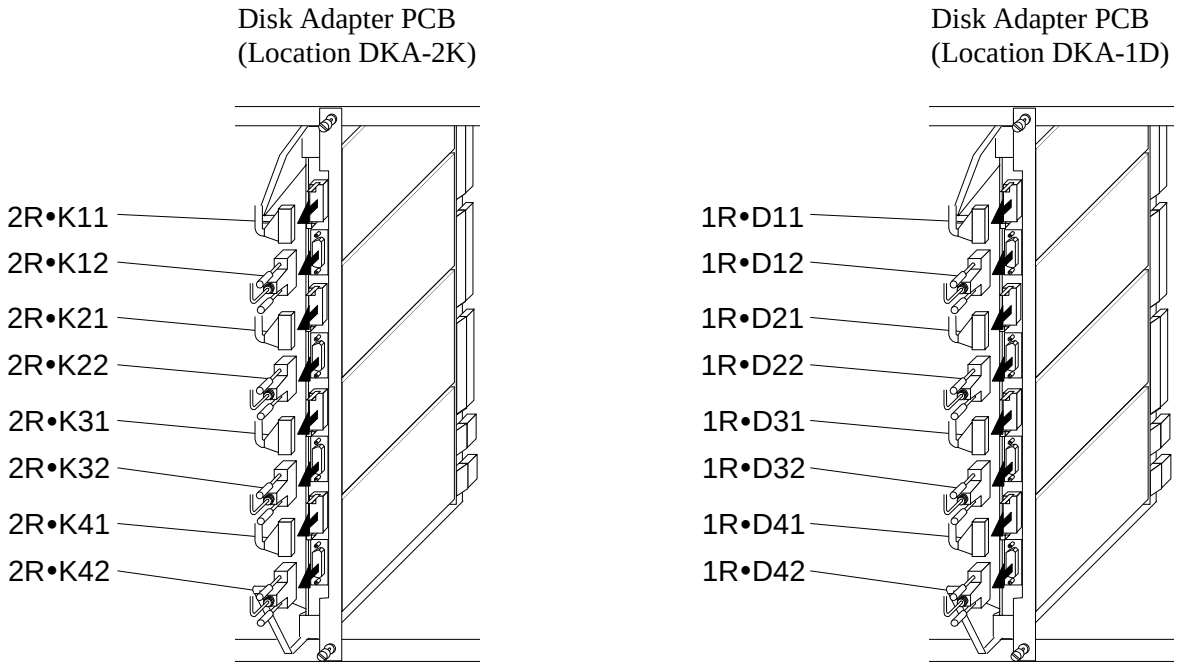


Fig. 4.2-3 Disconnection of DEV Interface Cables (Add.2)

In case of Add.3

a. Disconnect the DEV Interface cables from the Sub-edge connectors on the PCB referring to Table 4.2-2 and Fig. 4.2-4.

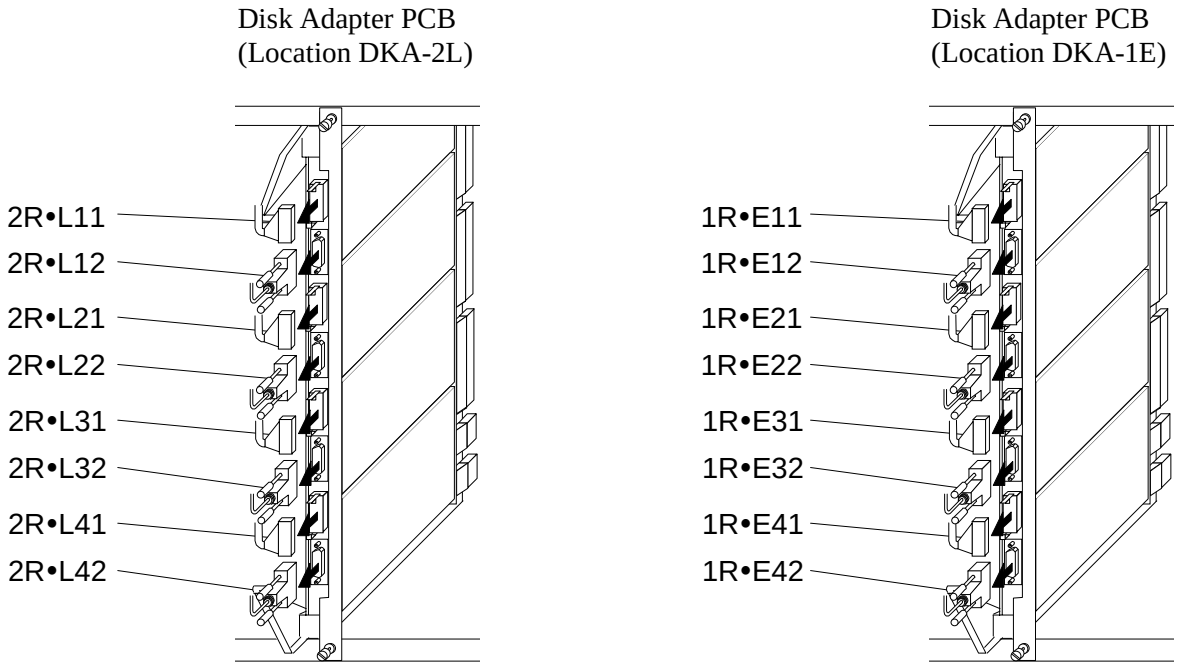


Fig. 4.2-4 Disconnection of DEV Interface Cables (Add.3)

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3. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Rear Logic Box referring to Fig. 4.2-5.
   b. Attach the dummy plates referring to Fig. 4.2-6.

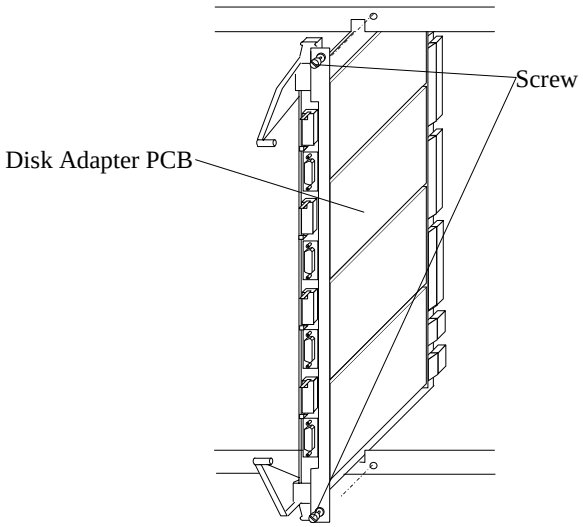


Fig. 4.2-5 Removal of PCB

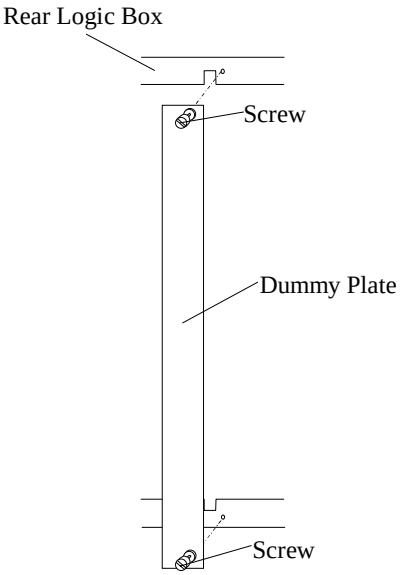


Fig. 4.2-6 Attachment of Dummy Plate

4. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.2-7.

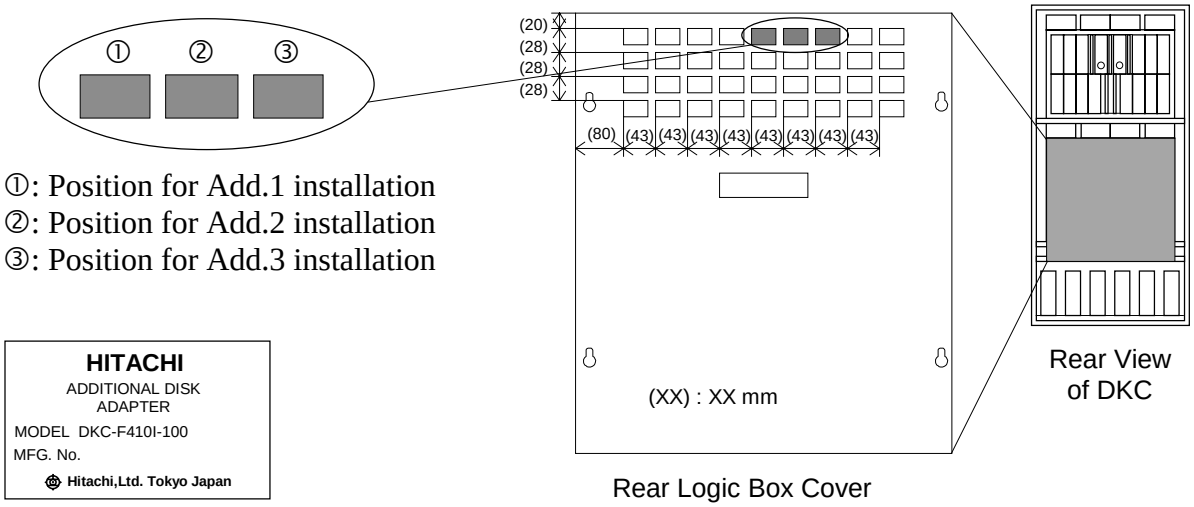


Fig. 4.2-7 Removal of Nameplate

5. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-150 Step (2)-5.
   Disruptive De-Installation : Go to INST02-280 Step (12).

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4.3 Disconnection of DEV Interface Cables

4.3.1 Disconnection of DEV Interface Cable 0 (DKC-F410I-R1C)

4.3.1.1 Flowchart

1. Disconnection Procedure of DEV Interface Cables between DKC and First DKU (HDU-R14-R17) Chassises

1 Disconnection of the DEV Interface Cables (Before removal of HDU Boxes (DKU-F405I-B4)) [INST04-350]

(1) Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover.

↓

(2) Disconnect the DEV interface cables from the sub-edges on the disk adapter PCBs.

↓

(3) Loosen the screws and remove the cable covers.

↓

(4) Loosen the screws and remove the side plates.

↓

(5) Disconnect the DEV interface cables from the sub-edges on the FSW PCBs.

↓

(6) Pull out the DEV interface cables to the DKC side.

↓

(7) Attach the side plates with the screws.

↓

(8) Attach the cable covers with the screws.

2 Removal of DEV Interface Cables (After removal of HDU Boxes (DKU-F405I-B4)) [INST04-390]

(1) Loosen the screws and open the cable covers.

↓

(2) Remove the eight DEV interface cables from the DKC.

↓

(3) Close the cable covers.

↓

(4) Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

↓

(5) Remove the nameplate.

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4.3.1.2 Parts List

Table 4.3.1.2-1 Parts List for DEV Interface Cable 0

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F410I-R1C	DEV Interface Cable	5509146-J	1	1R•C11/12 - 4R•P501/503
		DEV Interface Cable	5509146-K	1	1R•C21/22 - 5R•P501/503
		DEV Interface Cable	5509146-L	1	1R•C31/32 - 6R•P501/503
		DEV Interface Cable	5509146-M	1	1R•C41/42 - 7R•P501/503
		DEV Interface Cable	5509146-N	1	2R•J11/12 - 4L•P501/503
		DEV Interface Cable	5509146-P	1	2R•J21/22 - 5L•P501/503
		DEV Interface Cable	5509146-Q	1	2R•J31/32 - 6L•P501/503
		DEV Interface Cable	5509146-R	1	2R•J41/42 - 7L•P501/503
		Nameplate	3257216-34	1	

4.3.1.3 Disconnection Procedure of DEV Interface Cable 0 (In case of HDU-R17 from R14)

1. Disconnection of the DEV Interface Cables (Before removal of HDU Boxes (DKU-F405I-B4))
   a. Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover. Refer to INST03-20 through 03-30.
   b. Disconnect the DEV interface cables from the sub-edges on the disk adapter PCBs that are installed in locations Nos. C and J in the Rear Logic Box. Loosen the three screws and remove the cable cover. Remove the cables from the cable clamp. Attach the cable cover with the three screws.

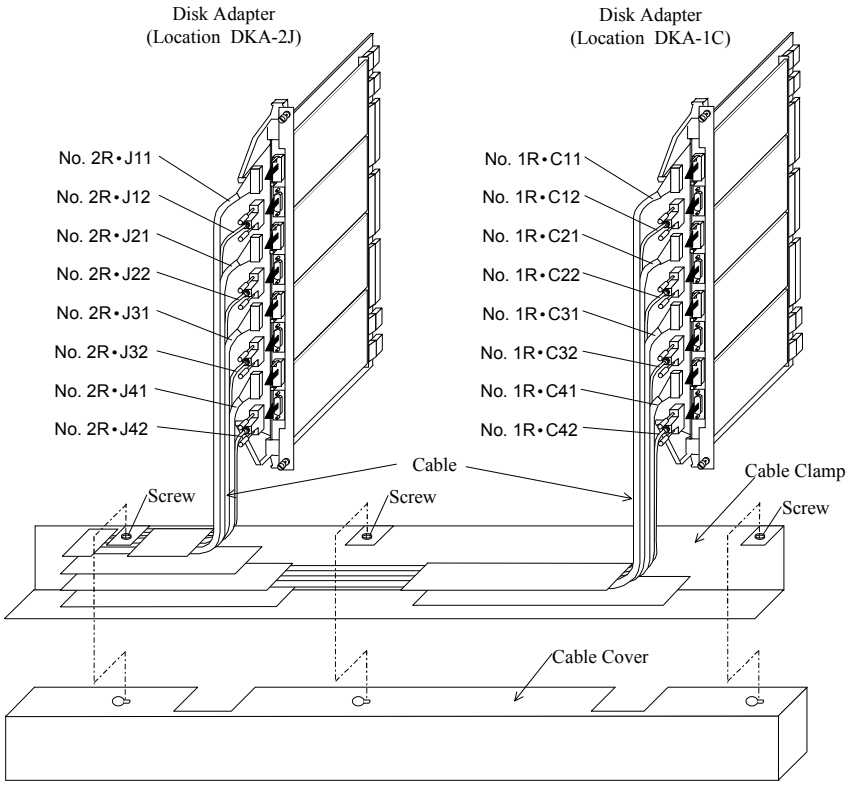


Fig. 4.3.1.3-1 DEV Interface Cable Disconnecting Diagram (Disk Adapter PCB Side)

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c. Loosen the screws and remove the cable covers ① and ②.

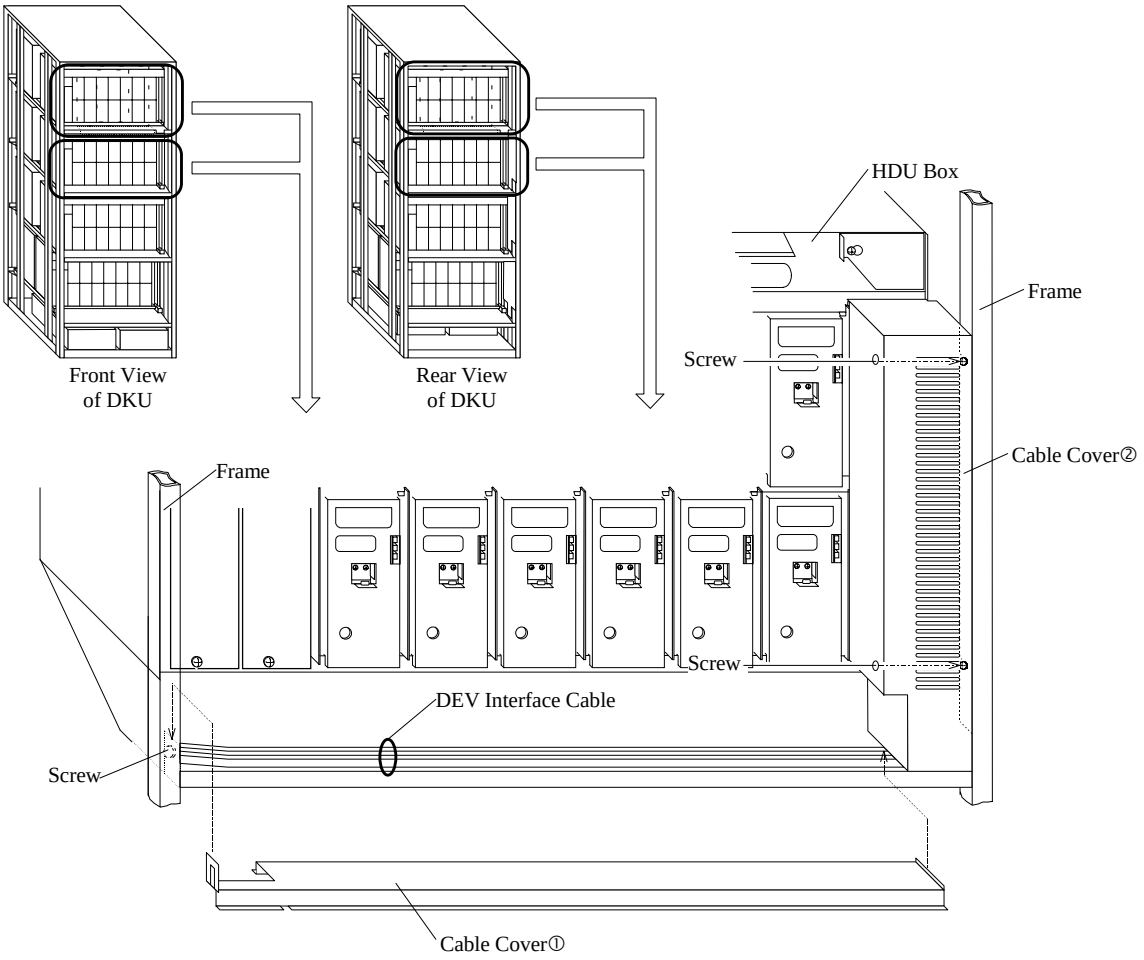


Fig. 4.3.1.3-2 Removal of Cable Covers

d. Loosen the screws and remove the side plates.

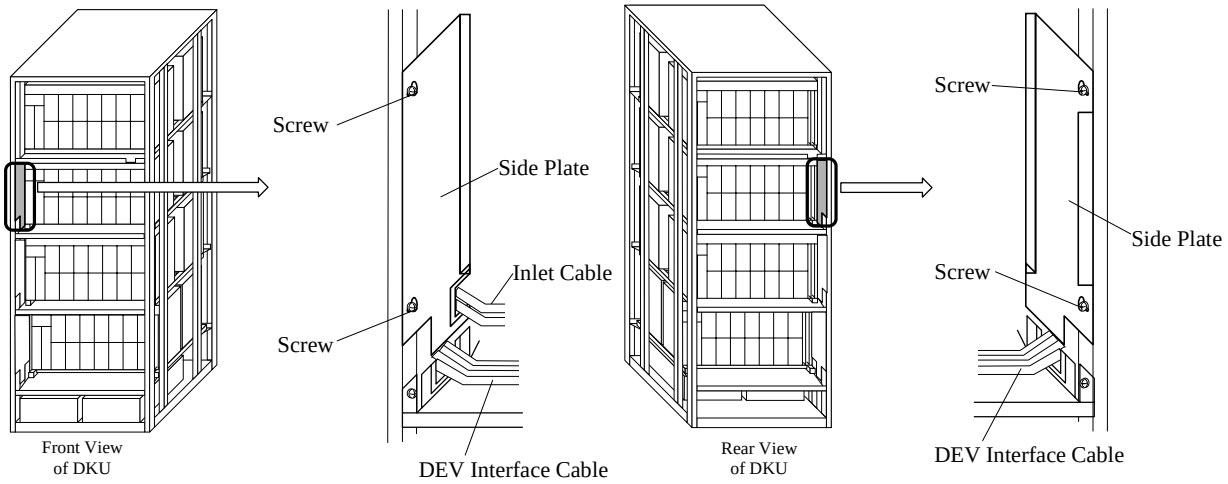


Fig. 4.3.1.3-3 Removal of Side Plates

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e. Disconnect the DEV interface cables from the sub-edges on the FSW PCBs located in the HDU Box.

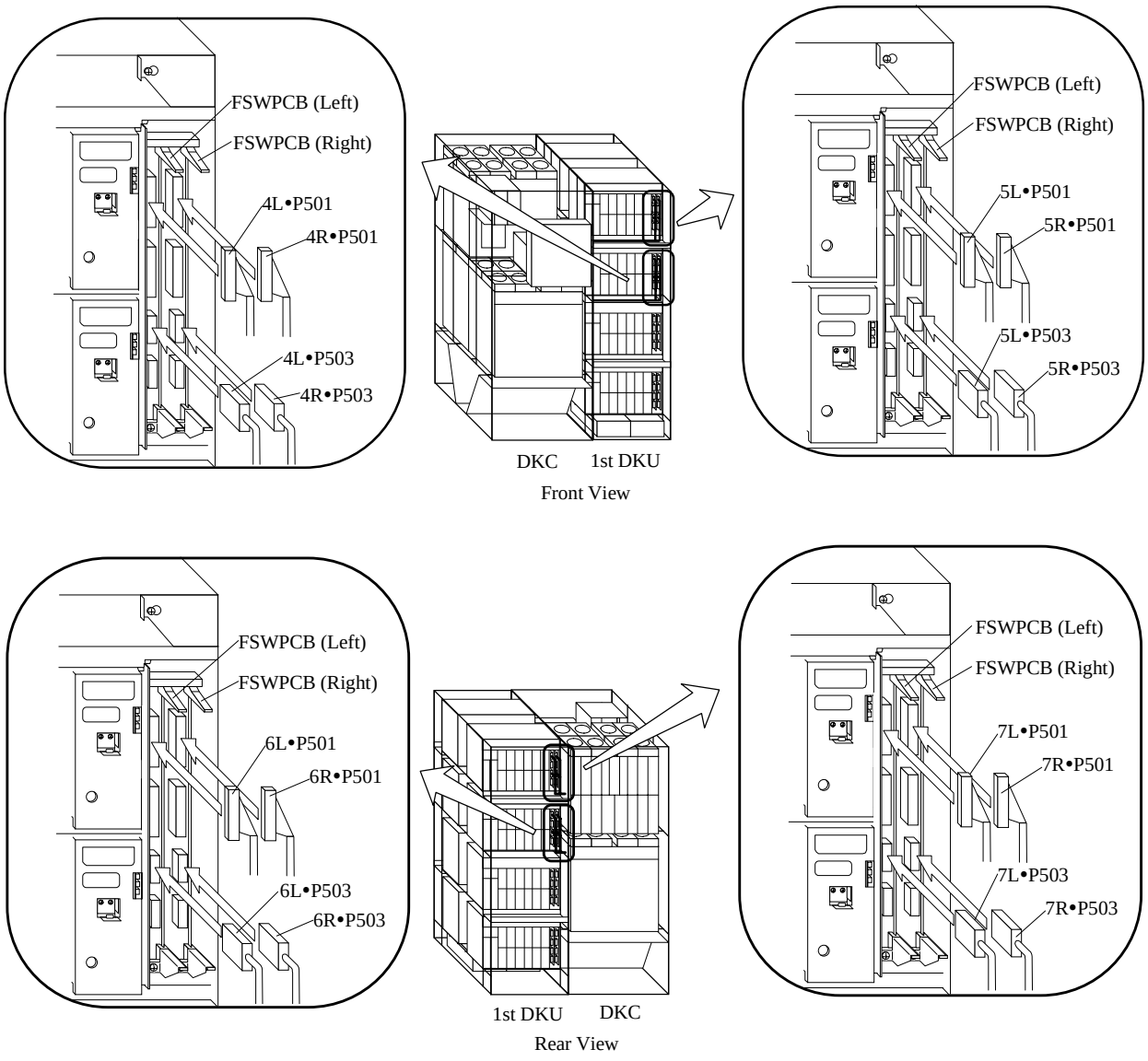


Fig. 4.3.1.3-4 DEV Interface Cable Disconnecting Diagram (FSW PCB Side)

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f. Pull out the DEV interface cables to the DKC side.

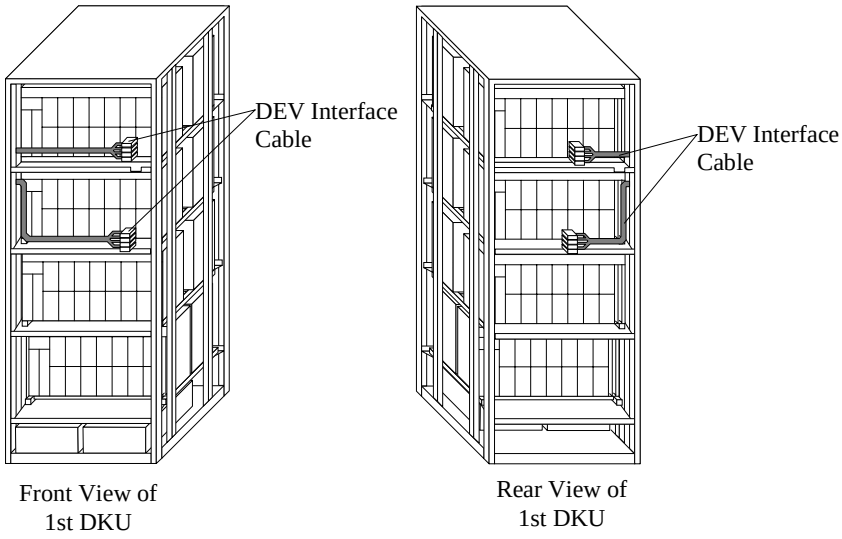


Fig. 4.3.1.3-5 Removal of DEV Interface Cables

g. Attach the side plates with the screws. Refer to Fig. 4.3.1.3-3.
h. Attach the cable covers ② with the screws. And then attach the cable covers ① with the screws. Refer to Fig. 4.3.1.3-2.
i. Return to General Flow
   Non-Disruptive De-Installation : Go to INST02-160 step (3)-6.
   Disruptive De-Installation : Go to INST02-270 step (9)-7.

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2. Removal of the DEV Interface Cables (After removal of HDU Boxes(DKU-F405I-B4))
   a. Remove the screws and open the cable covers.

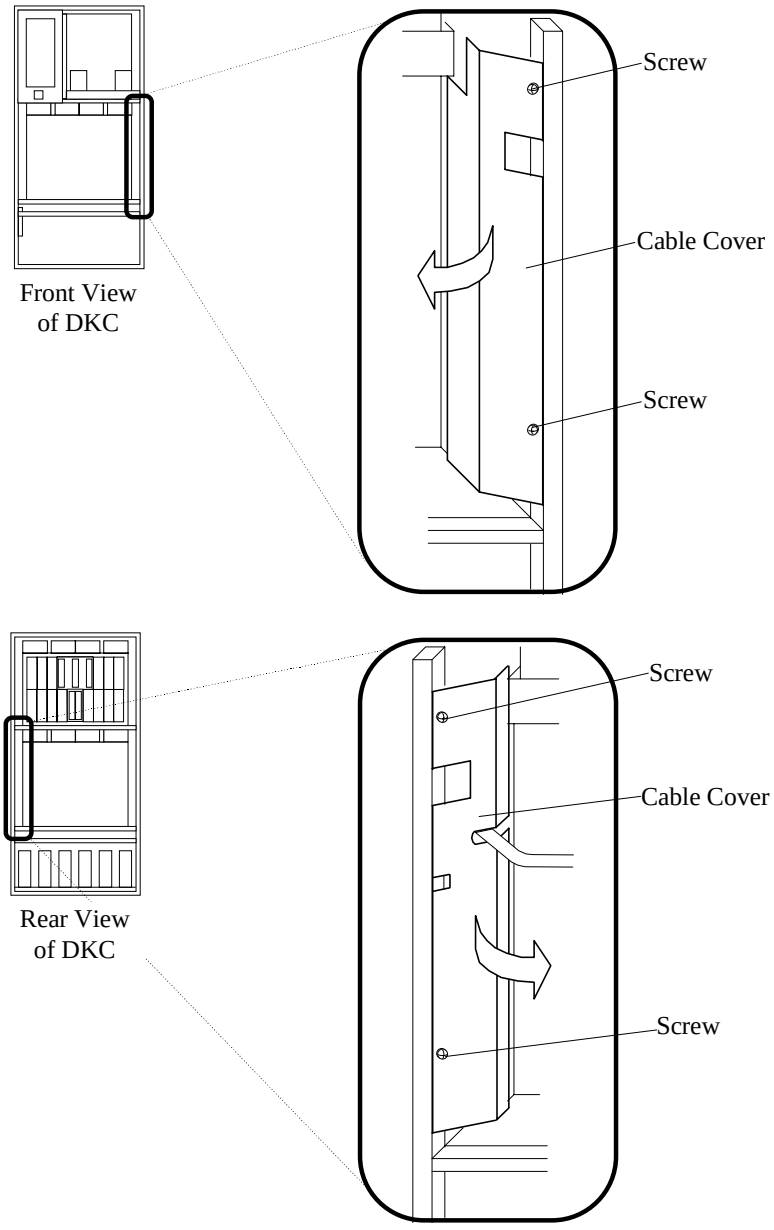


Fig. 4.3.1.3-6 How to open the Covers

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b. Refer to Fig. 4.3.1.3-7. Remove the eight DEV interface cables listed in Table 4.3.1.3-1 from the DKC.

Table 4.3.1.3-1 Parts List for DEV Interface Cables

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•C11	4R•P501	5509146-J
2	1R•C12	4R•P503	
3	1R•C21	5R•P501	5509146-K
4	1R•C22	5R•P503	
5	2R•J11	4L•P501	5509146-N
6	2R•J12	4L•P503	
7	2R•J21	5L•P501	5509146-P
8	2R•J22	5L•P503	

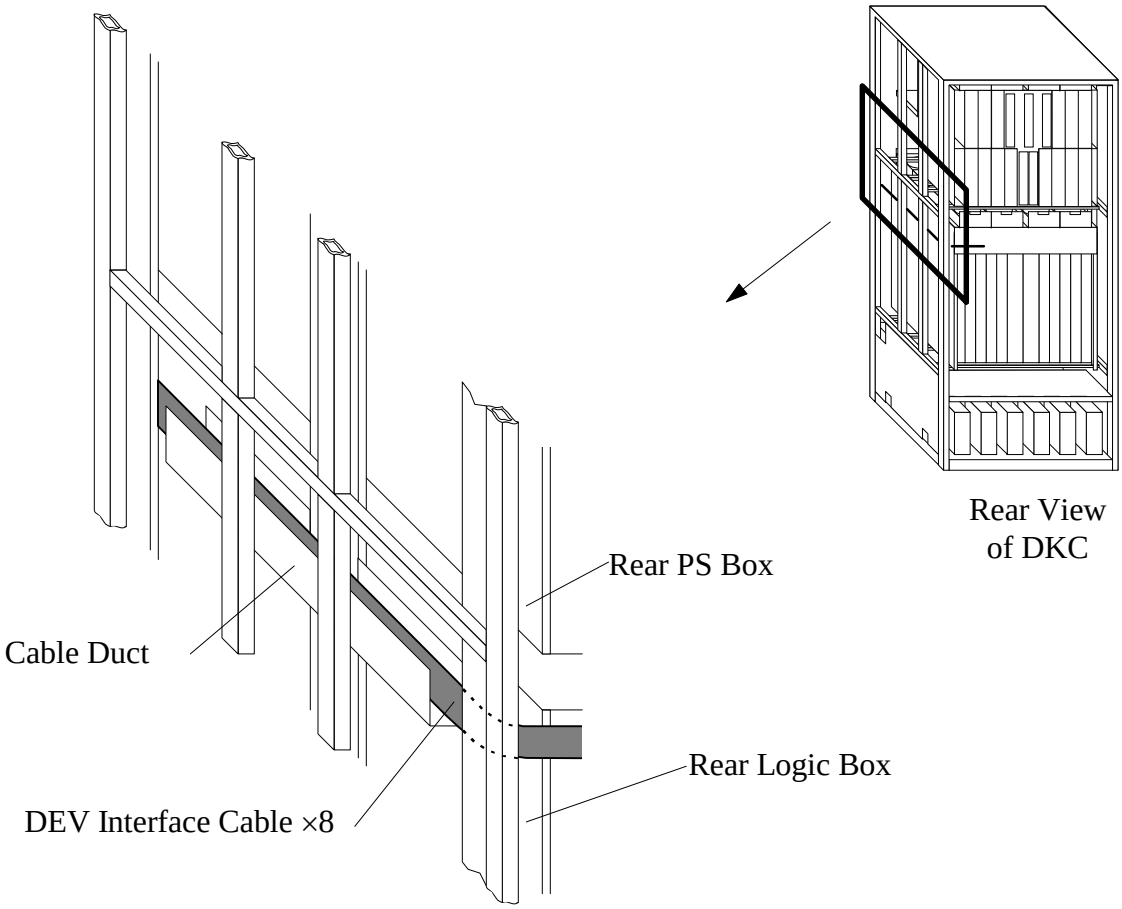


Fig. 4.3.1.3-7 Attachment of DEV Interface Cables

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c. Close the cable covers and fasten the screws.
d. Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.
e. Remove the nameplate.

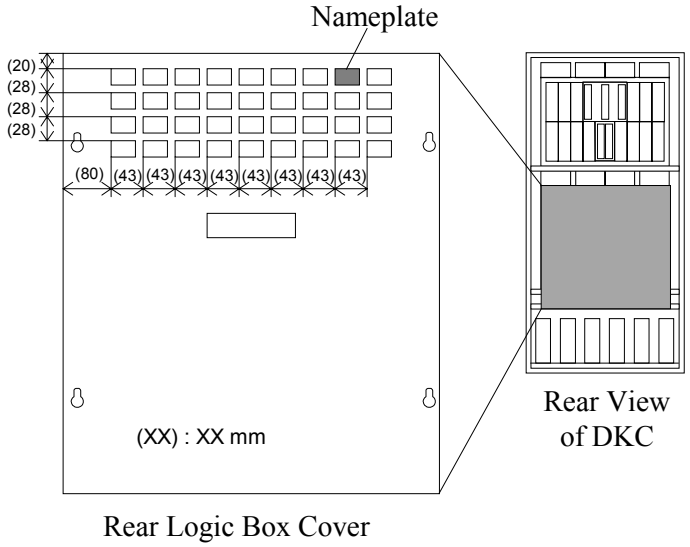


Fig. 4.3.1.3-8 Removal of Nameplate

f. Return to General Flow.
Non-Disruptive De-installation : Go to INST02-170 Step (4).
Disruptive De-installation : Go to INST02-280 Step (10).

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4.3.2 Disconnection of DEV Interface Cable 1 (DKC-F410I-L1C)

4.3.2.1 Flowchart

1. Disconnection Procedure of DEV Interface Cables between DKC and Third DKU (HDU-L10-L13) Chassises

1 Disconnection of the DEV Interface Cables (Before removal of Third DKU (DKU405I-14)) [INST04-450]

(1) Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover.

↓

(2) Disconnect the DEV interface cables from the sub-edges on the disk adapter PCBs.

↓

(3) Loosen the screws and remove the cable covers.

↓

(4) Loosen the screws and remove the side plates.

↓

(5) Disconnect the DEV interface cables from the sub-edges on the FSW PCBs.

↓

(6) Pull out the DEV interface cables to the DKC side.

↓

(7) Attach the side plates with the screws.

↓

(8) Attach the cable covers with the screws.

↓

(9) Remove the nameplate.

2 Removal of DEV Interface Cables (After removal of Third DKU (DKU405I-14)) [INST04-490]

(1) Loosen the screws and open the cable covers.

↓

(2) Remove the eight DEV interface cables from the DKC.

↓

(3) Close the cable covers and fasten the screws.

↓

(4) Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

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2. Disconnection Procedure of DEV Interface Cables between DKC and Third DKU (HDU-L14-L17) Chassises

1 Disconnection of the DEV Interface Cables (Before removal of HDU Boxes (DKU-F405I-B4)) [INST04-510]

(1) Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover.

↓

(2) Disconnect the DEV interface cables from the sub-edges on the disk adapter PCBs.

↓

(3) Loosen the screws and remove the cable covers.

↓

(4) Loosen the screws and remove the side plates.

↓

(5) Disconnect the DEV interface cables from the sub-edges on the FSW PCBs.

↓

(6) Pull out the DEV interface cables to the DKC side.

↓

(7) Attach the side plates with the screws.

↓

(8) Attach the cable covers with the screws.

2 Removal of DEV Interface Cables (After removal of HDU Boxes (DKU-F405I-B4)) [INST04-550]

(1) Loosen the screws and open the cable covers.

↓

(2) Remove the eight DEV interface cables from the DKC.

↓

(3) Close the cable covers and fasten the screws.

↓

(4) Secure the remaining 16 DEV interface cables inside the Third DKU with the binders.

↓

(5) Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

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4.3.2.2 Parts List

Table 4.3.2.2-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F410I-L1C	DEV Interface Cable	5509233-A	1	1R•D11/12 - 0R•P501/503
		DEV Interface Cable	5509233-B	1	1R•D21/22 - 1R•P501/503
		DEV Interface Cable	5509233-C	1	1R•D31/32 - 2R•P501/503
		DEV Interface Cable	5509233-D	1	1R•D41/42 - 3R•P501/503
		DEV Interface Cable	5509233-E	1	2R•K11/12 - 0L•P501/503
		DEV Interface Cable	5509233-F	1	2R•K21/22 - 1L•P501/503
		DEV Interface Cable	5509233-G	1	2R•K31/32 - 2L•P501/503
		DEV Interface Cable	5509233-H	1	2R•K41/42 - 3L•P501/503
		DEV Interface Cable	5509233-J	1	1R•E11/12 - 4R•P501/503
		DEV Interface Cable	5509233-K	1	1R•E21/22 - 5R•P501/503
		DEV Interface Cable	5509233-L	1	1R•E31/32 - 6R•P501/503
		DEV Interface Cable	5509233-M	1	1R•E41/42 - 7R•P501/503
		DEV Interface Cable	5509233-N	1	2R•L11/12 - 4L•P501/503
		DEV Interface Cable	5509233-P	1	2R•L21/22 - 5L•P501/503
		DEV Interface Cable	5509233-Q	1	2R•L31/32 - 6L•P501/503
		DEV Interface Cable	5509233-R	1	2R•L41/42 - 7L•P501/503
		Nameplate	3257216-35	1	

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4.3.2.3 Disconnection Procedure of DEV Interface Cable 1 (In case of HDU-L13 from L10)

1. Disconnection of the DEV Interface Cables (Before removal of Third DKU (DKU405I-14))
   a. Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover. Refer to INST03-20 through 03-30.
   b. Disconnect the DEV interface cables from the sub-edges on the disk adapter PCBs that are installed in locations Nos. D and K in the Rear Logic Box. Loosen the three screws and remove the cable cover. Remove the cables from the cable clamp. Attach the cable cover with the three screws.

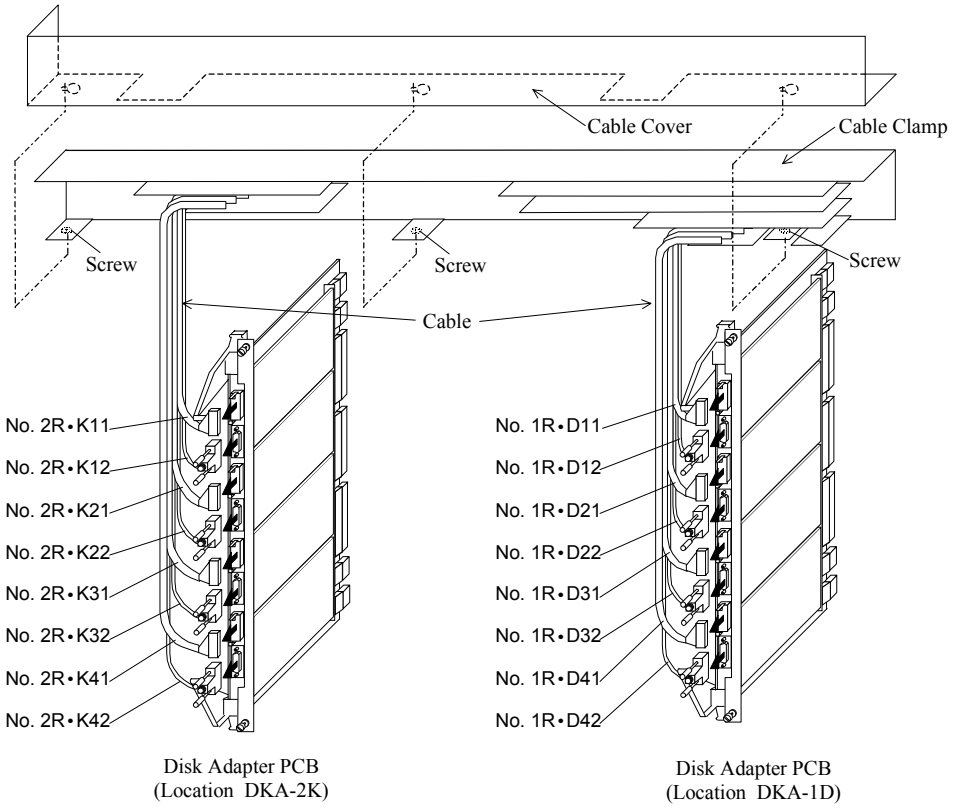


Fig. 4.3.2.3-1 DEV Interface Cable Disconnecting Diagram (Disk Adapter PCB Side)

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c. Loosen the screws and remove the cable covers ① and ②.

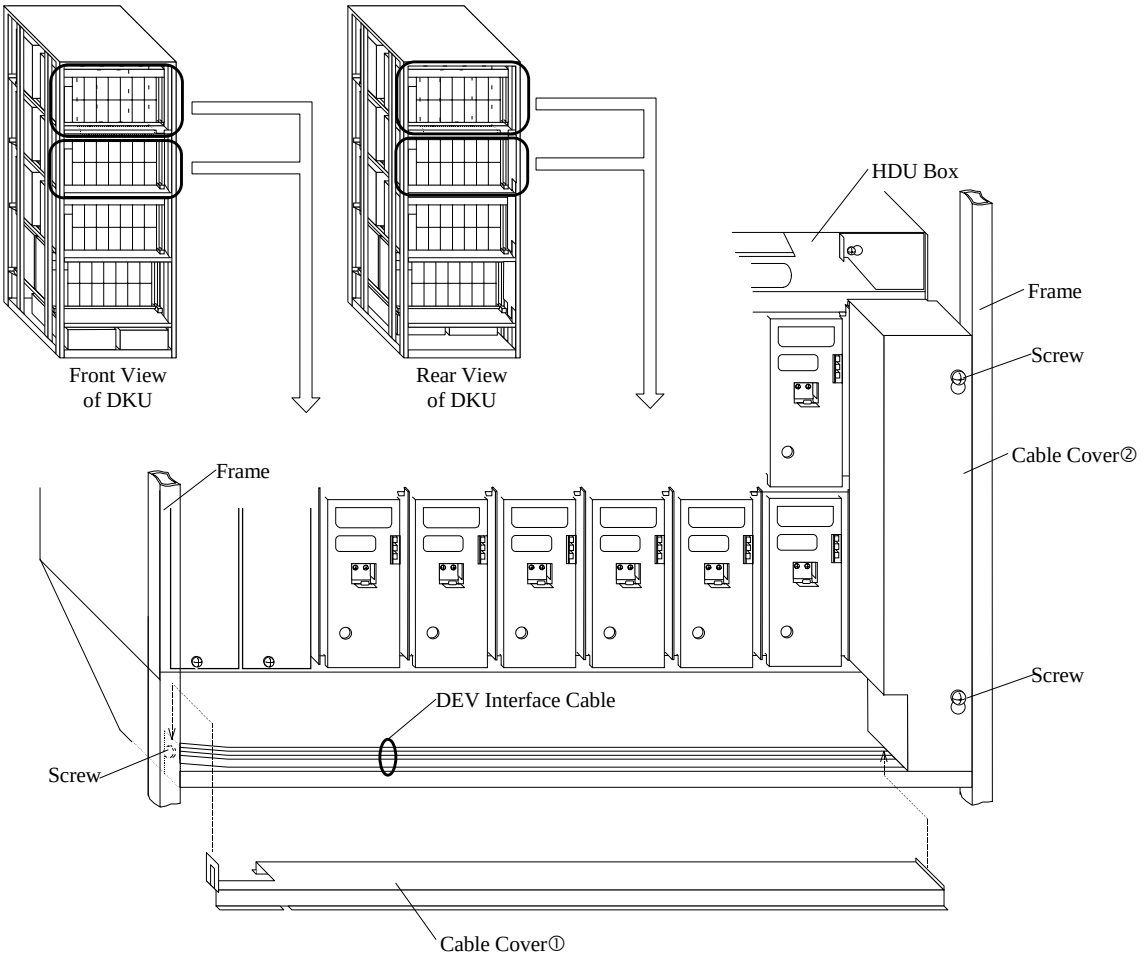


Fig. 4.3.2.3-2 Removal of Cable Covers

d. Loosen the screws and remove the side plates.

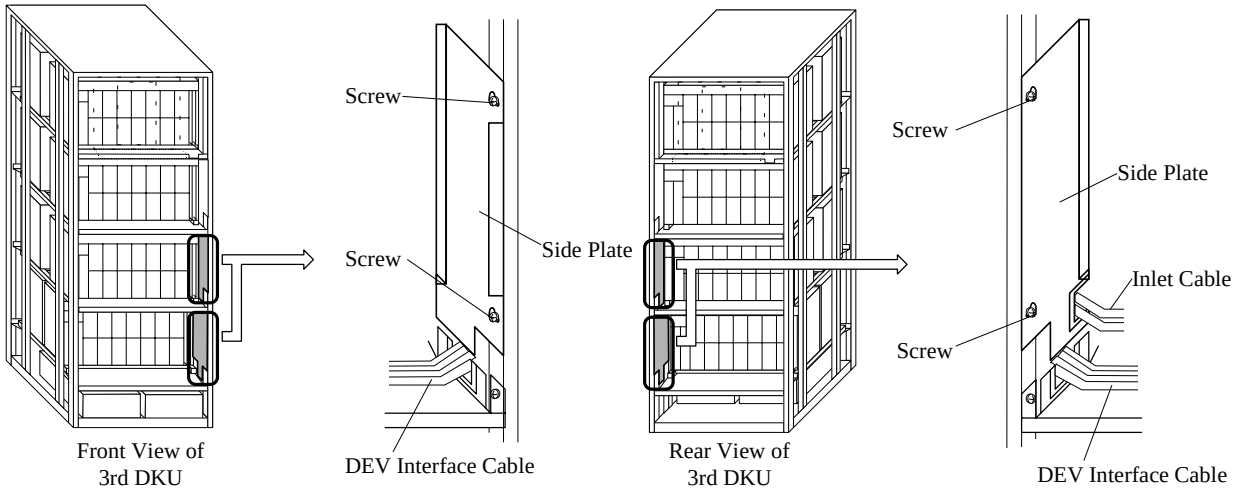


Fig. 4.3.2.3-3 Removal of Side Plates

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e. Refer to Fig. 4.3.2.3-4. Disconnect the DEV interface cables from the sub-edges on the FSW PCBs located in the HDU box.

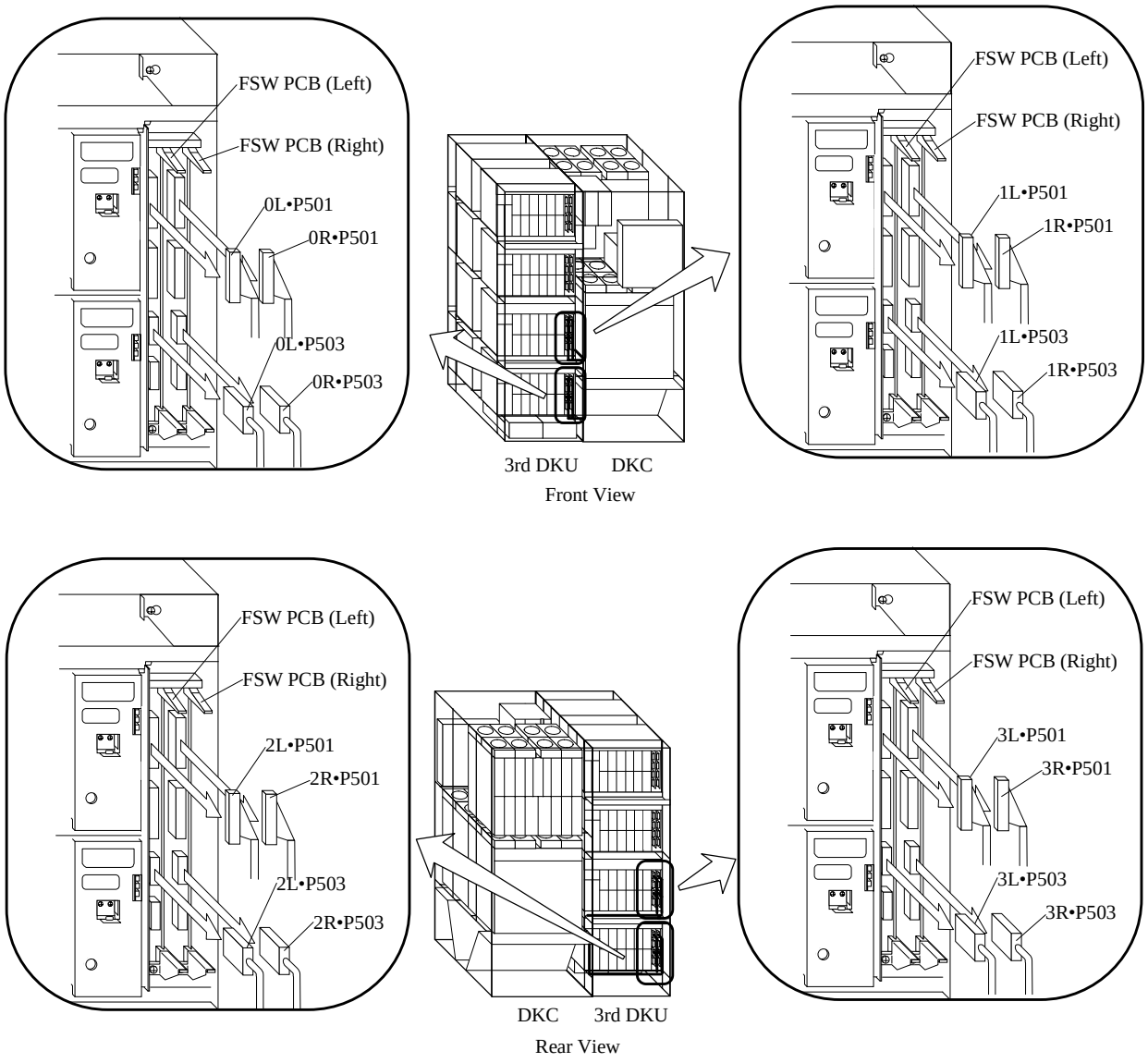


Fig. 4.3.2.3-4 DEV Interface Cable Disconnecting Diagram (FSW PCB Side)

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f. Pull out the DEV interface cables to the DKC side.

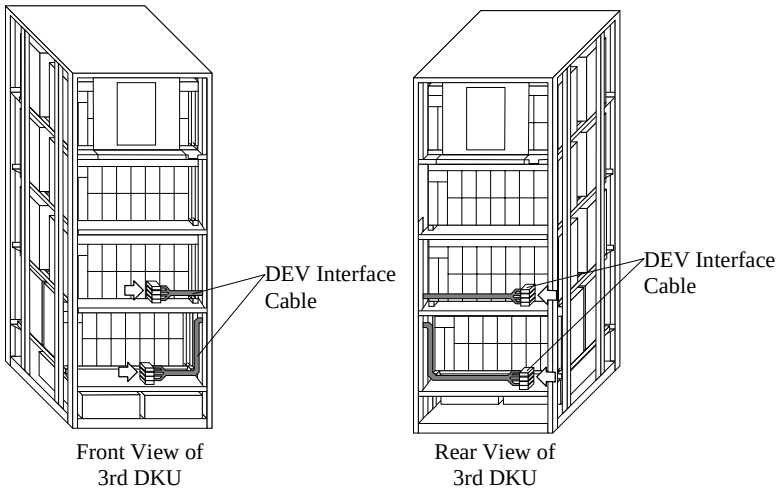


Fig. 4.3.2.3-5 Removal of DEV Interface Cables

g. Attach the side plates and fasten the screws.
h. Attach the cable covers ② with the screws. And then attach the cable covers ① with the screws. Refer to Fig. 4.3.2.3-2.
i. Refer to Fig. 4.3.2.3-6. De-install the nameplate.

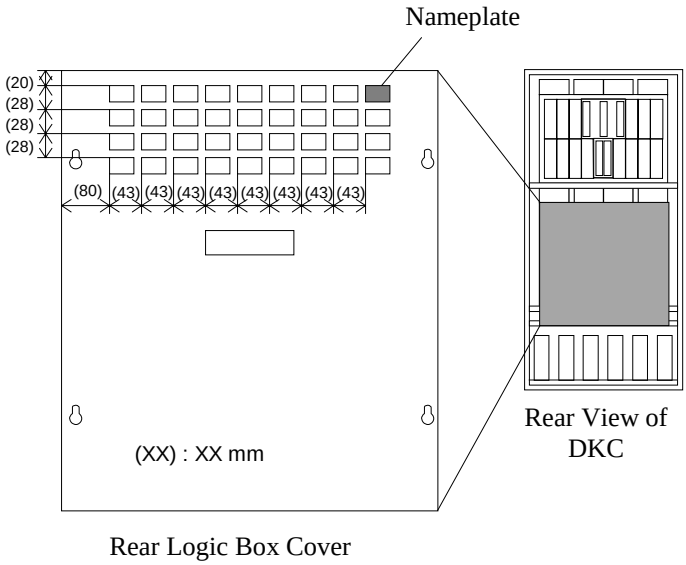


Fig. 4.3.2.3-6 De-installation of nameplate

j. Return to General Flow
Non-Disruptive De-Installation : Go to INST02-170 step (4)-3.
Disruptive De-Installation : Go to INST02-280 step (10)-5.

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2. Removal of the DEV Interface Cables (After removal of Third DKU (DKU405I-14))
   a. Remove the screws and open the cable covers.

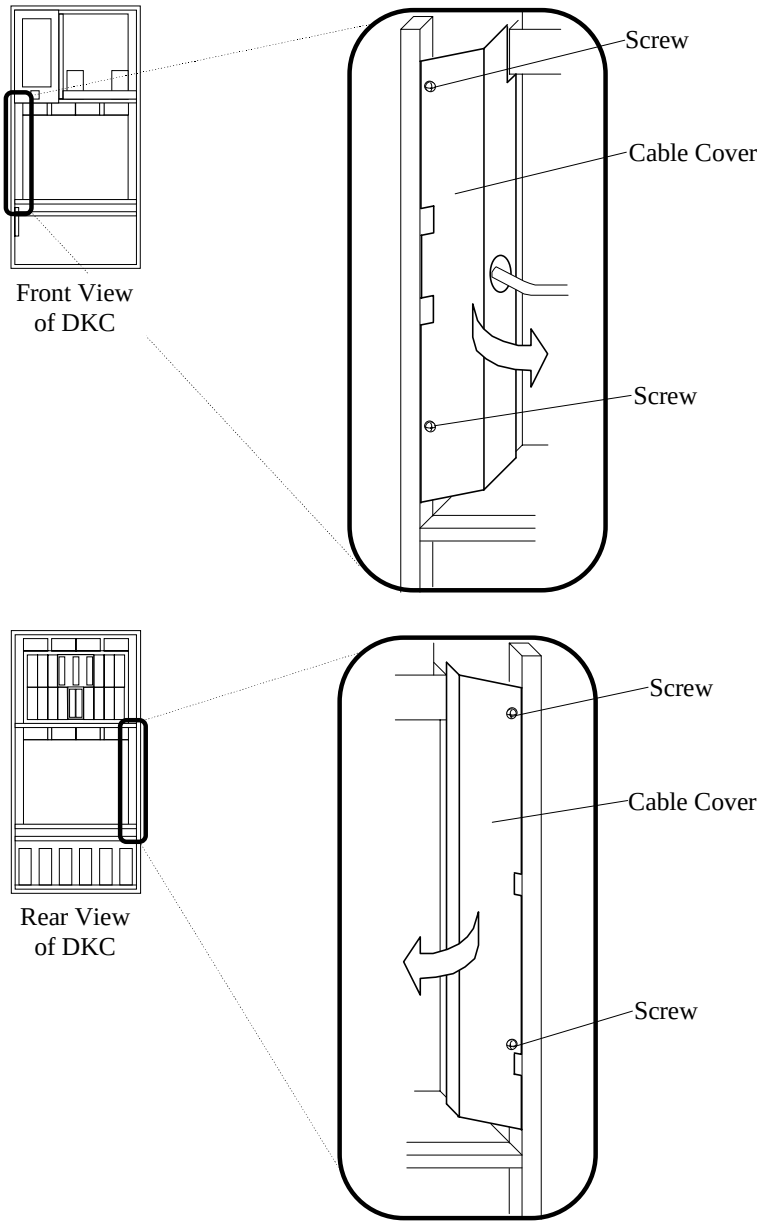


Fig. 4.3.2.3-7 How to open the Covers

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b. Refer to Fig. 4.3.2.3-8. Remove the eight DEV interface cables listed in Table 4.3.1.3-1 from the DKC.

Table 4.3.2.3-1 Parts List for Additional DEV Interface Cables

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•D11	0R•P501	5509233-A
2	1R•D12	0R•P503	
3	1R•D21	1R•P501	5509233-B
4	1R•D22	1R•P503	
5	2R•K11	0L•P501	5509233-E
6	2R•K12	0L•P503	
7	2R•K21	1L•P501	5509233-F
8	2R•K22	1L•P503	

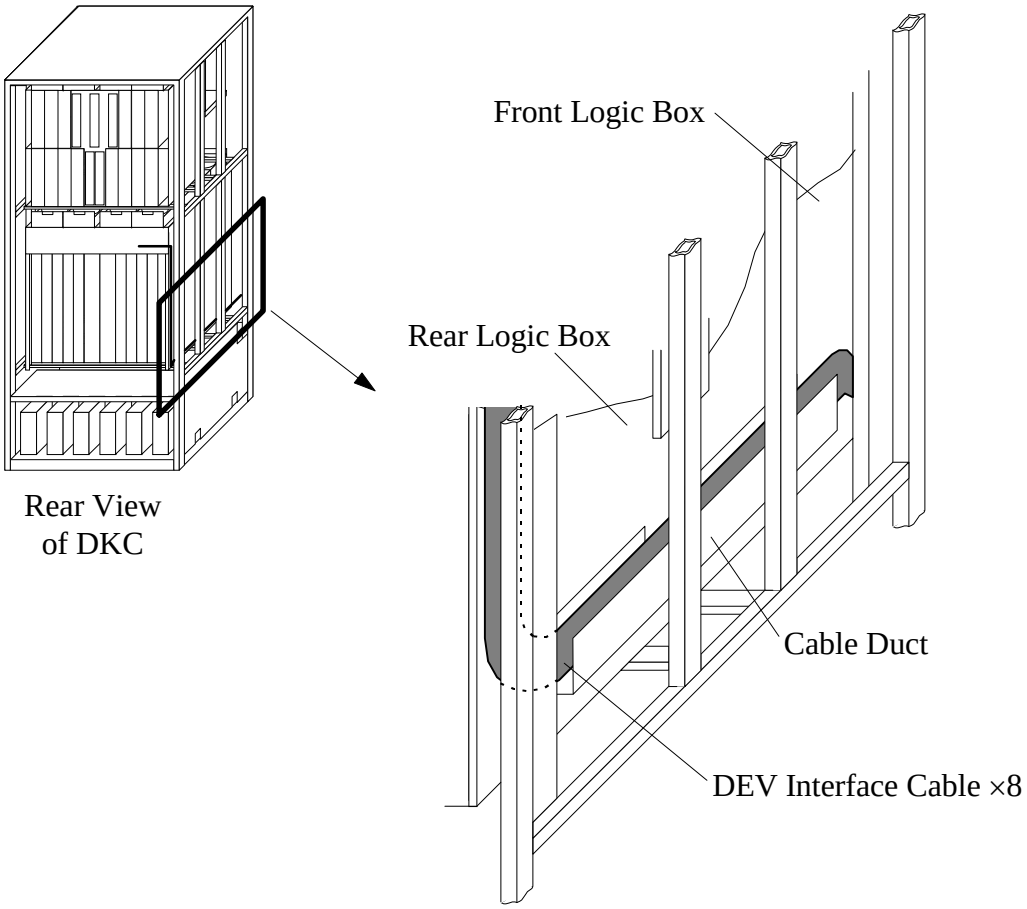


Fig. 4.3.2.3-8 Attachment of DEV Interface Cables

c. Close the cable covers and fasten the screws.
d. Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.

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4.3.2.4 Disconnection Procedure of DEV Interface Cable 1 (In case of HDU-L17 from L14)

1. Disconnection of the DEV Interface Cables (Before removal of HDU Boxes (DKU-F405I-B4))
   a. Remove the Front Logic Box cover, Front Inner cover, Rear Logic Box cover and Rear Inner cover. Refer to INST03-20 through 03-30.
   b. Disconnect the DEV interface cables from the sub-edges on the disk adapter PCBs that are installed in locations Nos. E and L in the Rear Logic Box. Loosen the three screws and remove the cable cover. Remove the cables from the cable clamp. Attach the cable cover with the three screws.

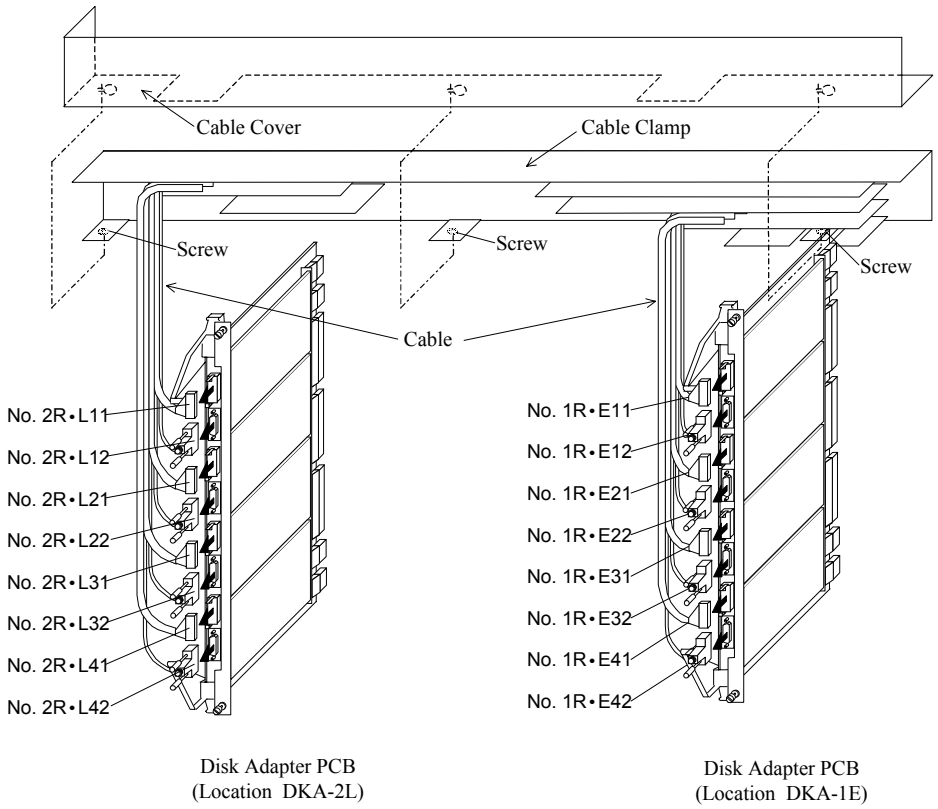


Fig. 4.3.2.4-1 DEV Interface Cable Disconnecting Diagram (Disk Adapter PCB Side)

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c. Loosen the screws and remove the cable covers ① and ②.

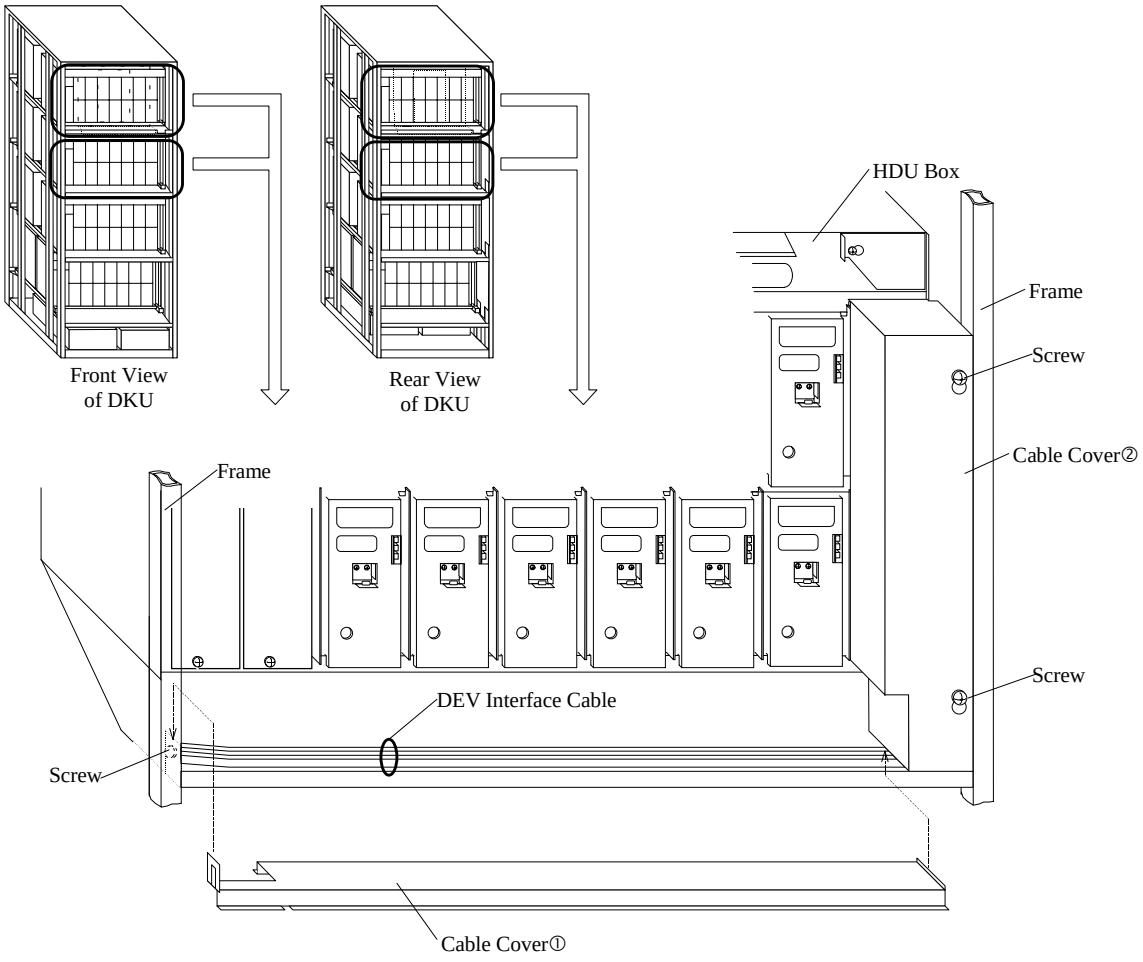


Fig. 4.3.2.4-2 Removal of Cable Covers

d. Loosen the screws and remove the side plates.

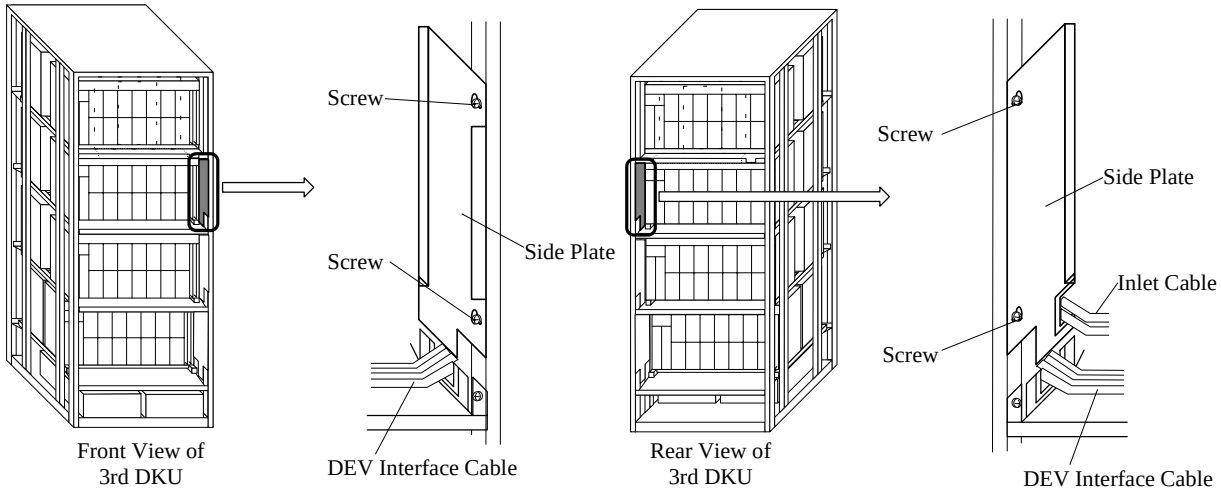


Fig. 4.3.2.4-3 Removal of Side Plates

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e. Refer to Fig. 4.3.2.4-4. Disconnect the DEV interface cables from the sub-edges on the FSW PCBs located in the HDU box.

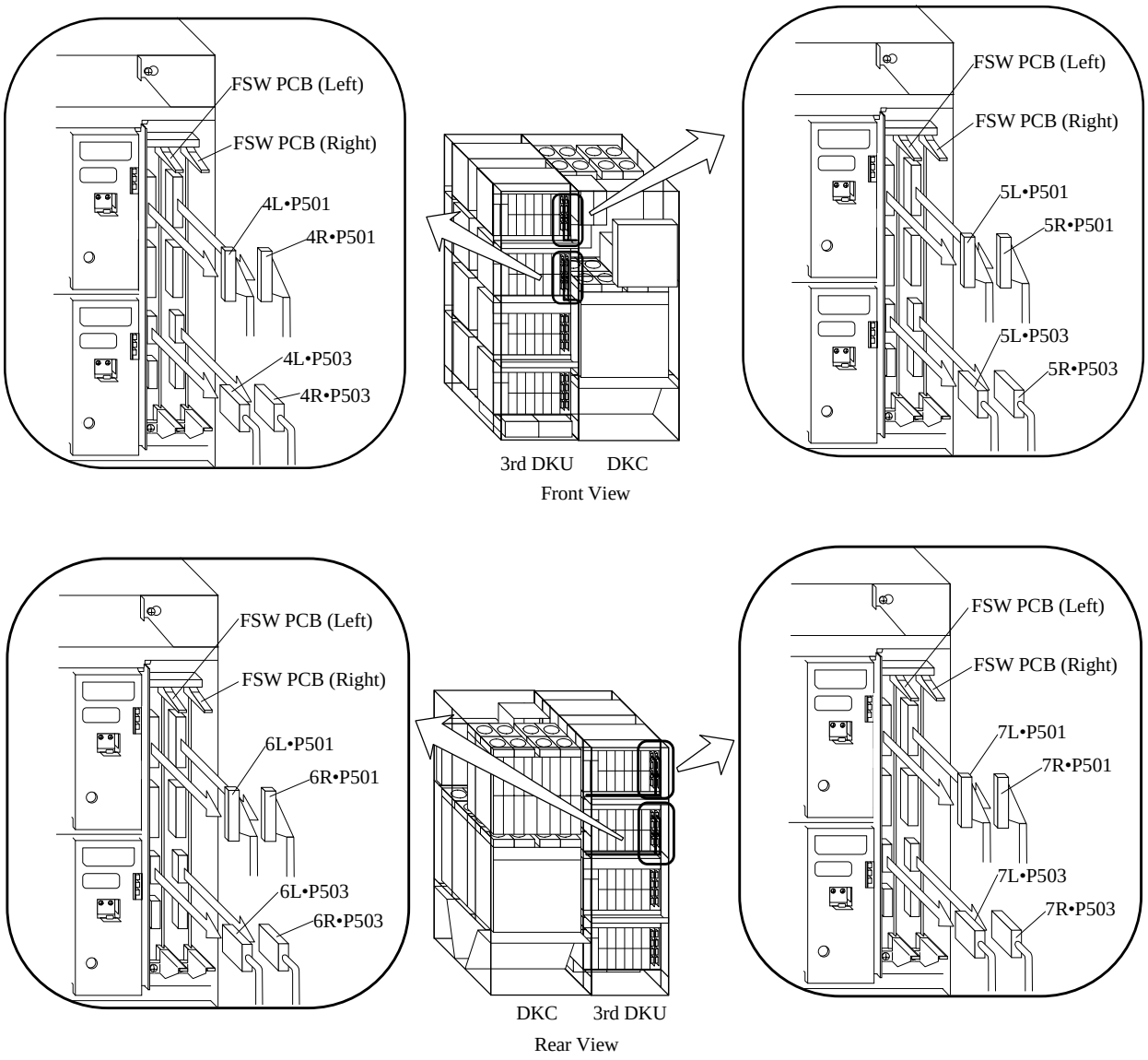


Fig. 4.3.2.4-4 DEV Interface Cable Disconnecting Diagram (FSW PCB Side)

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f. Pull out the DEV interface cables to the DKC side.

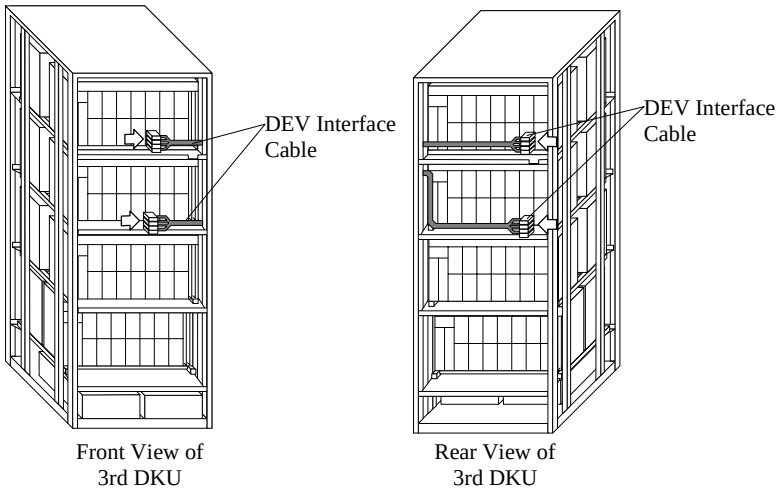


Fig. 4.3.2.4-5 Removal of DEV Interface Cables

g. Attach the side plates and fasten the screws. Refer to Fig. 4.3.2.4-3.
h. Attach the cable covers ② with the screws. And then attach the cable covers ① with the screws. Refer to Fig. 4.3.2.4-2.
i. Return to General Flow
   Non-Disruptive De-Installation : Go to INST02-160 step (3)-3.
   Disruptive De-Installation : Go to INST02-270 step (9)-5.

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2. Removal of the DEV Interface Cables (After removal of HDU Boxes (DKU-F405I-B4))
   a. Remove the screws and open the cable covers.

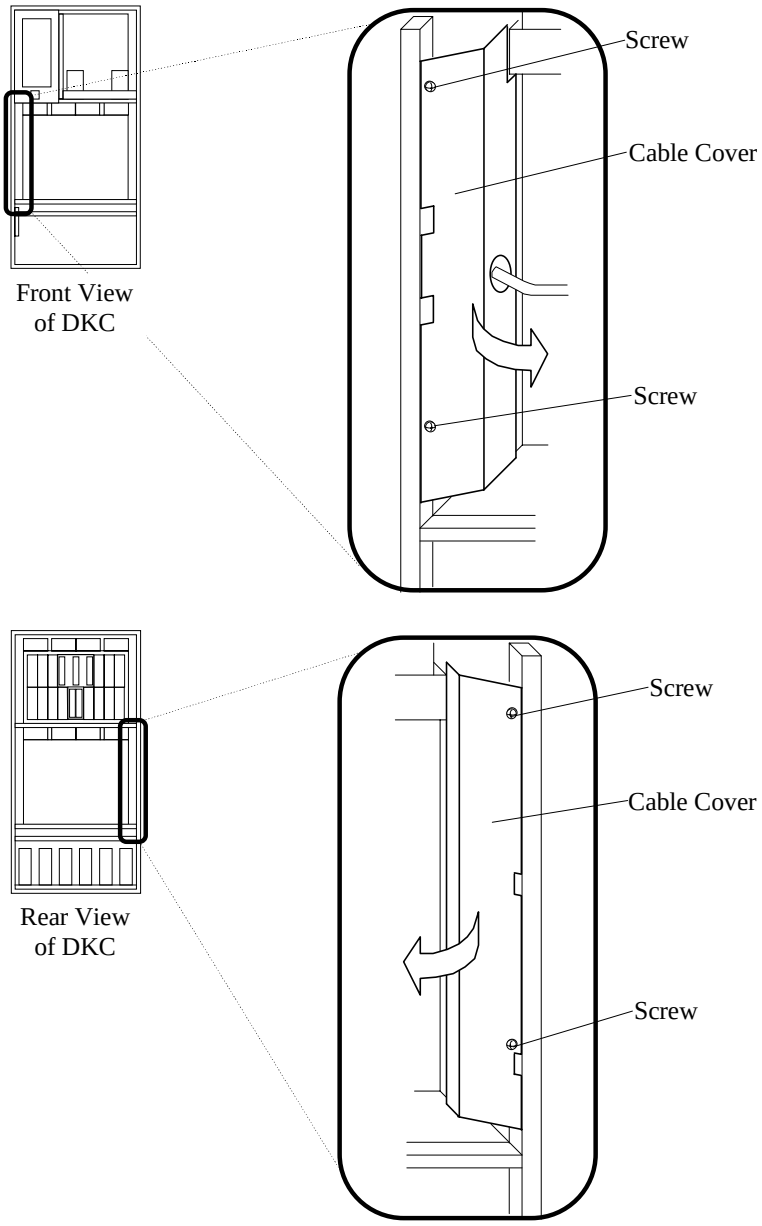


Fig. 4.3.2.4-6 How to open the Covers

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b. Refer to Fig. 4.3.2.4-7. Remove the four DEV interface cables listed in Table 4.3.2.4-1 from the DKC.

Table 4.3.2.4-1 Parts List for Additional DEV Interface Cable

No.	Connector No.		Parts No.
	Source	Destination	
1	1R•E11	4R•P501	5509233-J
2	1R•E12	4R•P503	
3	1R•E21	5R•P501	5509233-K
4	1R•E22	5R•P503	
5	2R•L11	4L•P501	5509233-N
6	2R•L12	4L•P503	
7	2R•L21	5L•P501	5509233-P
8	2R•L22	5L•P503	

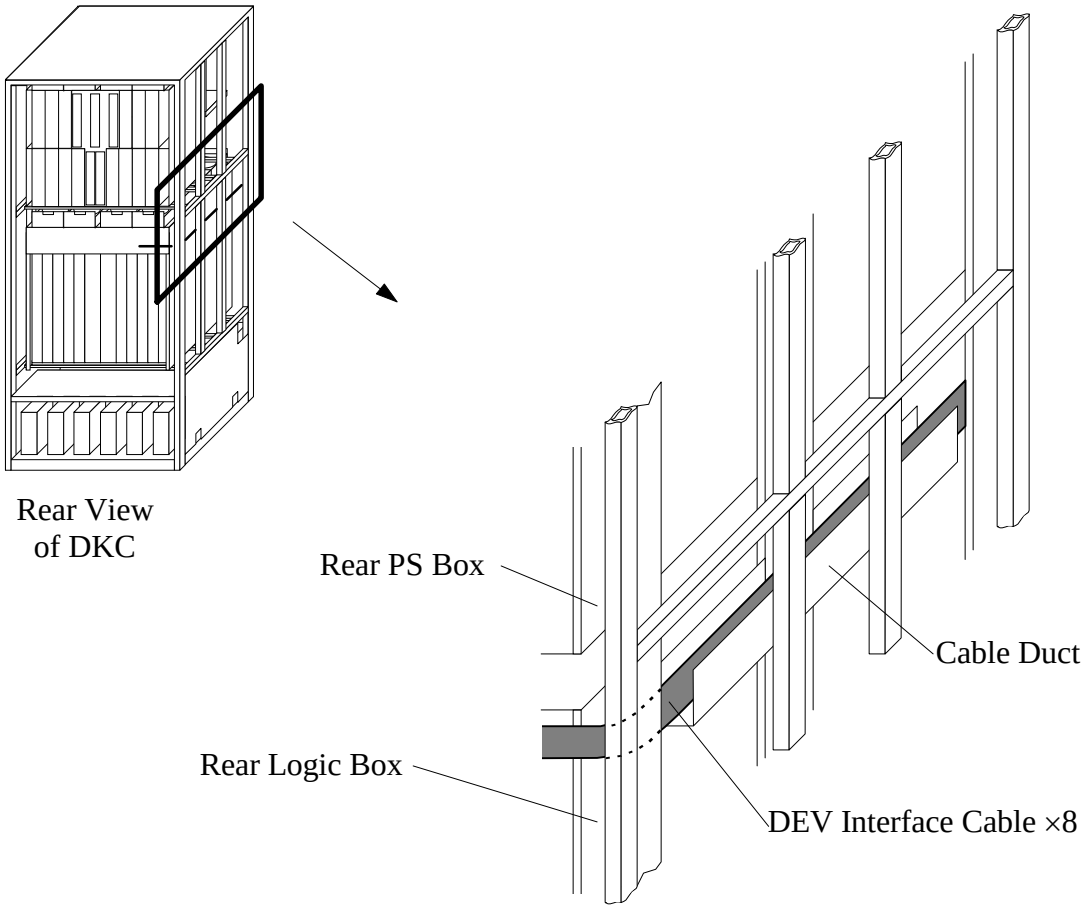


Fig. 4.3.2.4-7 Attachment of DEV Interface Cables

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c. Close the cable covers and fasten the screws.
d. When assembly the Third DKU in the 4-HDU configuration, secure the remaining 16 DEV interface cables inside the Third DKU with the Binders. When the Third DKU is de-installed, go to step e.

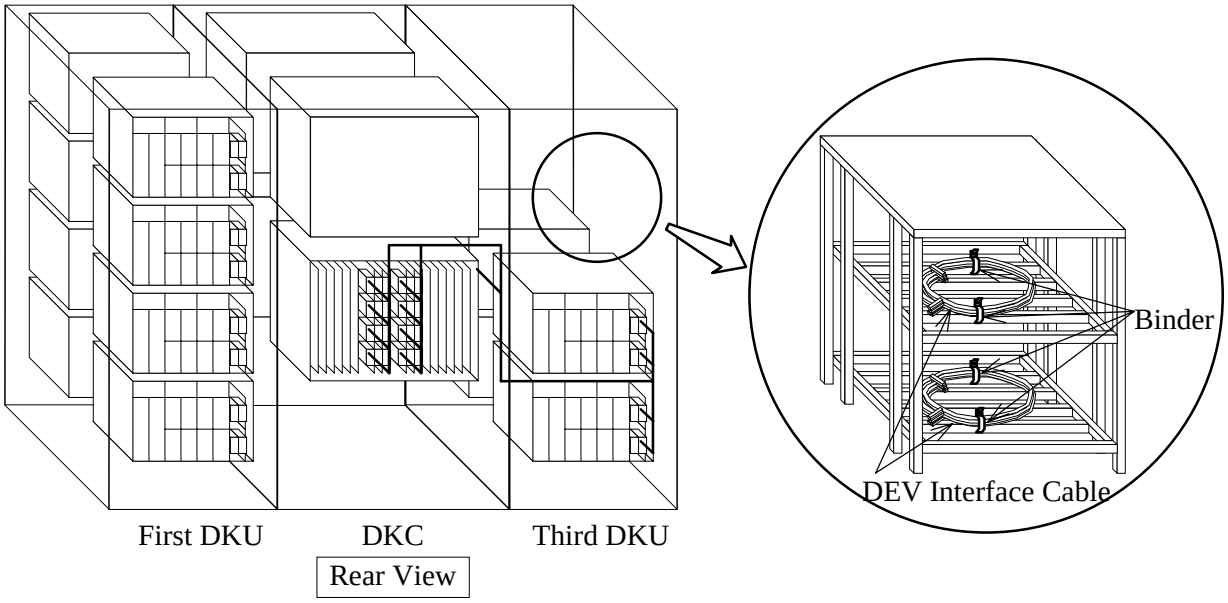


Fig. 4.3.2.4-8 Fixing of DEV Interface Cables

e. Attach the Front Inner cover, Front Logic Box cover, Rear Inner cover and Rear Logic Box cover.
f. Return to General Flow
Non-Disruptive De-Installation : Go to INST02-160 step (3)-11.
Disruptive De-Installation : Go to INST02-270 step (9)-10.

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4.3.3 Disconnection of Additional DEV Interface Cables (DKU-F405I-EXC)

4.3.3.1 Flowchart

The disconnection procedure of the extension DEV interface cables (DKU-F405I-EXC) is shown below. You must perform the operations actually after referring to the details of the procedure.

1. Disconnection Procedure of DEV Interface Cables between First (HDU-R10-R13) and Second DKU (HDU-R20-R23) Frames ---------- [INST04-680]
2. Disconnection Procedure of DEV Interface Cables between First (HDU-R14-R17) and Second DKU (HDU-R24-R27) Frames ---------- [INST04-790]
3. Disconnection Procedure of DEV Interface Cables between Third (HDU-L10-L13) and Fourth DKU (HDU-L20-L23) Frames ---------- [INST04-900]
4. Disconnection Procedure of DEV Interface Cables between Third (HDU-L14-L17) and Fourth DKU (HDU-L24-L27) Frames ---------- [INST04-1010]
5. Disconnection Procedure of DEV Interface Cables between Second (HDU-R20-R23) and Fifth DKU (HDU-R30-R33) Frames ---------- [INST04-1120]
6. Disconnection Procedure of DEV Interface Cables between Second (HDU-R24-R27) and Fifth DKU (HDU-R34-R37) Frames ---------- [INST04-1230]
7. Disconnection Procedure of DEV Interface Cables between Fourth (HDU-L20-L23) and Sixth DKU (HDU-L30-L33) Frames ---------- [INST04-1340]
8. Disconnection Procedure of DEV Interface Cables between Fourth (HDU-L24-L27) and Sixth DKU (HDU-L34-L37) Frames ---------- [INST04-1450]

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1. Disconnection Procedure of DEV Interface Cables between First (HDU-R10-R13) and Second DKU (HDU-R20-R23) Frames ---------- [INST04-680]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU Frames.

↓

(2) Loosen the screws and remove the side plates from the DKU Frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) Remove the nameplate from the second DKU frame.

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2. Disconnection Procedure of DEV Interface Cables between First (HDU-R14-R17) and Second DKU (HDU-R24-R27) Frames ---------- [INST04-790]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU Frames.

↓

(2) Loosen the screws and remove the side plates from the DKU Frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) When the second DKU frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the second DKU frame.

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3. Disconnection Procedure of DEV Interface Cables between Third (HDU-L10-L13) and Fourth DKU (HDU-L20-L23) Frames ---------- [INST04-900]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) Remove the nameplate from the fourth DKU frame.

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4. Disconnection Procedure of DEV Interface Cables between Third (HDU-L14-L17) and Fourth DKU (HDU-L24-L27) Frames ---------- [INST04-1010]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) When the fourth frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the fourth DKU frame.

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5. Disconnection Procedure of DEV Interface Cables between Second (HDU-R20-R23) and Fifth DKU (HDU-R30-R33) Frames ---------- [INST04-1120]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the fifth DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) Remove the nameplate from the fifth DKU frame.

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6. Disconnection Procedure of DEV Interface Cables between Second (HDU-R24-R27) and Fifth DKU (HDU-R34-R37) Frames ---------- [INST04-1230]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the fifth DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) When the fifth DKU frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the fifth DKU frame.

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7. Disconnection Procedure of DEV Interface Cables between Fourth (HDU-L20-L23) and Sixth DKU (HDU-L30-L33) Frames ---------- [INST04-1340]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the FSW PCBs in the sixth DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) Remove the nameplate from the sixth DKU frame.

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8. Disconnection Procedure of DEV Interface Cables between Fourth (HDU-L24-L27) and Sixth DKU (HDU-L34-L37) Frames ---------- [INST04-1450]

(1) Loosen the screws and remove the cable covers ① and ② from the DKU frames.

↓

(2) Loosen the screws and remove the side plates from the DKU frames.

↓

(3) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(4) (Dummy procedure) Go to next step.

↓

(5) Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame.

↓

(6) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(7) (Dummy procedure) Go to next step.

↓

(8) Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame.

↓

(9) Return to flow when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to next step when disconnecting the additional DEV interface cable with the sub-system switched off.

↓

(10) Disconnect the DEV interface cables from the FSW PCBs in the sixth DKU frame.

↓

(11) Remove the DEV interface cables from inside the DKU frames.

↓

(12) Attach the side plates in the reverse order of Step 2.

↓

(13) Attach the cable covers in the reverse order of Step 1.

↓

(14) When the sixth frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the sixth DKU frame.

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4.3.3.2 Parts List

Table 4.3.3.2-1 Parts List of the DEV Interface Cable

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-EXC	DEV Interface Cable 2 (FC)	5502402-A-R	16	
		DEV Interface Cable 2 (LED)	5502403-A-R	16	
		DKUMN Cable	2098190-A,B	2	
		Nameplate	2103570-2	1	
			2103575-2	1	

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4.3.3.3 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-R23 from R20)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

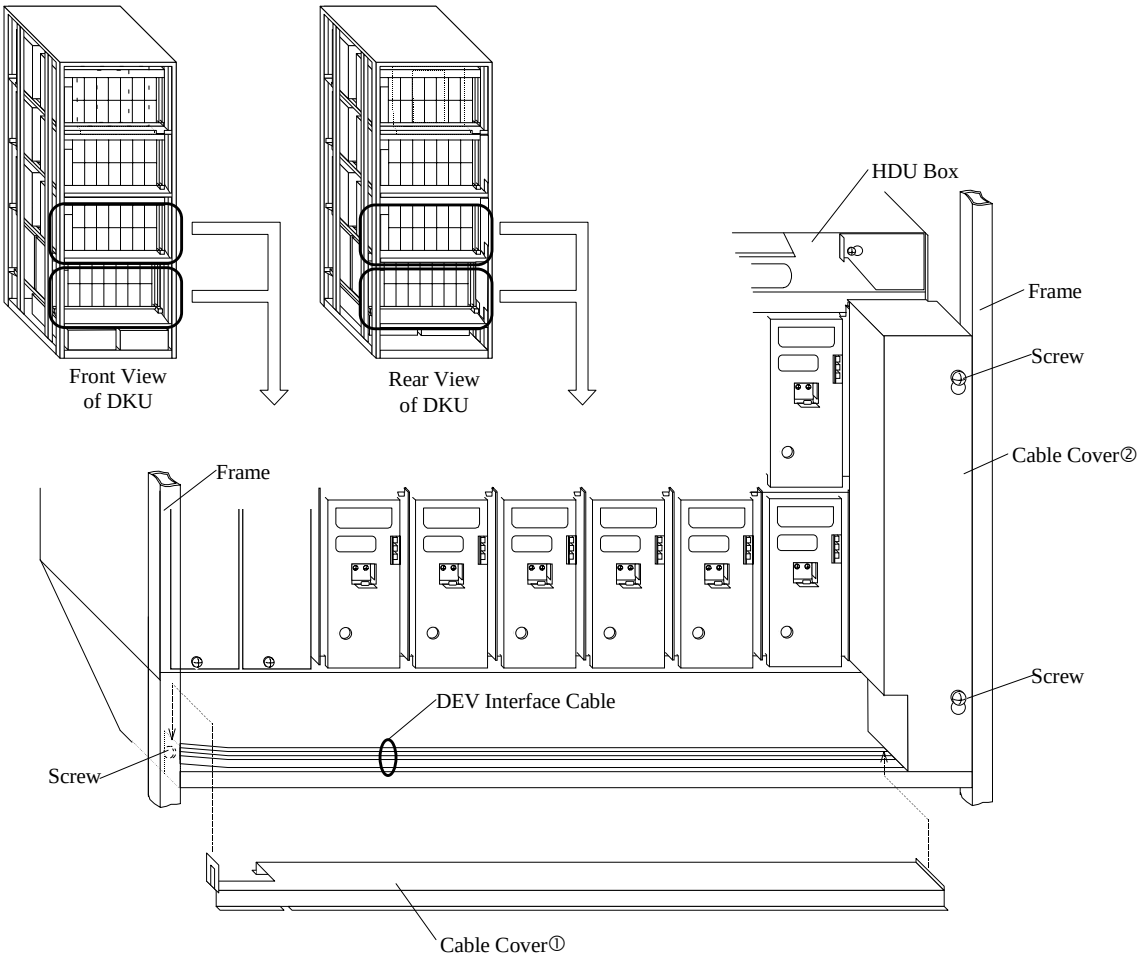


Fig. 4.3.3.3-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

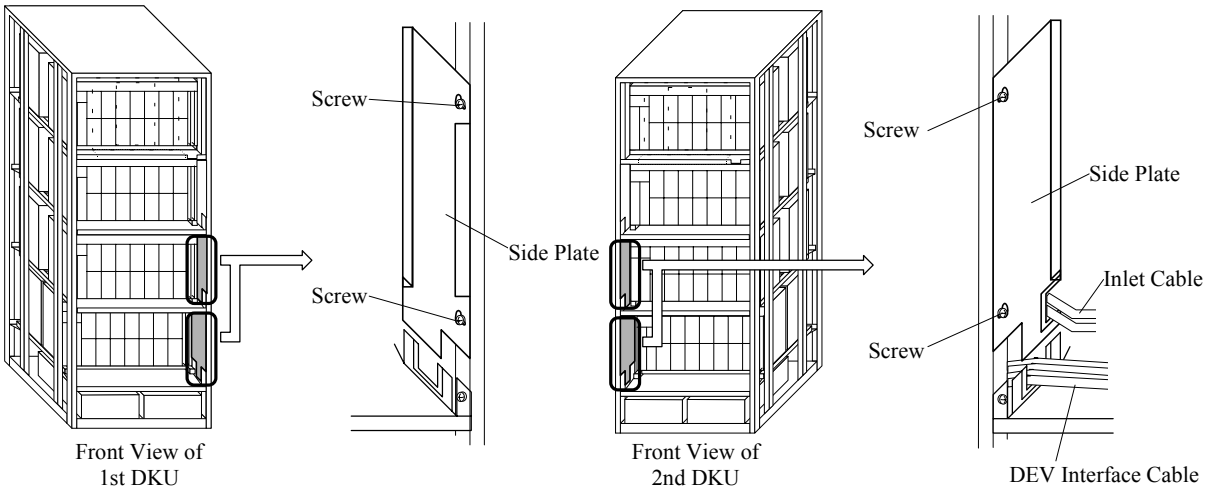


Fig. 4.3.3.3-2 Removal of Side Plates (Front View)

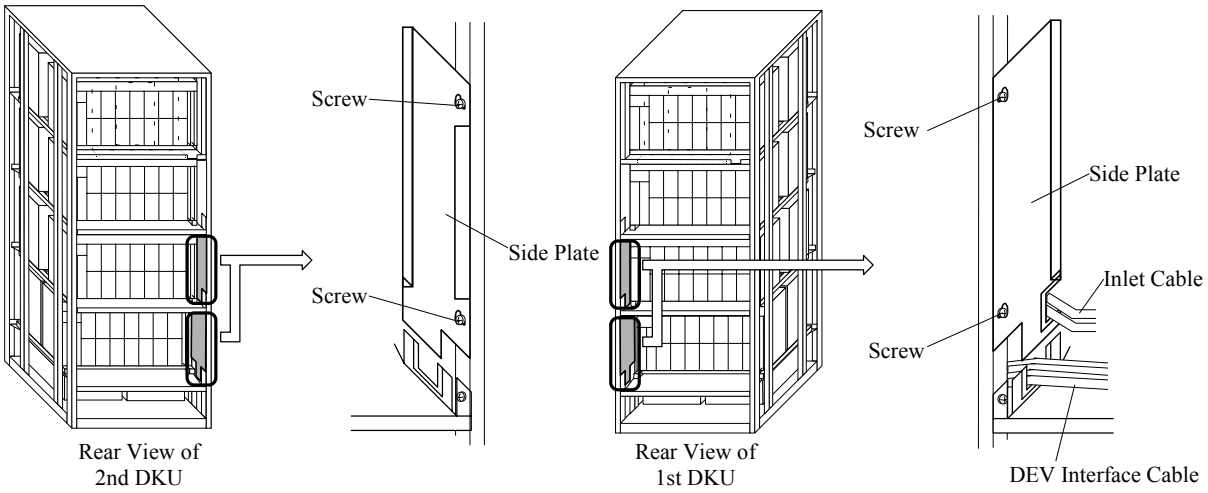


Fig. 4.3.3.3-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-710 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame referring to figures 4.3.3.3-5 and 4.3.3.3-6.

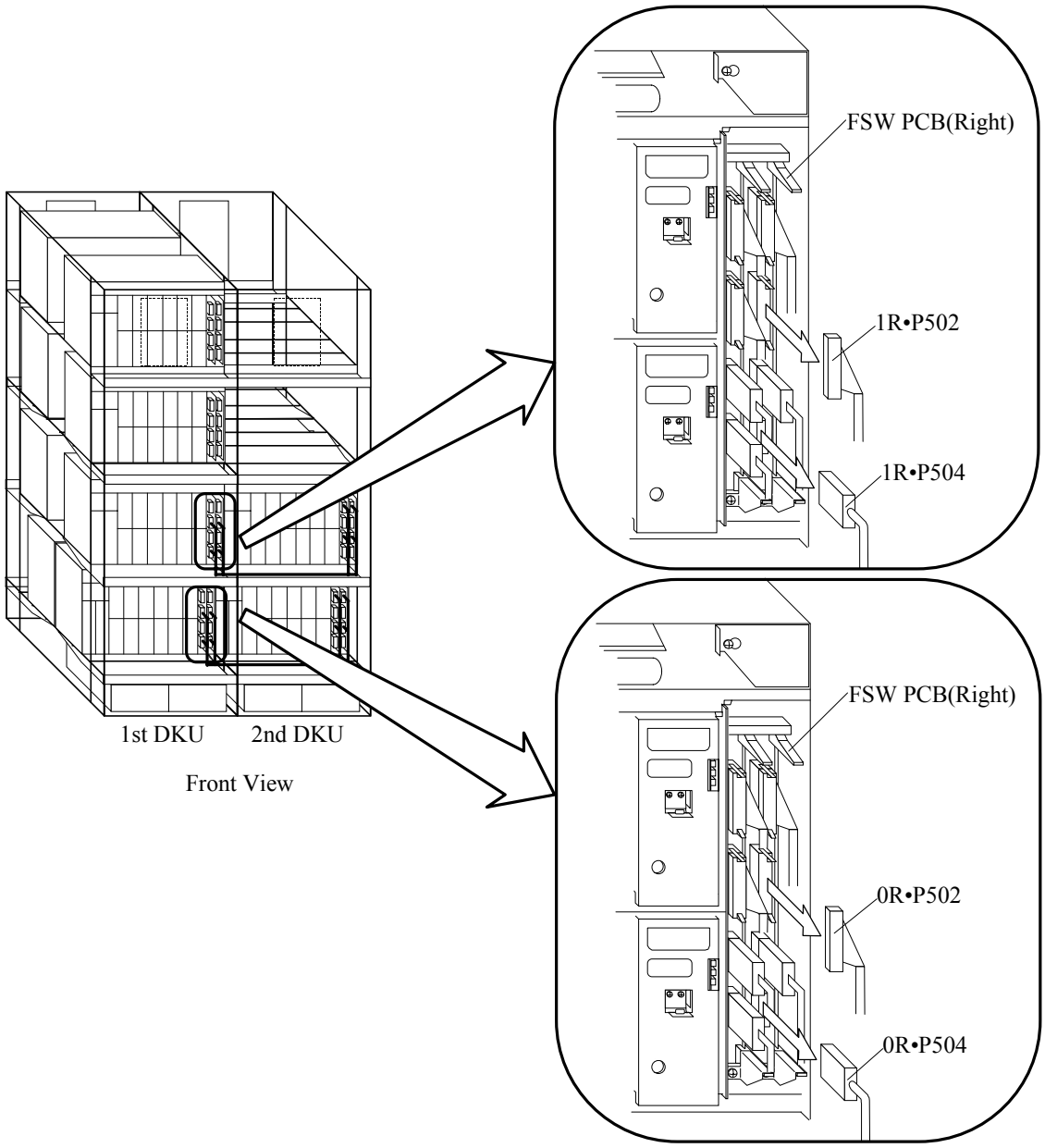


Fig. 4.3.3.3-5 Disconnection of the DEV Interface Cables

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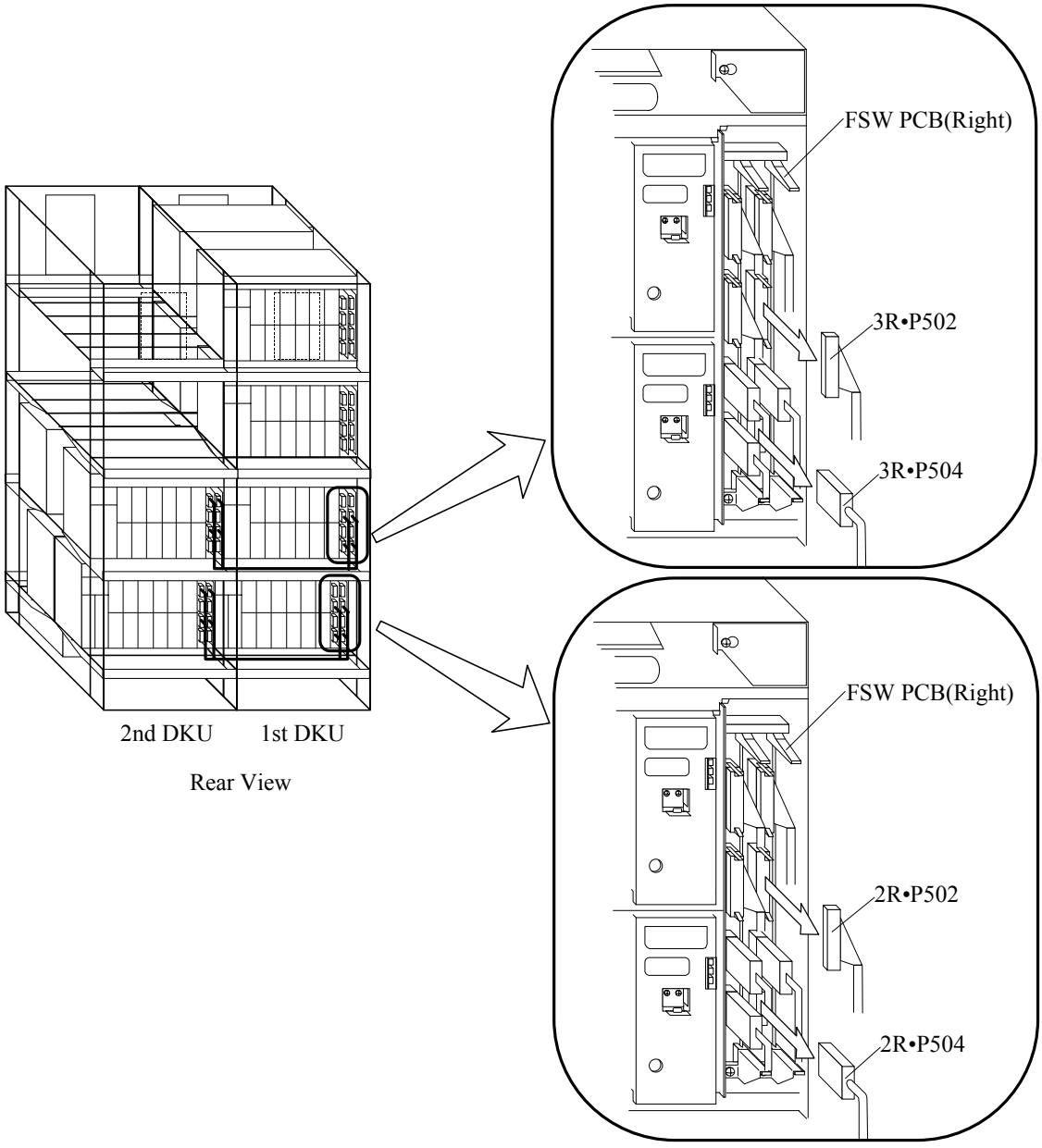


Fig. 4.3.3.3-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-740 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame referring to figures 4.3.3.3-8 and 4.3.3.3-9.

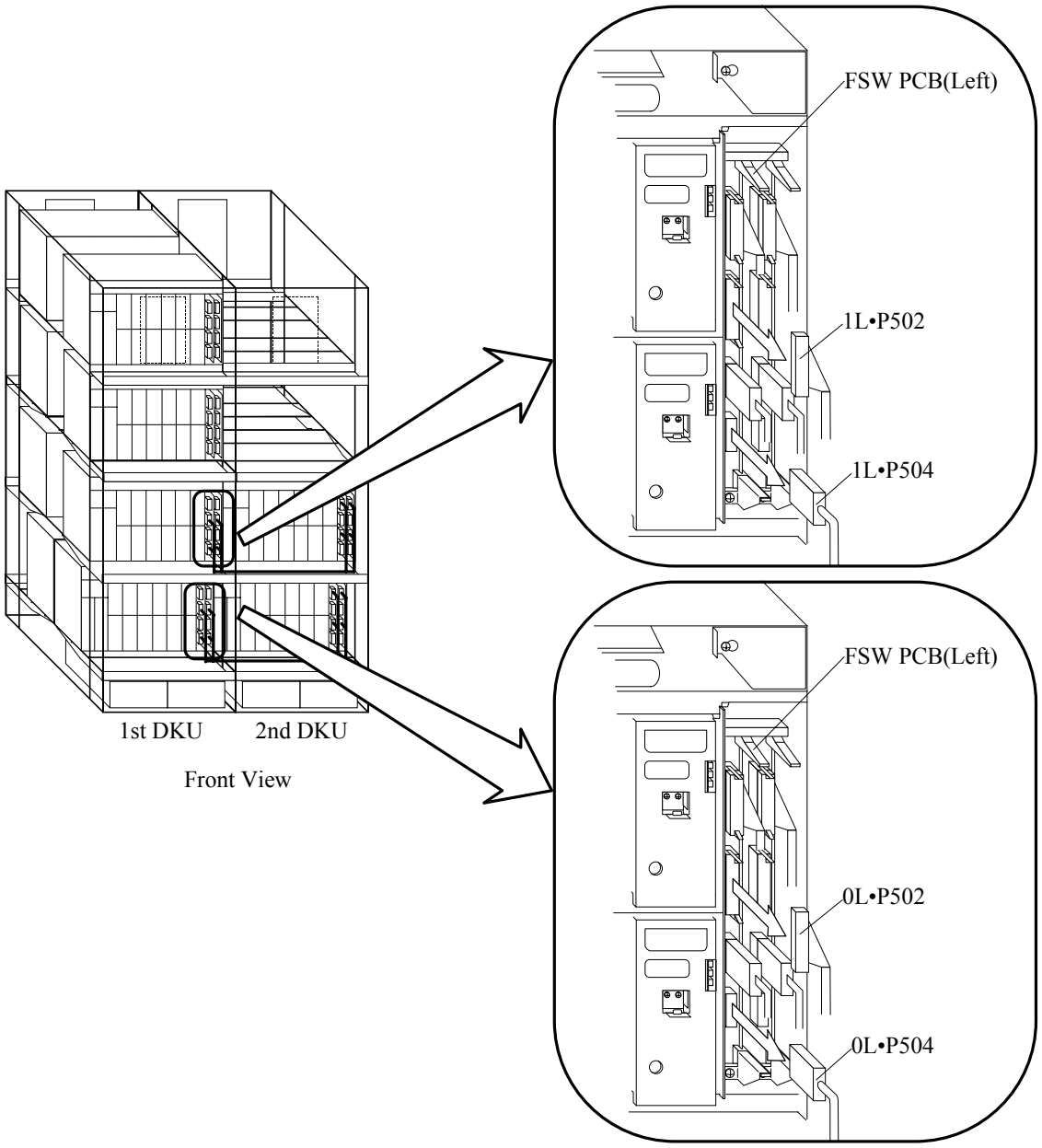


Fig. 4.3.3.3-8 Disconnection of the DEV Interface Cables

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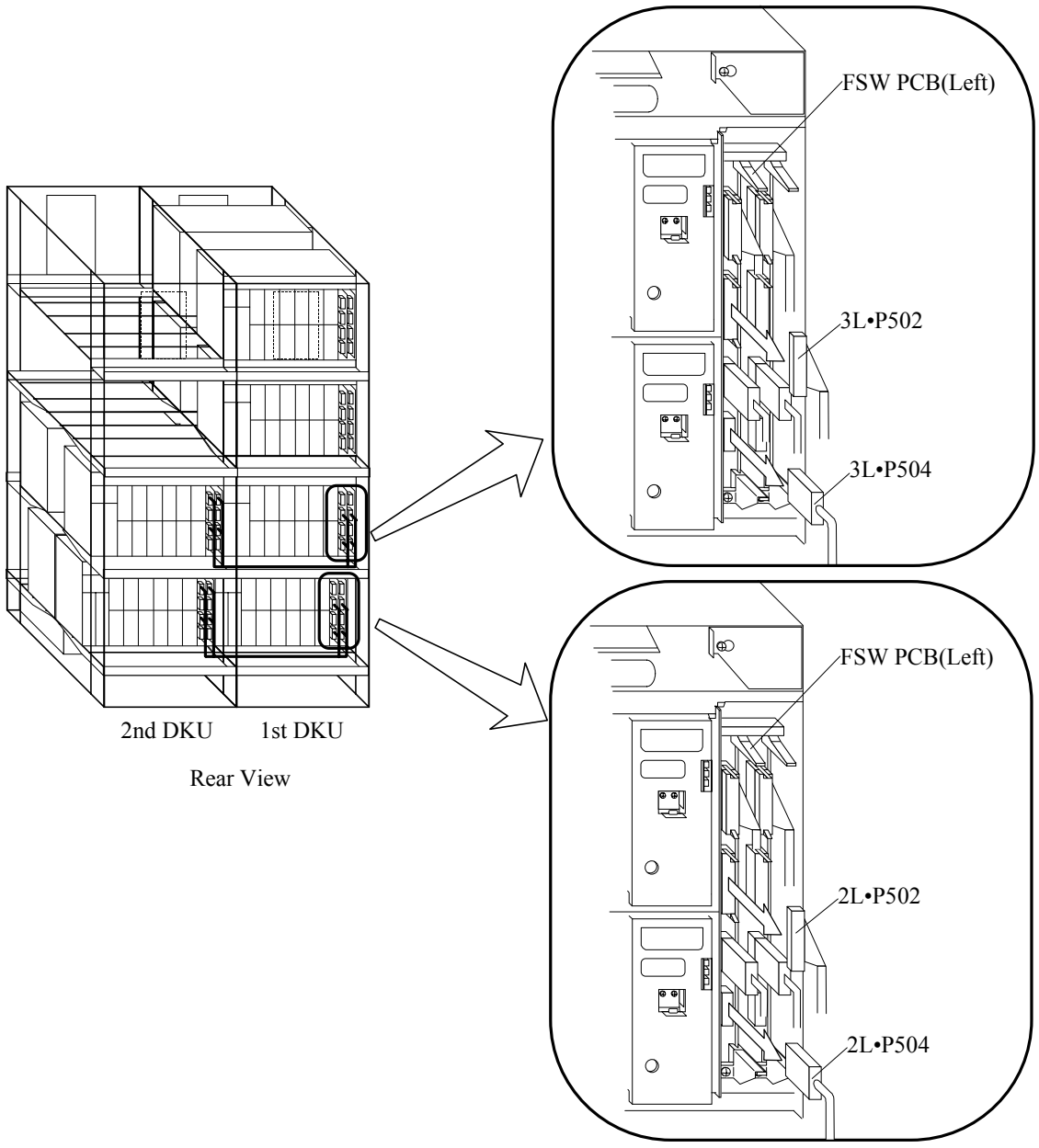


Fig. 4.3.3.3-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-760 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame referring to figures 4.3.3.3-10 and 4.3.3.3-11.

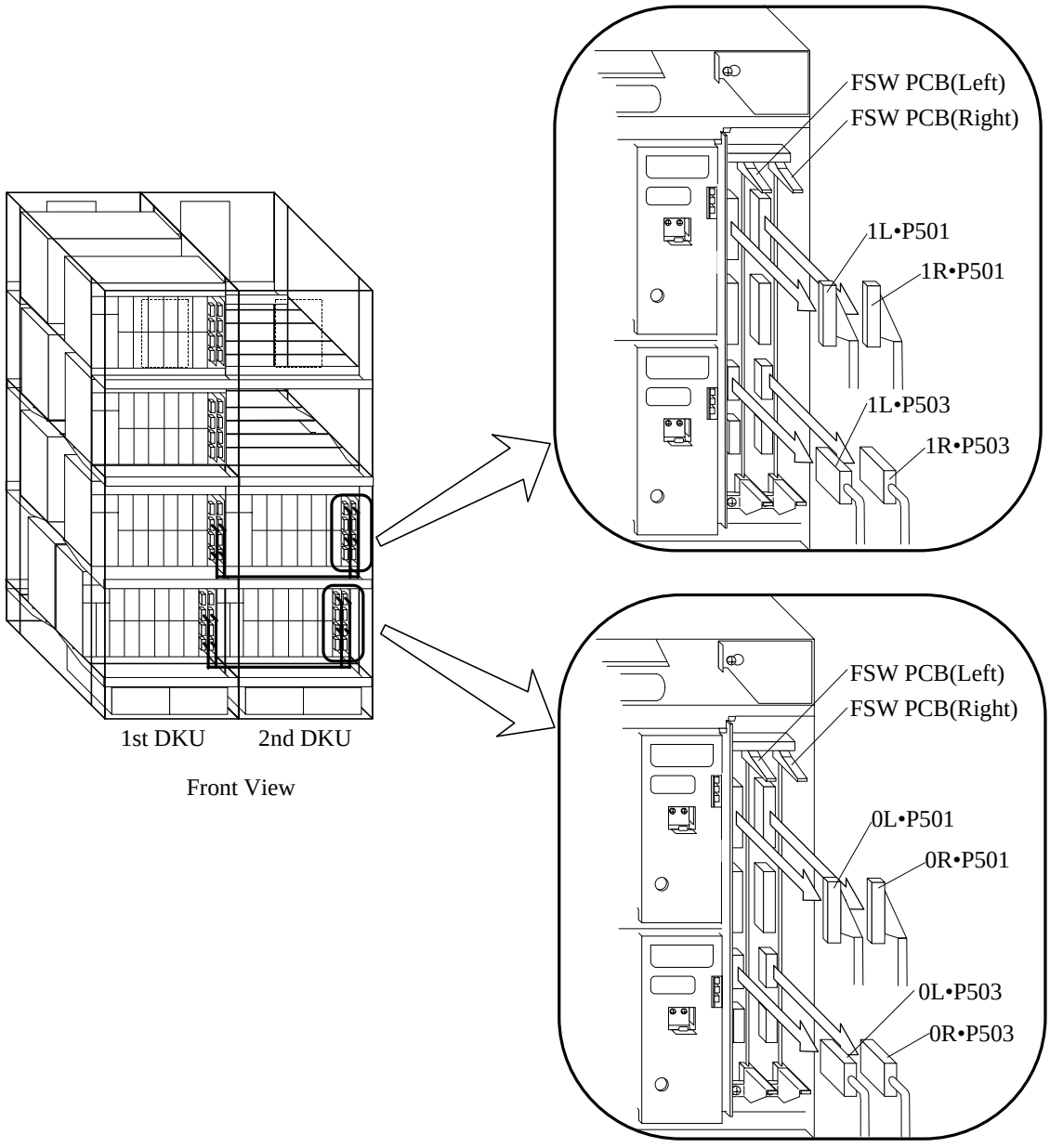


Fig. 4.3.3.3-10 Disconnection of the DEV Interface Cables

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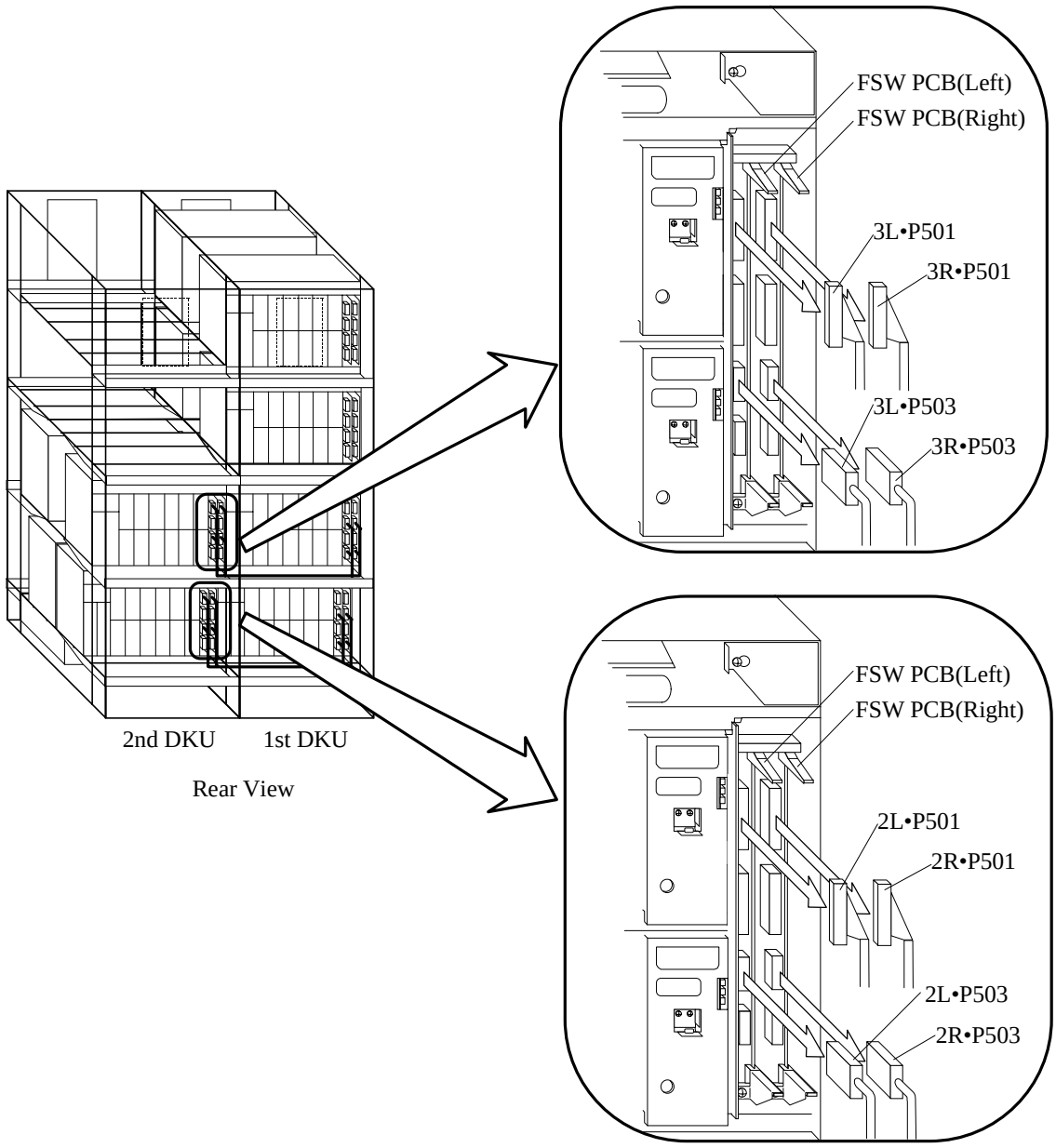


Fig. 4.3.3.3-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frames.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. Remove the nameplate from the second DKU frame.

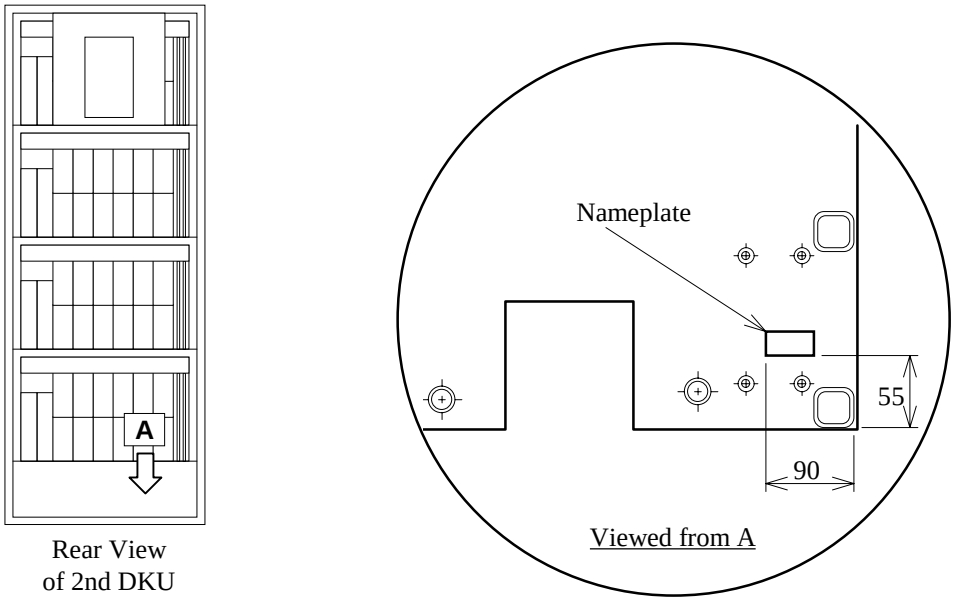


Fig. 4.3.3.3-12 Removal of the Nameplate

15. Go to INST02-370 Step ⑪.

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4.3.3.4 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-R27 from R24)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

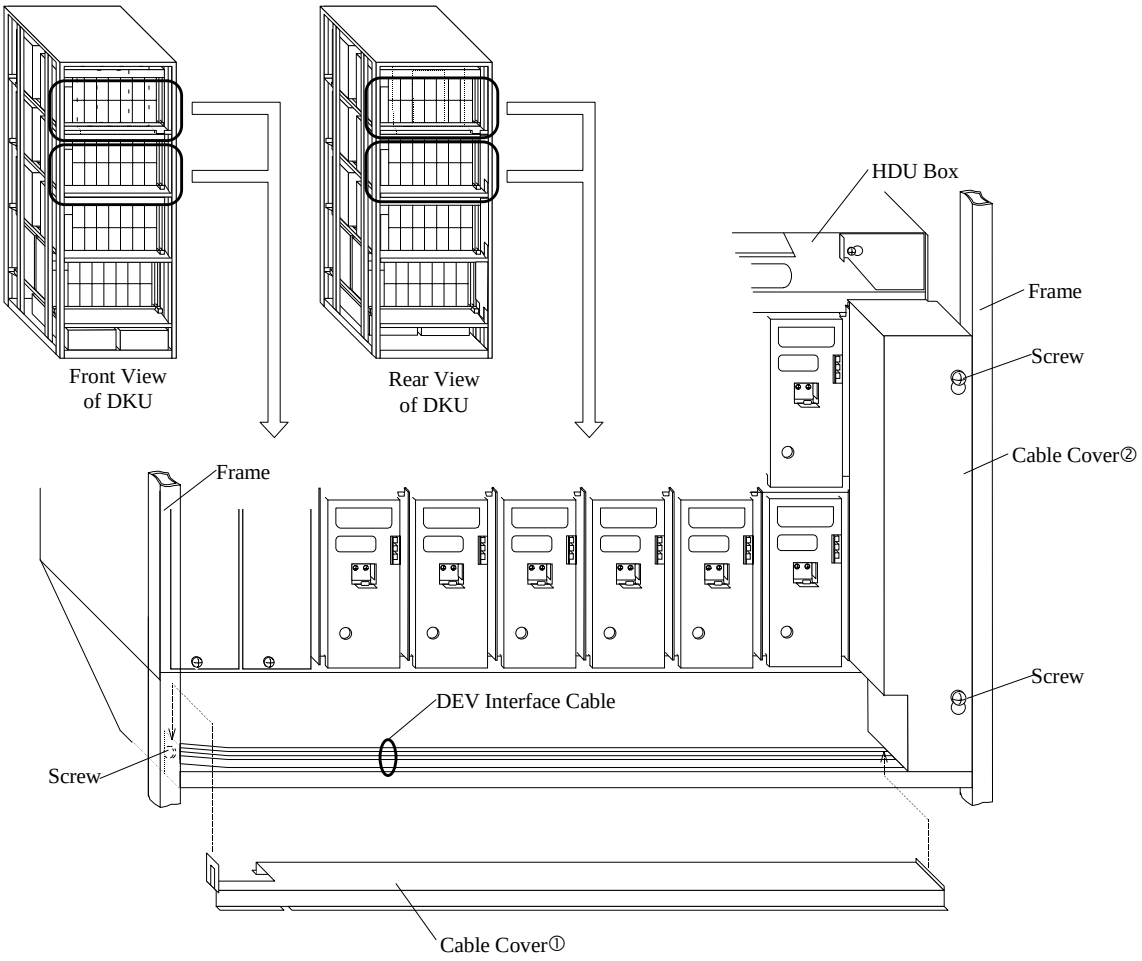


Fig. 4.3.3.4-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

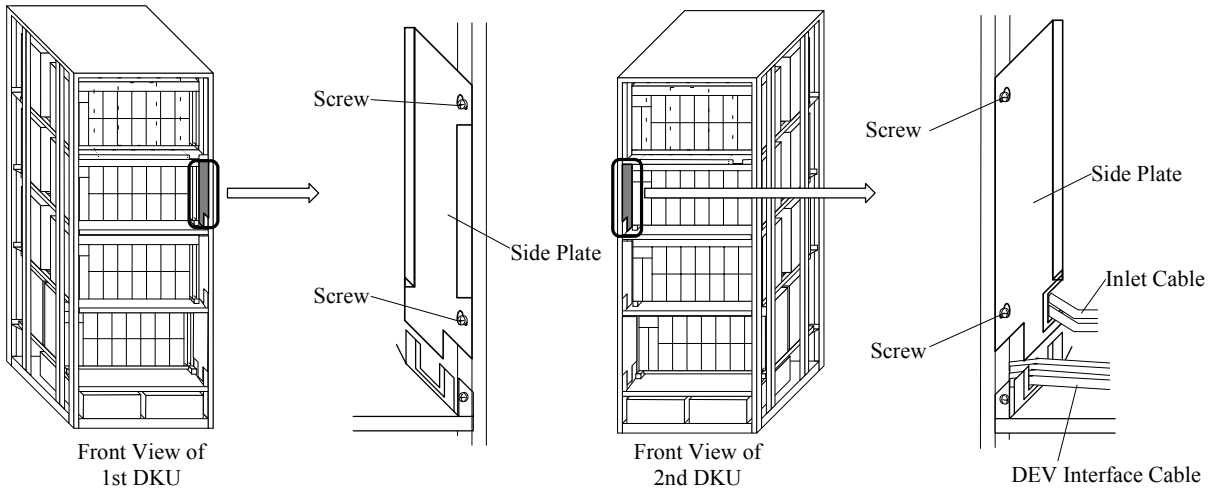


Fig. 4.3.3.4-2 Removal of Side Plates (Front View)

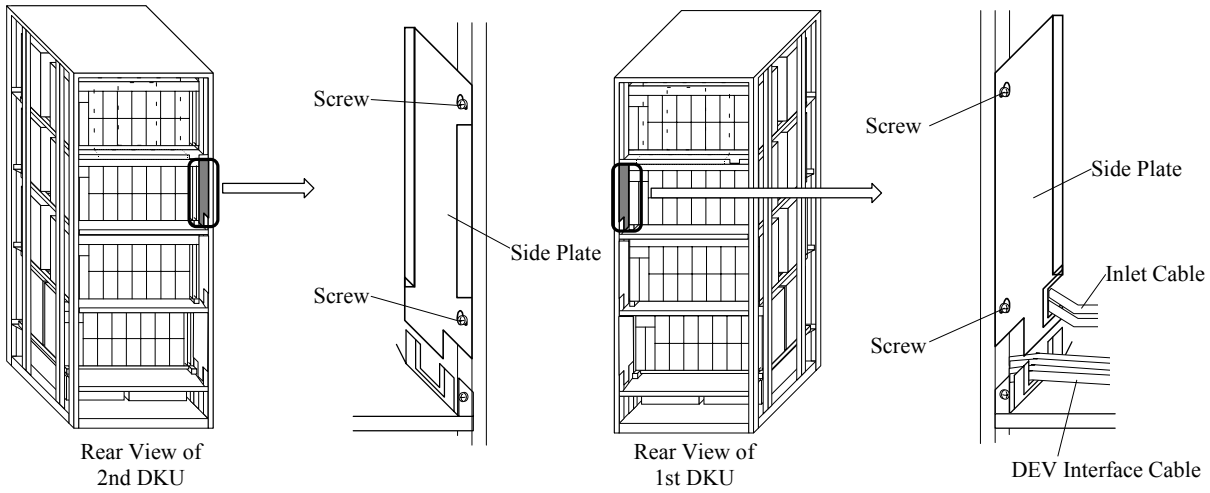


Fig. 4.3.3.4-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-820 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame referring to figures 4.3.3.4-5 and 4.3.3.4-6.

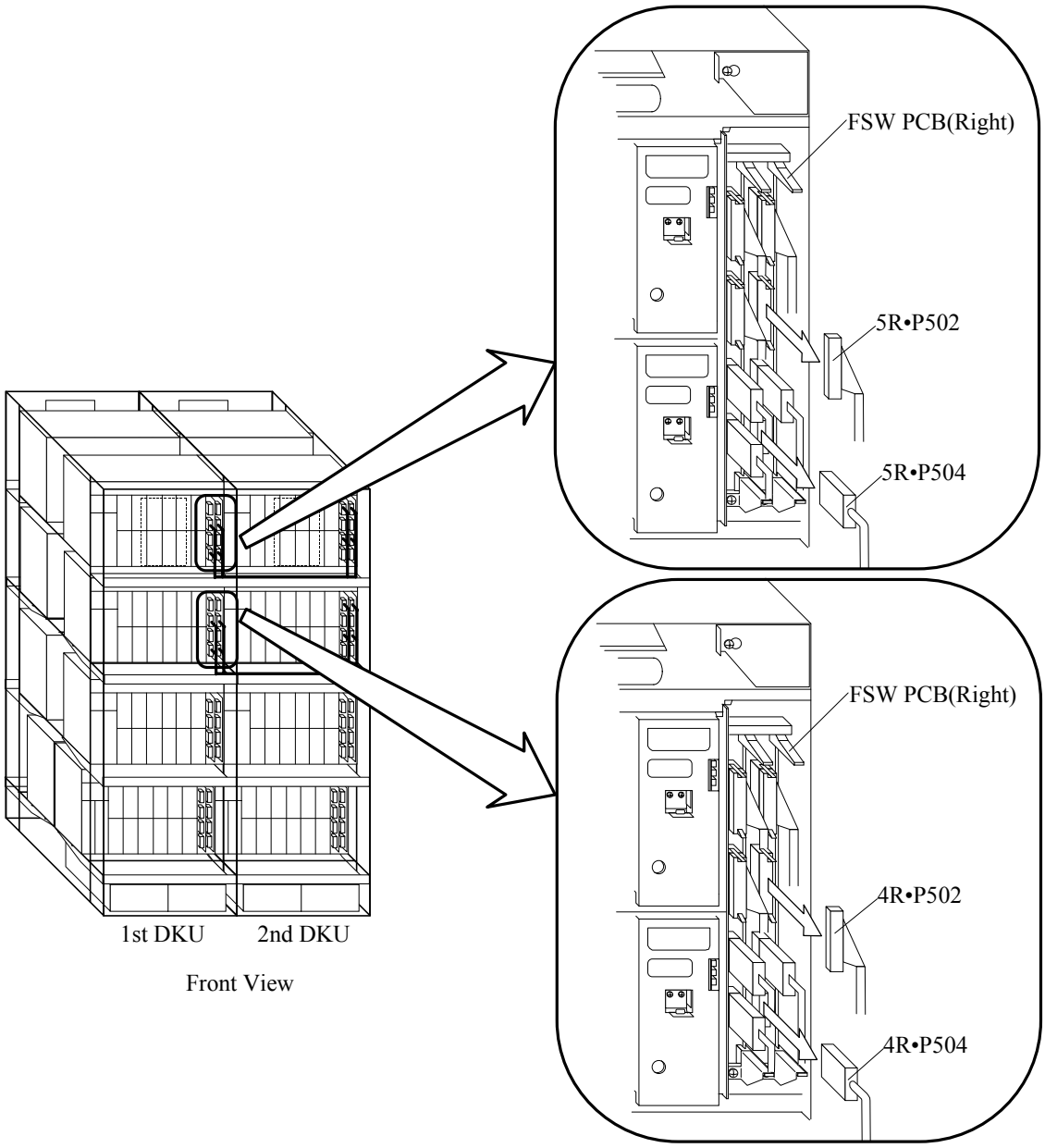


Fig. 4.3.3.4-5 Disconnection of the DEV Interface Cables

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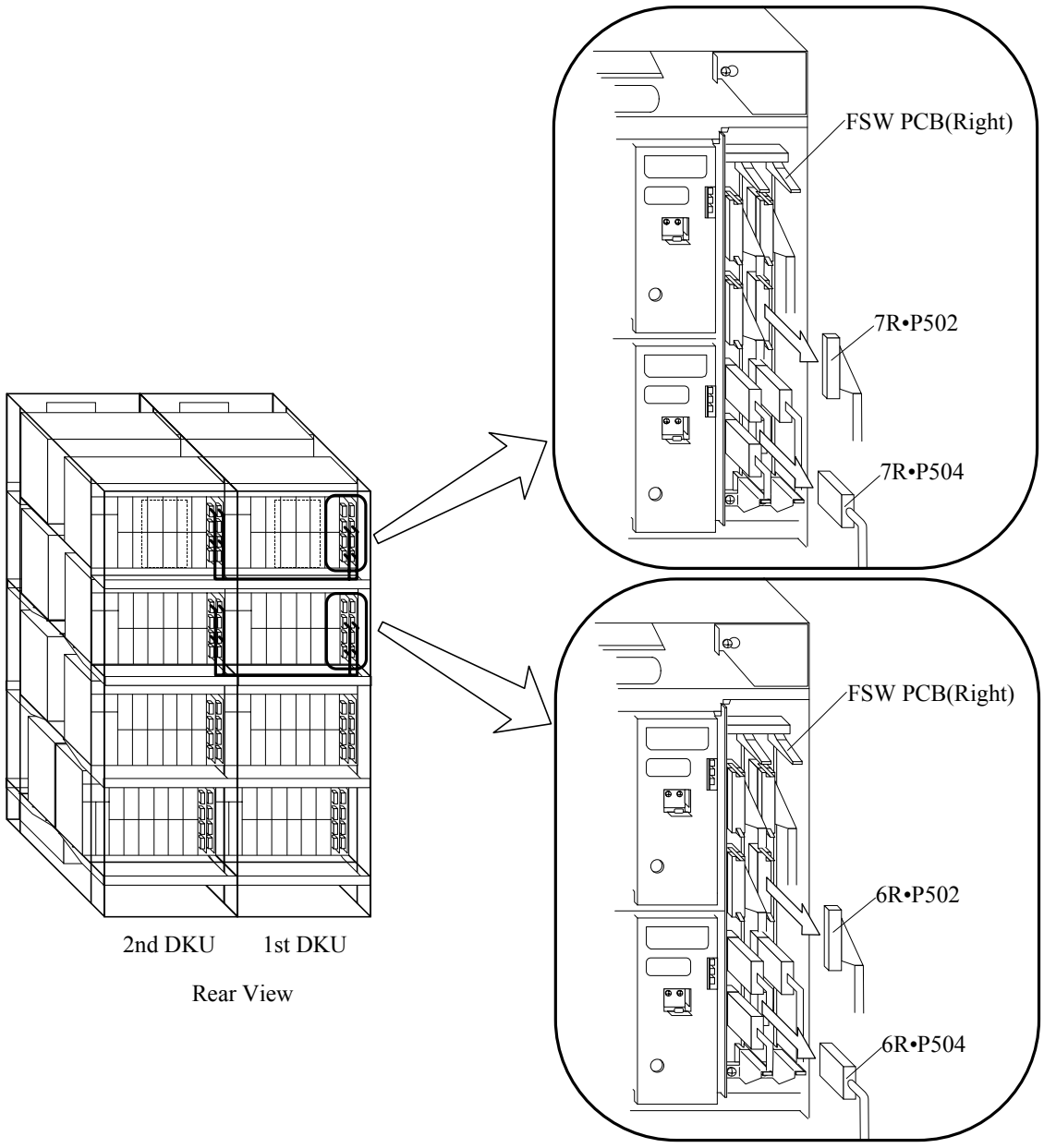


Fig. 4.3.3.4-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-850 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

Copyright ©2000,2001, Hitachi, Ltd.

8. Disconnect the DEV interface cables from the FSW PCBs in the first DKU frame referring to figures 4.3.3.4-8 and 4.3.3.4-9.

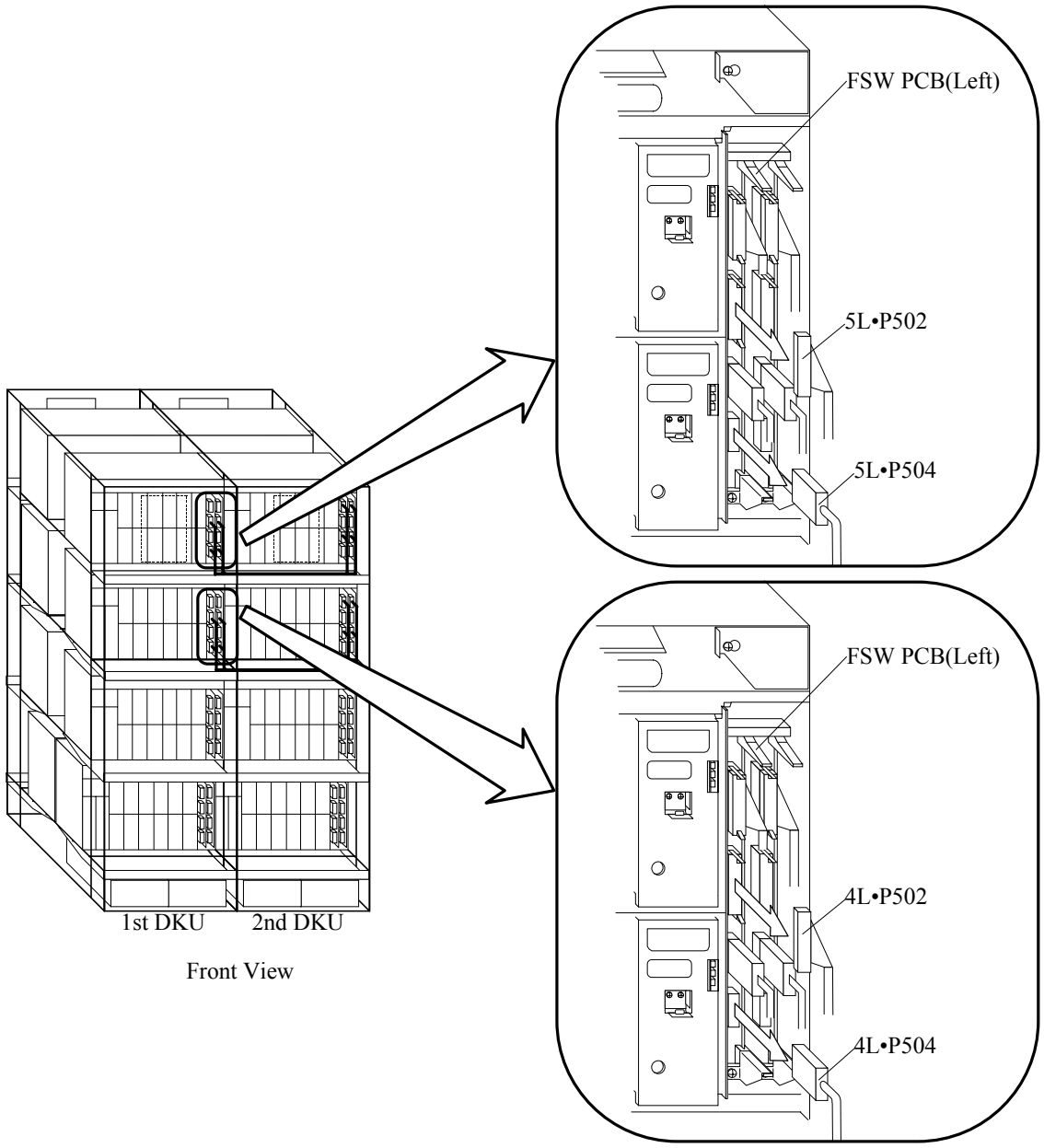


Fig. 4.3.3.4-8 Disconnection of the DEV Interface Cables

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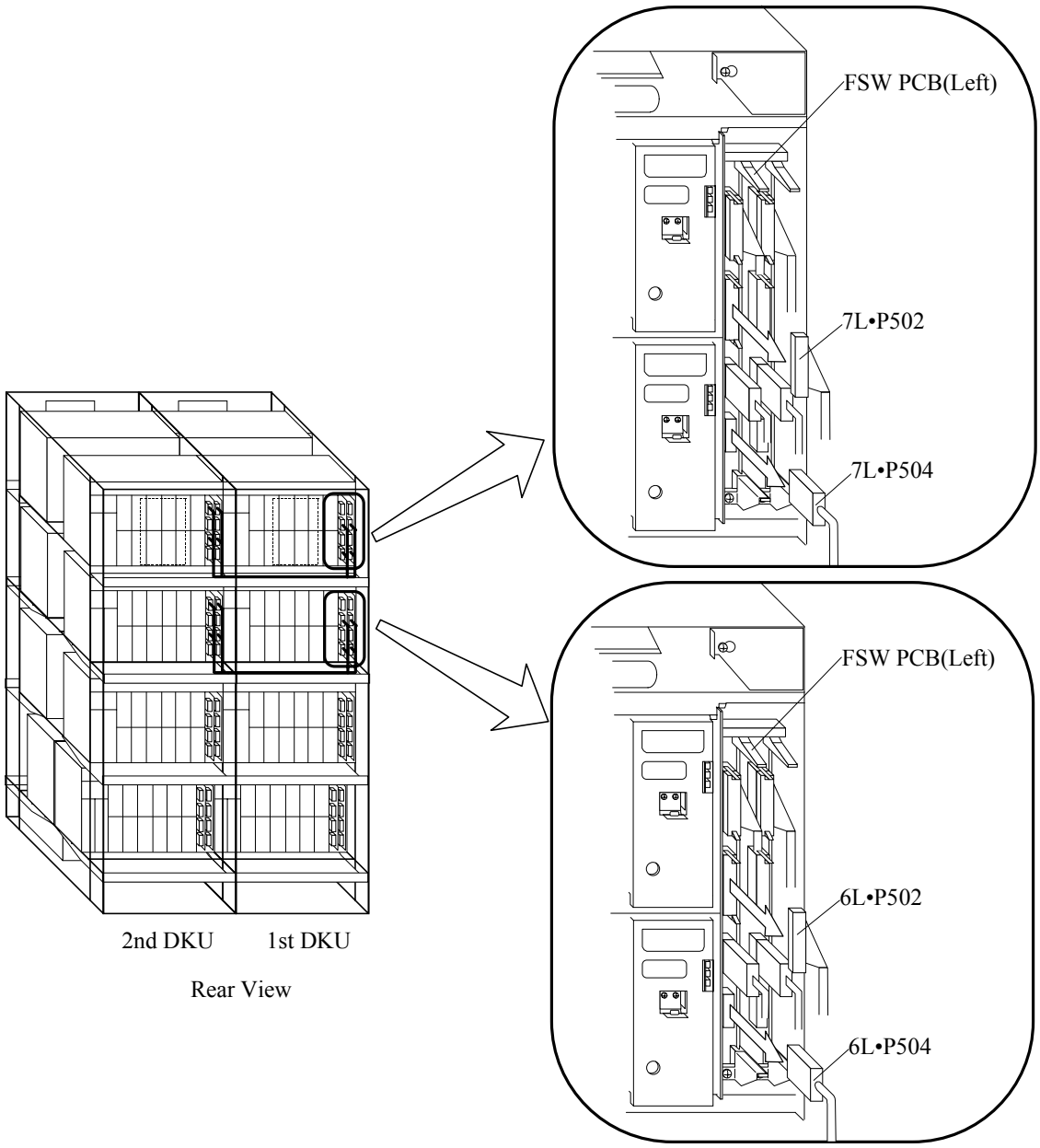


Fig. 4.3.3.4-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-870 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame referring to figures 4.3.3.4-10 and 4.3.3.4-11.

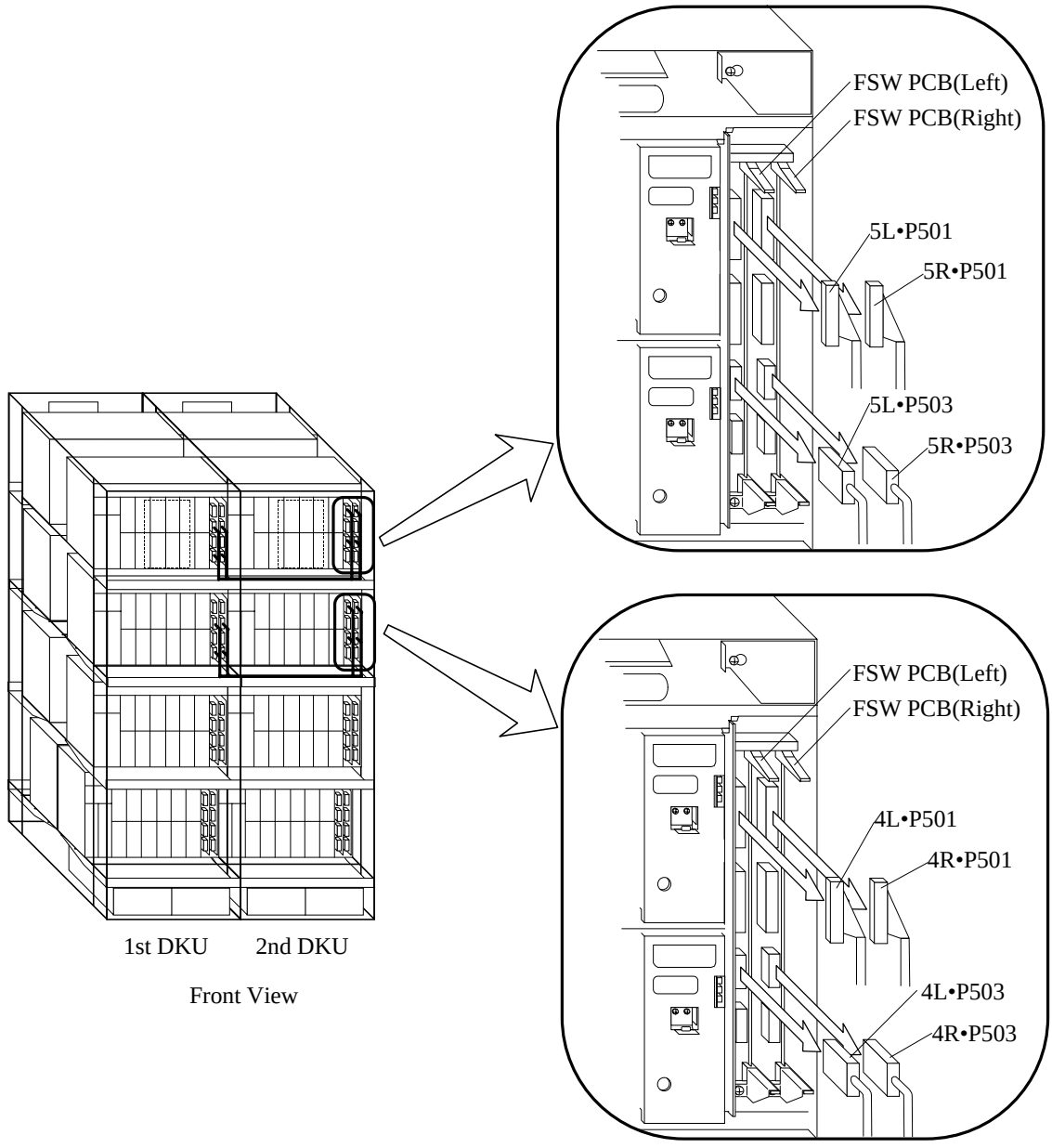


Fig. 4.3.3.4-10 Disconnection of the DEV Interface Cables

Copyright ©2000, Hitachi, Ltd.

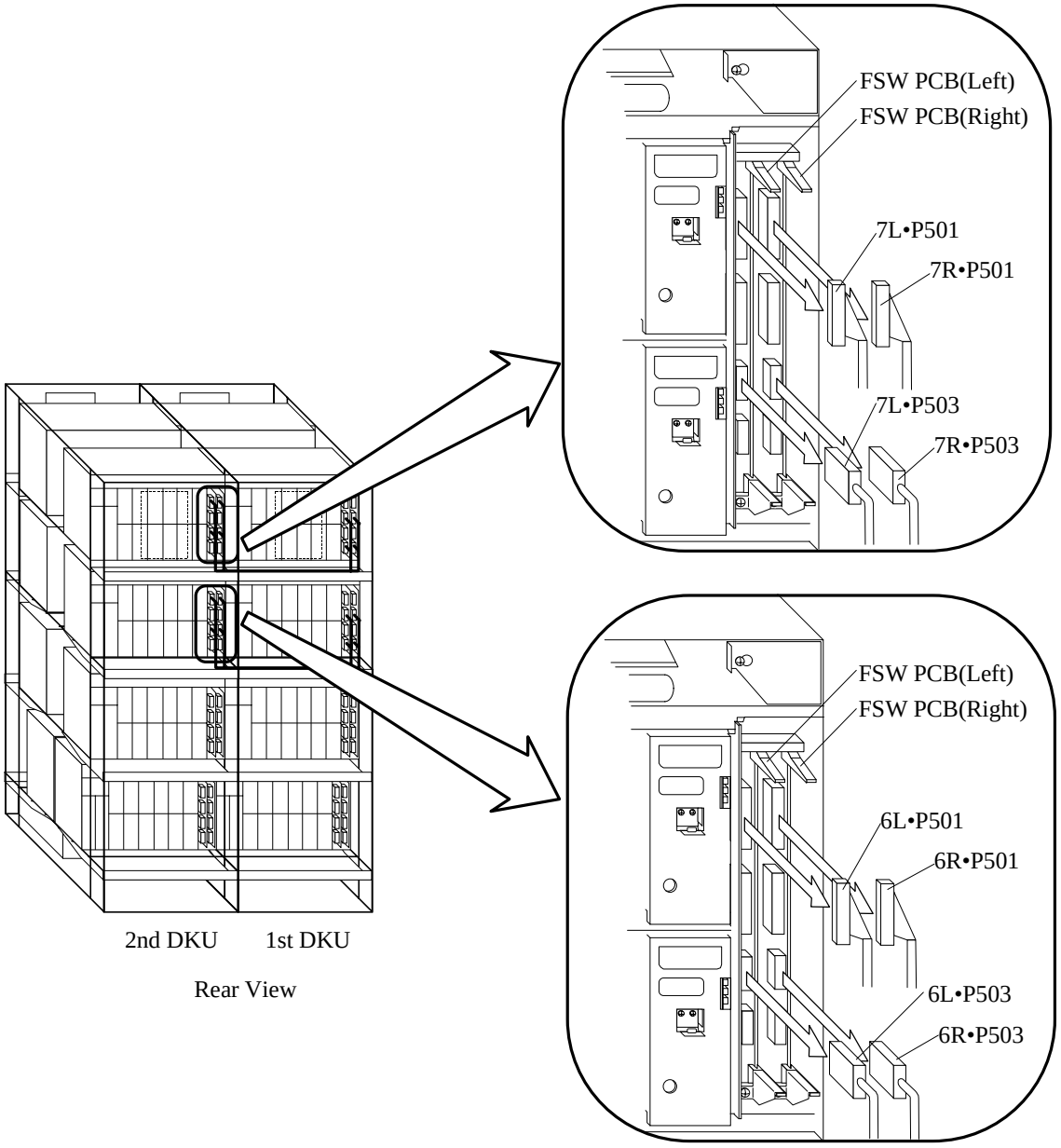


Fig. 4.3.3.4-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frames.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. When the second DKU frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the second DKU frame with the binders.

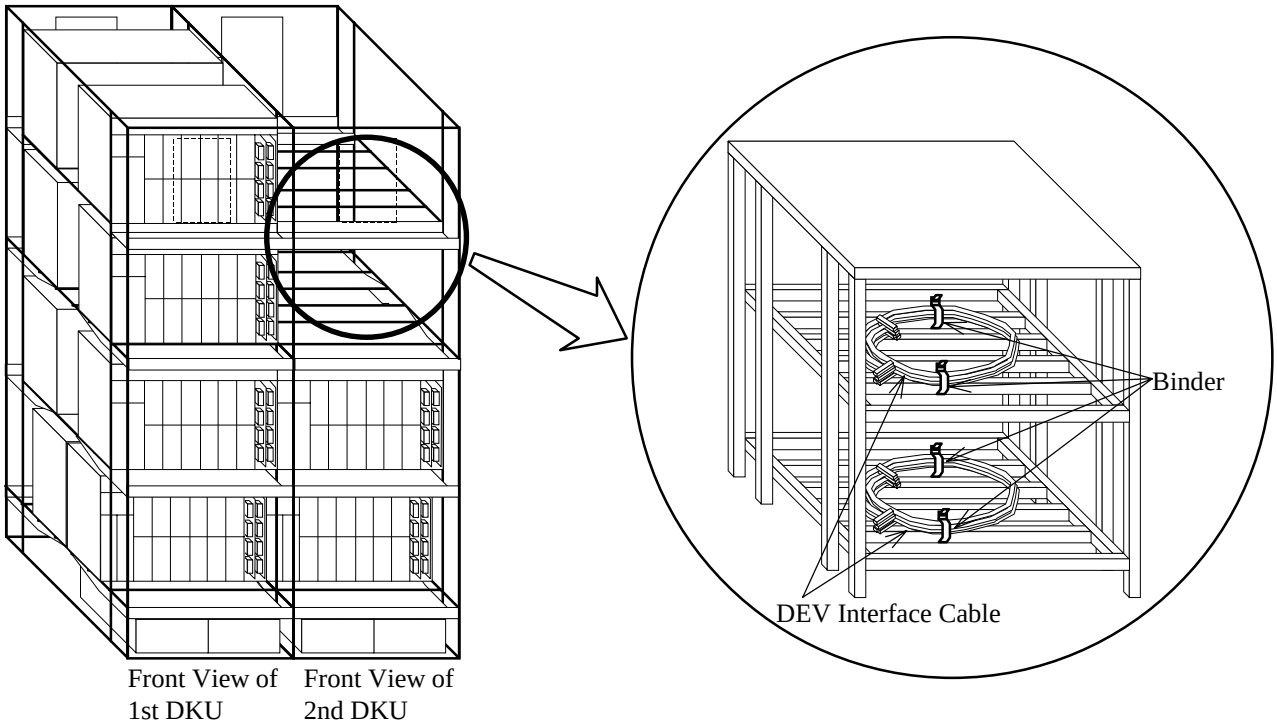


Fig. 4.3.3.4-12 Fixation of the DEV Interface Cables

15. Go to INST02-370 Step ⑪.

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4.3.3.5 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-L23 from L20)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

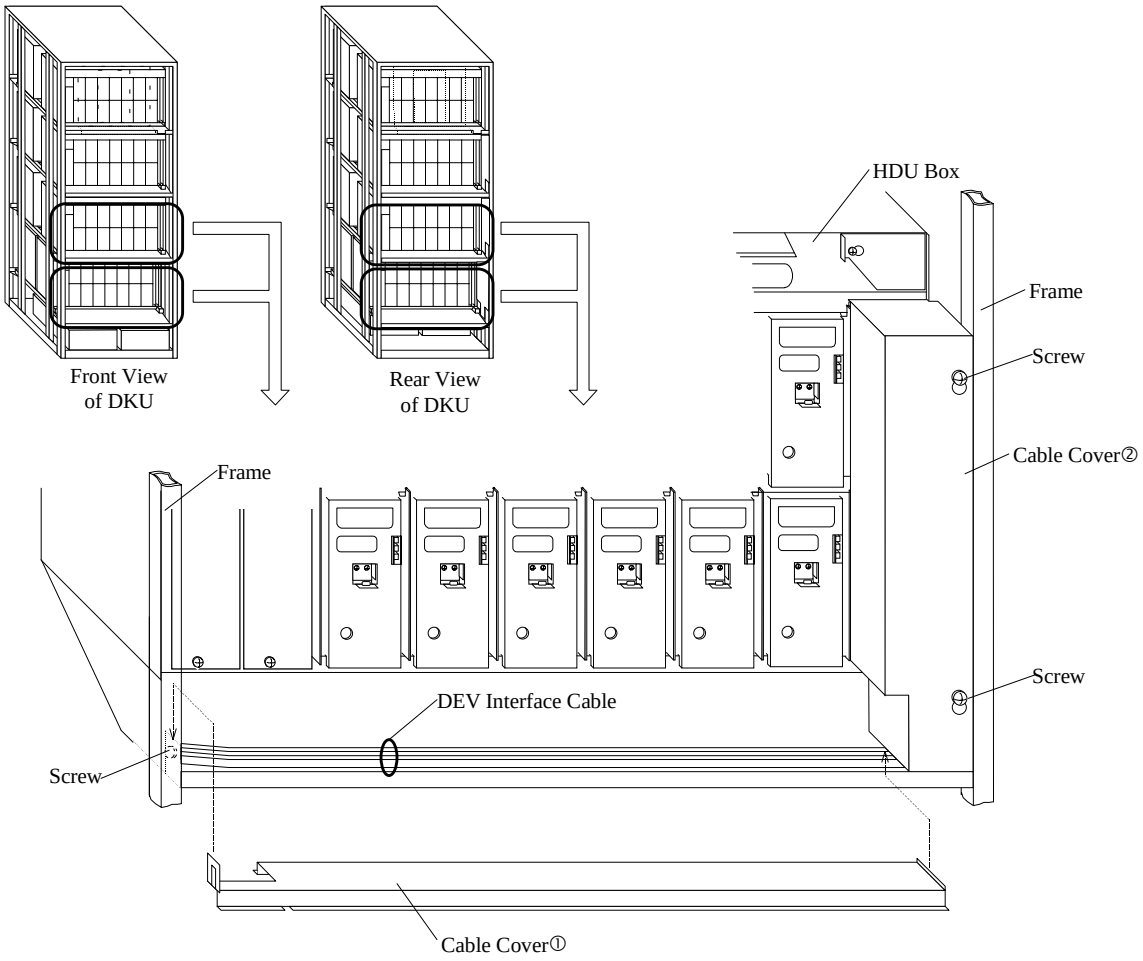


Fig. 4.3.3.5-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

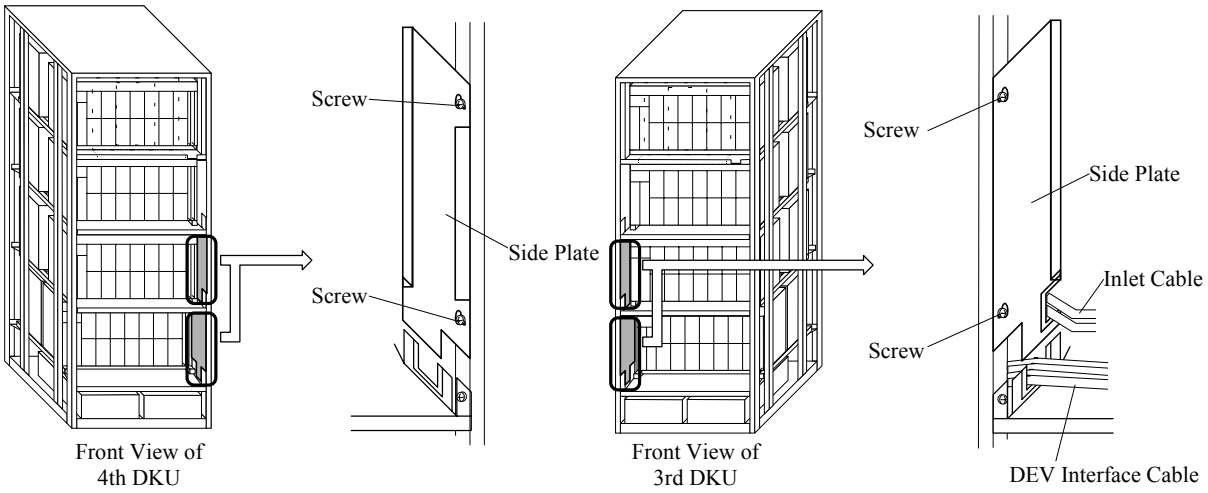


Fig. 4.3.3.5-2 Removal of Side Plates (Front View)

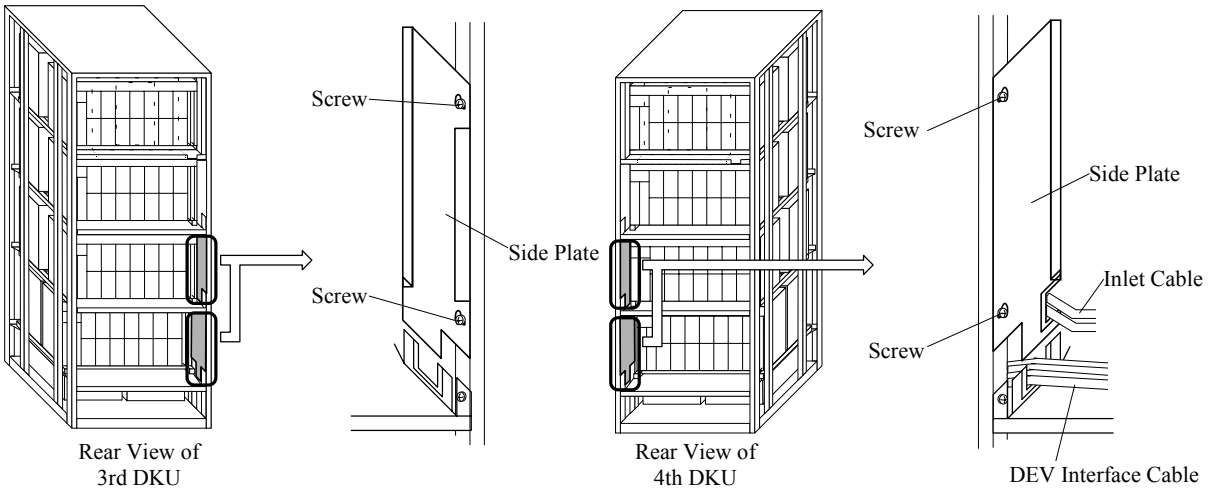


Fig. 4.3.3.5-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-930 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame referring to figures 4.3.3.5-5 and 4.3.3.5-6.

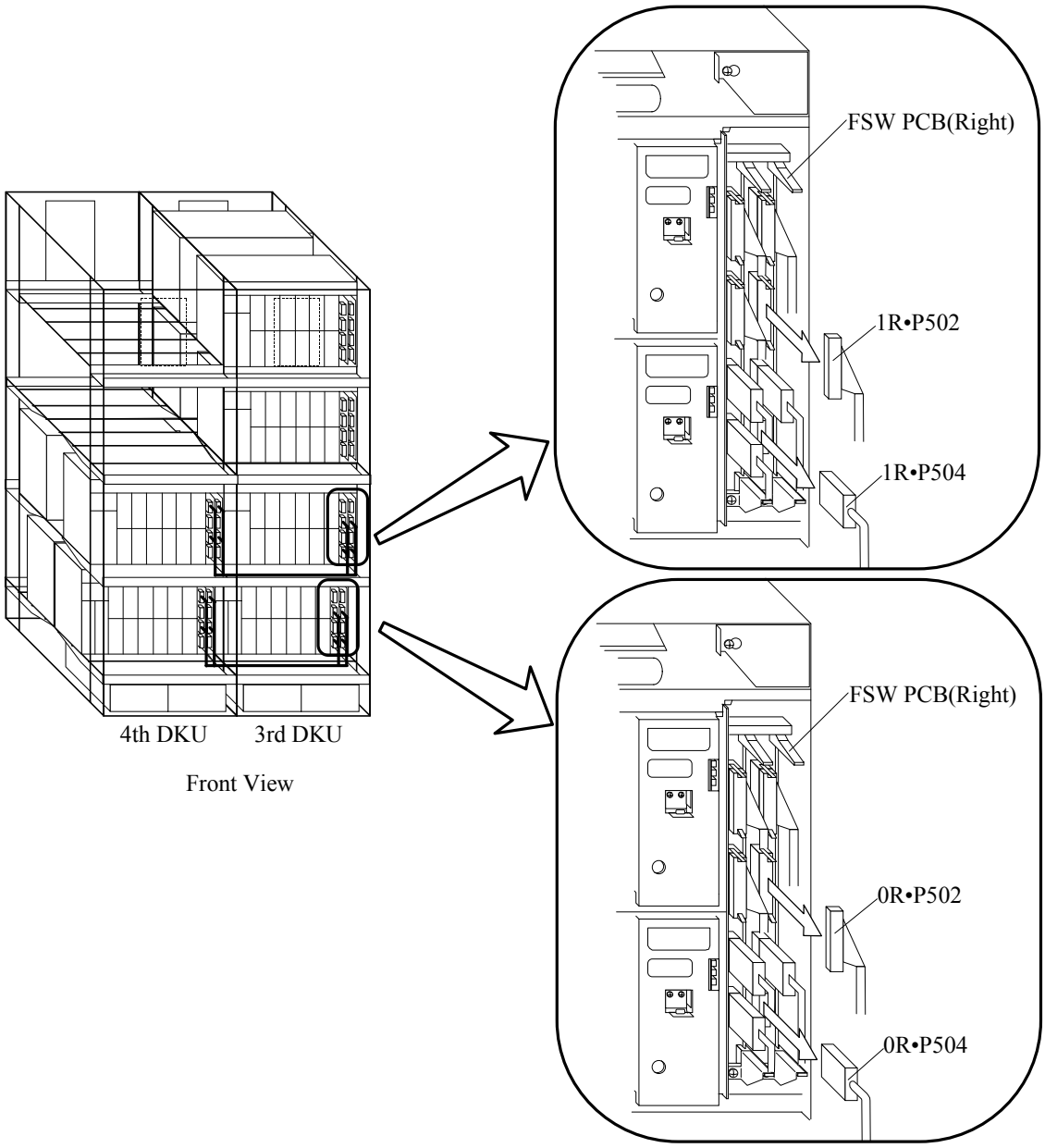


Fig. 4.3.3.5-5 Disconnection of the DEV Interface Cables

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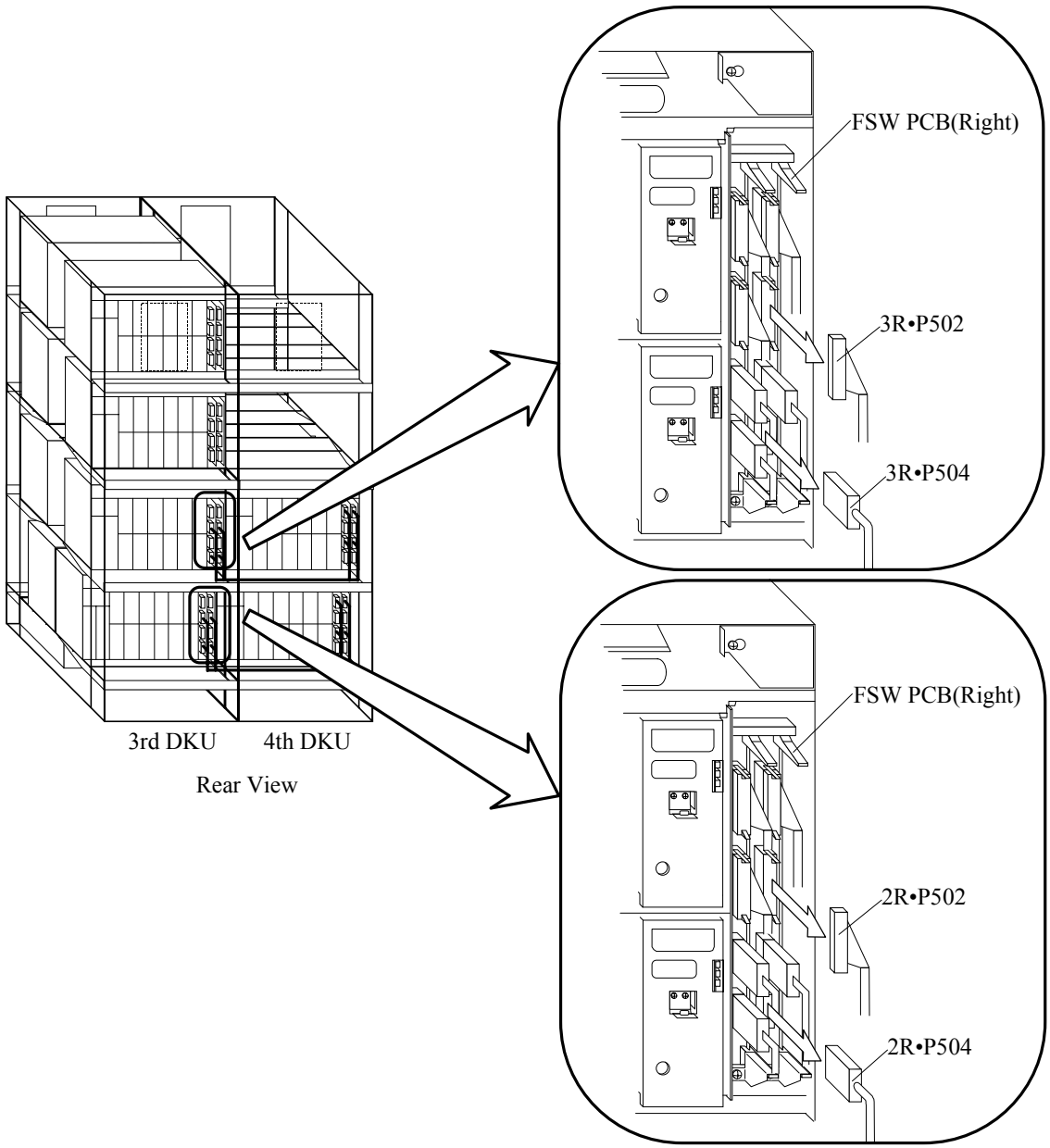


Fig. 4.3.3.5-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-960 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame referring to figures 4.3.3.5-8 and 4.3.3.5-9.

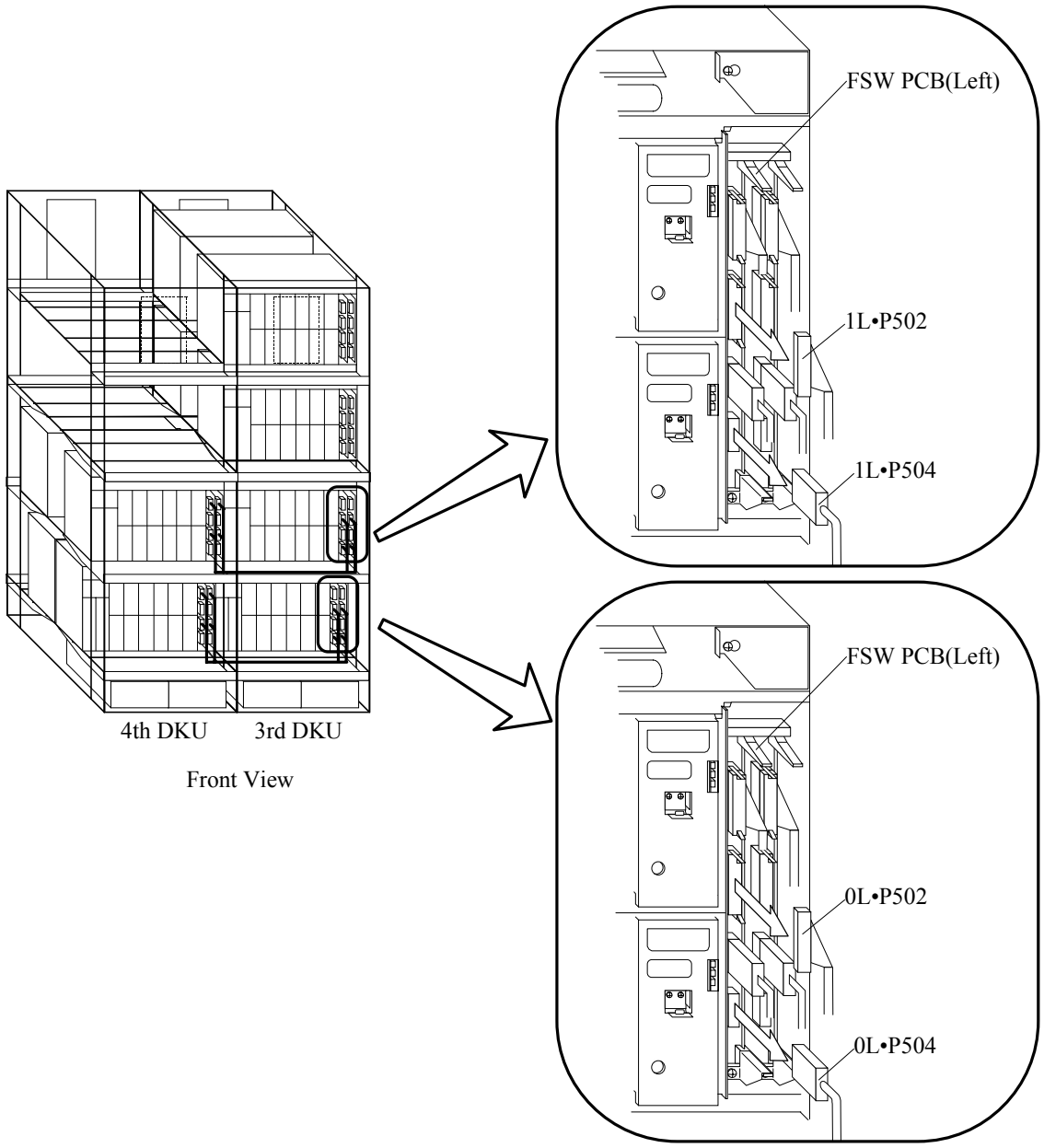


Fig. 4.3.3.5-8 Disconnection of the DEV Interface Cables

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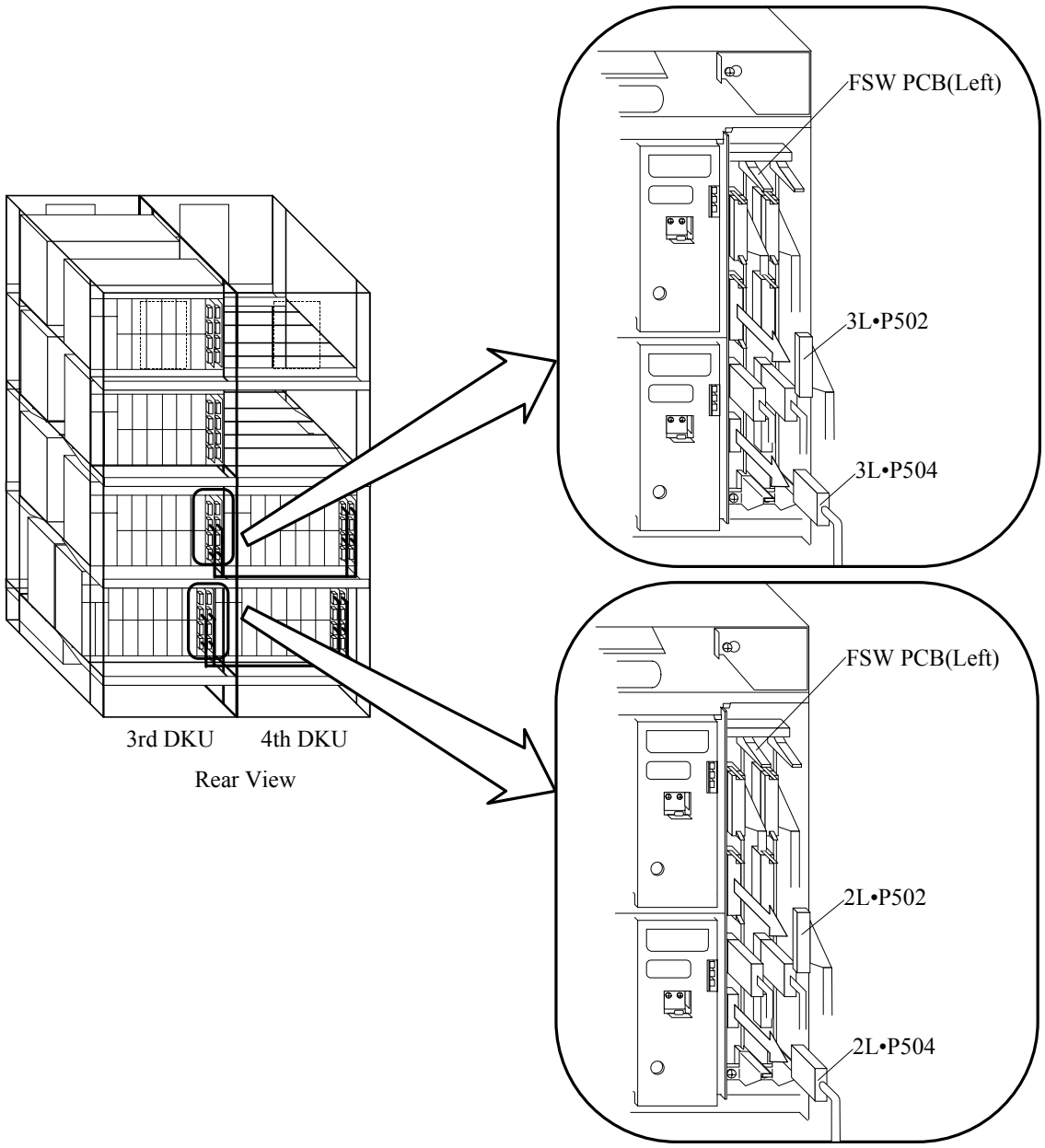


Fig. 4.3.3.5-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-980 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame referring to figures 4.3.3.5-10 and 4.3.3.5-11.

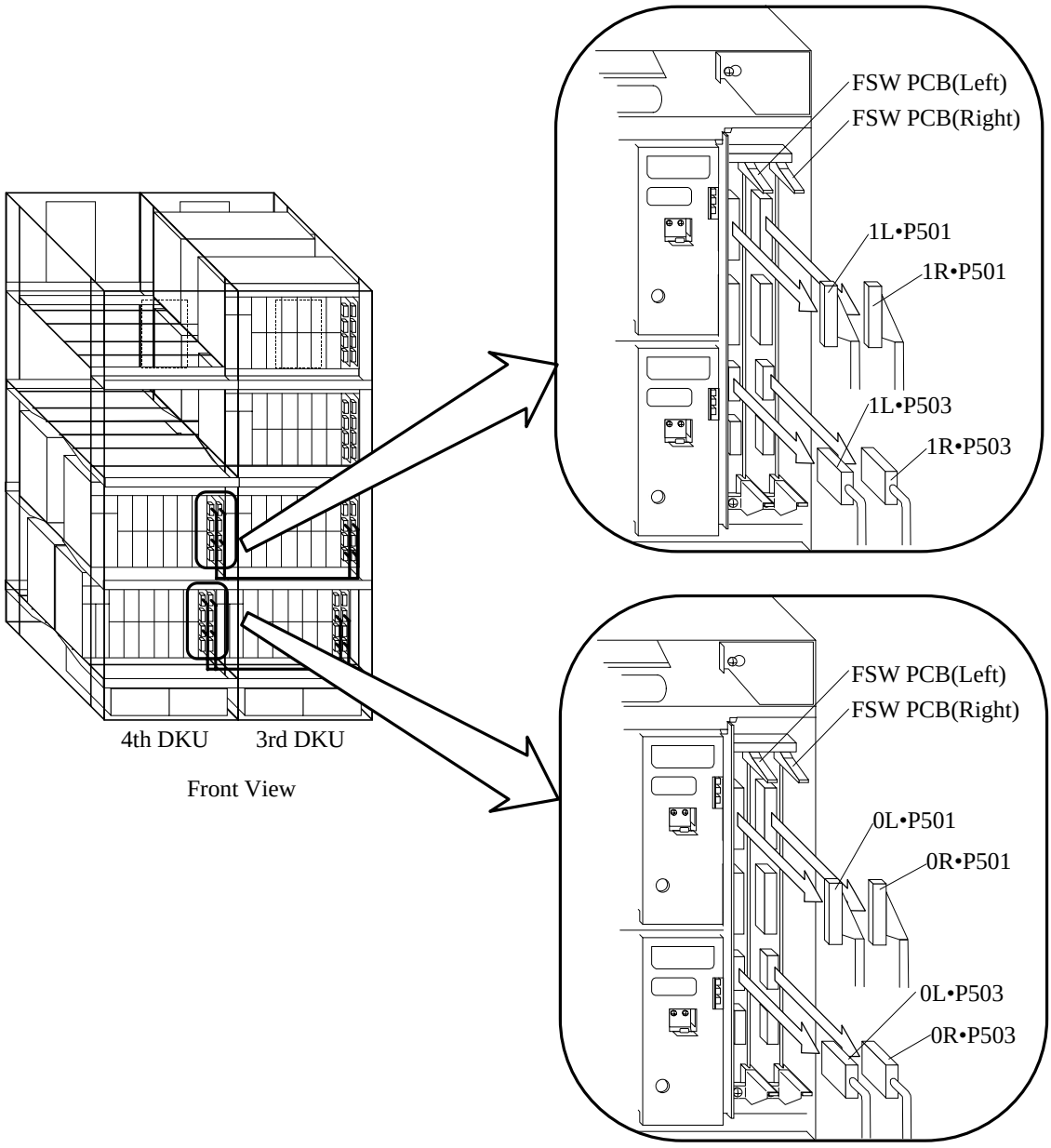


Fig. 4.3.3.5-10 Disconnection of the DEV Interface Cables

Copyright ©2000, Hitachi, Ltd.

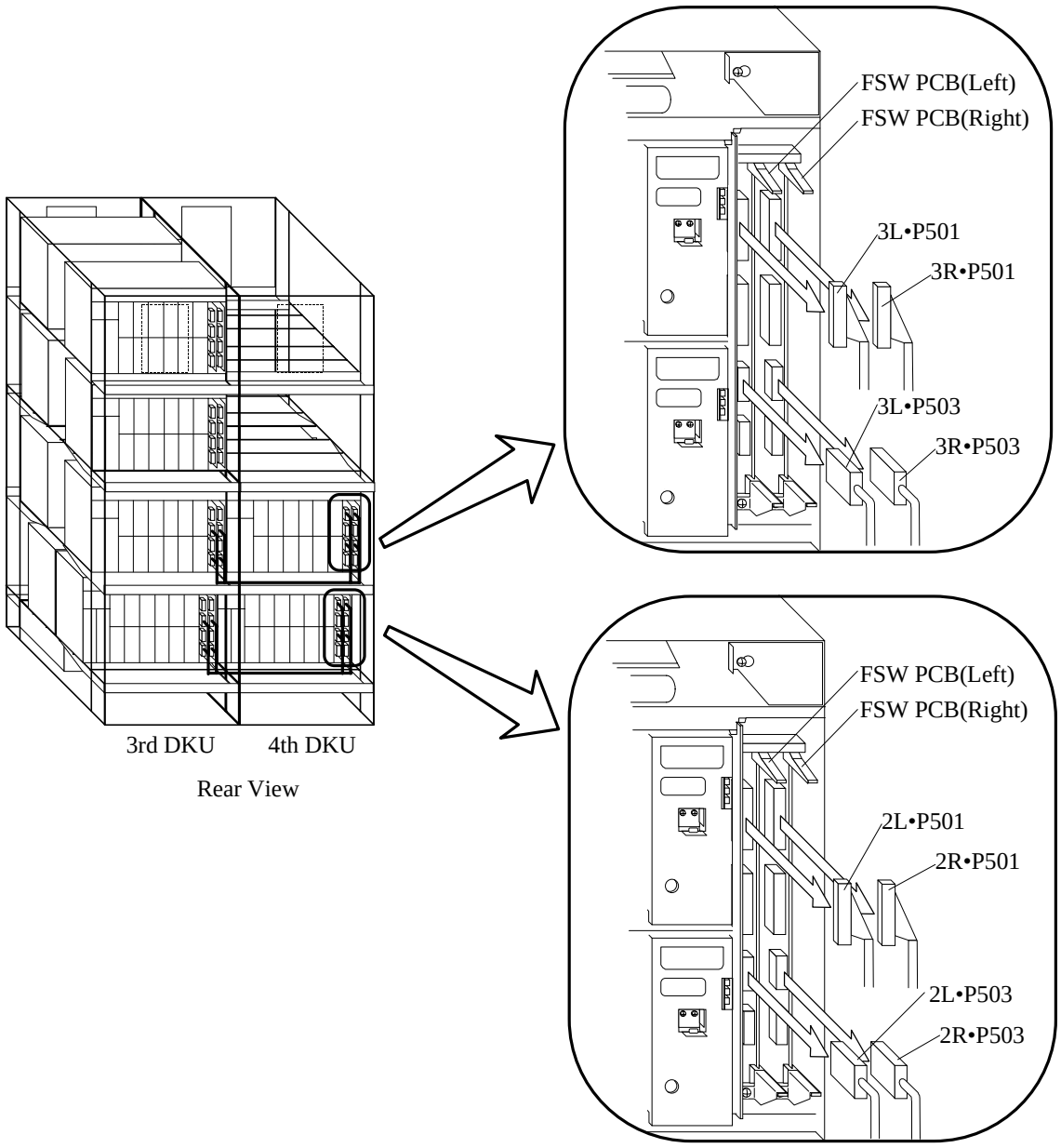


Fig. 4.3.3.5-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frames.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. Remove the nameplate from the fourth DKU frame.

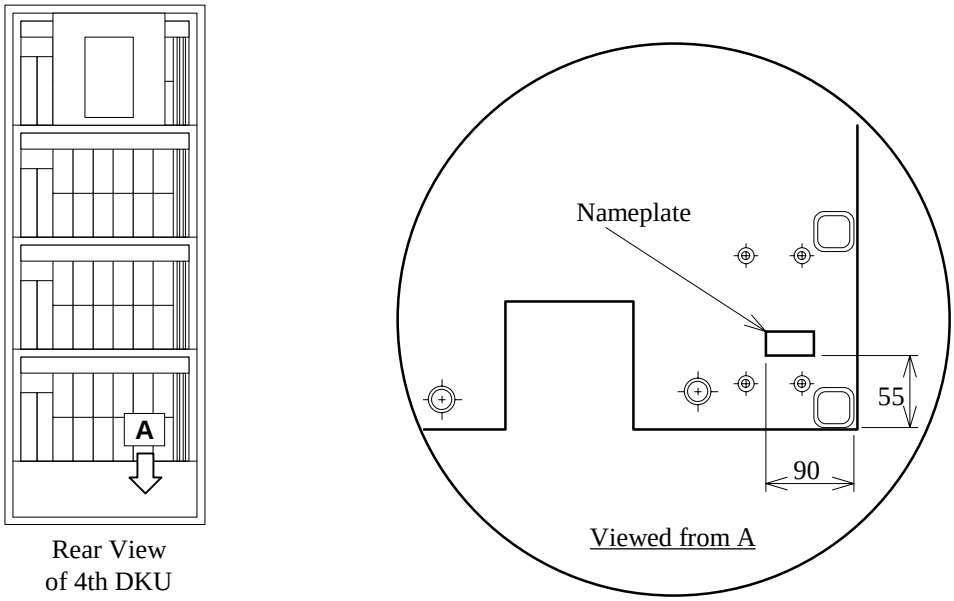


Fig. 4.3.3.5-12 Removal of the Nameplate

15. Go to INST02-370 Step ⑪.

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4.3.3.6 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-L27 from L24)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

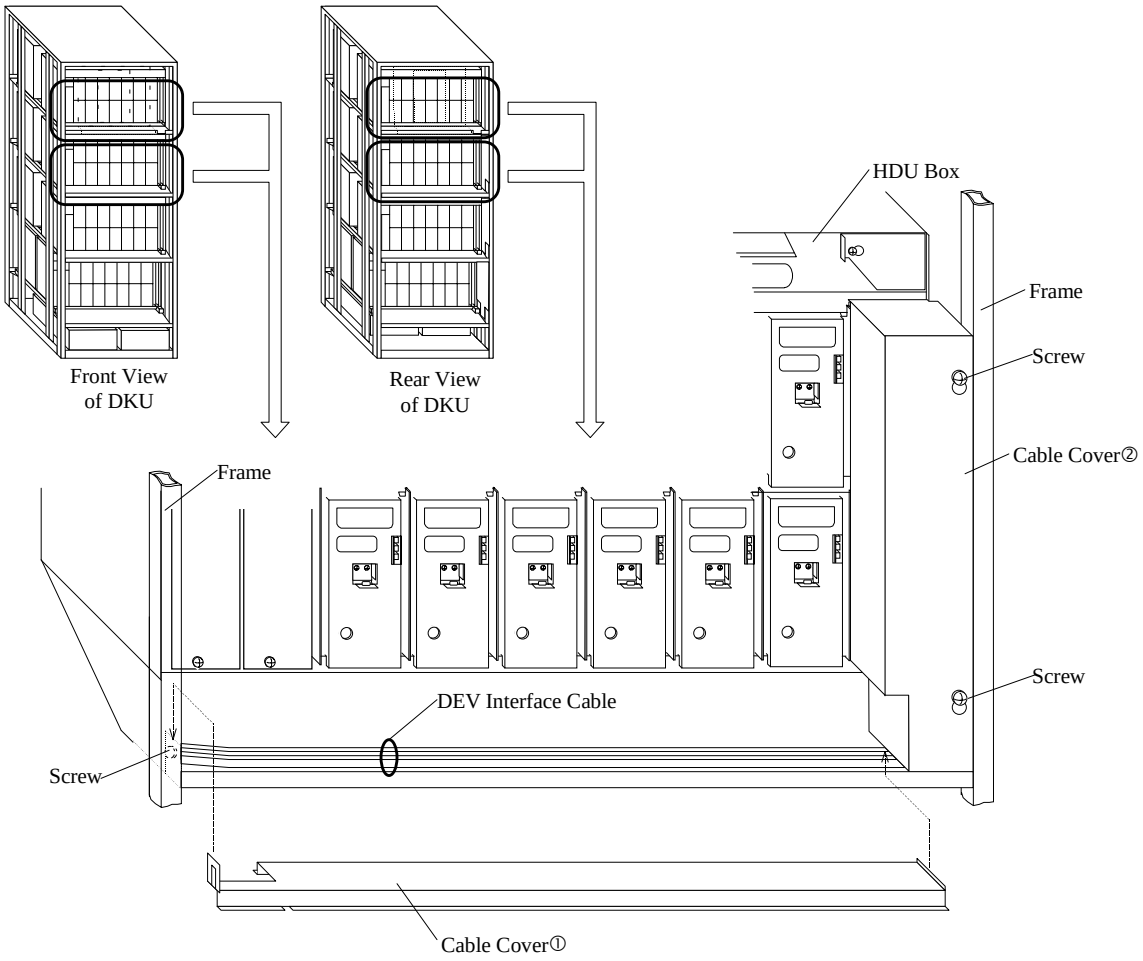


Fig. 4.3.3.6-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

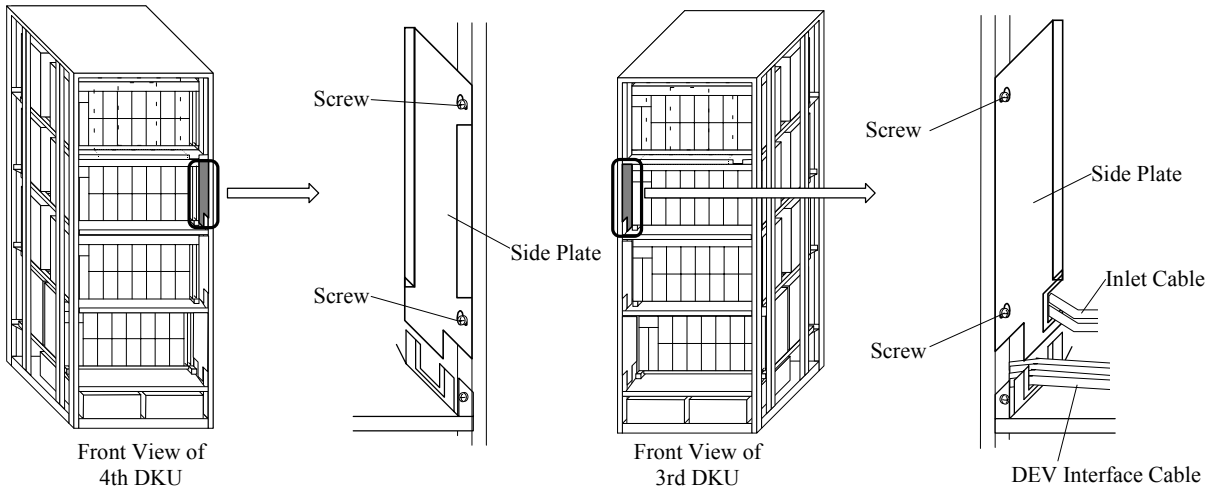


Fig. 4.3.3.6-2 Removal of Side Plates (Front View)

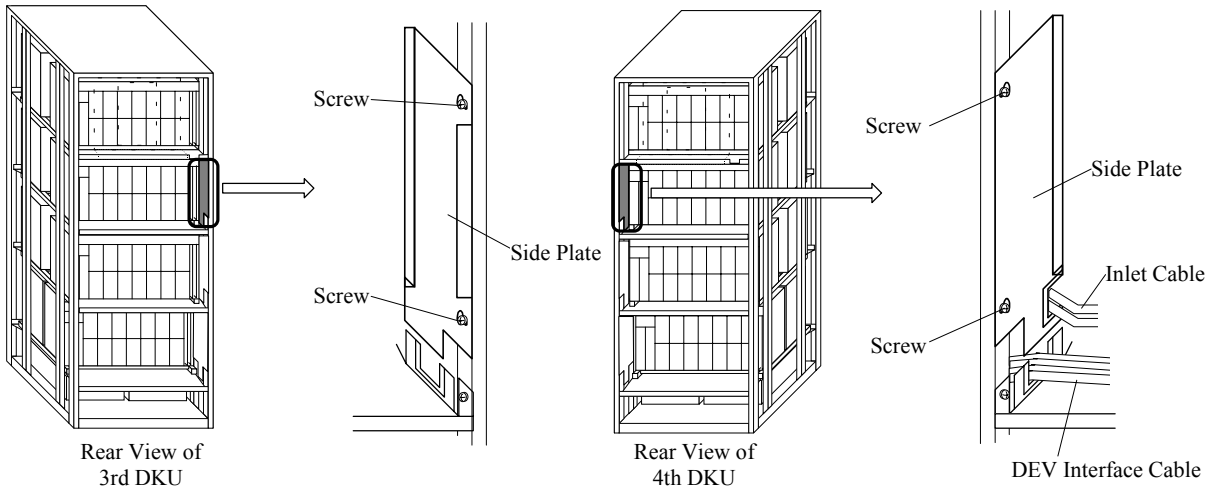


Fig. 4.3.3.6-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-1040 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame referring to figures 4.3.3.6-5 and 4.3.3.6-6.

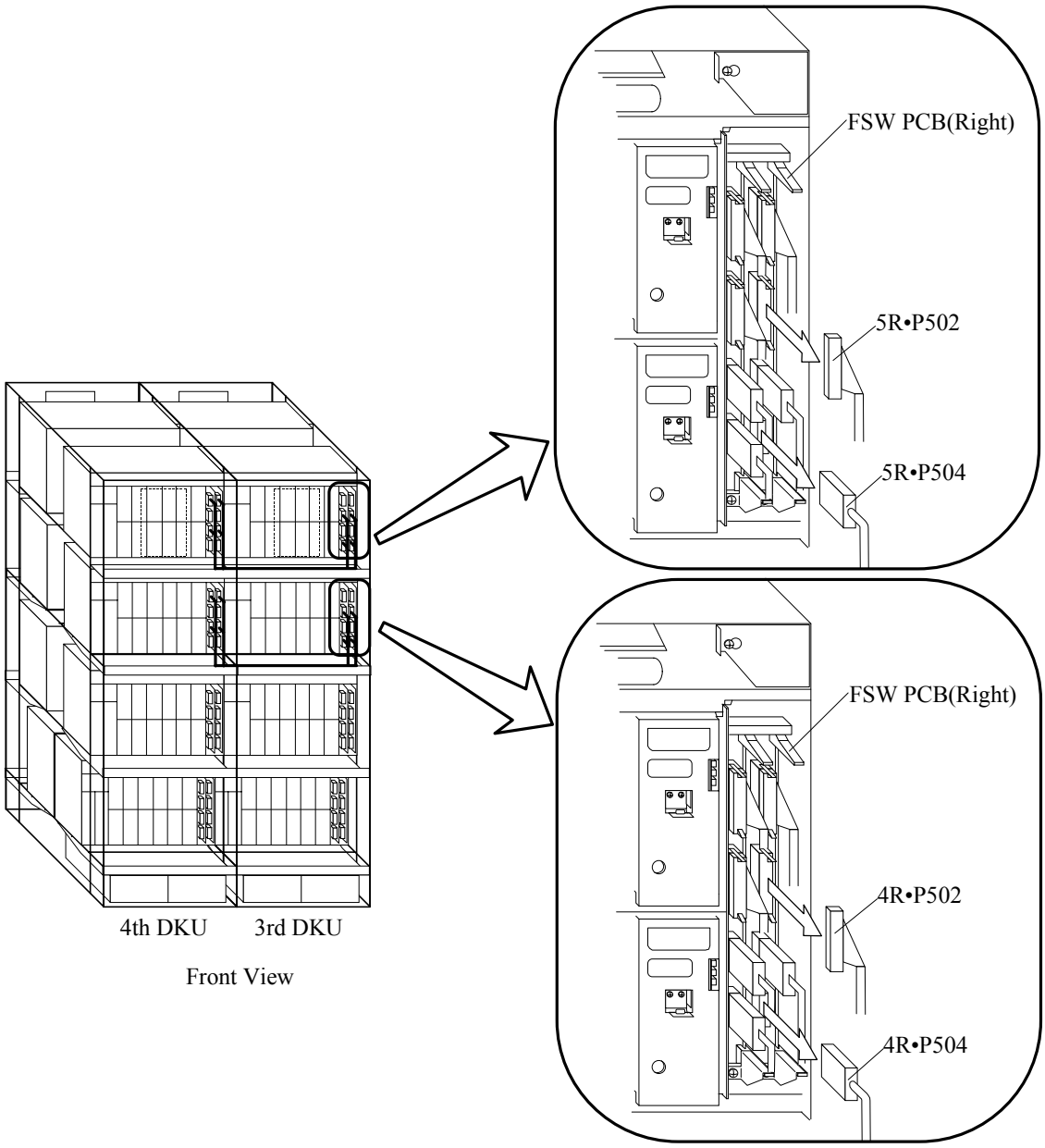


Fig. 4.3.3.6-5 Disconnection of the DEV Interface Cables

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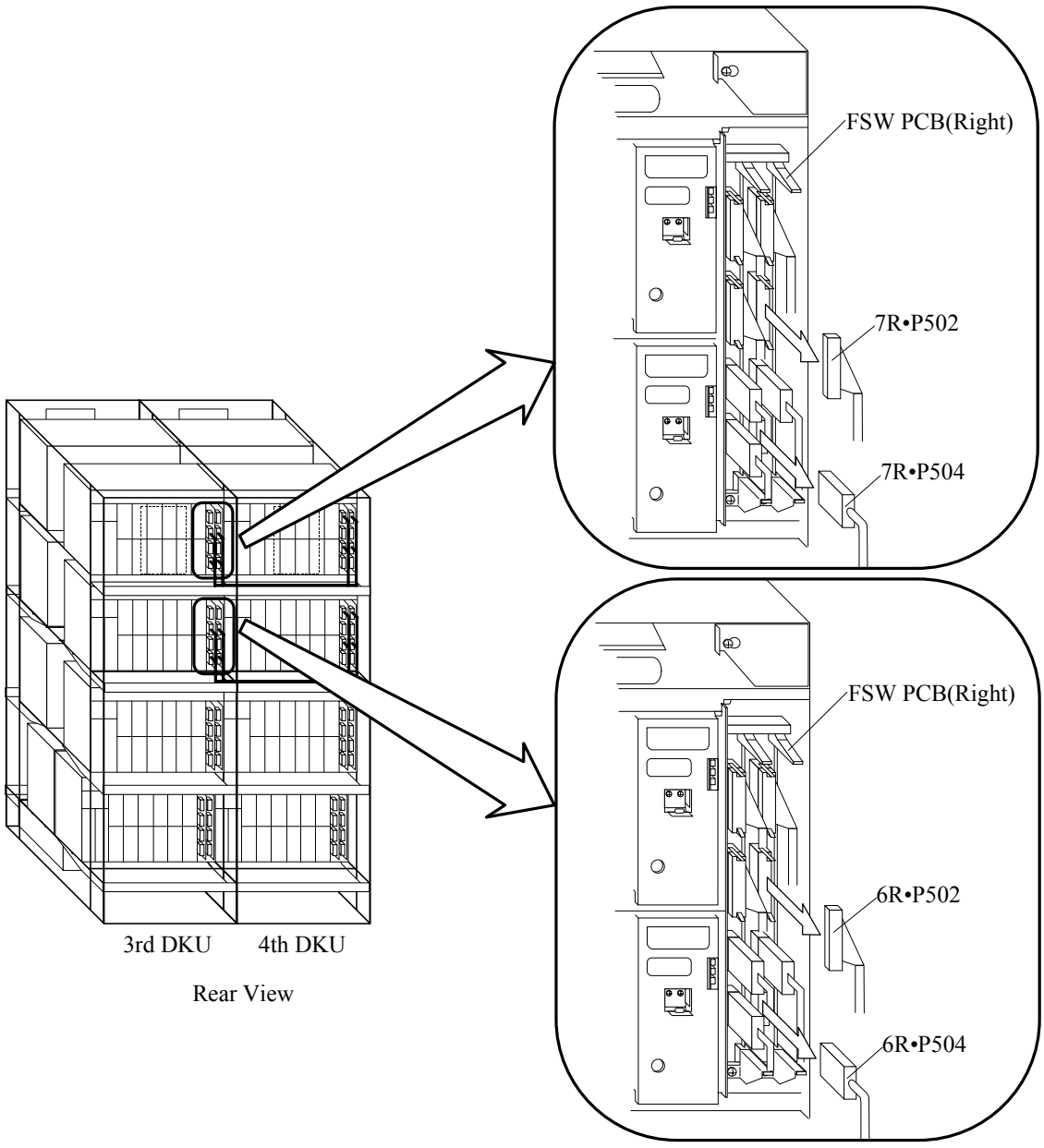


Fig. 4.3.3.6-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1070 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the third DKU frame referring to figures 4.3.3.6-8 and 4.3.3.6-9.

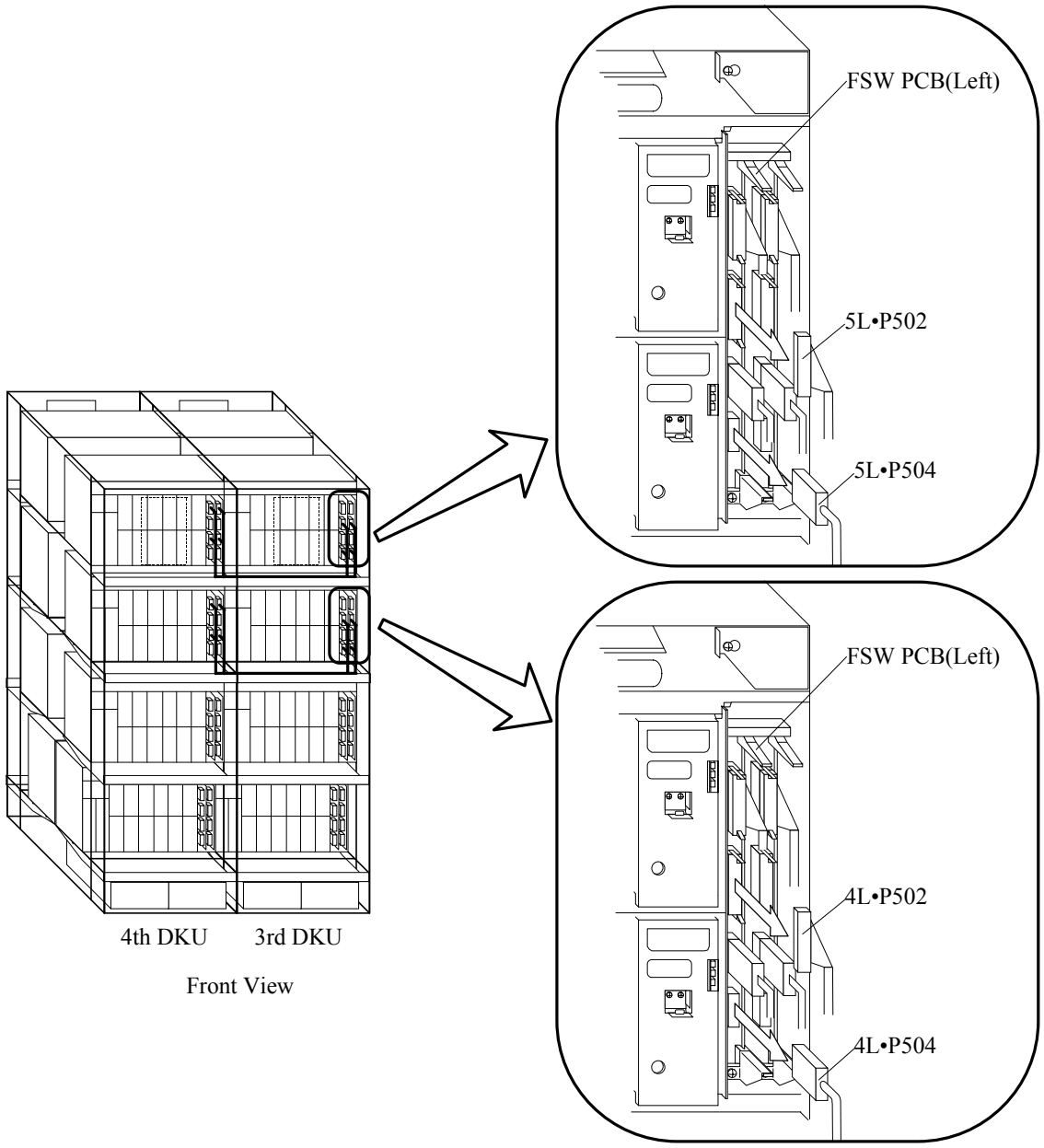


Fig. 4.3.3.6-8 Disconnection of the DEV Interface Cables

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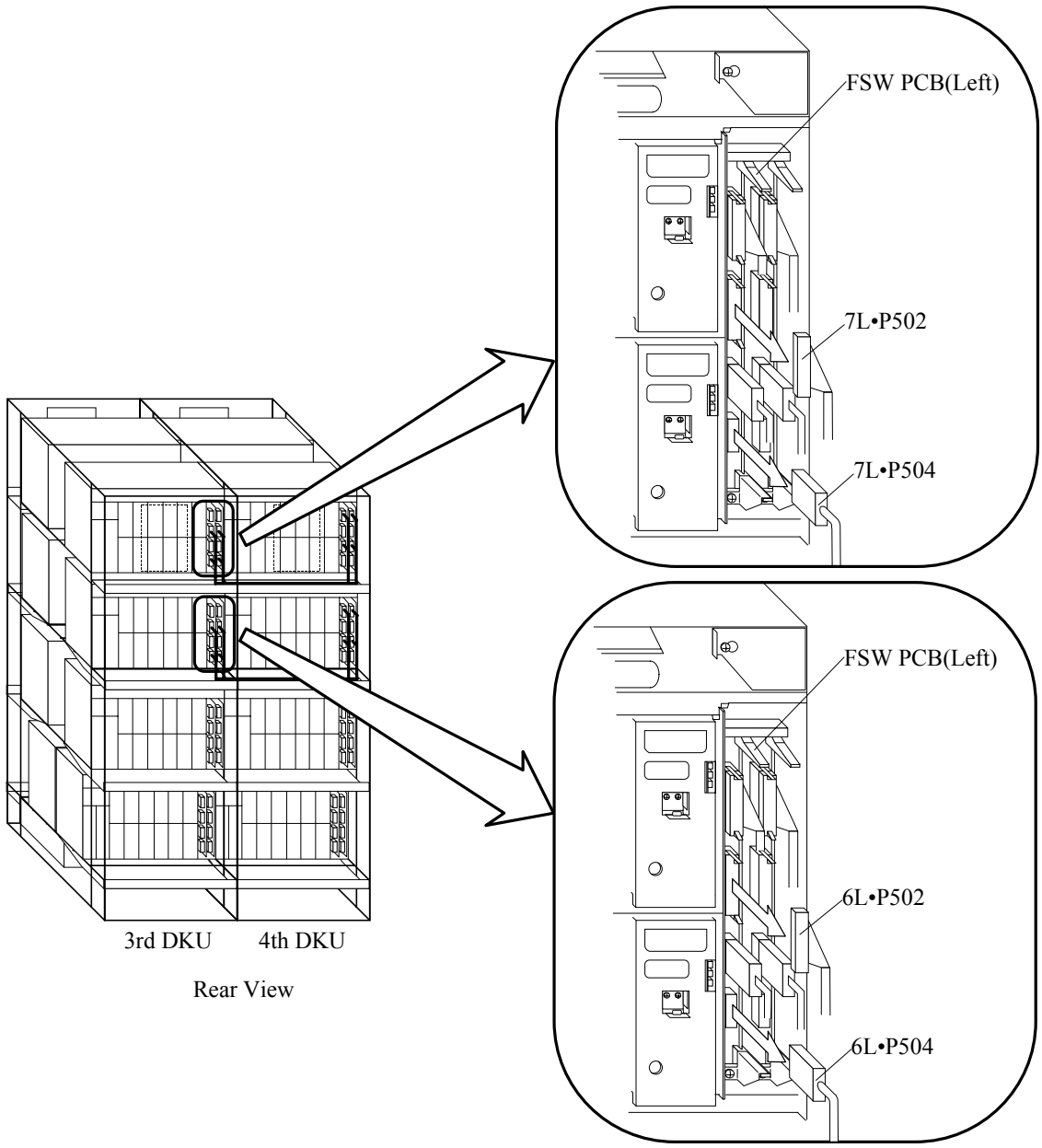


Fig. 4.3.3.6-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1090 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame referring to figures 4.3.3.6-10 and 4.3.3.6-11.

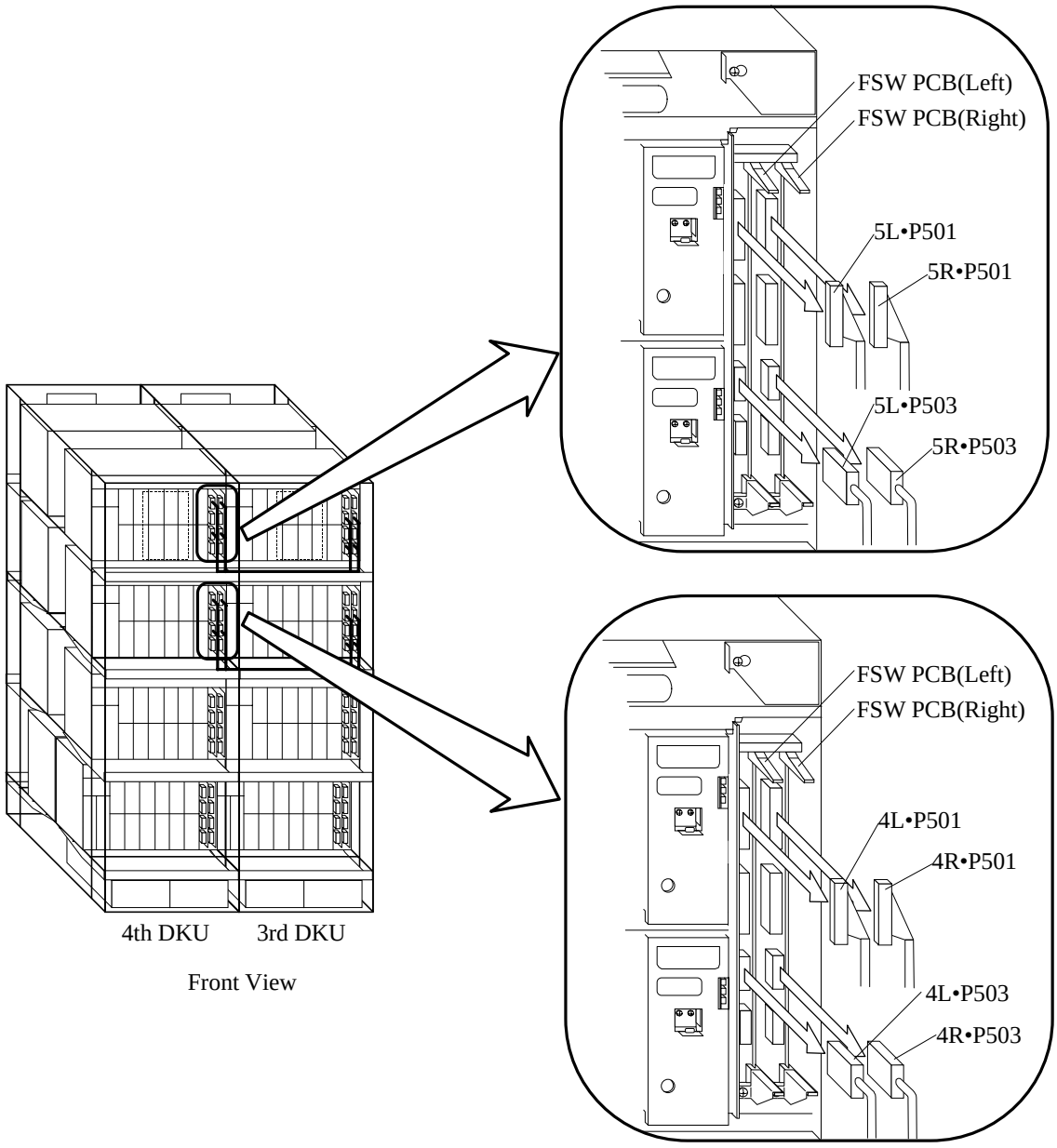


Fig. 4.3.3.6-10 Disconnection of the DEV Interface Cables

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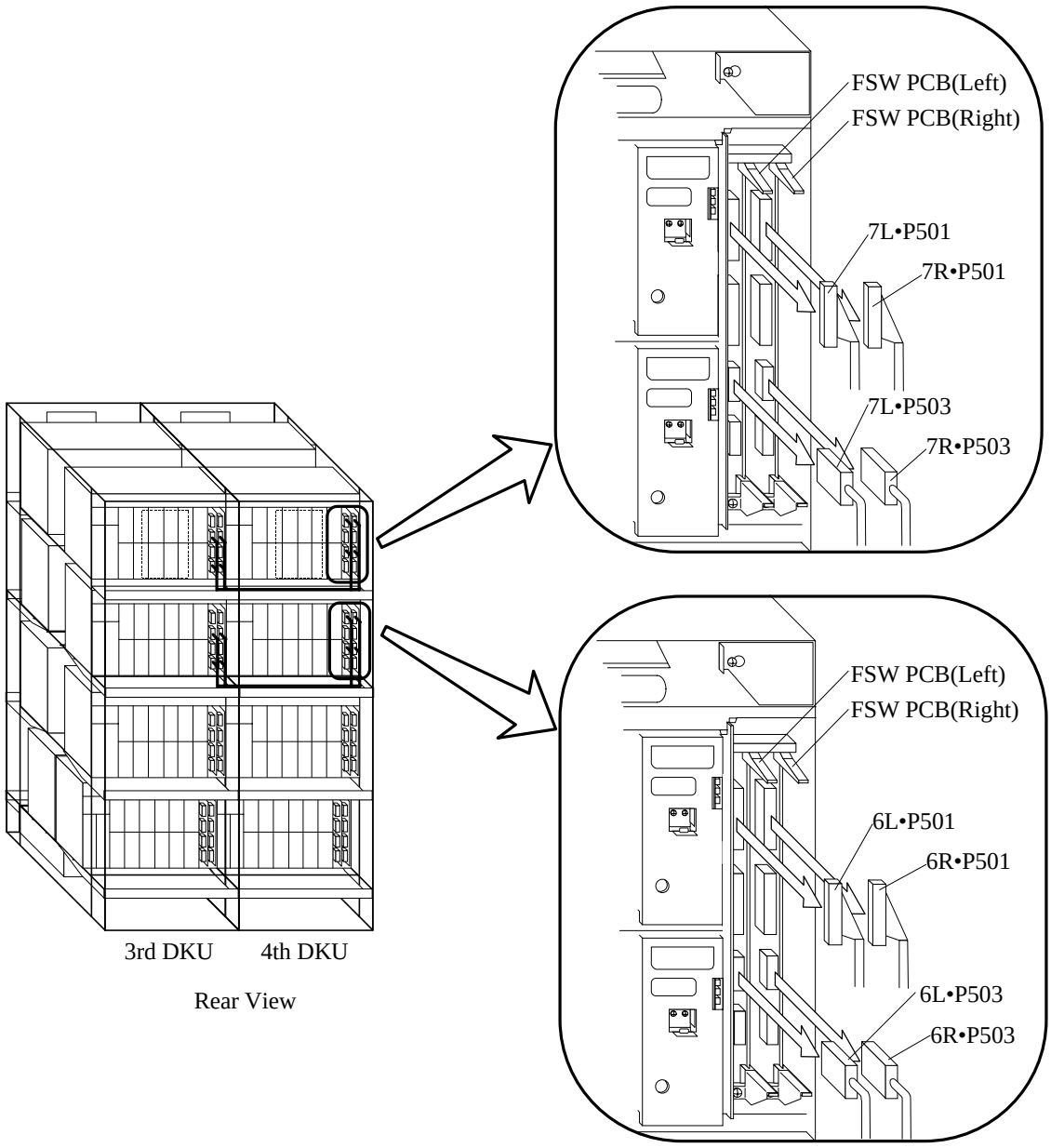


Fig. 4.3.3.6-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frames.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. When the fourth DKU frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the fourth DKU frame with the binders.

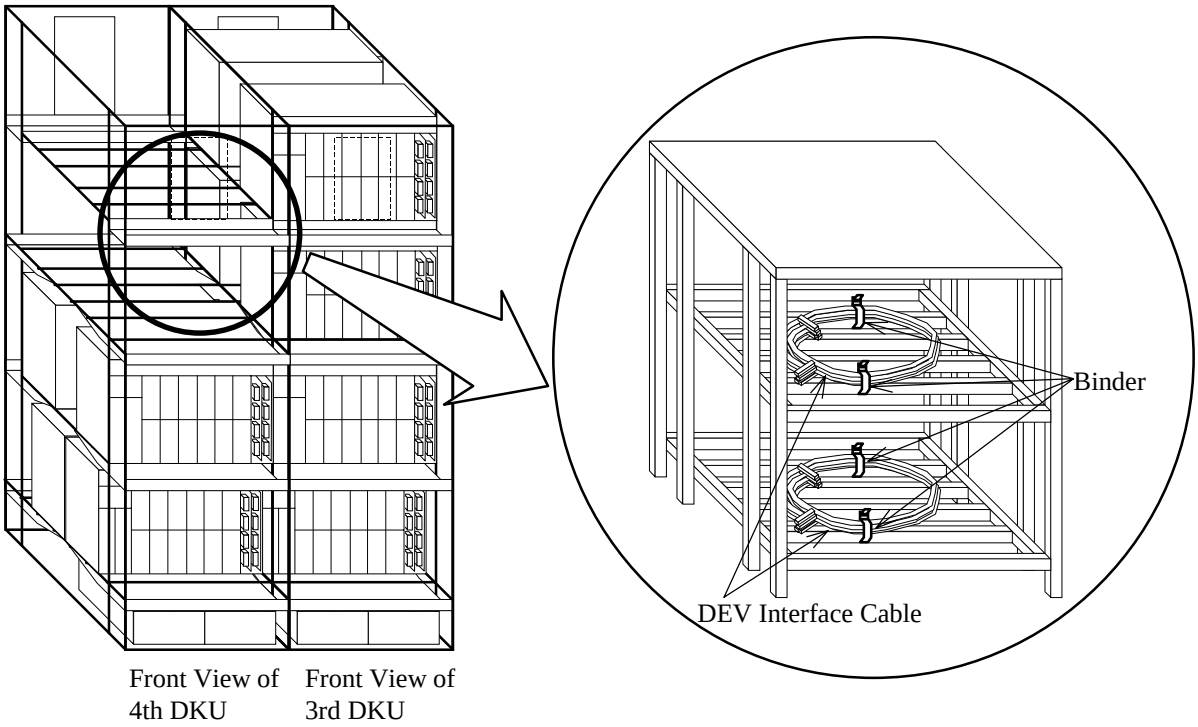


Fig. 4.3.3.6-12 Fixation of the DEV Interface Cables

15. Go to INST02-370 Step ⑪.

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4.3.3.7 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-R33 from R30)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frames.

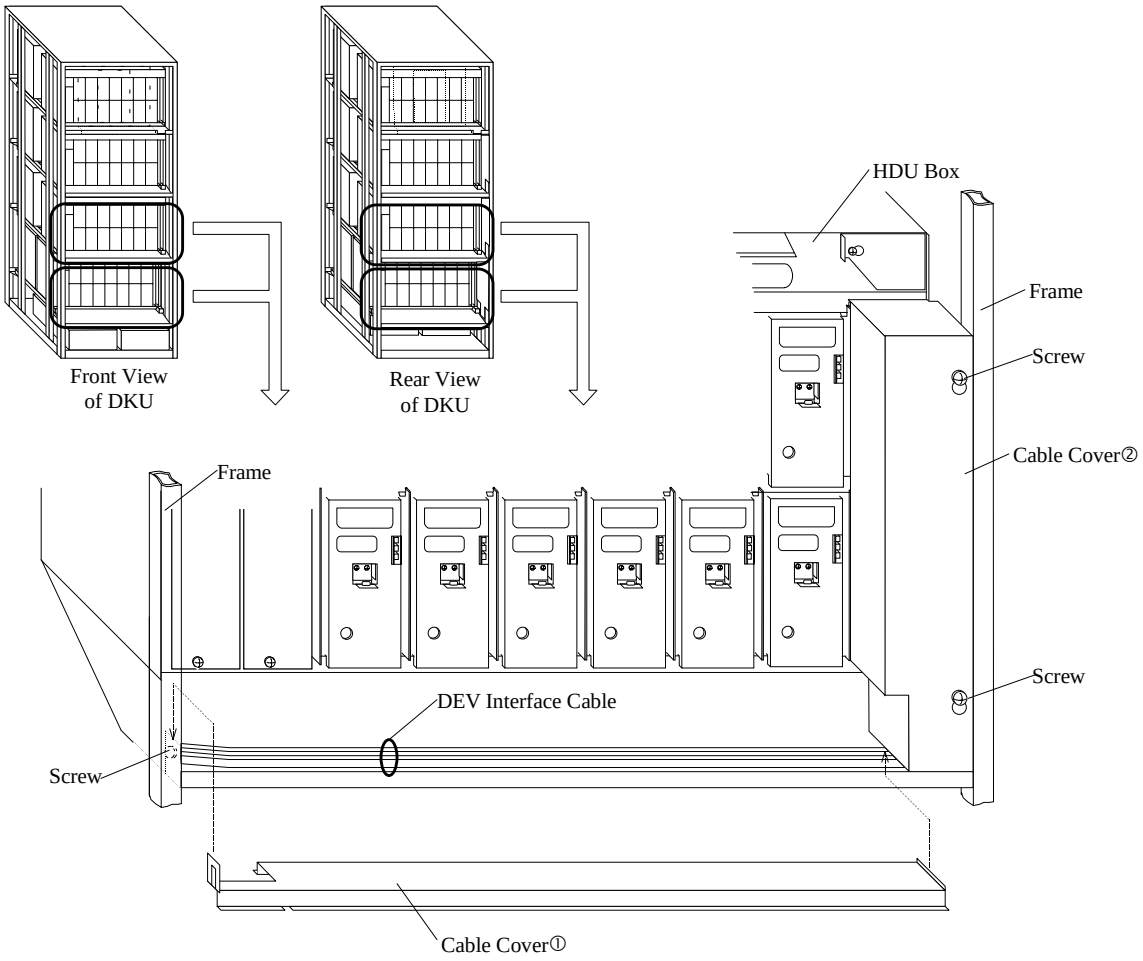


Fig. 4.3.3.7-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frames.

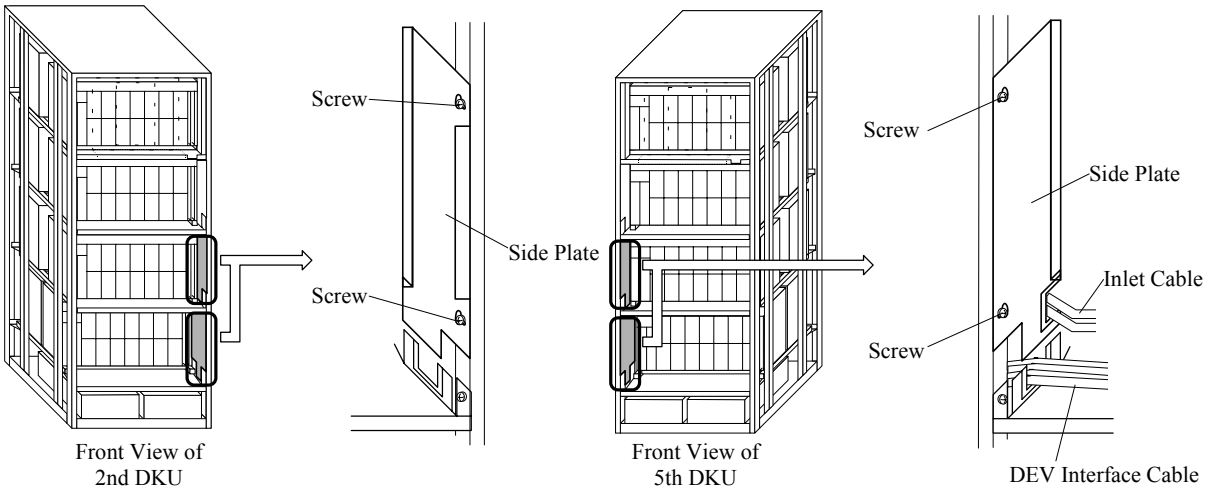


Fig. 4.3.3.7-2 Removal of Side Plates (Front View)

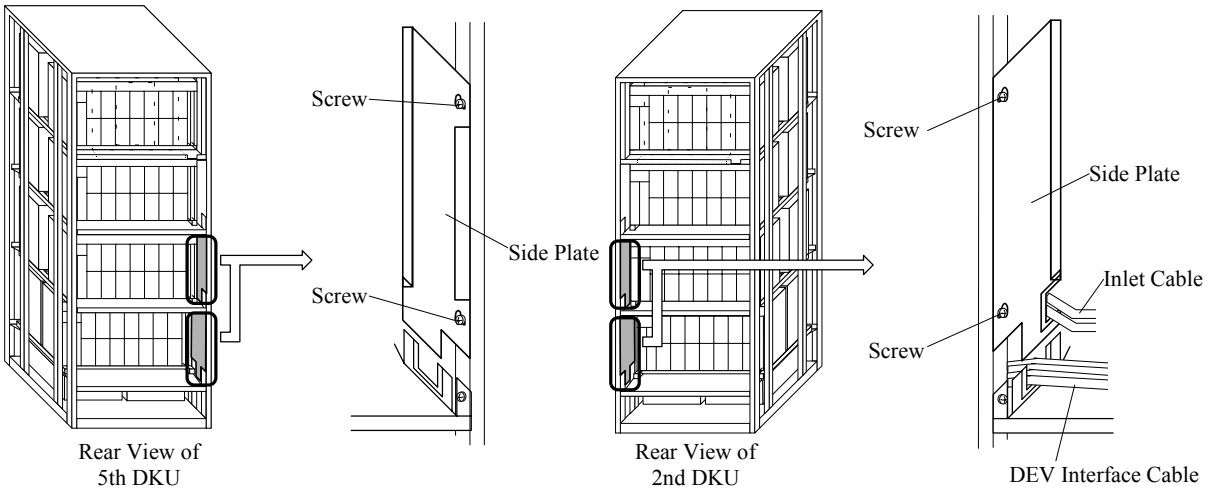


Fig. 4.3.3.7-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-1150 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame referring to figures 4.3.3.7-5 and 4.3.3.7-6.

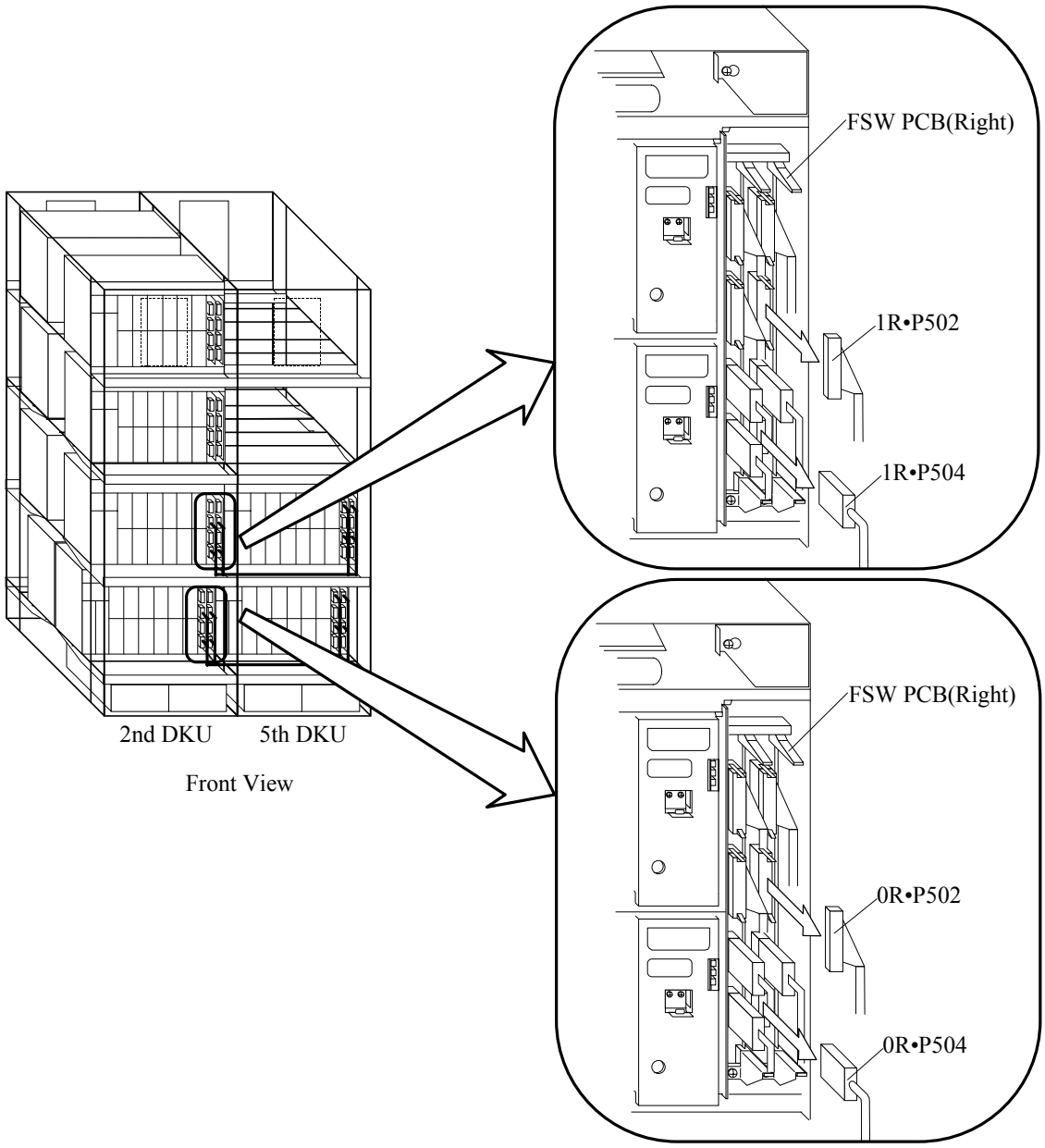


Fig. 4.3.3.7-5 Disconnection of the DEV Interface Cables

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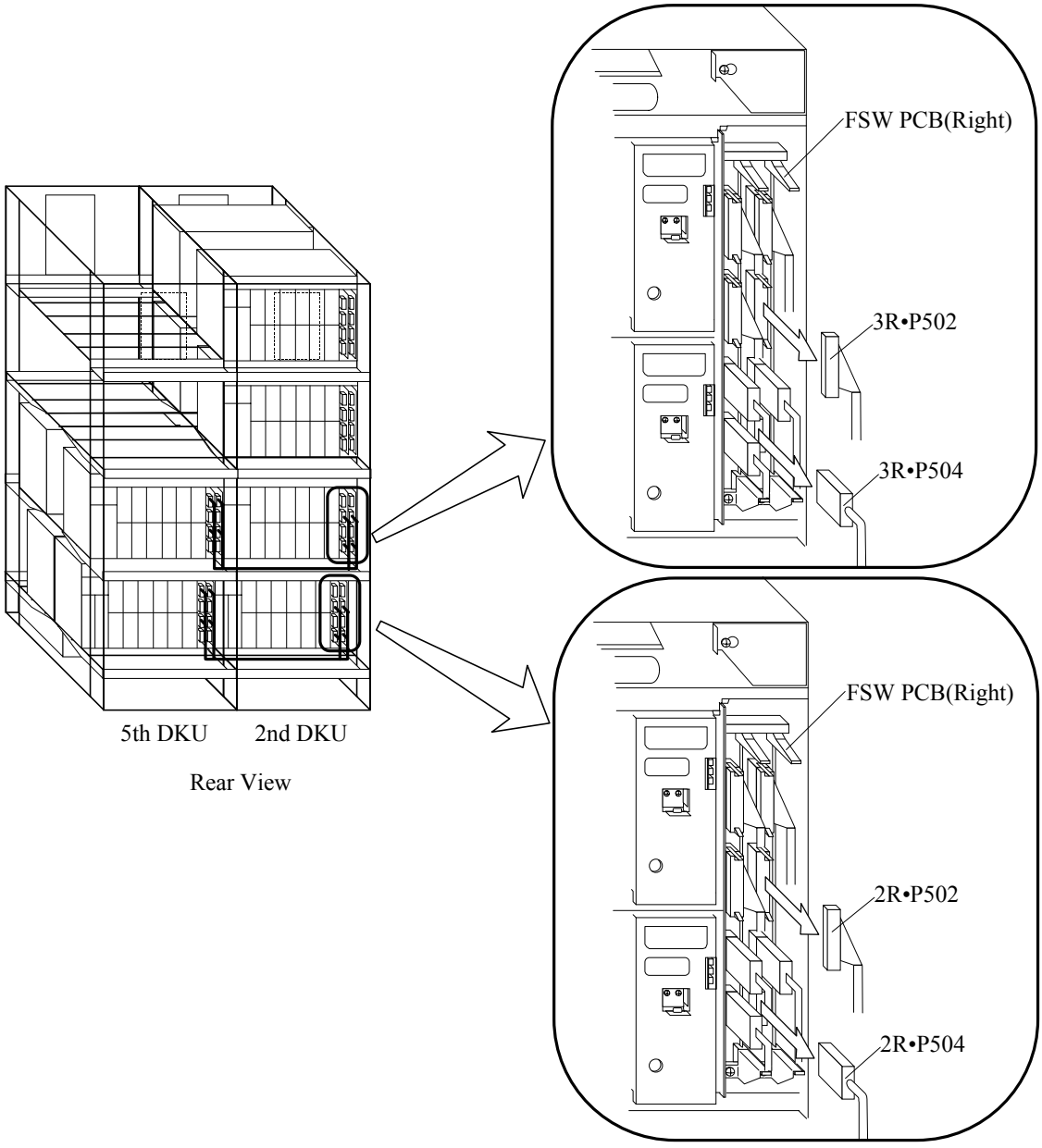


Fig. 4.3.3.7-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1180 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame referring to figures 4.3.3.7-8 and 4.3.3.7-9.

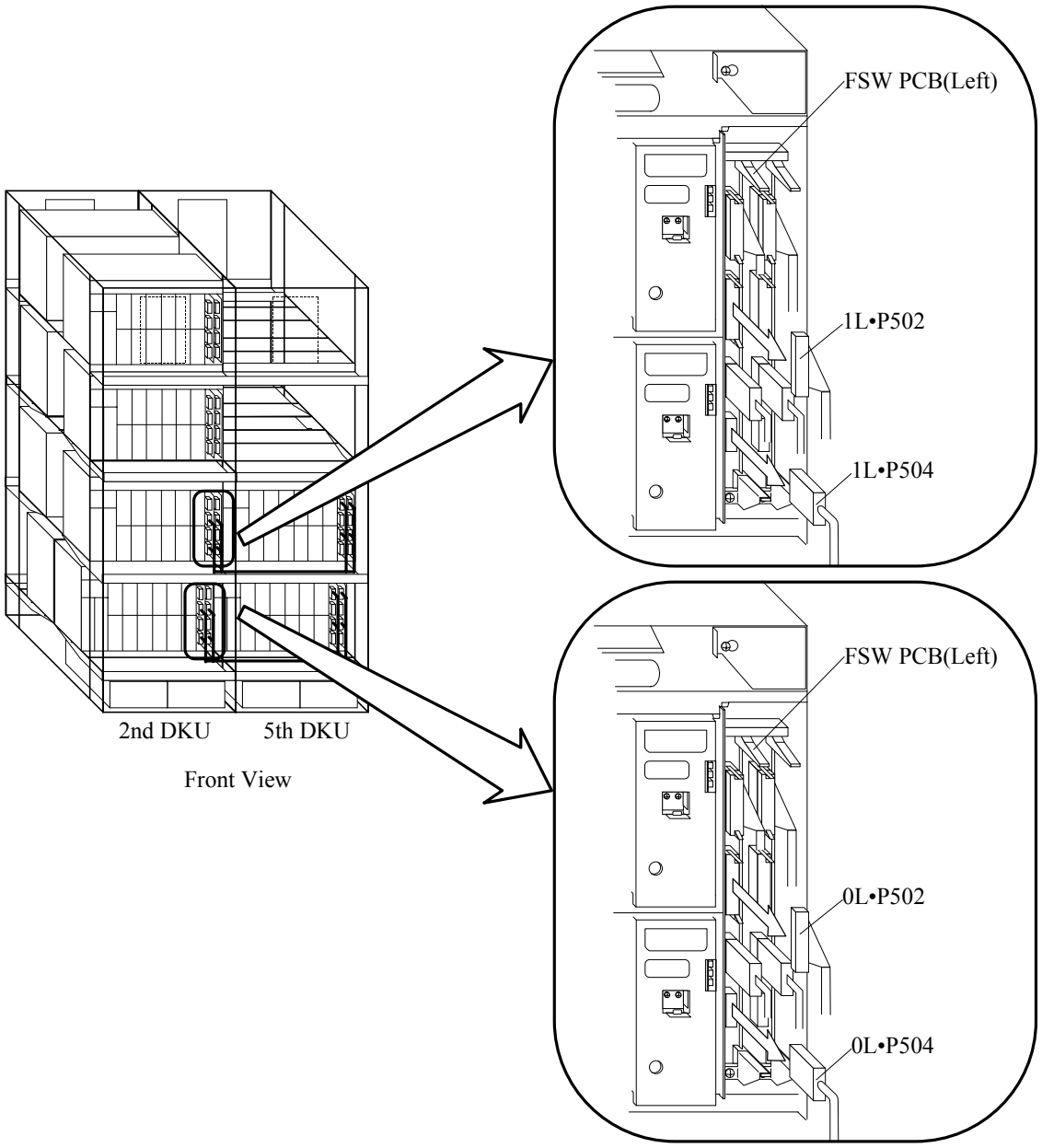


Fig. 4.3.3.7-8 Disconnection of the DEV Interface Cables

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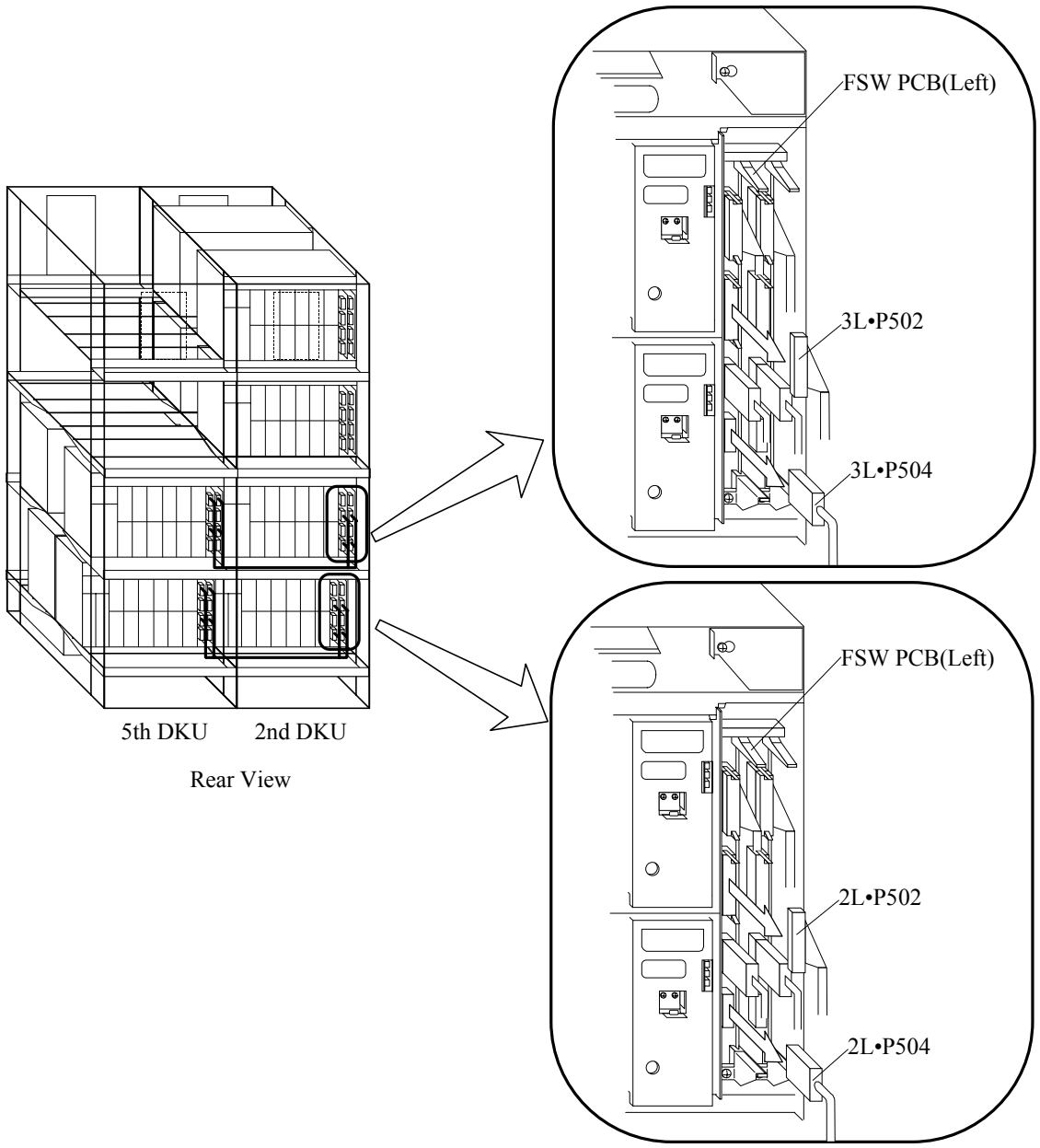


Fig. 4.3.3.7-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1200 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the fifth DKU frame referring to figures 4.3.3.7-10 and 4.3.3.7-11.

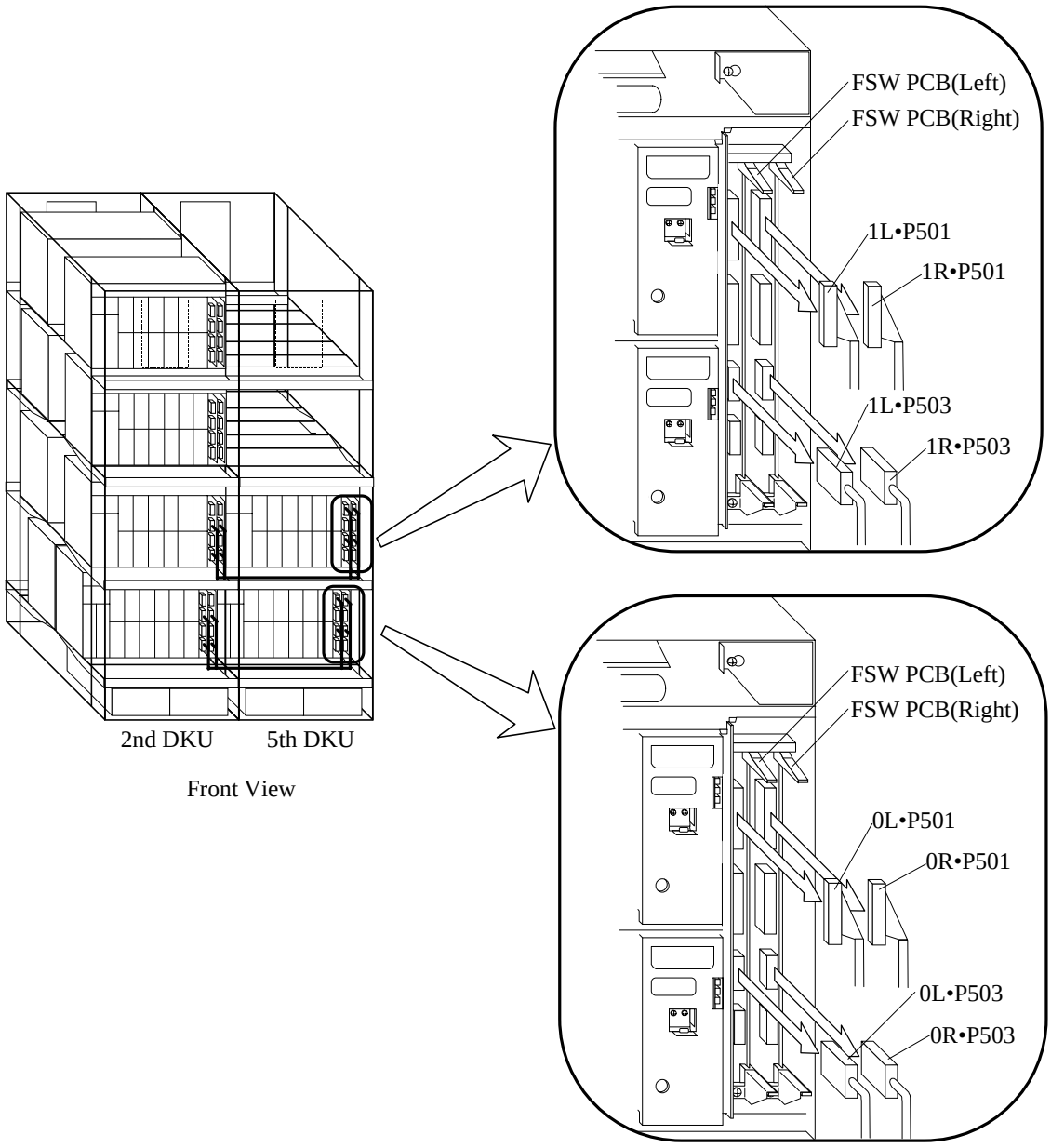


Fig. 4.3.3.7-10 Disconnection of the DEV Interface Cables

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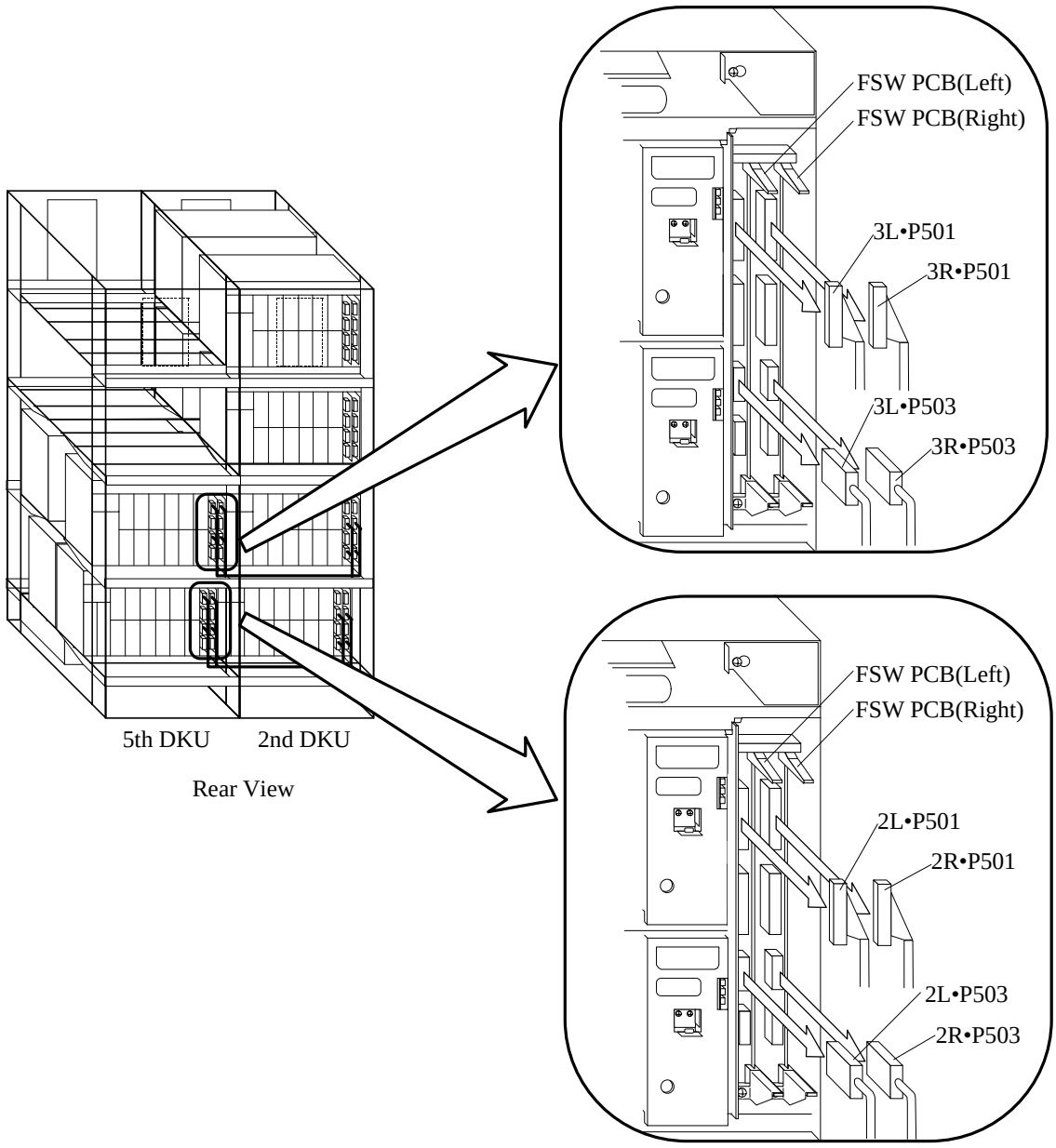


Fig. 4.3.3.7-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frames.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. Remove the nameplate from the fifth DKU frame.

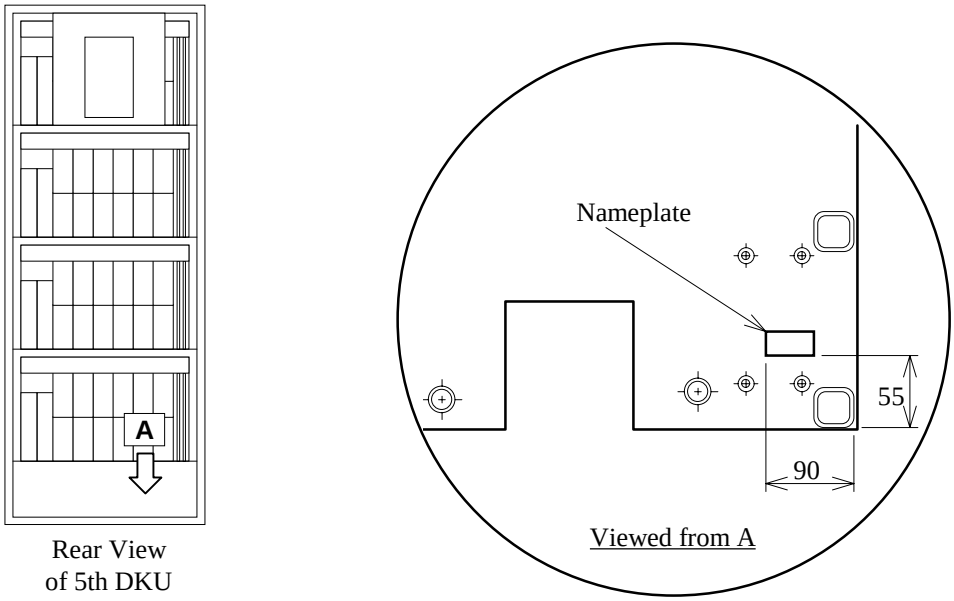


Fig. 4.3.3.7-12 Removal of the Nameplate

15. Go to INST02-370 Step ⑪.

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4.3.3.8 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-R37 from R34)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frame.

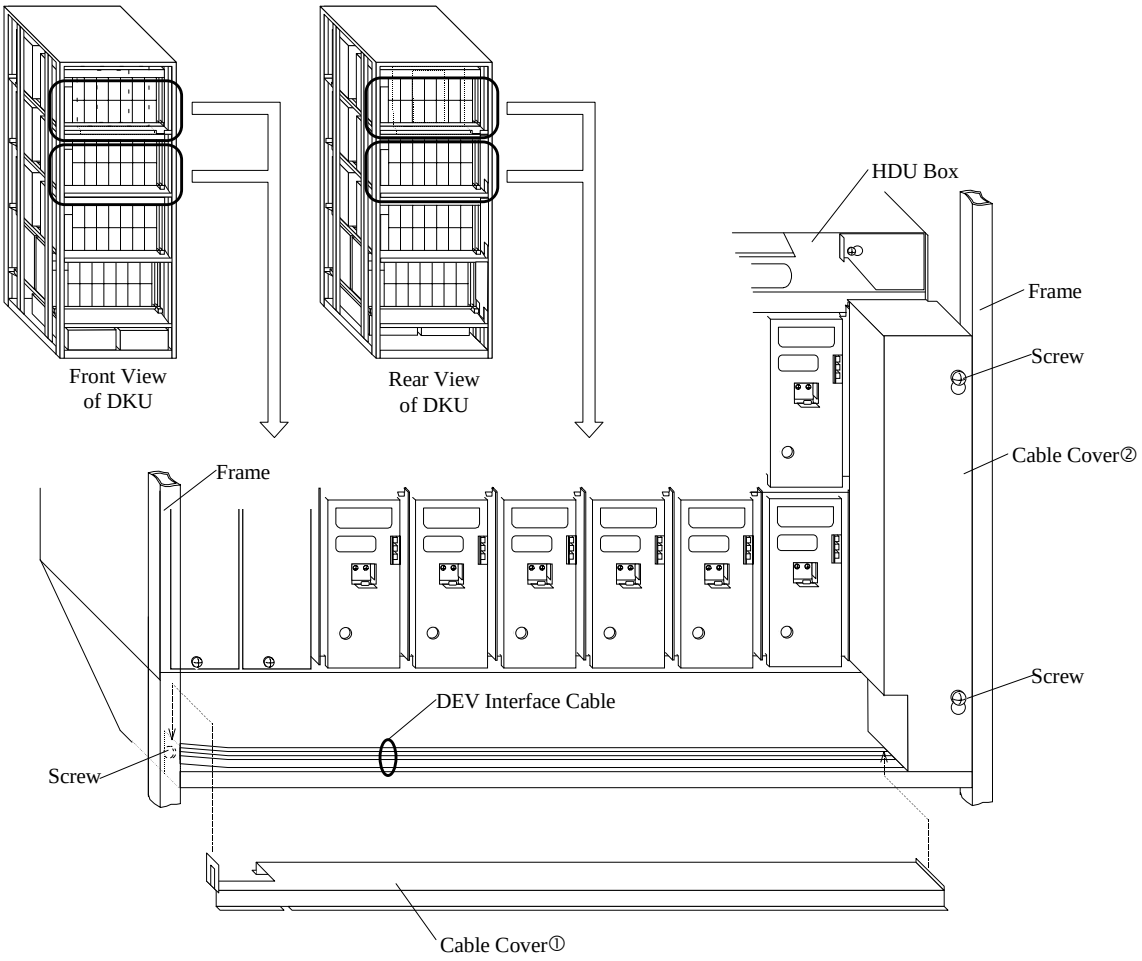


Fig. 4.3.3.8-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frame.

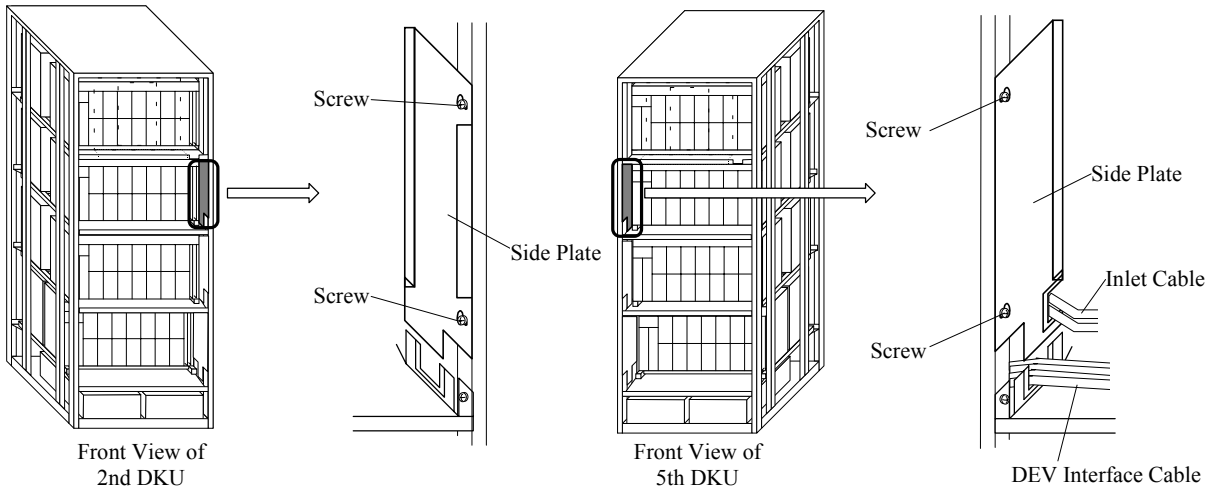


Fig. 4.3.3.8-2 Removal of Side Plates (Front View)

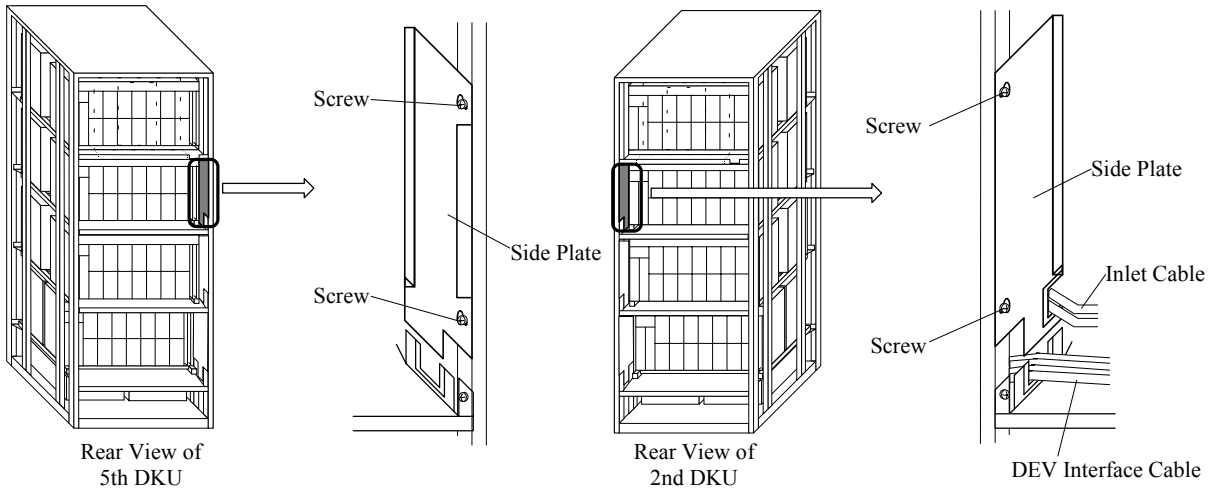


Fig. 4.3.3.8-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-1260 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame referring to figures 4.3.3.8-5 and 4.3.3.8-6.

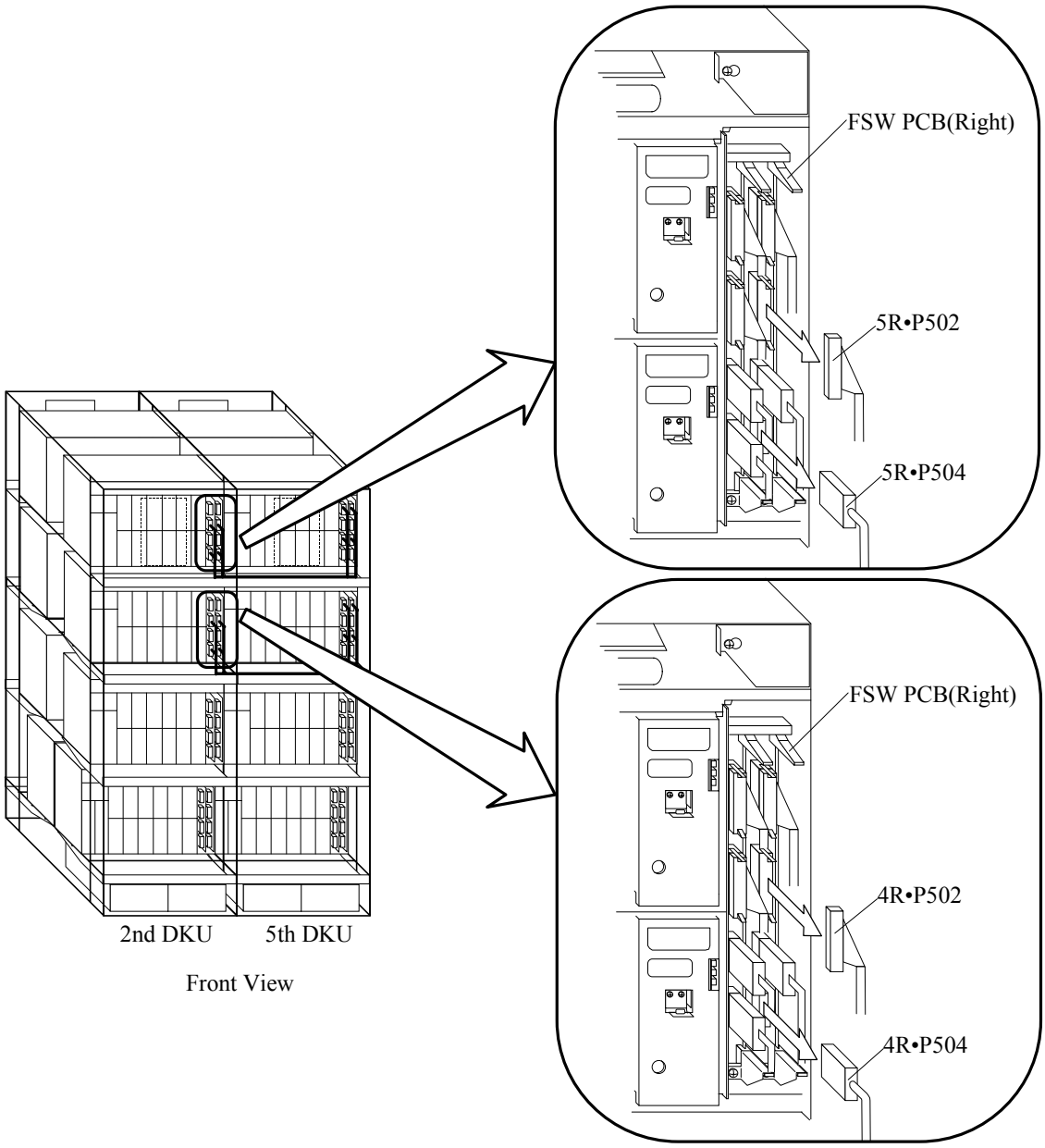


Fig. 4.3.3.8-5 Disconnection of the DEV Interface Cables

Copyright ©2000,2001, Hitachi, Ltd.

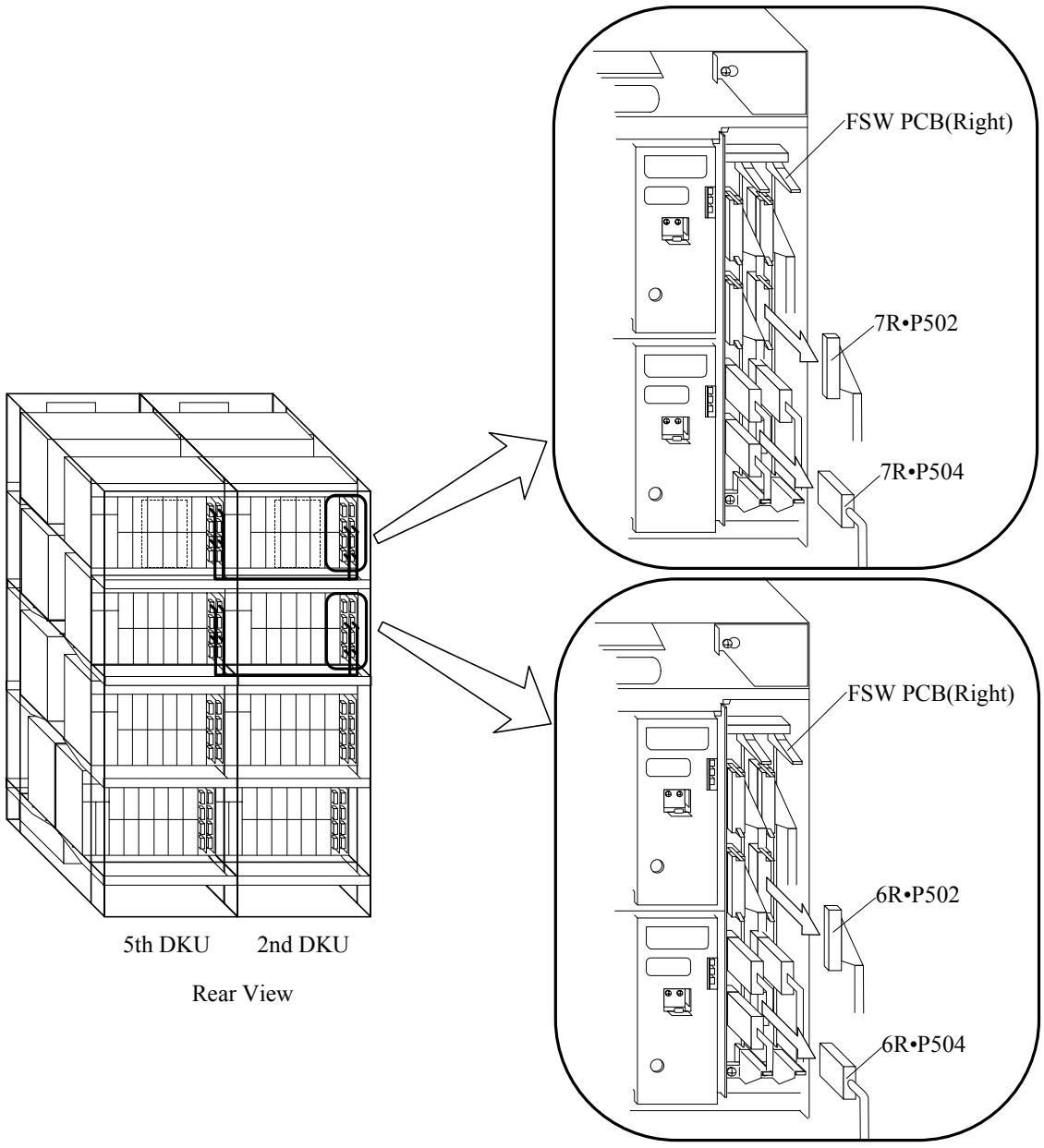


Fig. 4.3.3.8-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1290 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the second DKU frame referring to figures 4.3.3.8-8 and 4.3.3.8-9.

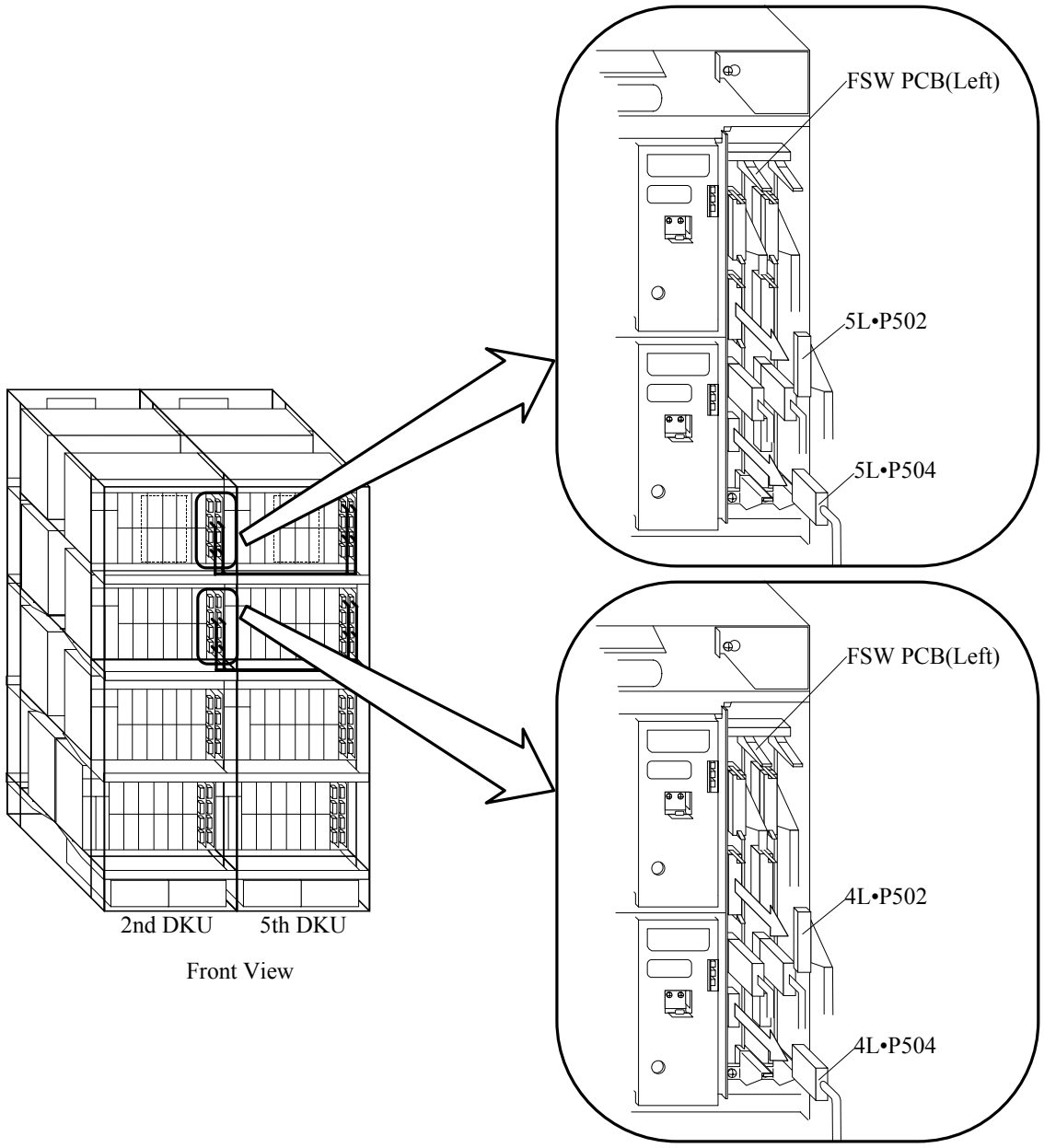


Fig. 4.3.3.8-8 Disconnection of the DEV Interface Cables

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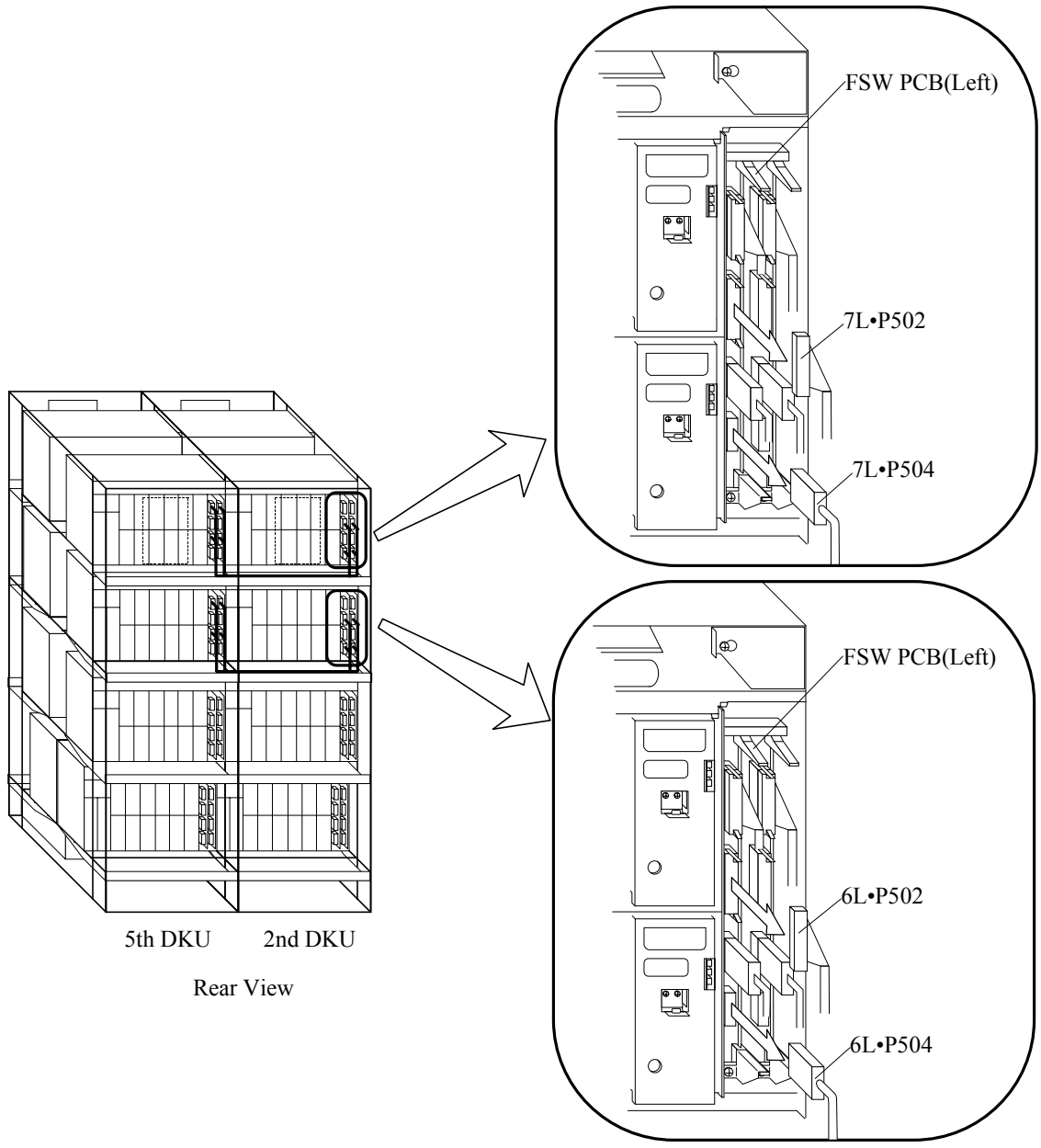


Fig. 4.3.3.8-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1310 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the fifth DKU frame referring to figures 4.3.3.8-10 and 4.3.3.8-11.

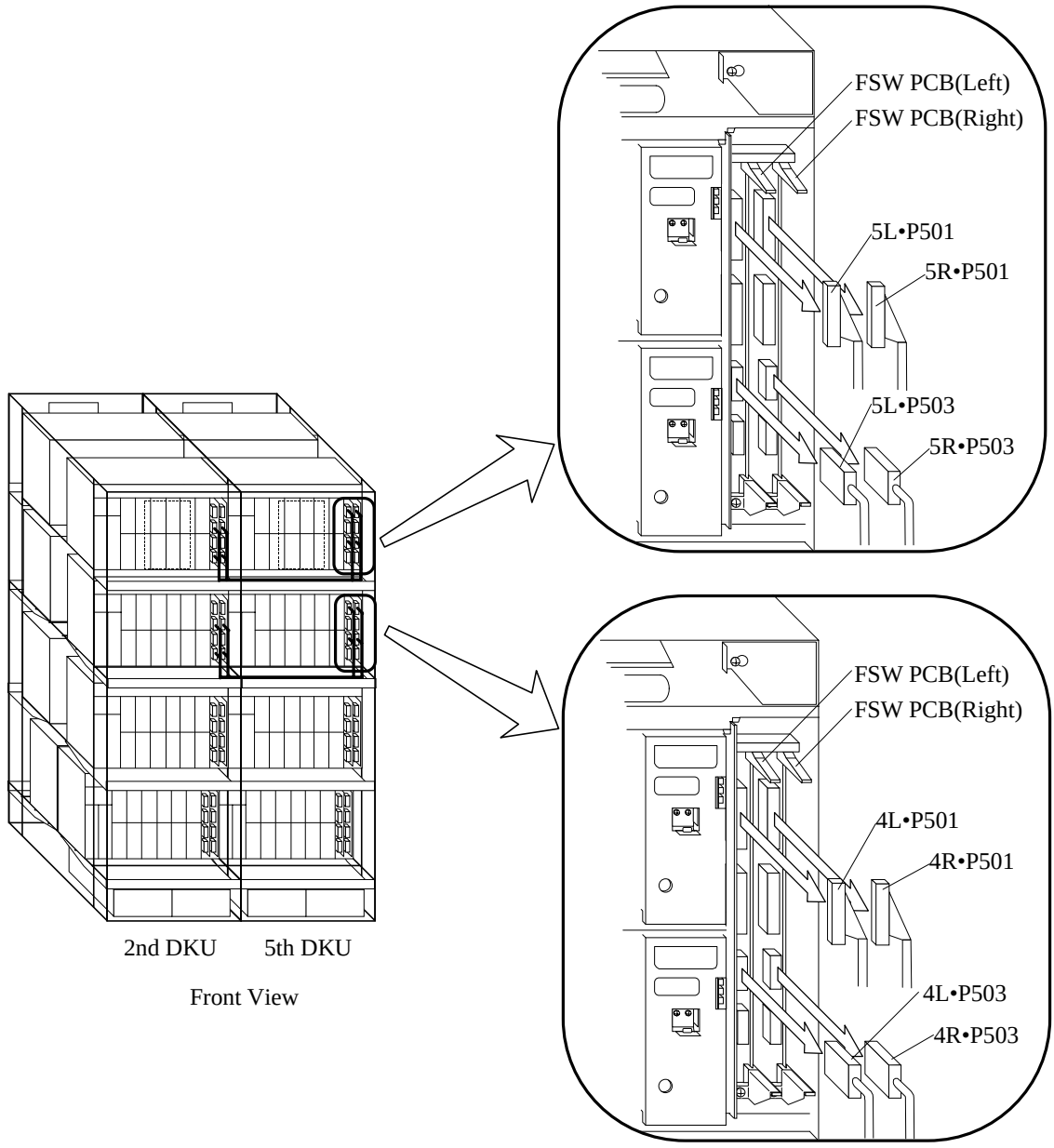


Fig. 4.3.3.8-10 Disconnection of the DEV Interface Cables

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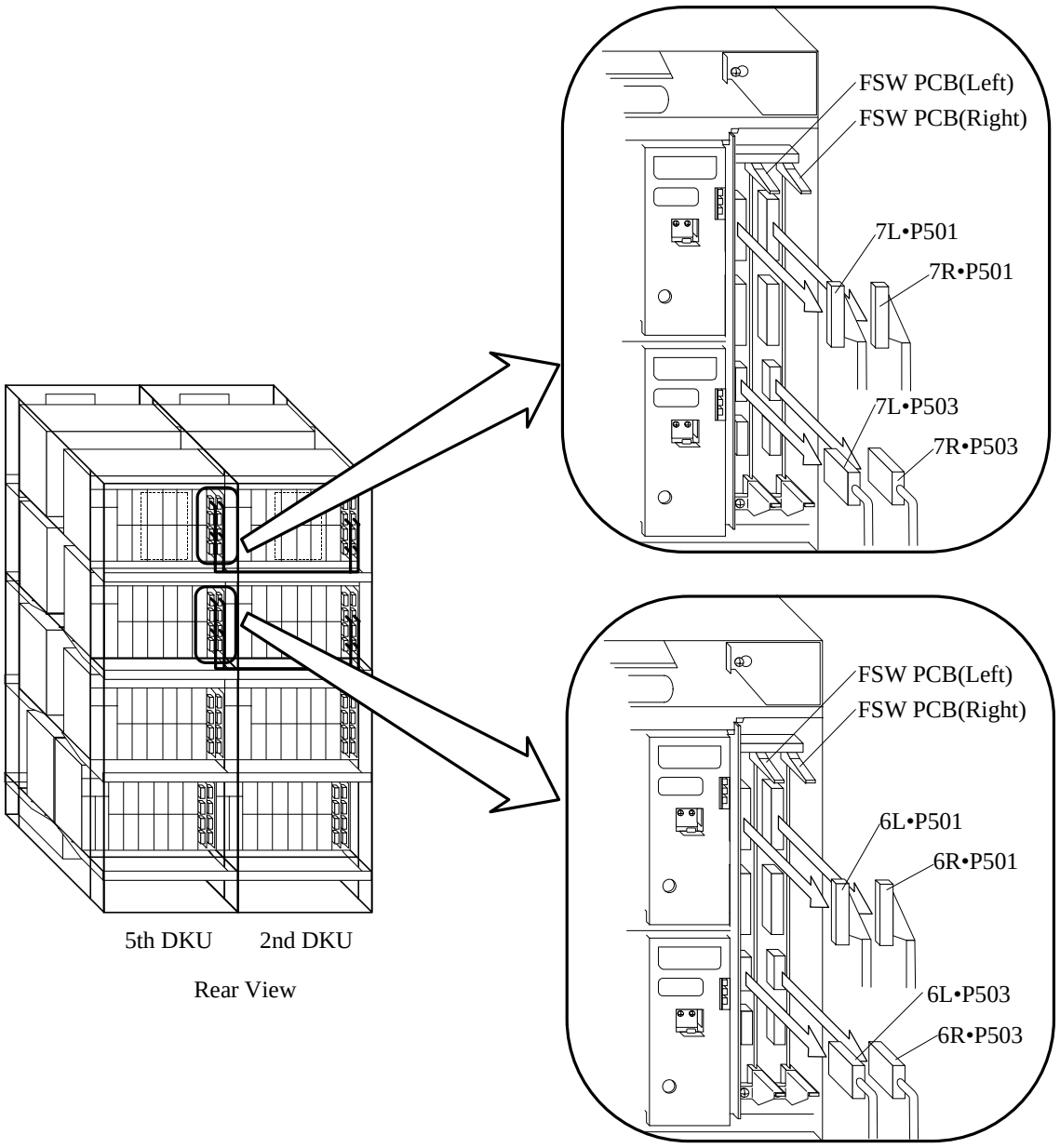


Fig. 4.3.3.8-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frame.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. When the fifth DKU frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the fifth DKU frame with the binders.

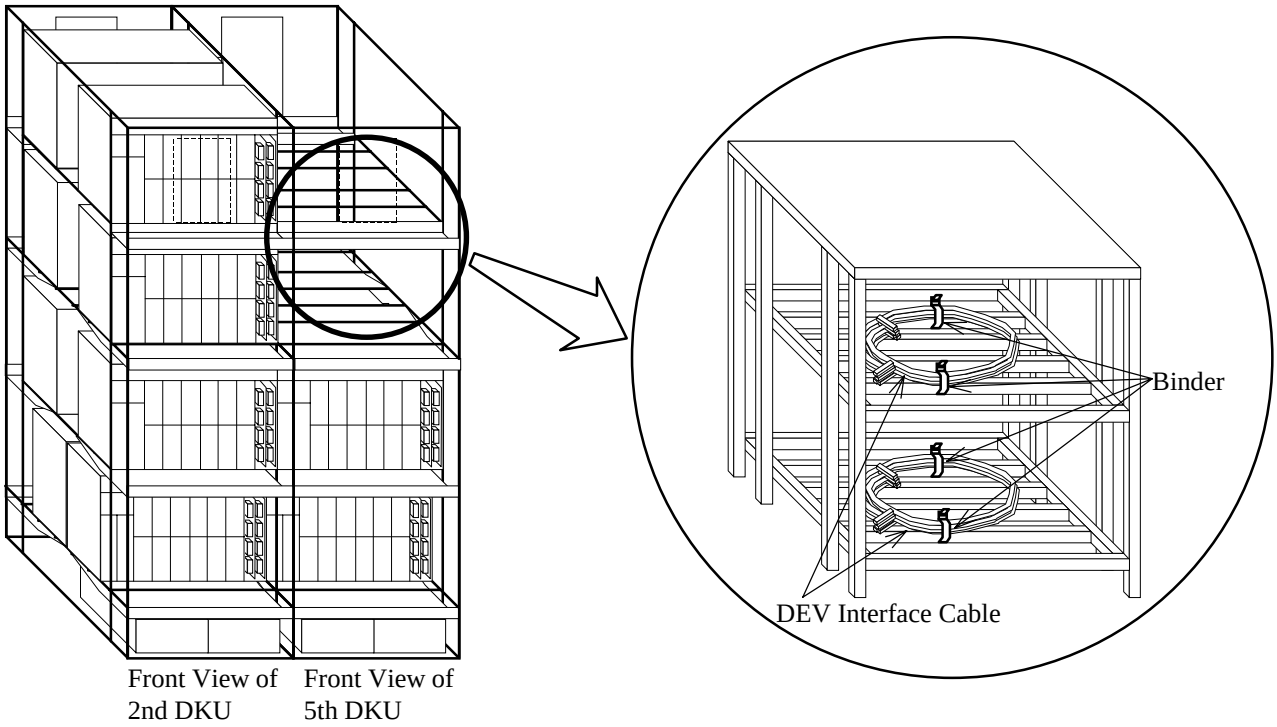


Fig. 4.3.3.8-12 Fixation of the DEV Interface Cables

15. Go to INST02-370 Step ⑪.

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4.3.3.9 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-L33 from L30)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frame.

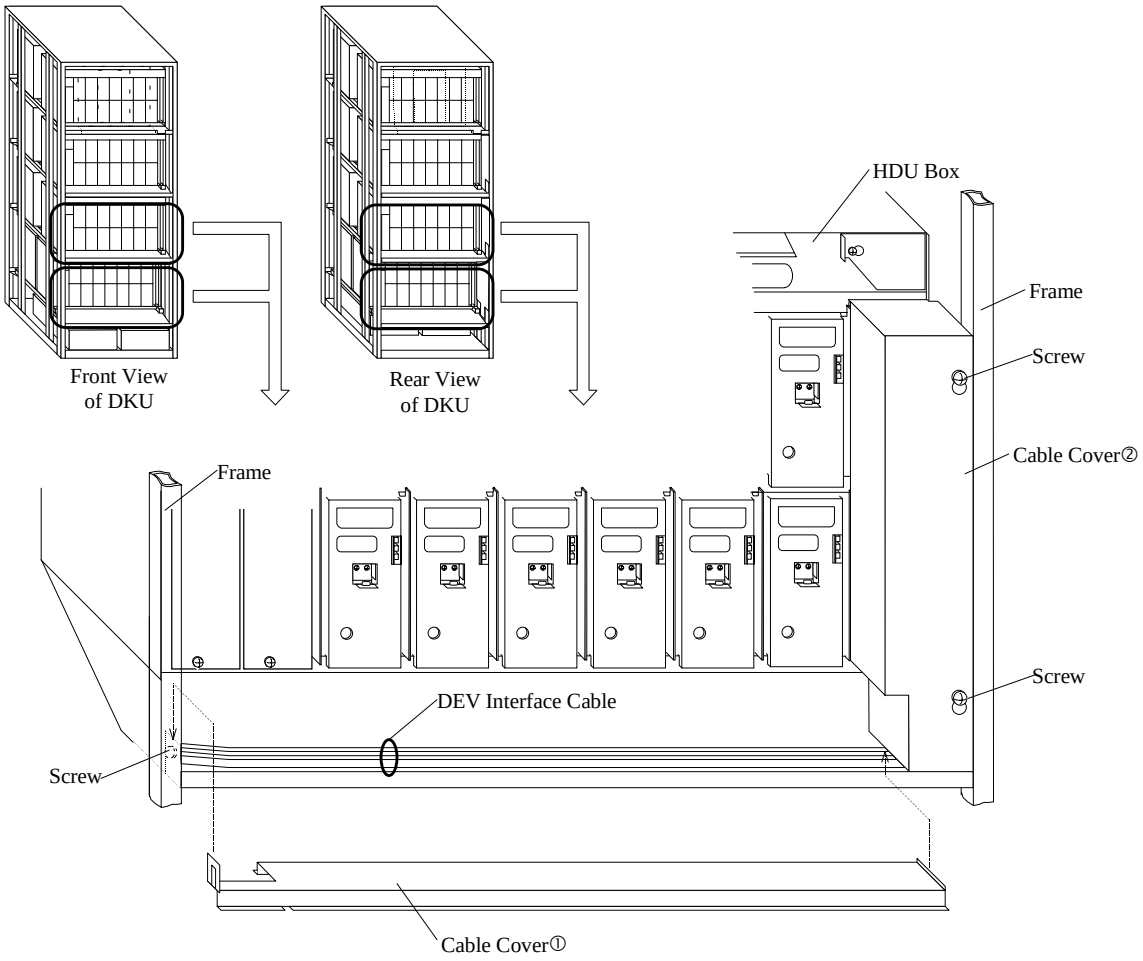


Fig. 4.3.3.9-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frame.

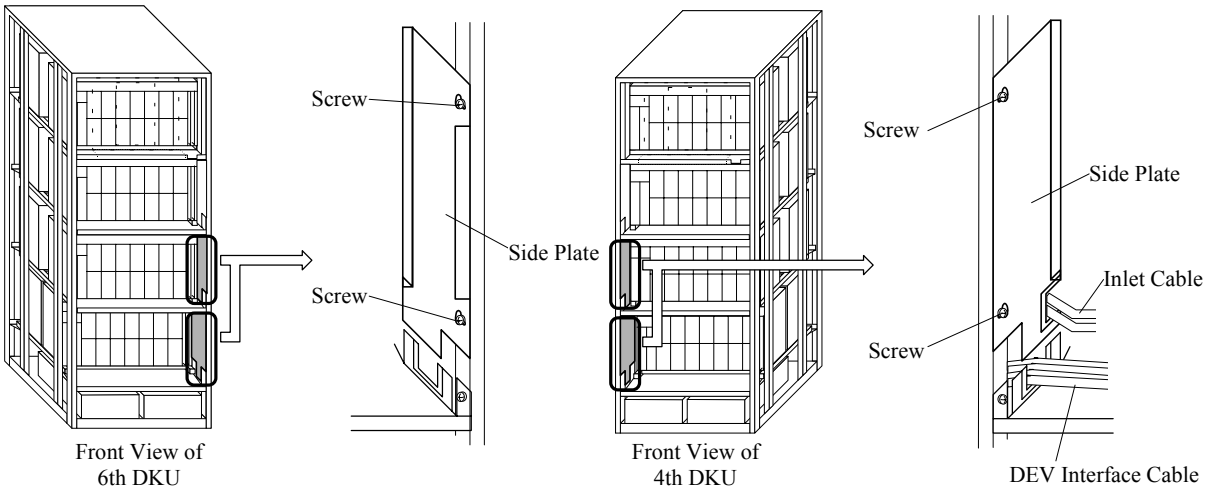


Fig. 4.3.3.9-2 Removal of Side Plates (Front View)

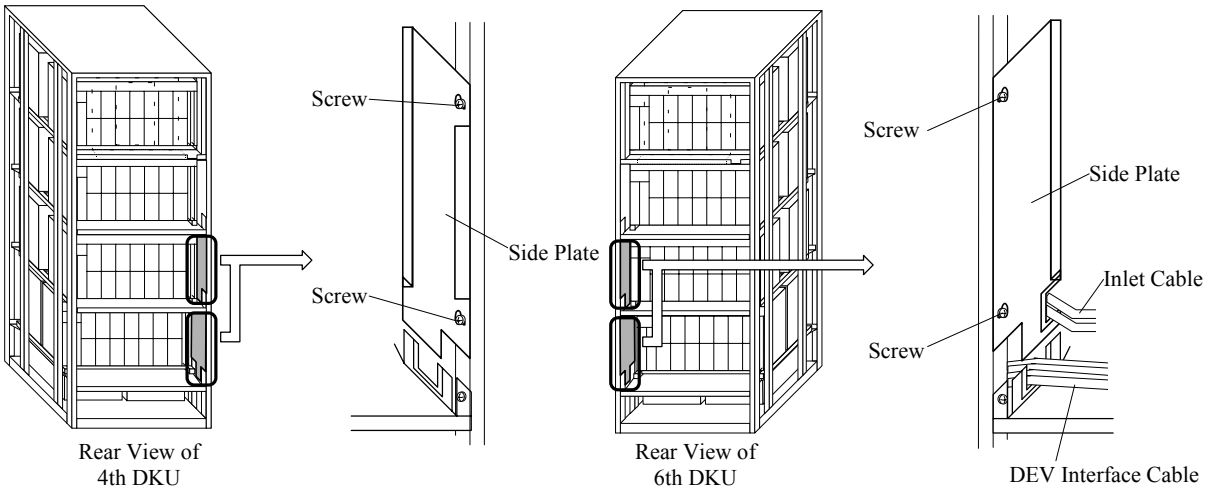


Fig. 4.3.3.9-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-1370 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame referring to figures 4.3.3.9-5 and 4.3.3.9-6.

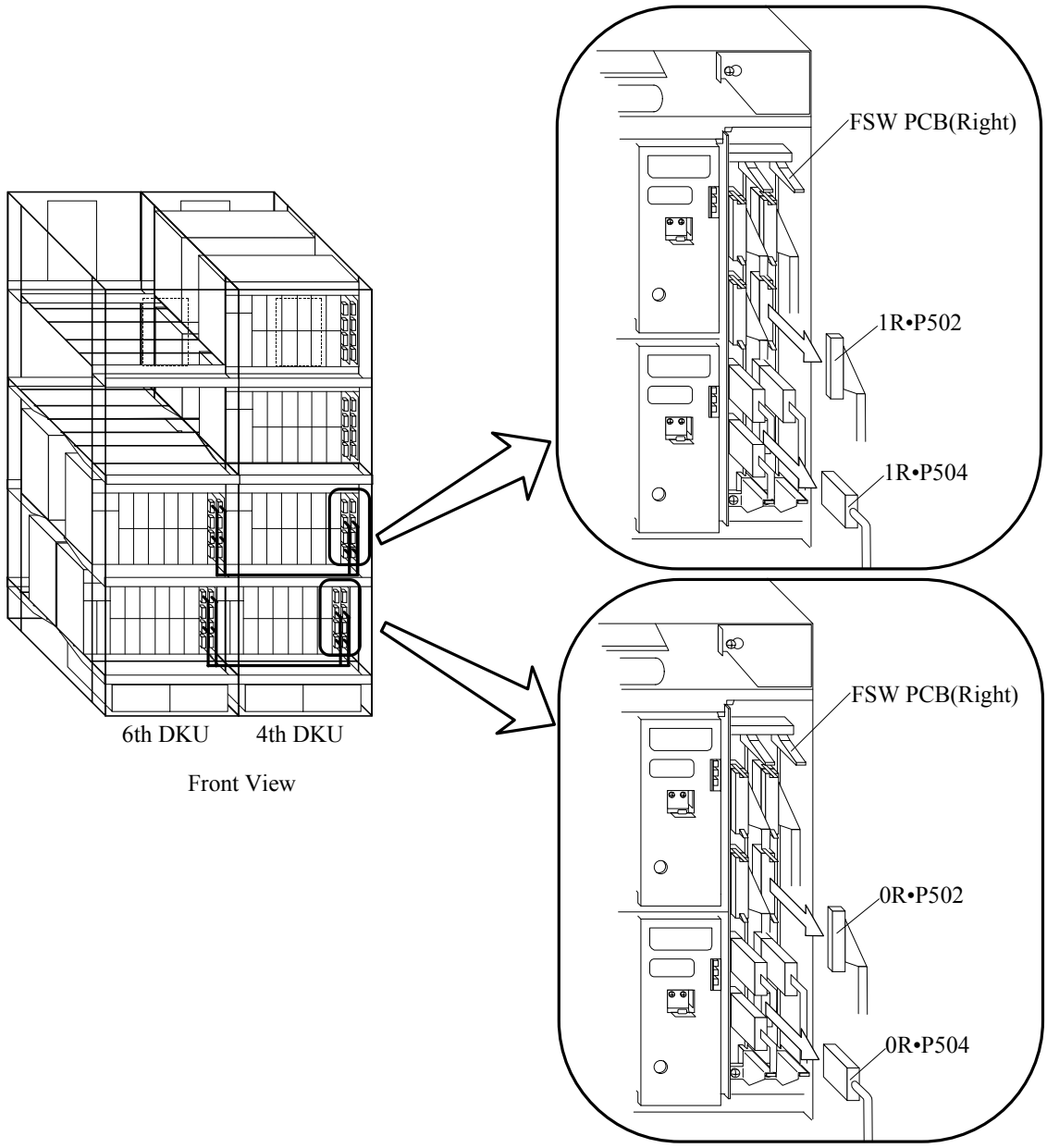


Fig. 4.3.3.9-5 Disconnection of the DEV Interface Cables

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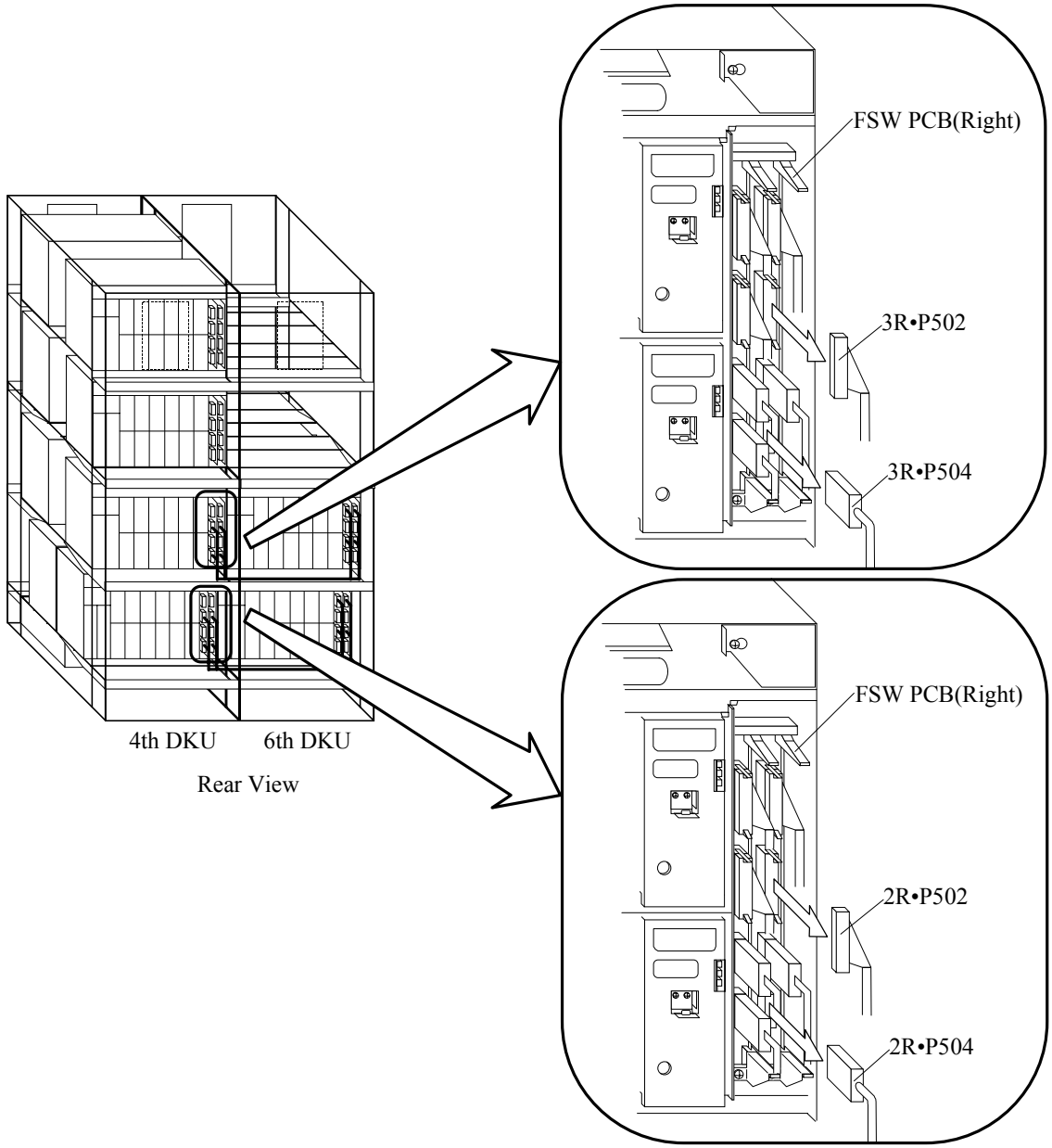


Fig. 4.3.3.9-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1400 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame referring to figures 4.3.3.9-8 and 4.3.3.9-9.

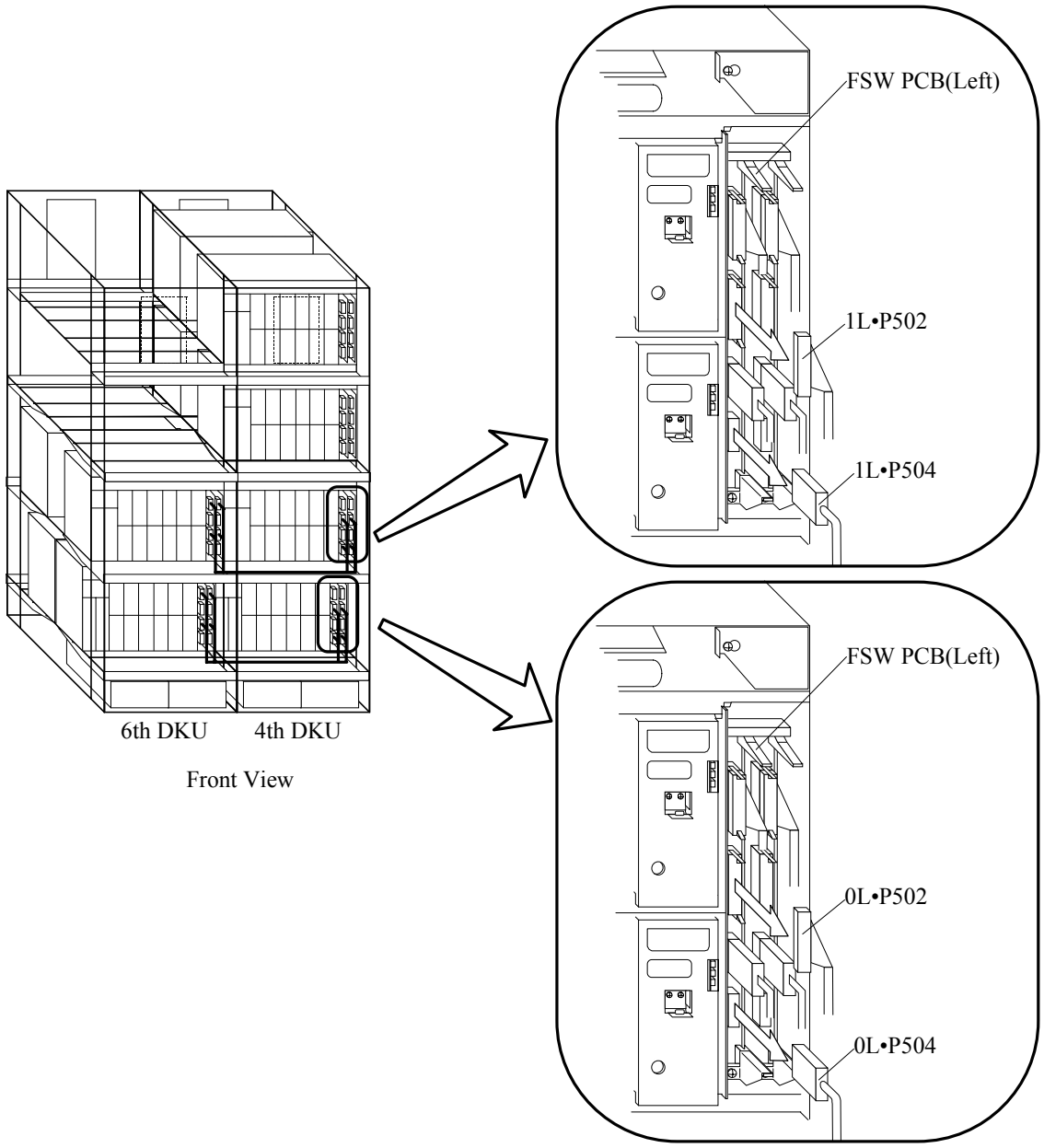


Fig. 4.3.3.9-8 Disconnection of the DEV Interface Cables

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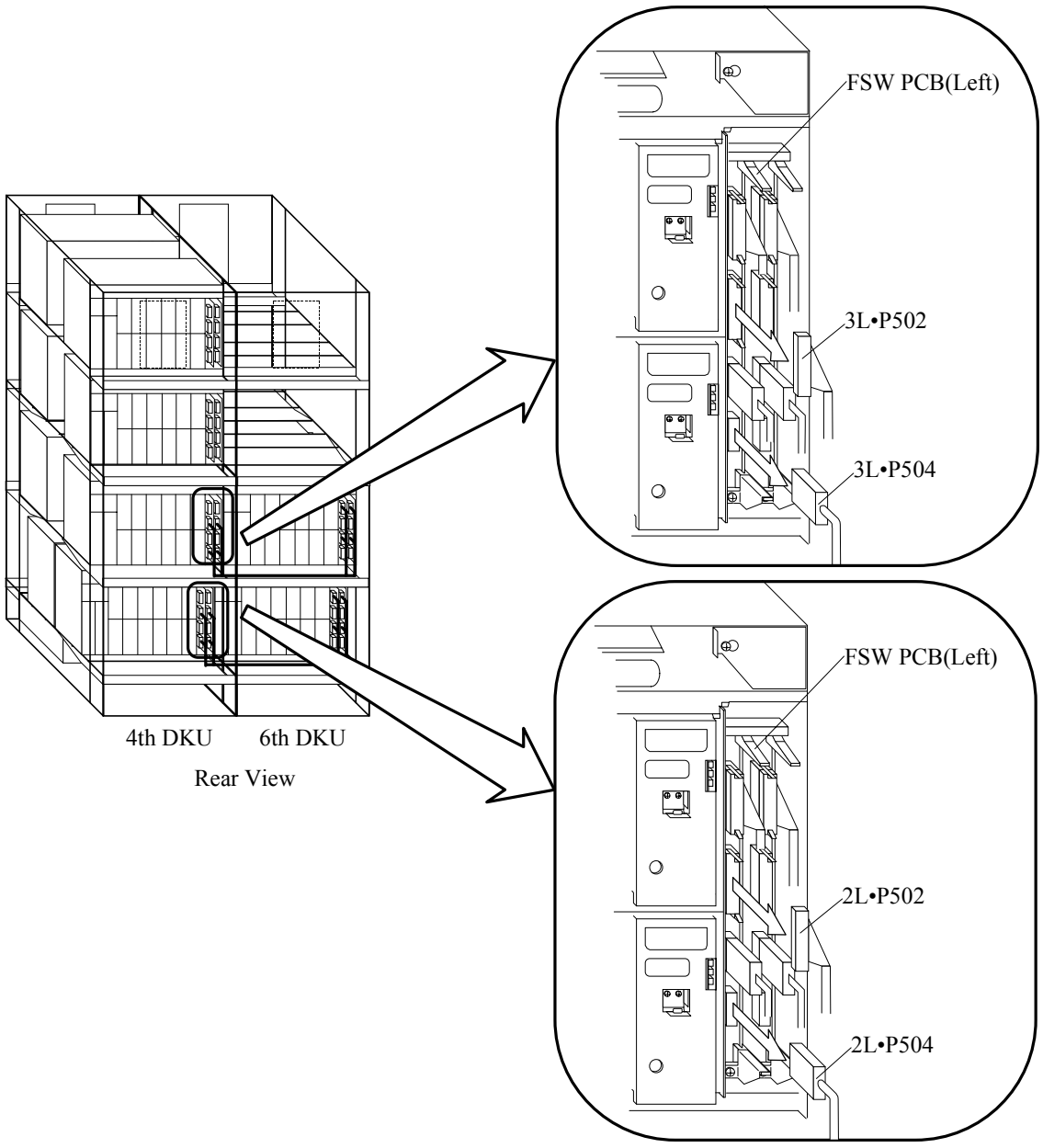


Fig. 4.3.3.9-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1420 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the sixth DKU frame referring to figures 4.3.3.9-10 and 4.3.3.9-11.

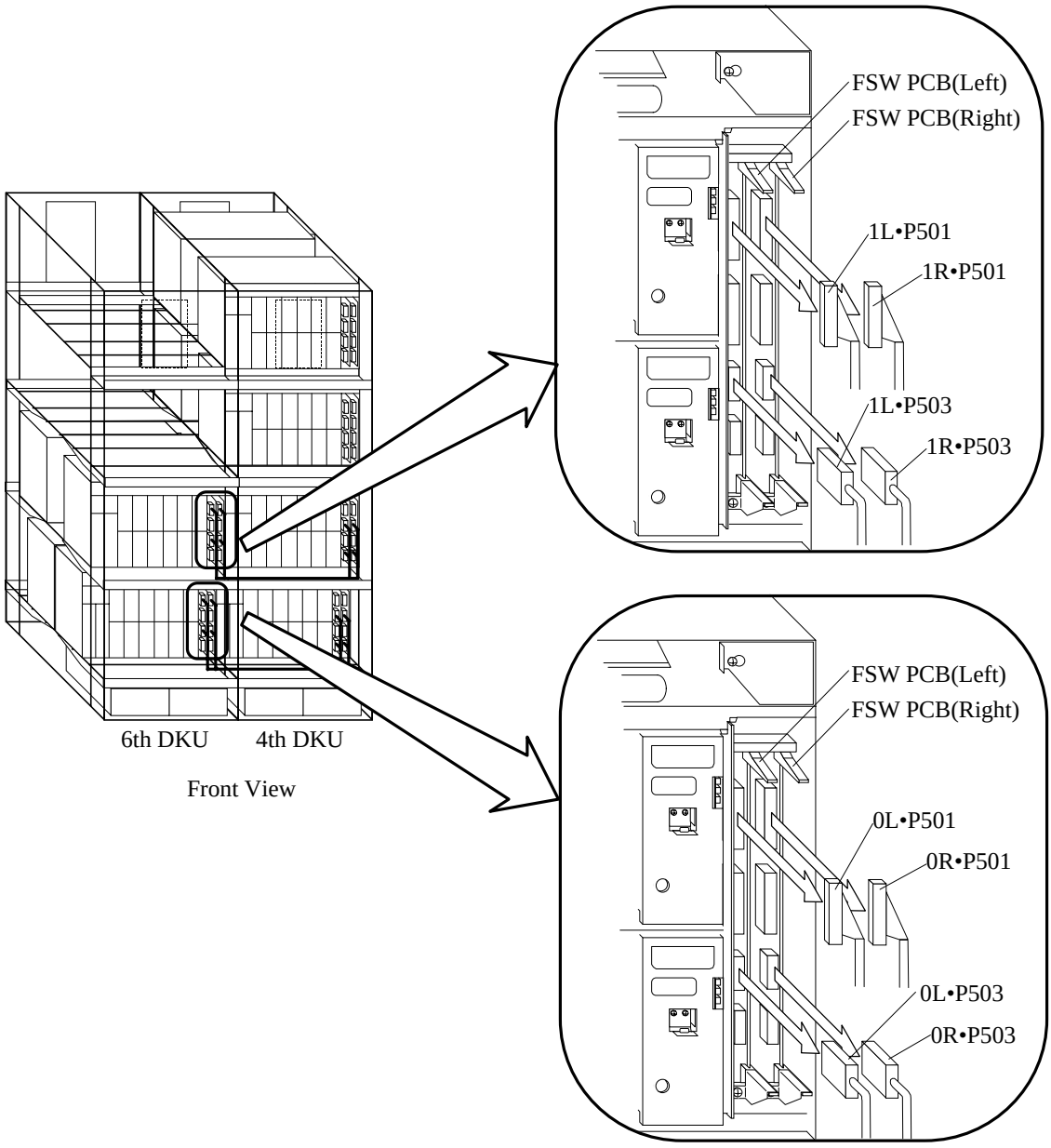


Fig. 4.3.3.9-10 Disconnection of the DEV Interface Cables

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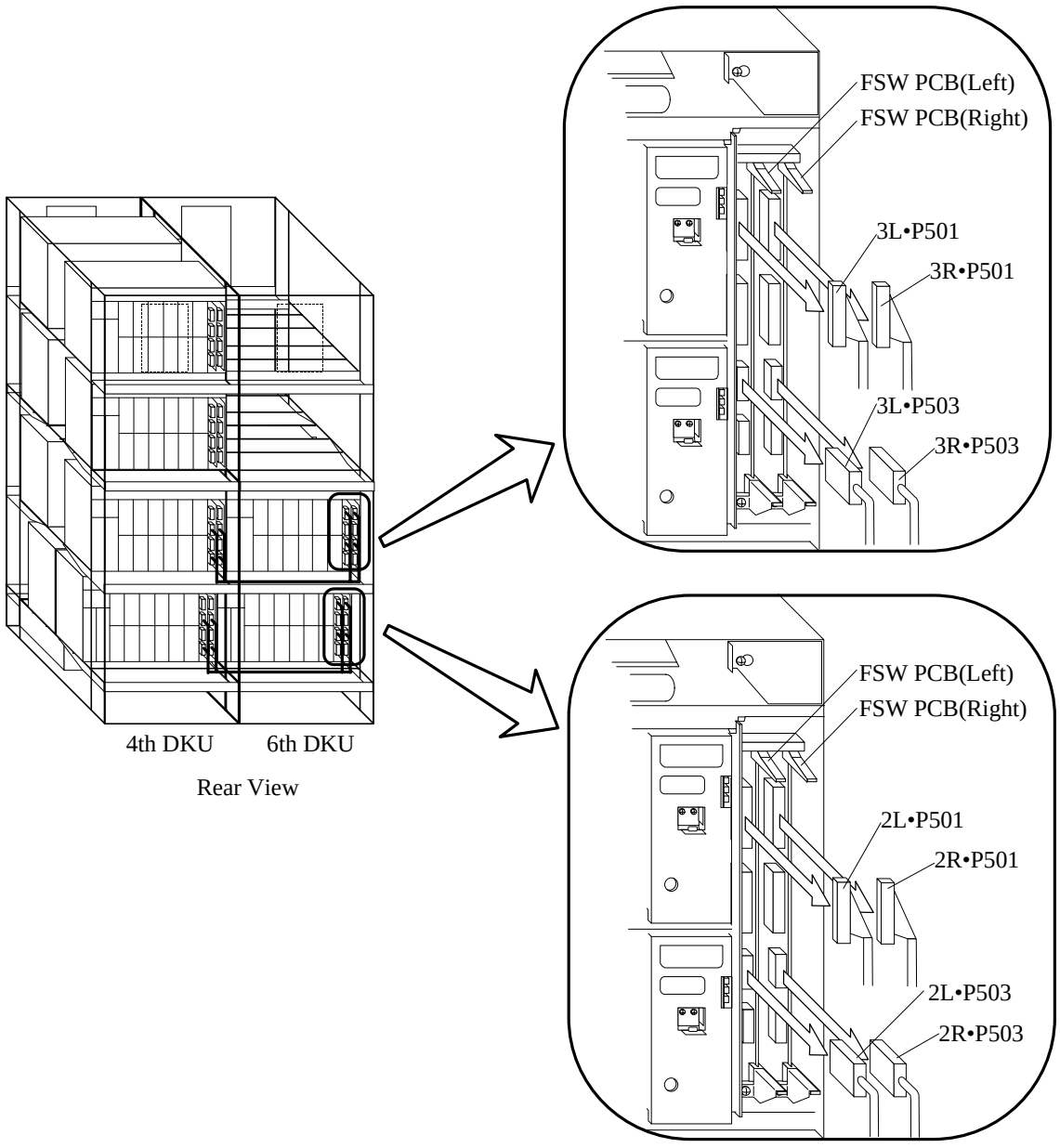


Fig. 4.3.3.9-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frame.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. Remove the nameplate from the sixth DKU frame.

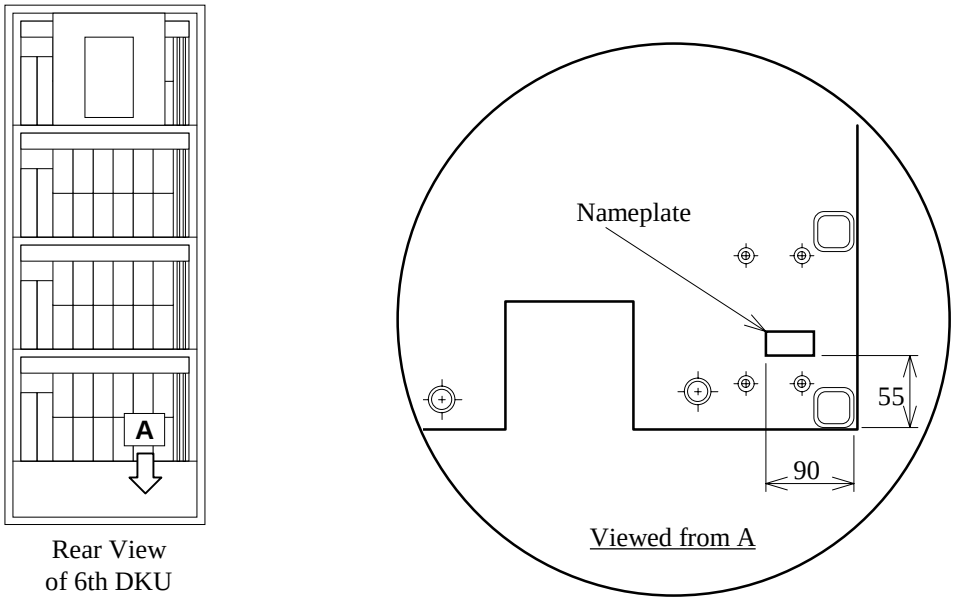


Fig. 4.3.3.9-12 Removal of the Nameplate

15. Go to INST02-370 Step ⑪.

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4.3.3.10 Disconnection Procedure of Additional DEV Interface Cables (In case of HDU-L37 from L34)

1. Loosen the screws and remove the cable covers ① and ② from the DKU frame.

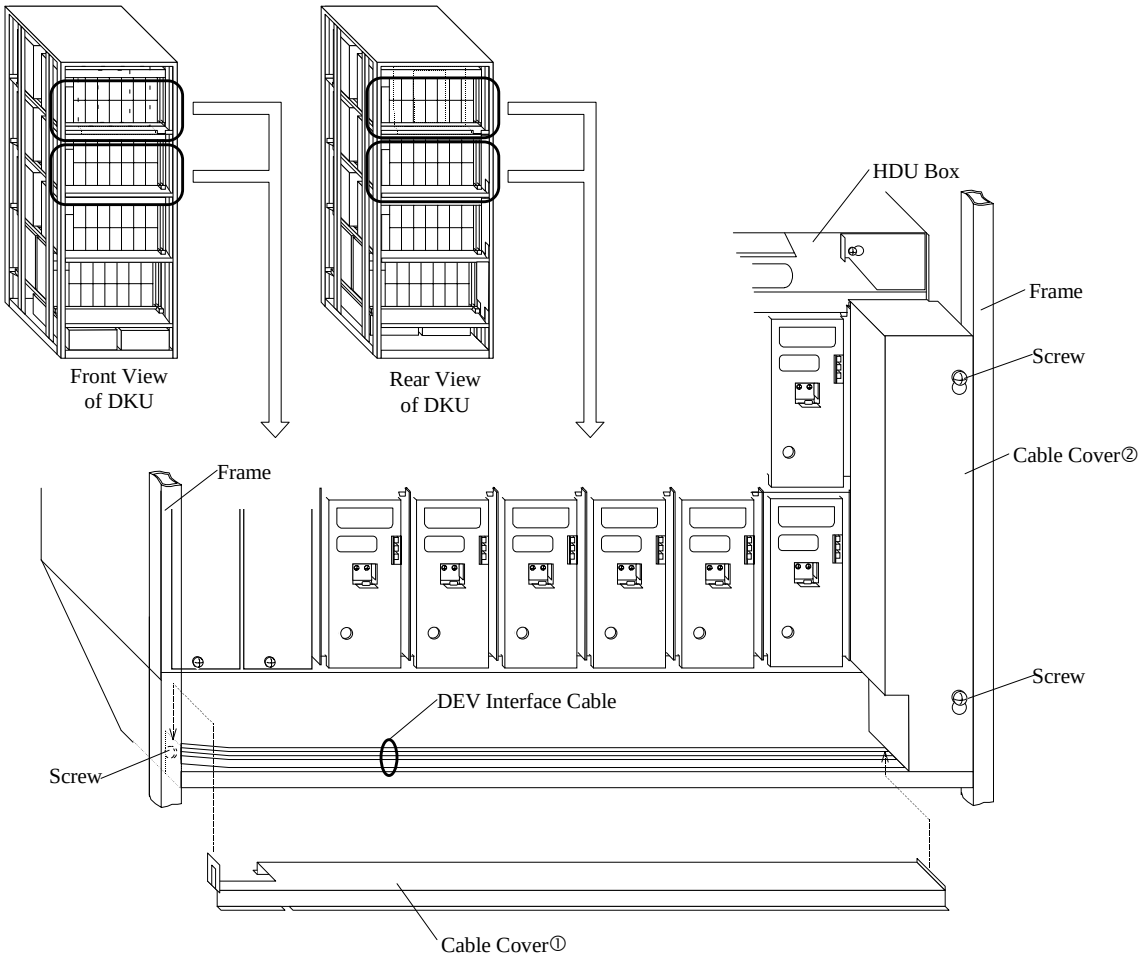


Fig. 4.3.3.10-1 Removal of Cable Covers

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2. Loosen the screws and remove the side plates from the DKU frame.

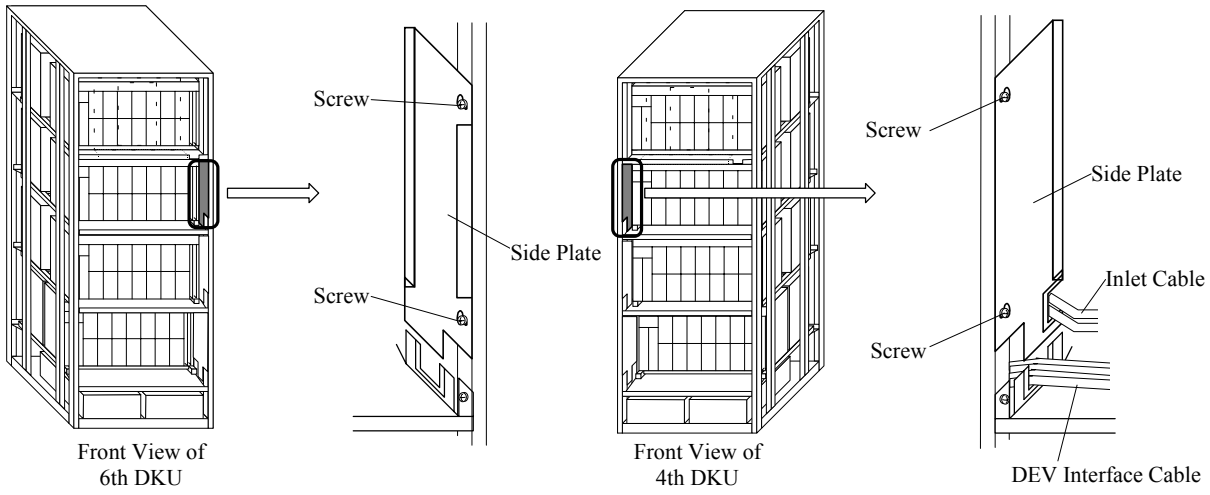


Fig. 4.3.3.10-2 Removal of Side Plates (Front View)

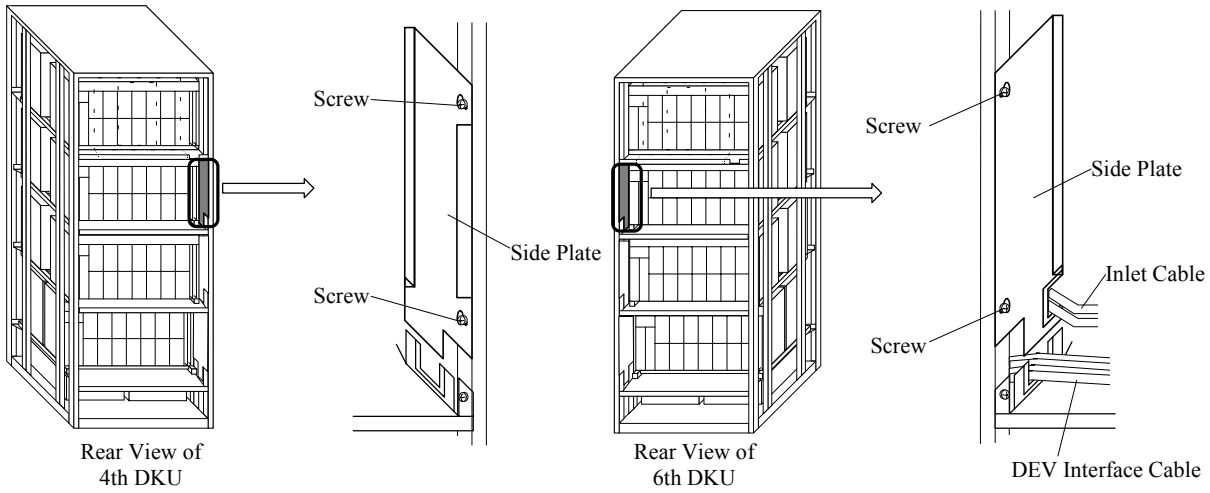


Fig. 4.3.3.10-3 Removal of Side Plates (Rear View)

3. Return to INST02-340 ② when disconnecting the additional DEV interface cable while the subsystem is in operation. Go to INST04-1480 when the additional DEV interface cable with the sub-system switched off.

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4. (Dummy procedure) Go to next step.

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5. Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame referring to figures 4.3.3.10-5 and 4.3.3.10-6.

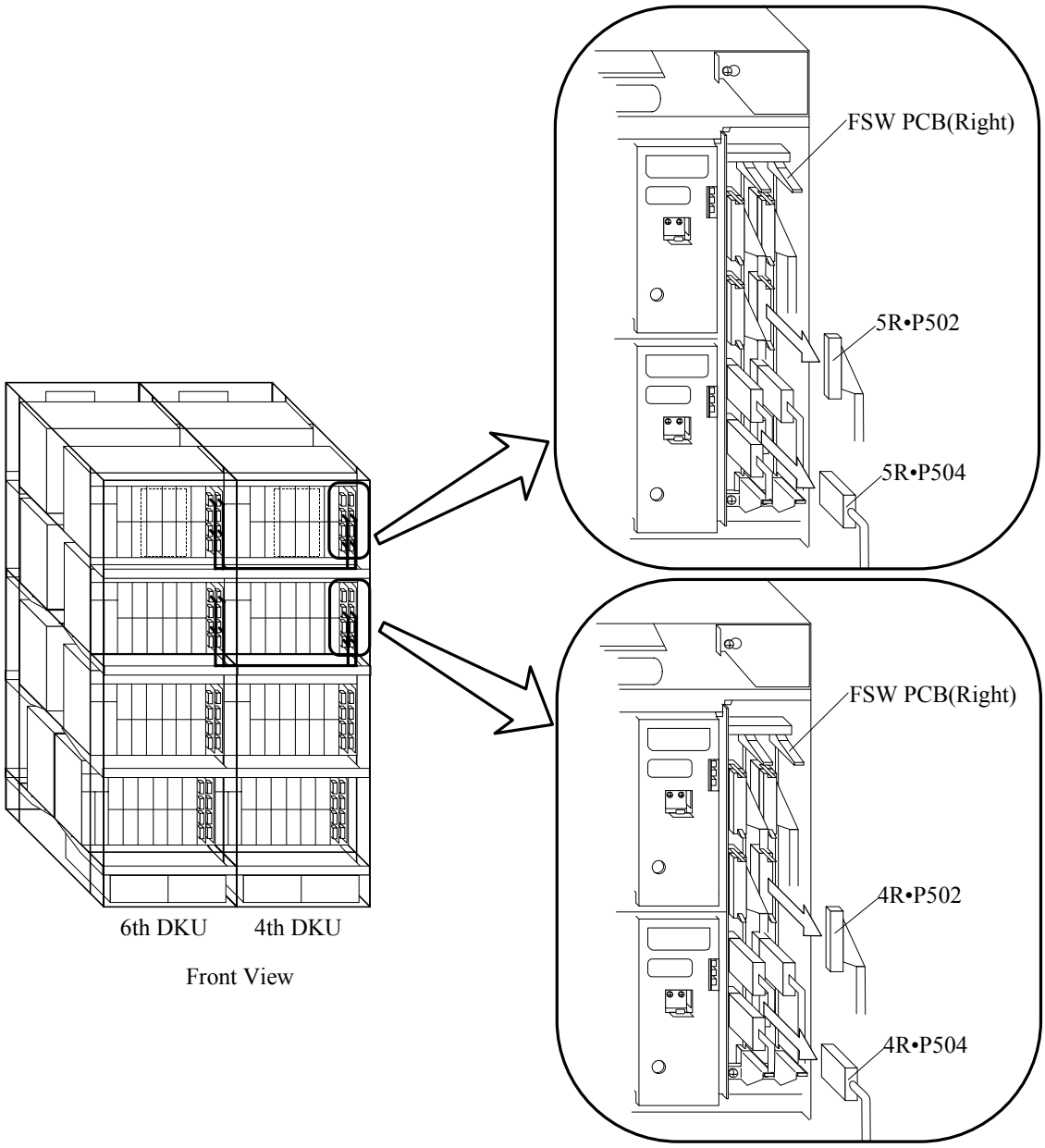


Fig. 4.3.3.10-5 Disconnection of the DEV Interface Cables

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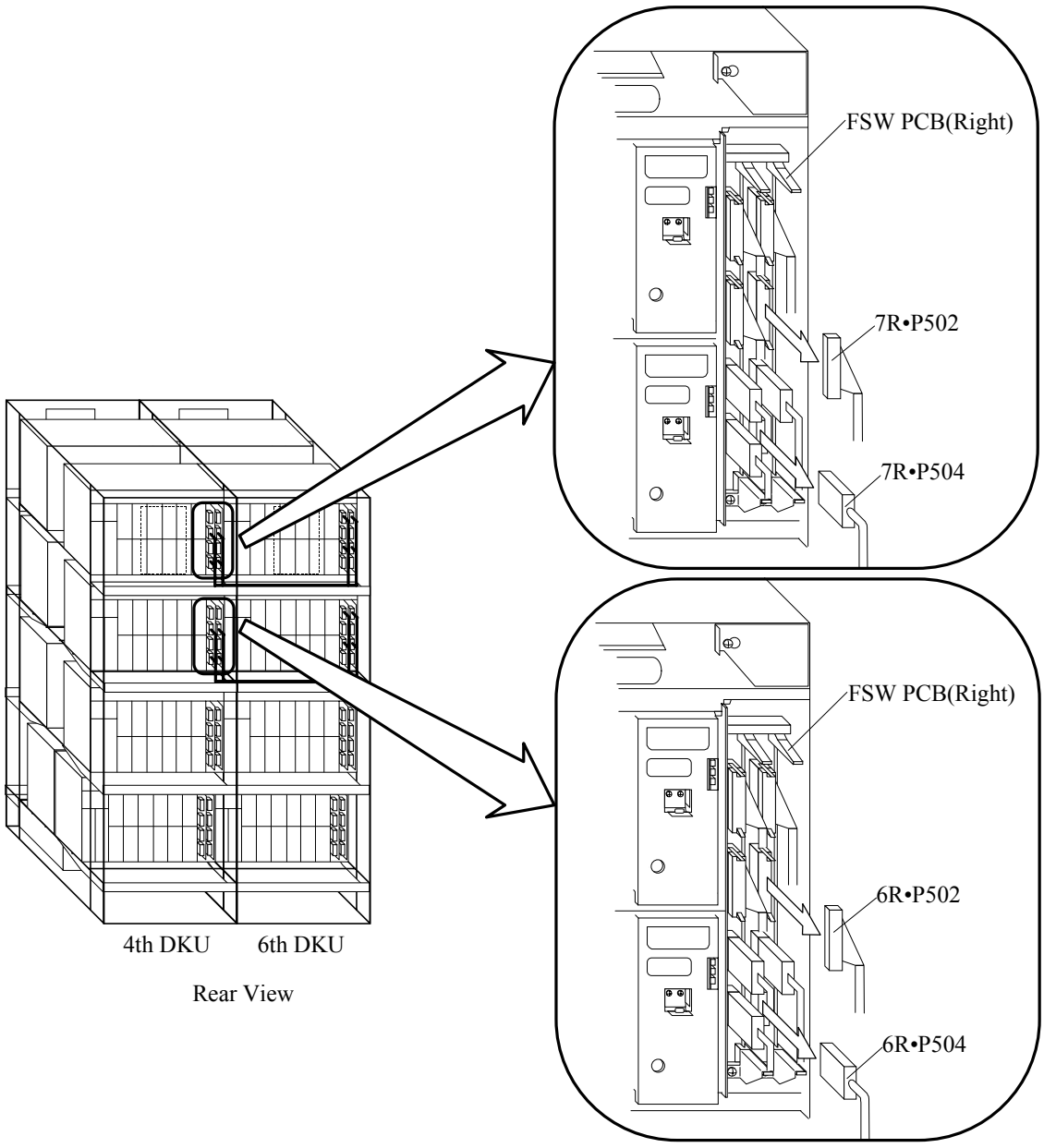


Fig. 4.3.3.10-6 Disconnection of the DEV Interface Cables

6. Return to INST02-350 ⑤ when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1510 when disconnecting the additional DEV interface cable with the sub-system switched off.

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7. (Dummy procedure) Go to next step.

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8. Disconnect the DEV interface cables from the FSW PCBs in the fourth DKU frame referring to figures 4.3.3.10-8 and 4.3.3.10-9.

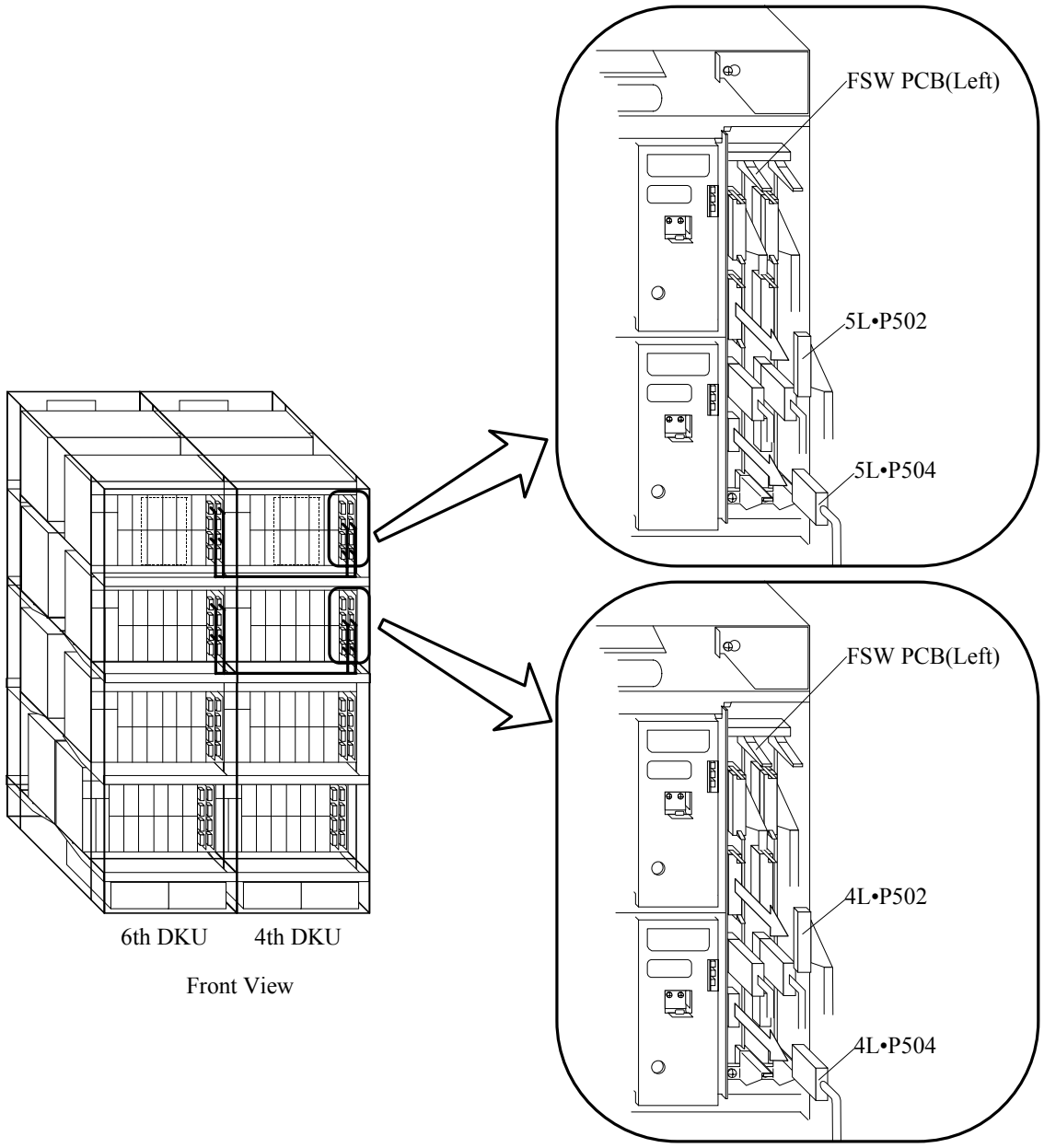


Fig. 4.3.3.10-8 Disconnection of the DEV Interface Cables

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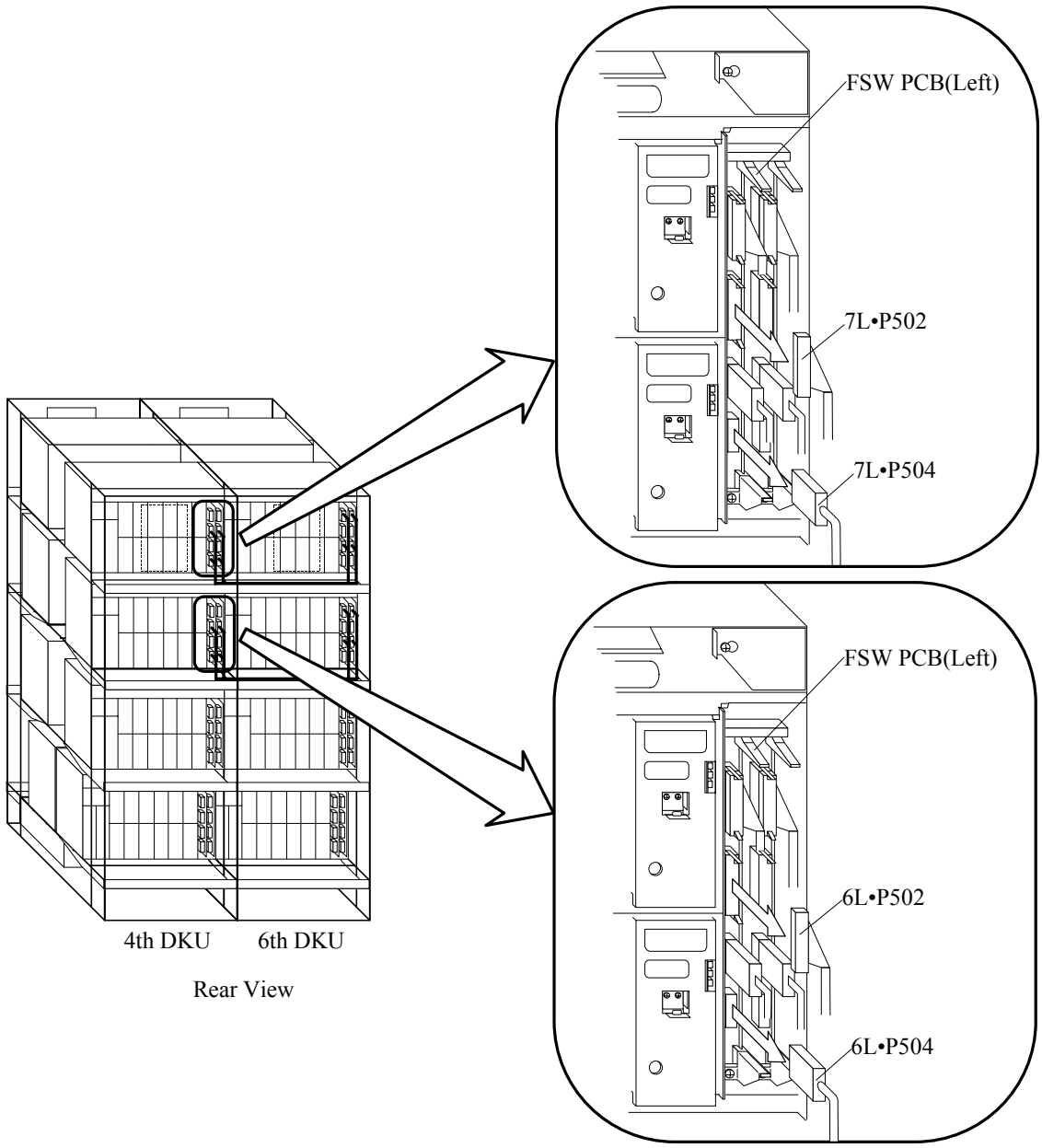


Fig. 4.3.3.10-9 Disconnection of the DEV Interface Cables

9. Return to INST02-360 ® when disconnecting the additional DEV interface cable while the sub-system is in operation. Go to INST04-1530 when disconnecting the additional DEV interface cable with the sub-system switched off.

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10. Disconnect the DEV interface cables from the FSW PCBs in the sixth DKU frame referring to figures 4.3.3.10-10 and 4.3.3.10-11.

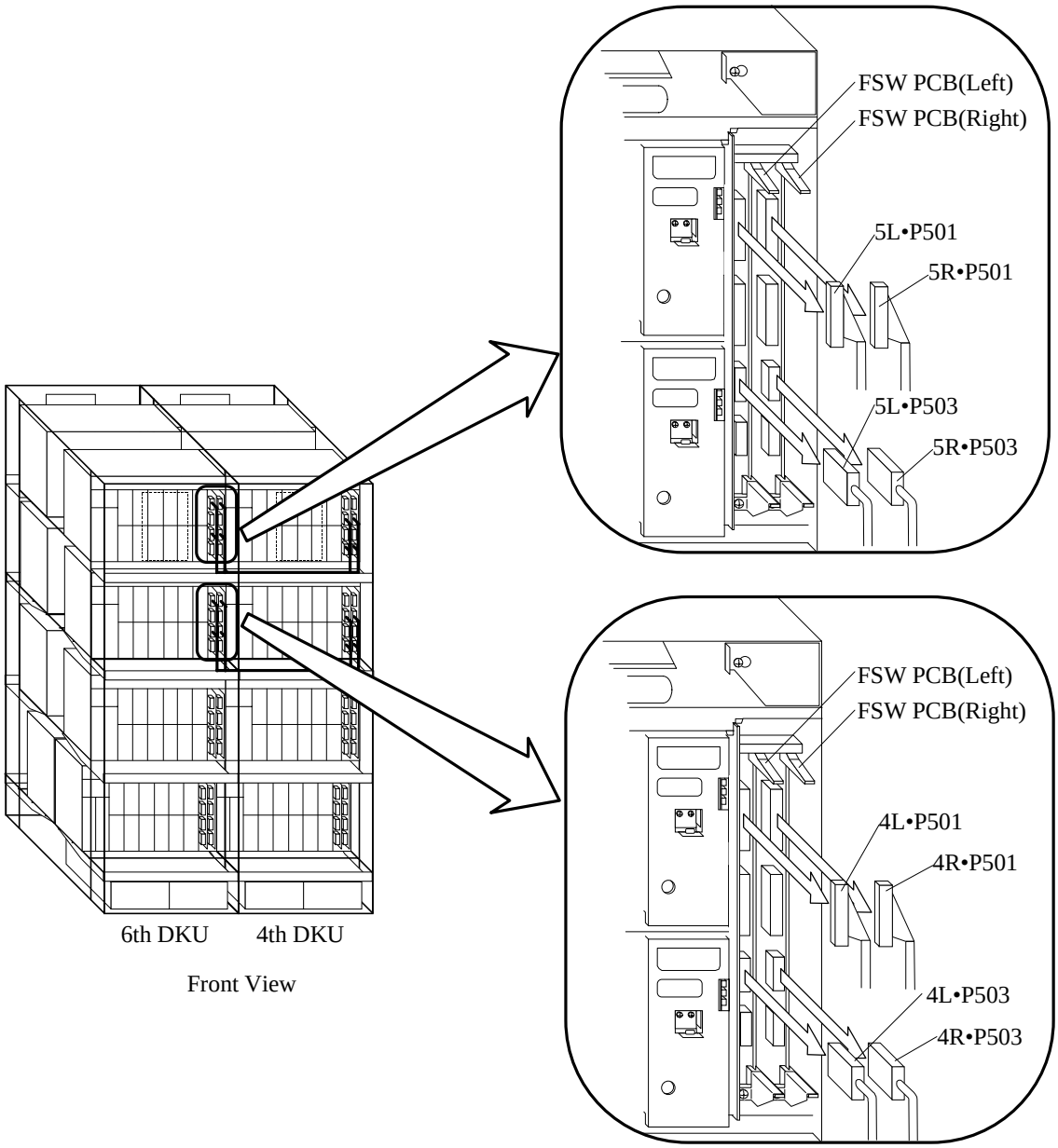


Fig. 4.3.3.10-10 Disconnection of the DEV Interface Cables

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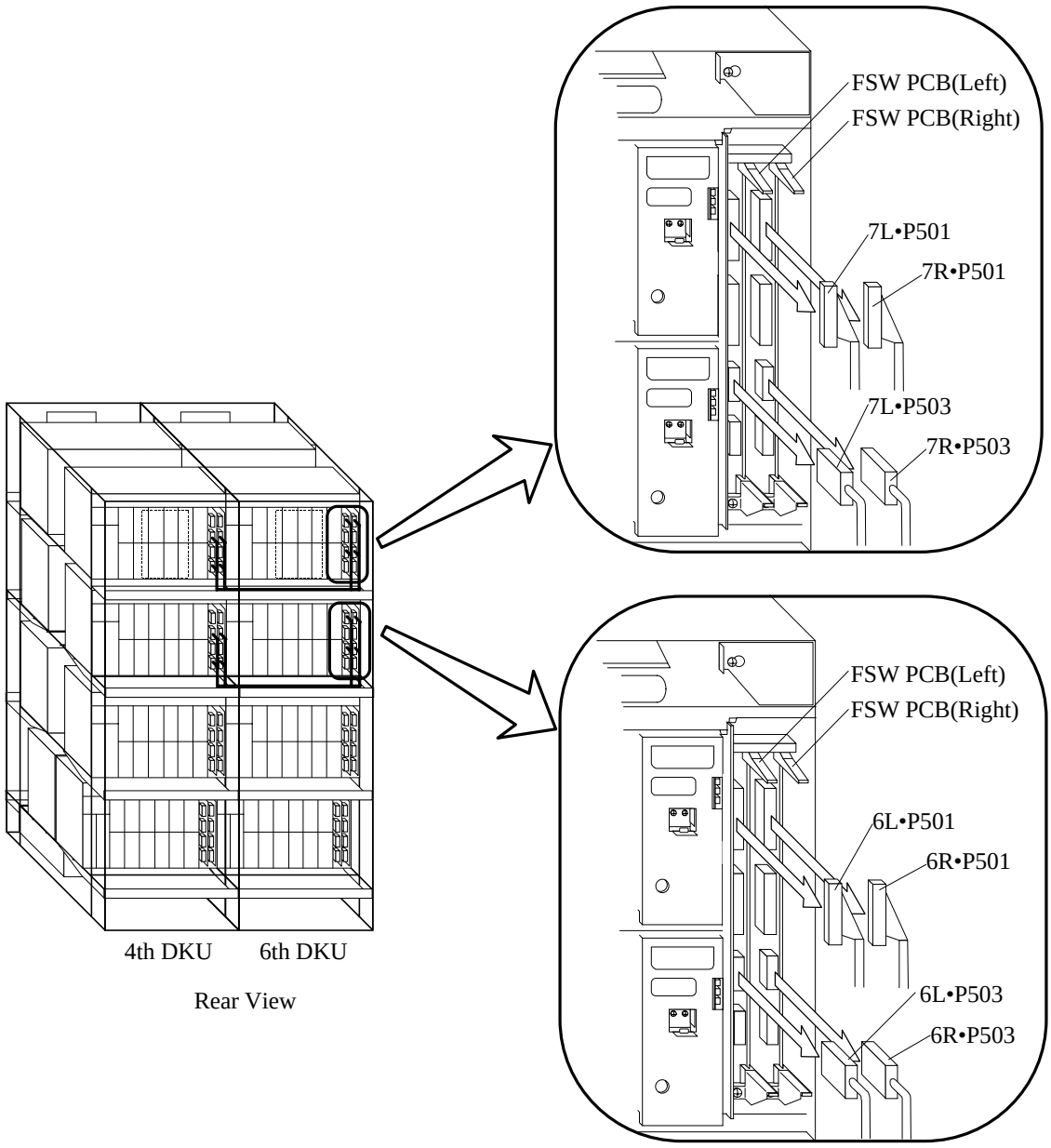


Fig. 4.3.3.10-11 Disconnection of the DEV Interface Cables

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11. Remove the DEV interface cables from inside the DKU frame.
12. Attach the side plates in the reverse order of Step 2.
13. Attach the cable covers in the reverse order of Step 1.
14. When the sixth DKU frame consists of 4 HDU boxes, fix the disconnected DEV interface cables in the sixth DKU frame with the binders.

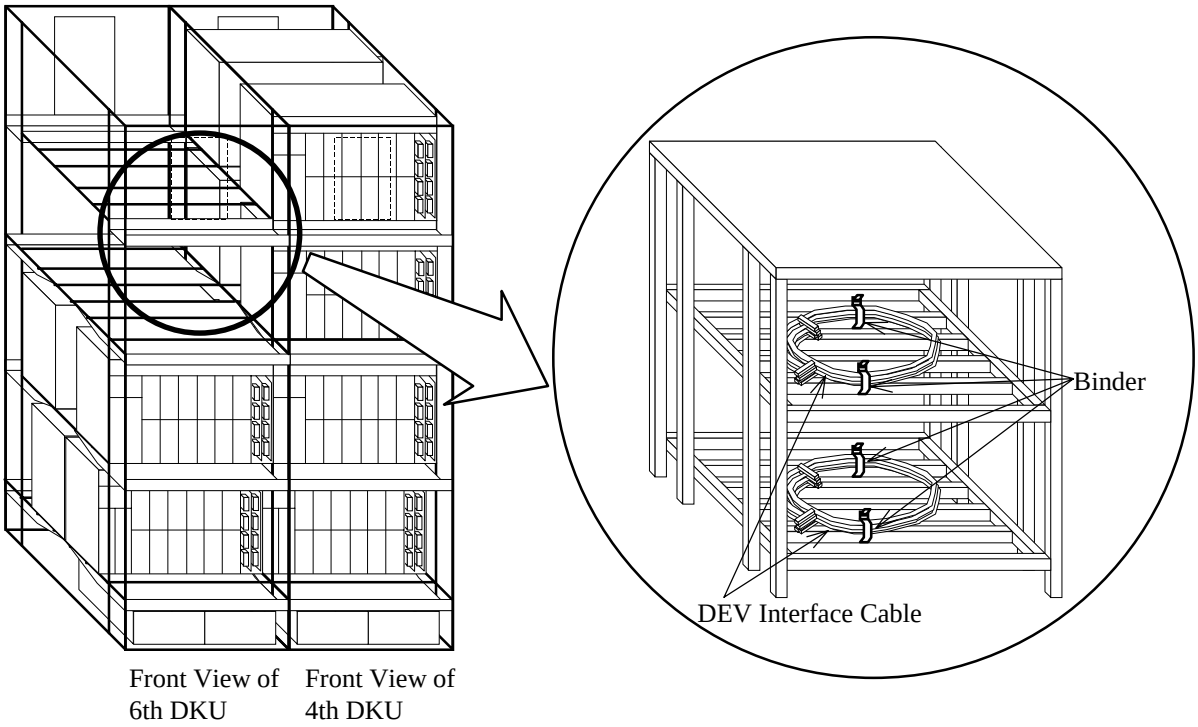


Fig. 4.3.3.10-12 Fixation of the DEV Interface Cables

15. Go to INST02-370 Step ⑪.

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4.4 De-Installation of Disk Unit (DKU405I-14)

4.4.1 Flowchart

1. Power OFF of Disk Unit being De-Installed	[INST04-1570]
↓	
2. DKUMN Cable Removal	[INST04-1580]
↓	
3. Kick Plate Removal	[INST04-1630]
↓	
4. Side Cover and Frame Ground Cable Removal	[INST04-1630]
↓	
5. Frame Disconnection	[INST04-1680]
↓	
6. Removal of DEV Interface Cables (Only Third Disk Unit)	[INST04-1690]
↓	
7. Side Cover Re-Installation	[INST04-1690]
↓	
8. Power Cable Assy Fixing	[INST04-1700]

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4.4.2 De-Installation Procedure of Disk Unit

1. Power OFF of Disk Unit being De-Installed
   a. Turn Enable / Disable switches (S1) to “DISABLE” position on the DKUMN PCBs of the Disk Unit.
   b. Turn off the circuit breaker (CB101) on the AC Boxes of the Disk Unit.

Table 4.4.2-1 De-Installed Disk Unit

No.	De-Installed Disk Unit	DKUMN PCB	AC Box	Remarks
1	Sixth Disk Unit	DKUMN-L3F, -L3R	AC BOX-L30, -L31	
2	Fifth Disk Unit	DKUMN-R3F, -R3R	AC BOX-R30, -R31	
3	Fourth Disk Unit	DKUMN-L2F, -L2R	AC BOX-L20, -L21	
4	Third Disk Unit	DKUMN-L1F, -L1R	AC BOX-L10, -L11	
5	Second Disk Unit	DKUMN-R2F, -R2R	AC BOX-R20, -R21	

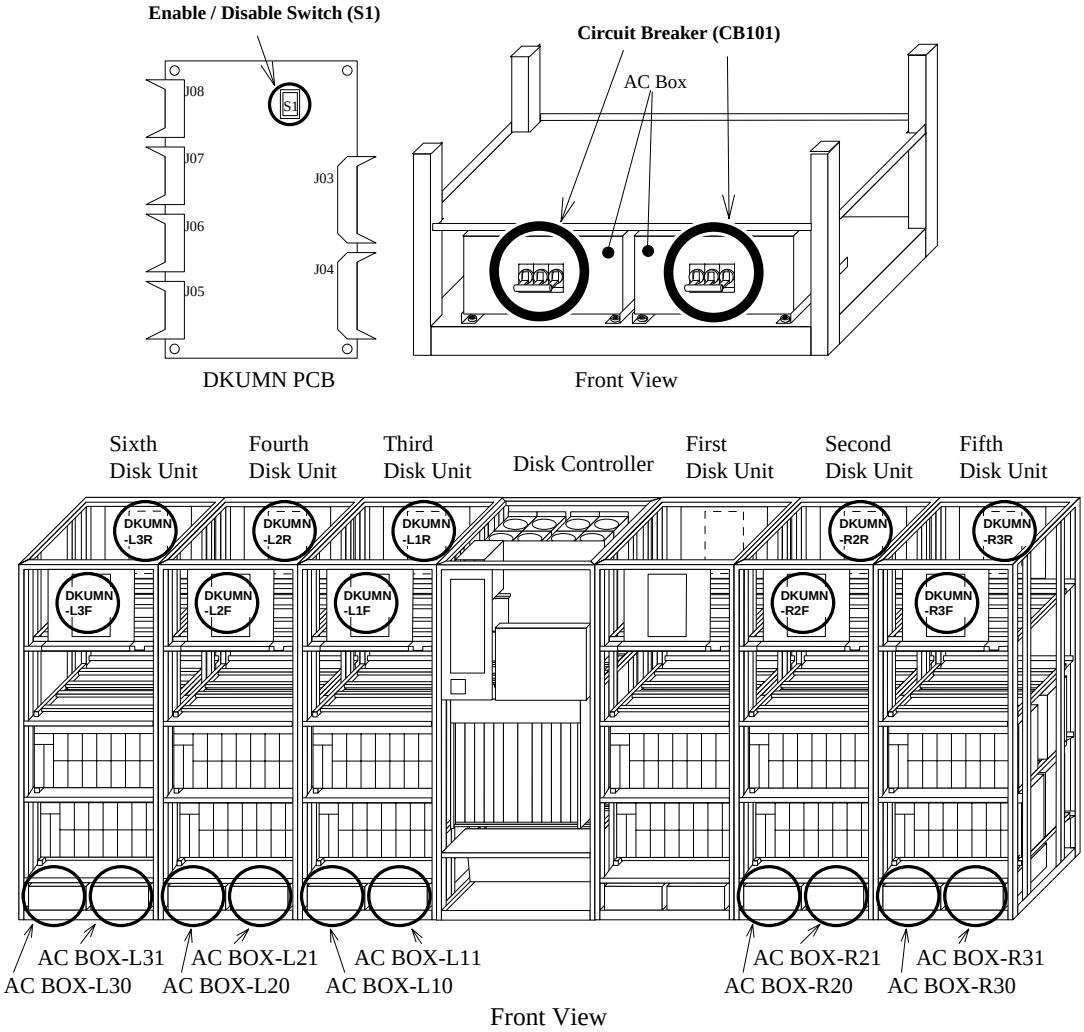


Fig. 4.4.2-1 AC Boxes and DKUMN PCBs

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2. DKUMN Cable Removal
   Remove the DKUMN cables in the reverse order of installation.

Sixth Disk Unit

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.
Disconnect the DKUMN cables between the Fourth Disk Unit and the Sixth Disk Unit as indicated in the table below.

Table 4.4.2-2 Connection of DKUMN Cables

No.	Fourth Disk Unit			Sixth Disk Unit			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-L2F	J03	P3-1	DKUMN-L3F	J04	P4-1	
2	DKUMN-L2R	J03	P3-2	DKUMN-L3R	J04	P4-2	

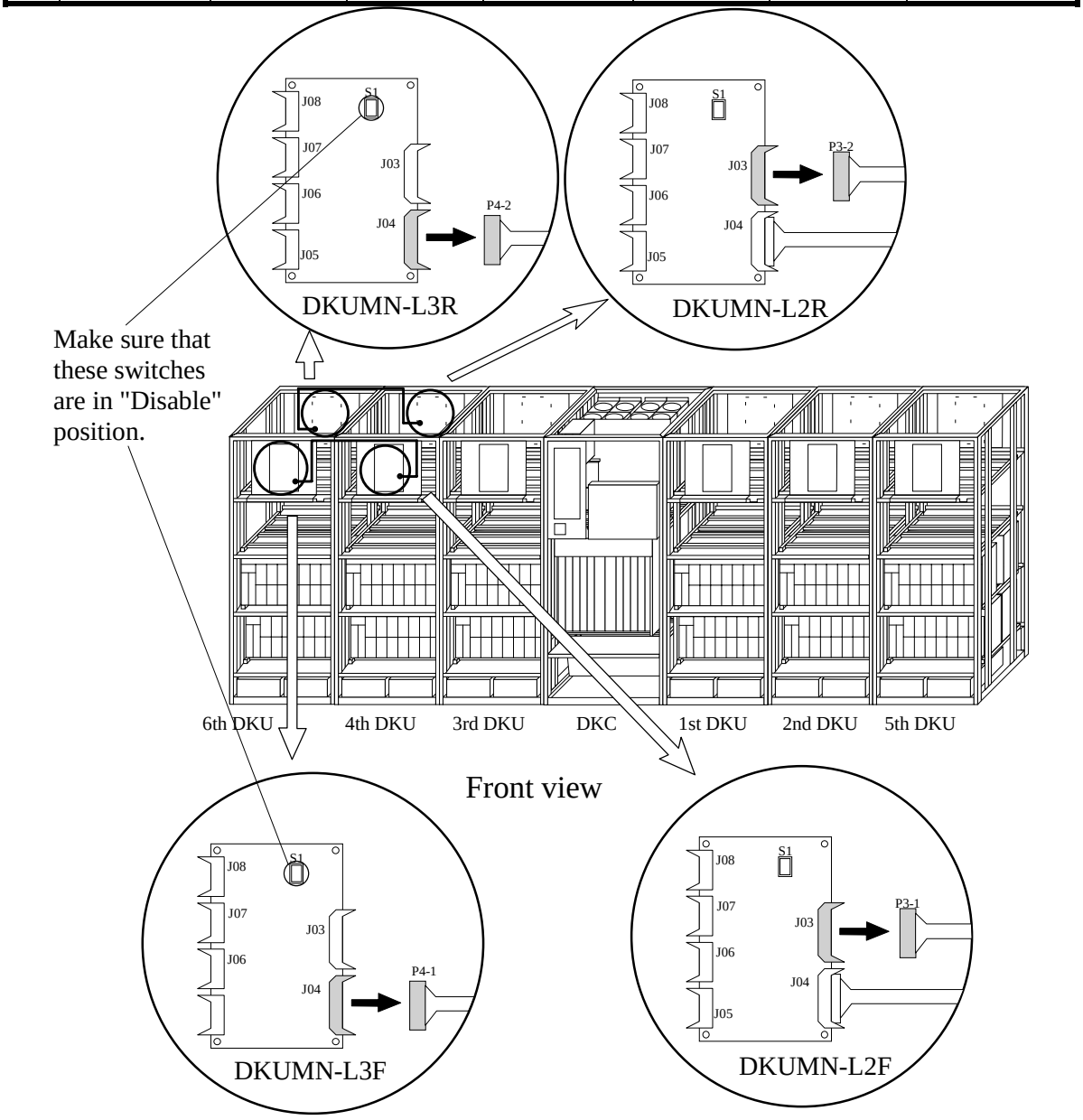


Fig. 4.4.2-2 Connection of DKUMN Cables

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Fifth Disk Unit

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.
Disconnect the DKUMN cables between the Second Disk Unit and the Fifth Disk Unit as indicated in the table below.

Table 4.4.2-3 Connection of DKUMN Cable

No.	Second Disk Unit			Fifth Disk Unit			REMARKS
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-R2F	J03	P3-1	DKUMN-R3F	J04	P4-1	
2	DKUMN-R2R	J03	P3-2	DKUMN-R3R	J04	P4-2	

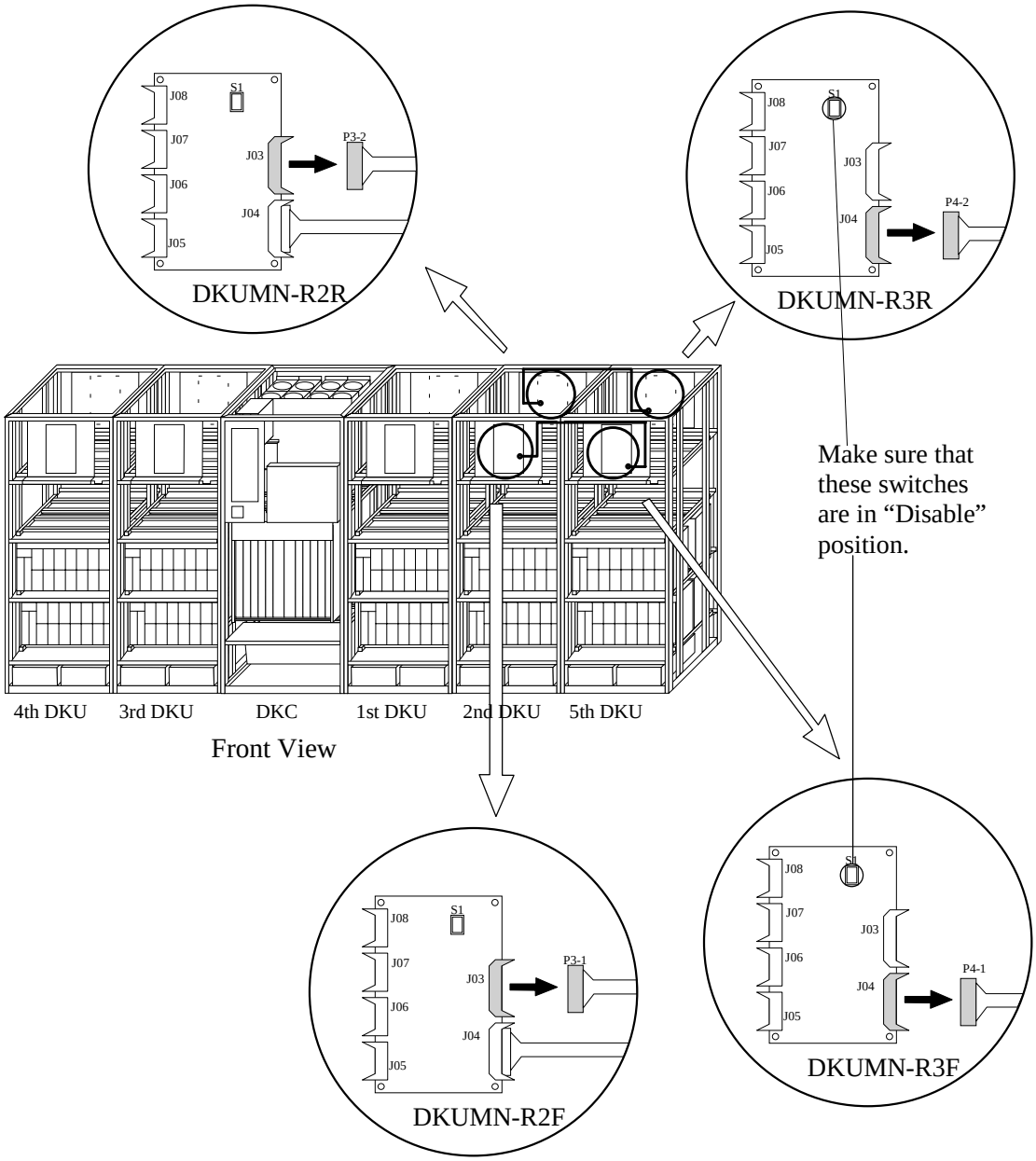


Fig. 4.4.2-3 Connection of DKUMN Cables

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Fourth Disk Unit

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.
Disconnect the DKUMN cables between the Third Disk Unit and the Fourth Disk Unit as indicated in the table below.

Table 4.4.2-4 Connection of DKUMN Cables

No.	Third Disk Unit			Fourth Disk Unit			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-L1F	J03	P3-1	DKUMN-L2F	J04	P4-1	
2	DKUMN-L1R	J03	P3-2	DKUMN-L2R	J04	P4-2	

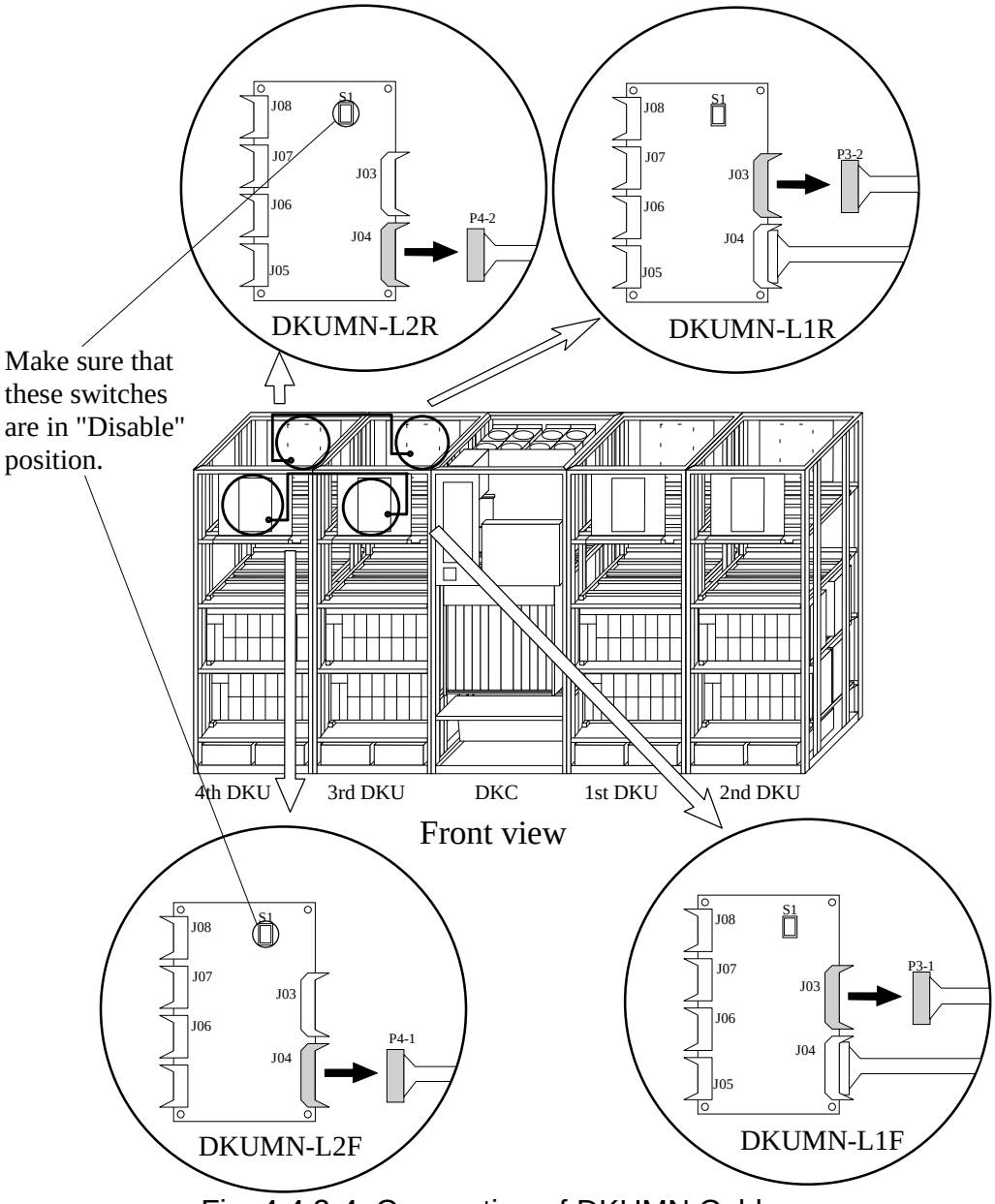


Fig. 4.4.2-4 Connection of DKUMN Cables

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Third Disk Unit

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.
Disconnect between the PS Back Board(PL) and the DKUMN PCBs as summarized in the table below.

Table 4.4.2-5 Connection of DKUMN Cables

No.	Disk Controller			Third Disk Unit			Remarks
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No	
1	PS BB(PL)	F02	PS-F02	DKUMN-L1F	J04	P4-1L	
2	PS BB(PL)	K02	PS-K02	DKUMN-L1R	J04	P4-2L	

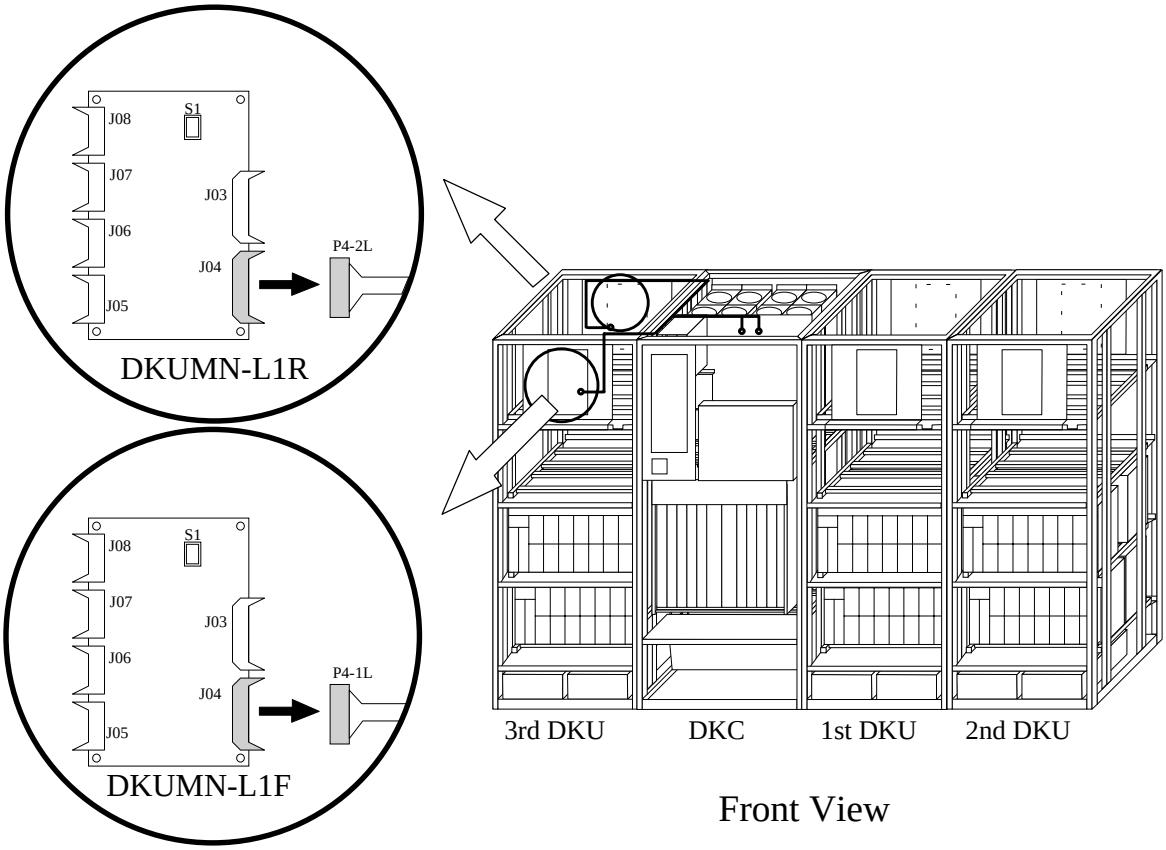


Fig. 4.4.2-5 Connection of DKUMN Cables

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Second Disk Unit

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.
Disconnect the DKUMN cables between the First Disk Unit and the Second Disk Unit as indicated in the table below.

Table 4.4.2-6 Connection of DKUMN Cable

No.	First Disk Unit			Second Disk Unit			REMARKS
	Location No.	Connector No.	Cable No.	Location No.	Connector No.	Cable No.	
1	DKUMN-R1F	J03	P3-1	DKUMN-R2F	J04	P4-1	
2	DKUMN-R1R	J03	P3-2	DKUMN-R2R	J04	P4-2	

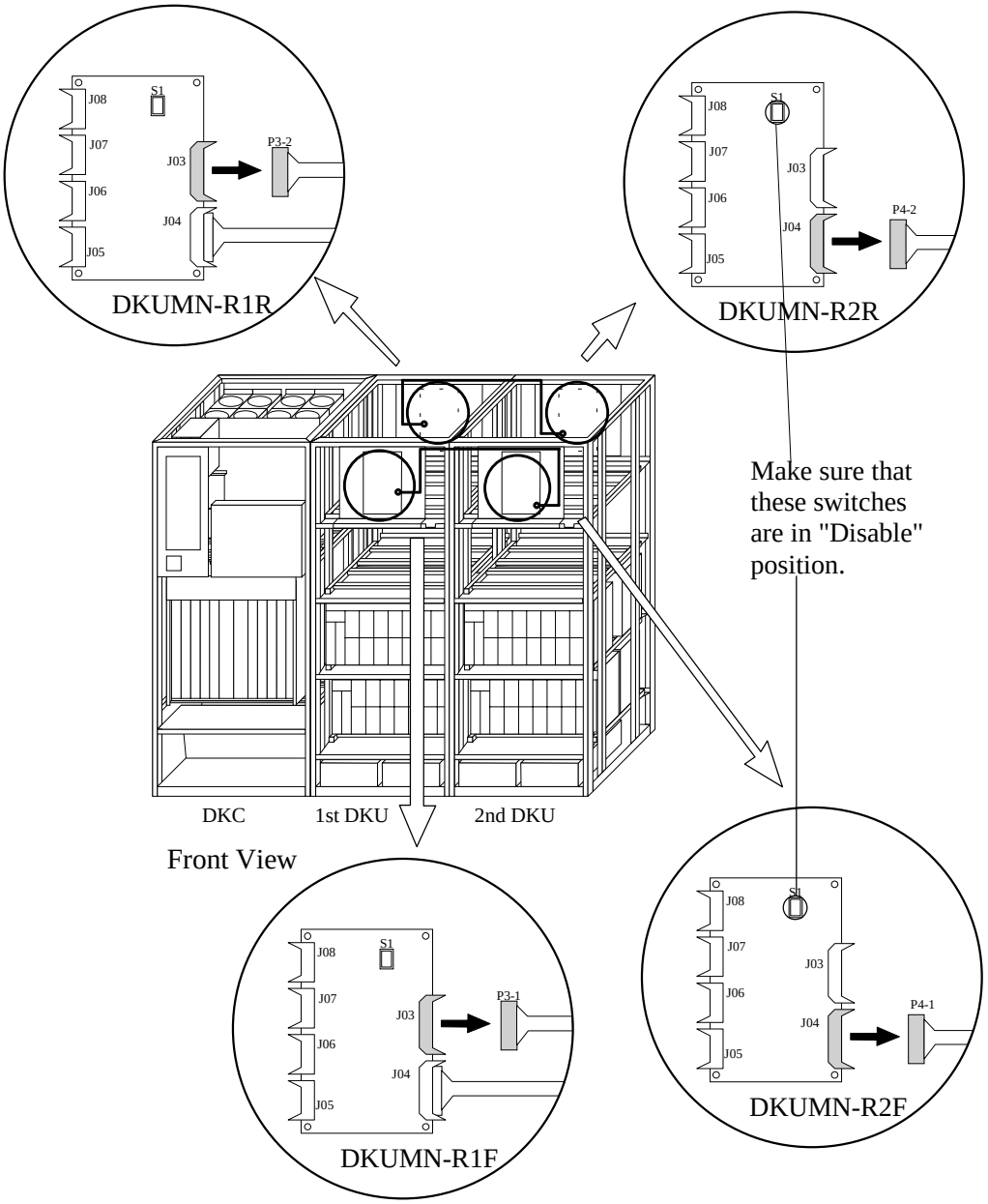


Fig. 4.4.2-6 Connection of DKUMN Cables

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3 Kick Plate De-Installation

Remove kick plate in the reverse order of installation.

SECTION 3.3.3.4 Installation of Kick Plate [INST03-260]

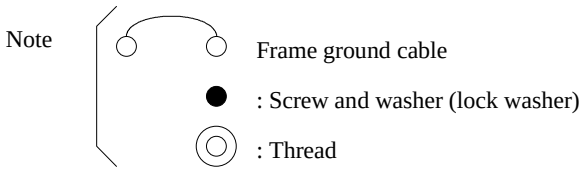
SECTION 3.4.3.5 Installation of Kick Plate [INST03-560]

4 Side Cover and Frame Ground Cable Removal

Remove the side cover(s) and frame ground cable in the reverse order of installation.

Sixth Disk Unit

a. Remove the frame ground cable.
b. Remove the side cover from the Sixth Disk Unit.
c. Disconnect the frames.
d. Attach the left side cover to the Disk Controller, Third Disk Unit or Fourth Disk Unit together with the frame ground cable.



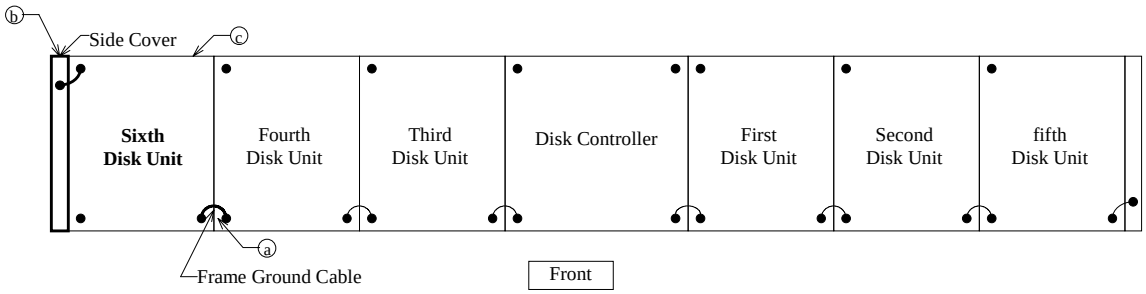


Fig. 4.4.2-7 Removal of Frame Ground Cable

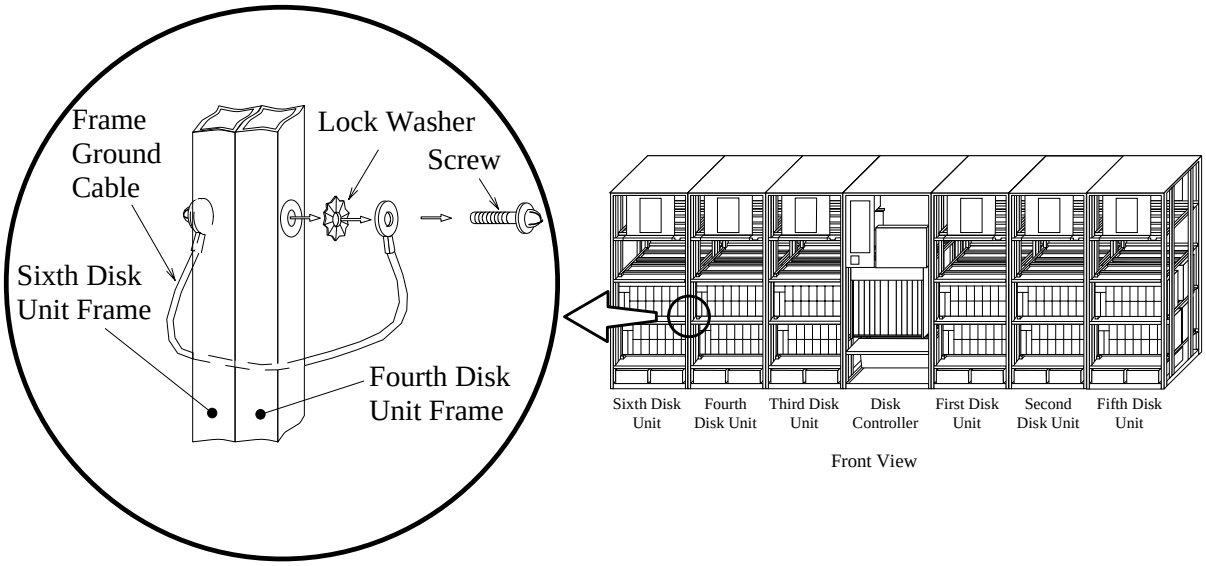


Fig. 4.4.2-8 Removal of Frame Ground Cable

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Fifth Disk Unit

a. Remove the frame ground cable.
b. Remove the side cover from the Fifth Disk Unit.
c. Disconnect the frames.
d. Attach the right side cover to the Disk Controller, First Disk Unit or Second Disk Unit together with the frame ground cable.

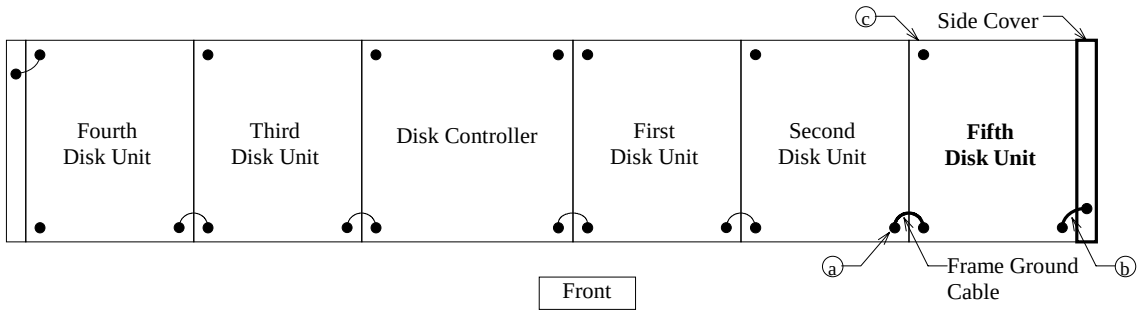


Fig. 4.4.2-9 Removal of Frame Ground Cable

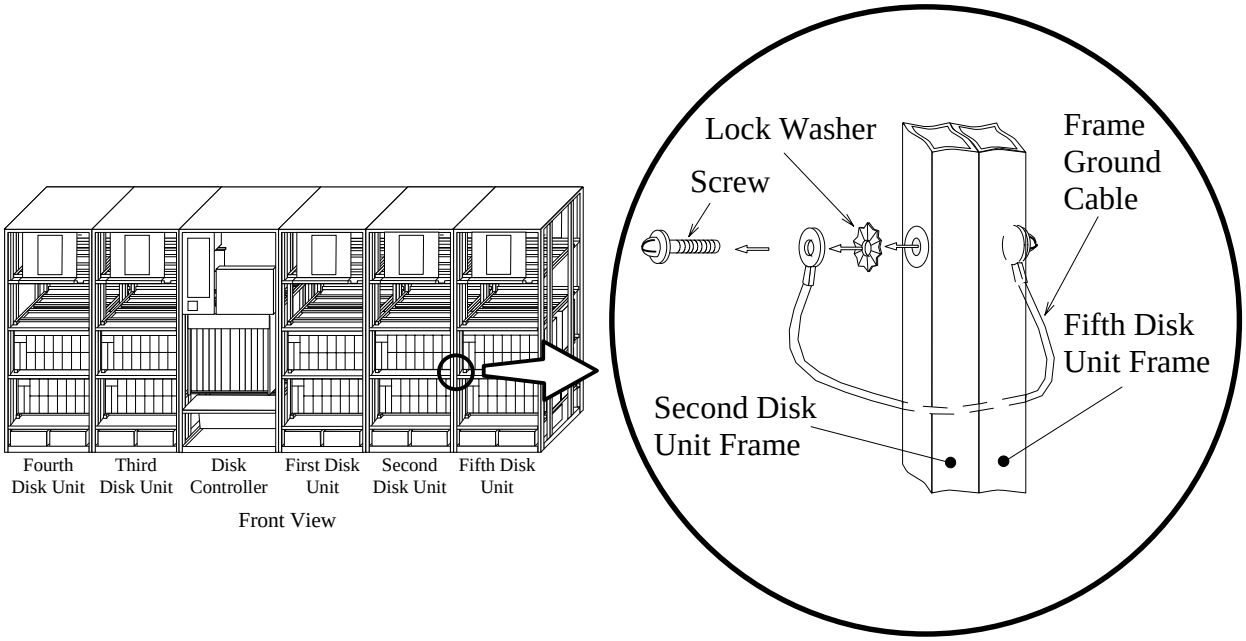
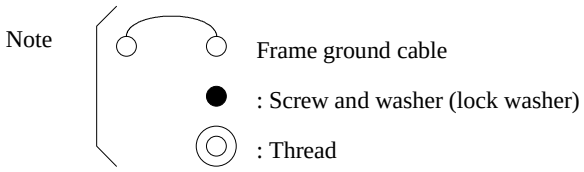


Fig. 4.4.2-10 Removal of Frame Ground Cable

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Fourth Disk Unit

a. Remove the frame ground cable.
b. Remove the side cover from the Fourth Disk Unit.
c. Disconnect the frames.
d. Attach the left side cover to the Disk Controller or Third Disk Unit together with the frame ground cable.



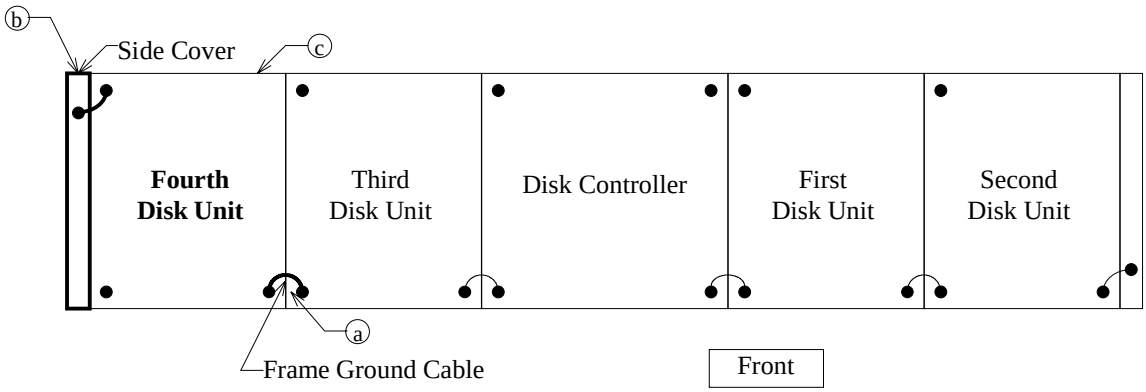


Fig. 4.4.2-11 Removal of Frame Ground Cable

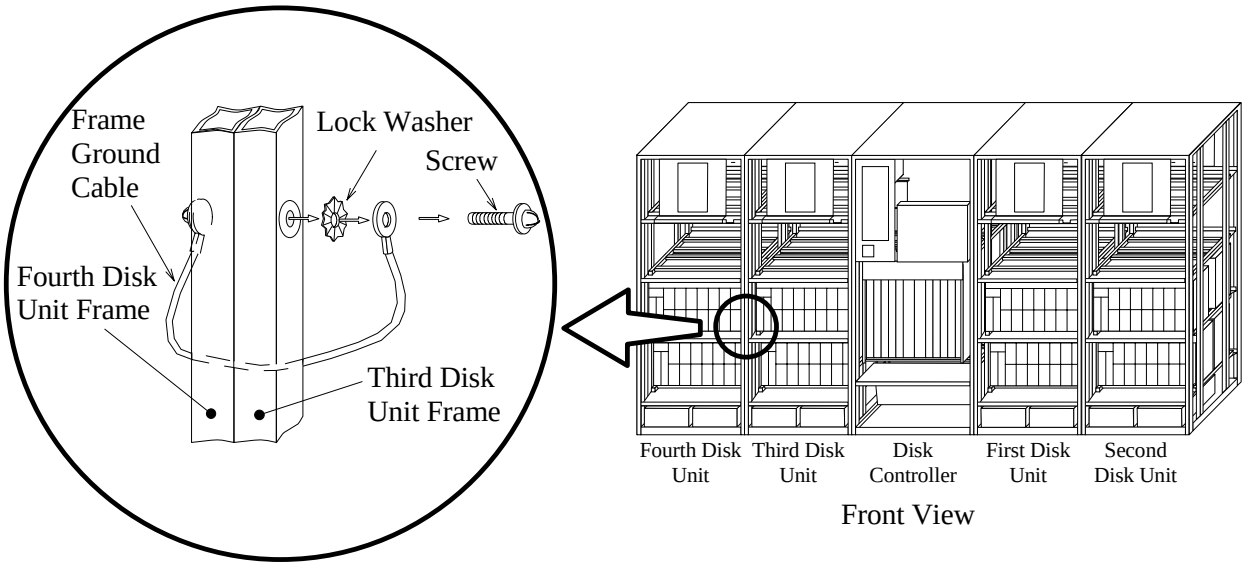


Fig. 4.4.2-12 Removal of Frame Ground Cable

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Third Disk Unit

a. Remove the frame ground cable.
b. Remove the side cover from the Third Disk Unit.
c. Disconnect the frames.
d. Remove the eight DEV Interface Cables from the Disk Controller [INST04-390 through 410 step 2].
e. Attach the left side cover of the Disk Controller with the frame ground cable.

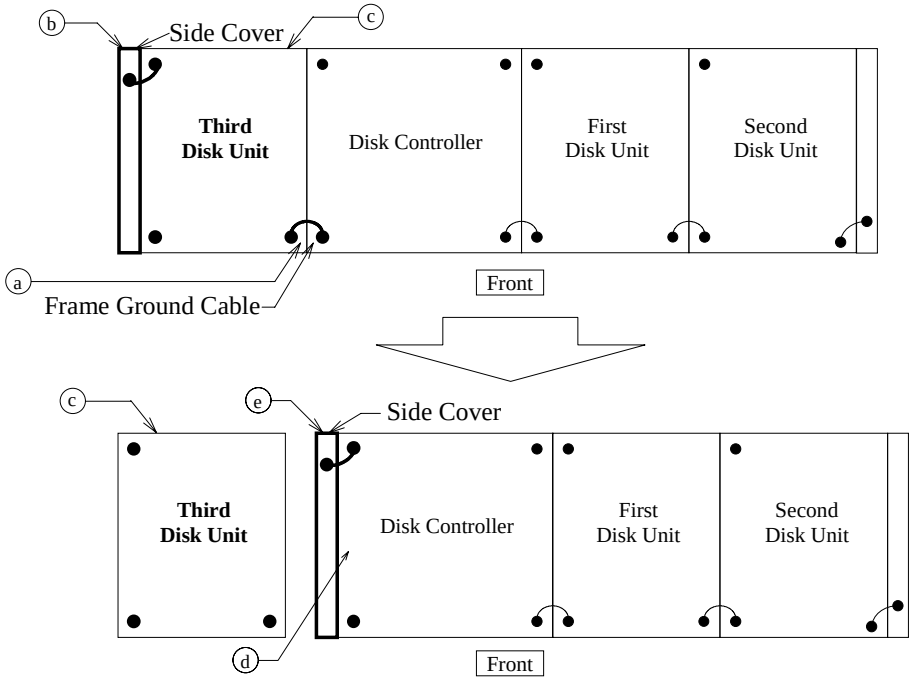


Fig. 4.4.2-13 Removal of Frame Ground Cable

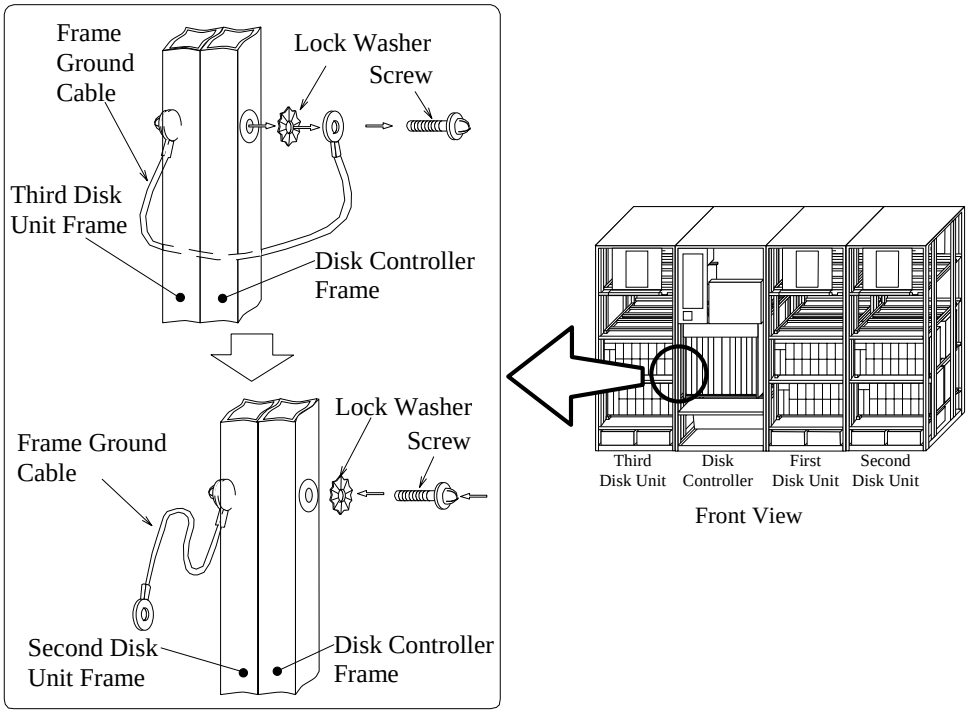


Fig. 4.4.2-14 Removal of Frame Ground Cable

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Second Disk Unit

a. Remove the frame ground cable.
b. Remove the side cover from the Second Disk Unit.
c. Disconnect the frames.
d. Attach the right side cover to the Disk Controller or First Disk Unit together with the frame ground cable.

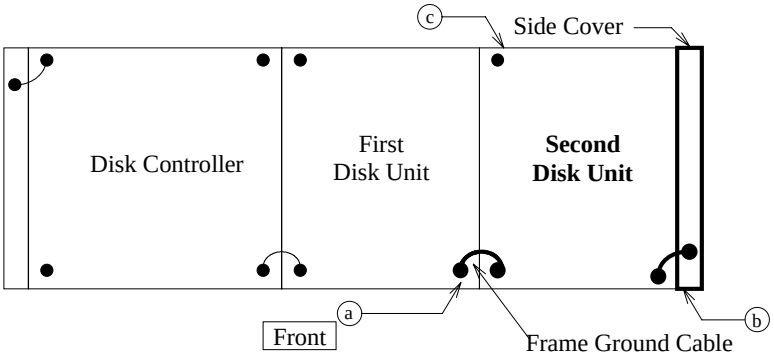


Fig. 4.4.2-15 Removal of Frame Ground Cable

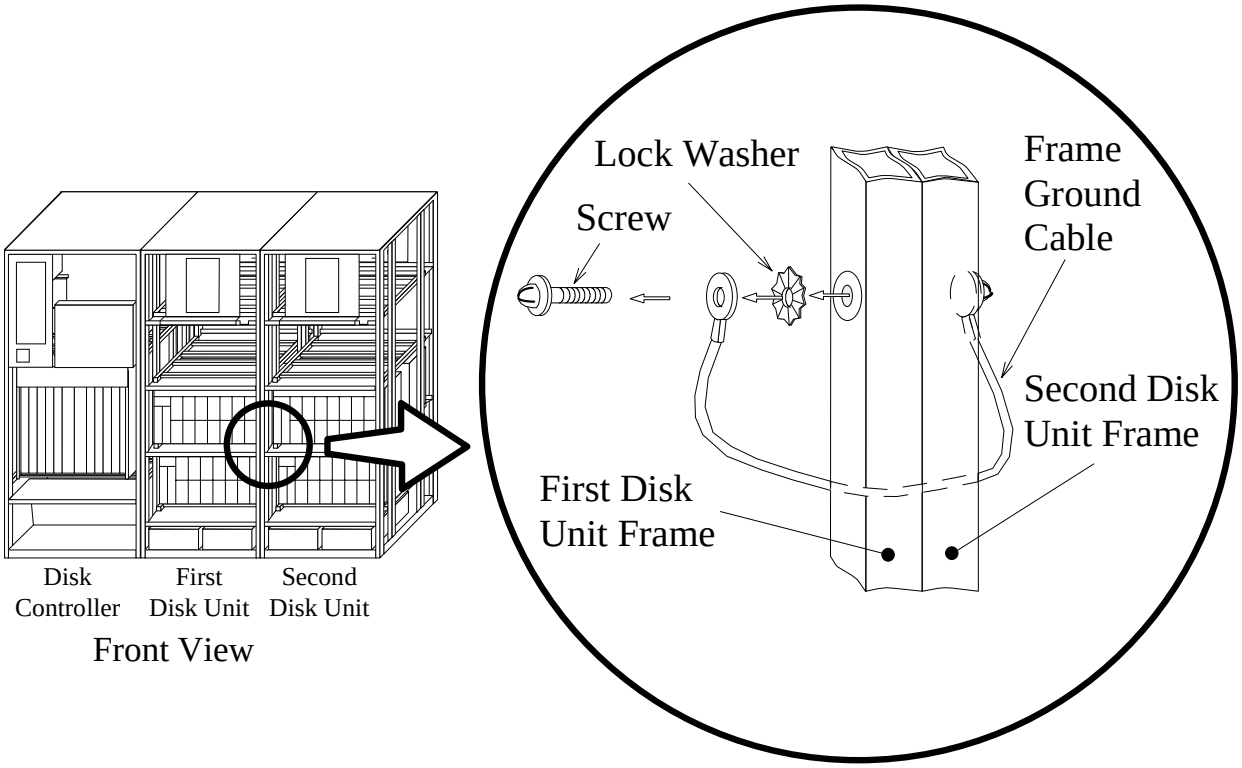


Fig. 4.4.2-16 Removal of Frame Ground Cable

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5. Frame Disconnection
   Disconnect the frames in the reverse order of frame connection.

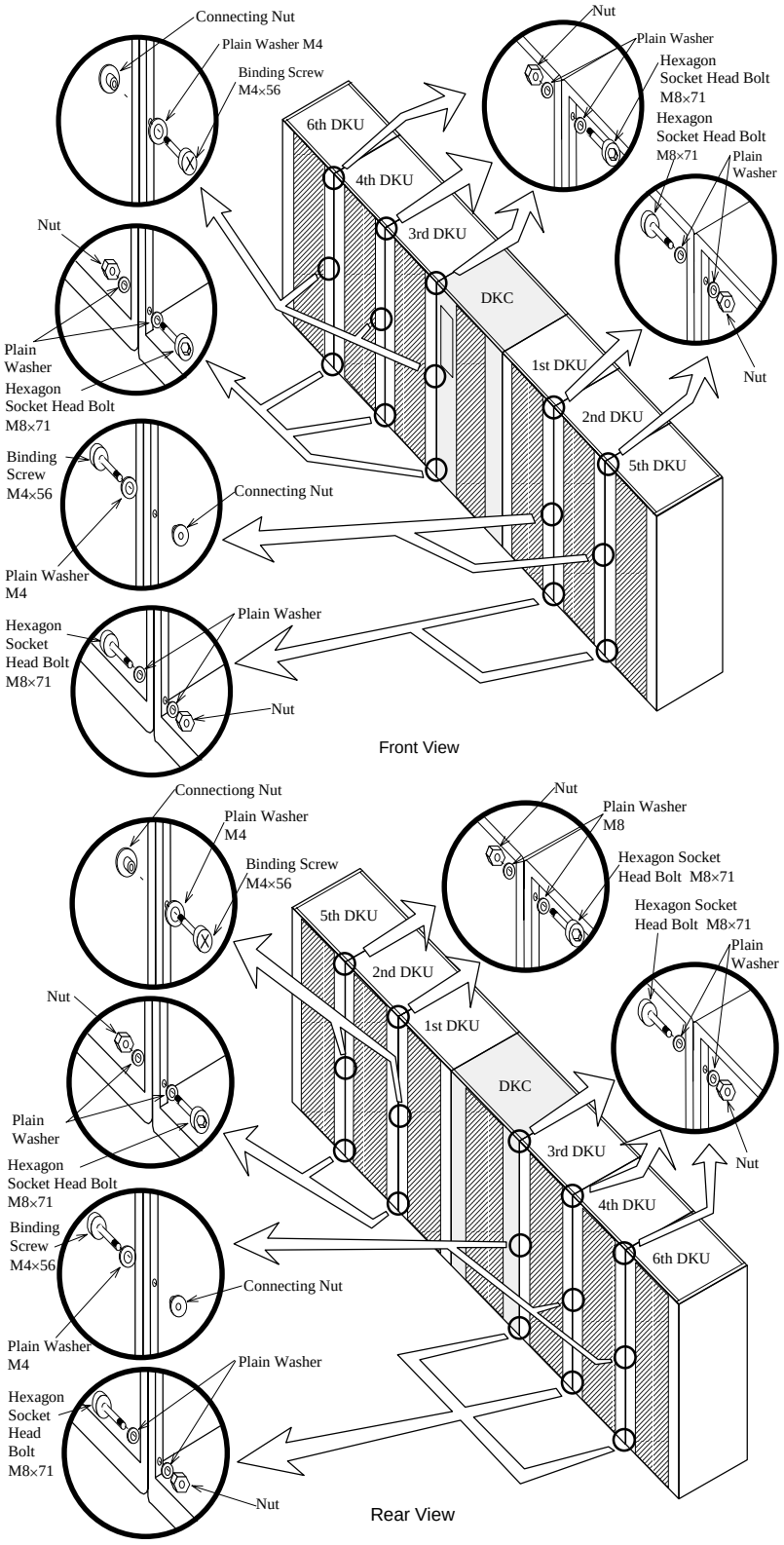


Fig. 4.4.2-17 Disconnection of Frame

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6. Removal of DEV Interface Cables
   a. When the Third Disk Unit is removed, remove the eight DEV Interface Cables from the DKC. See INST04-390 through 410 (step a through e).
      When the Third Disk Unit is not removed, go to step 7.

7. Side Cover Re-Installation
   a. Attach the side cover to the end of the frame. See Table 4.4.2-7.

Table 4.4.2-7 Removal and Re-installation of Side Cover

Configuration	Sixth Disk Unit	Fourth Disk Unit	Third Disk Unit	Disk Controller	First Disk Unit	Second Disk Unit	Fifth Disk Unit
De-Installation of Second Disk Unit			Side Cover			Side Cover	
De-Installation of Third Disk Unit							
De-Installation of Fourth Disk Unit							
De-Installation of Fifth Disk Unit							
De-Installation of Sixth Disk Unit							

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b. Attach the side cover to the end of the string with the four binding screws and washers.

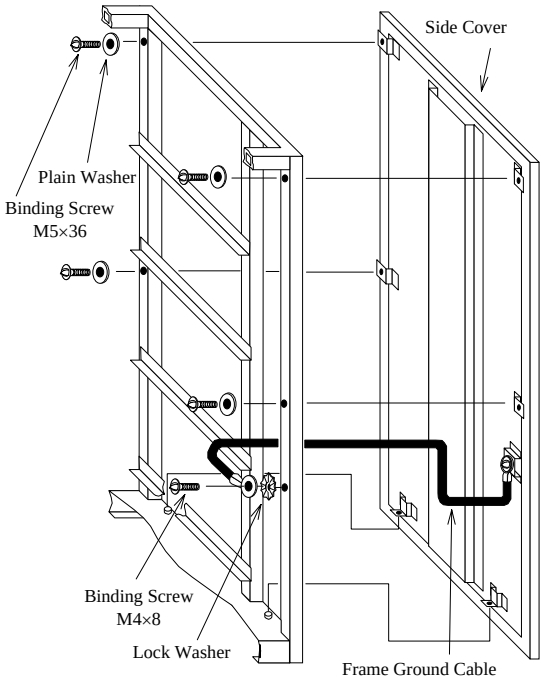


Fig. 4.4.2-18 Re-Installation of Side Cover

8. Power Cable Assy Fixing

a. Loosen the four screws.

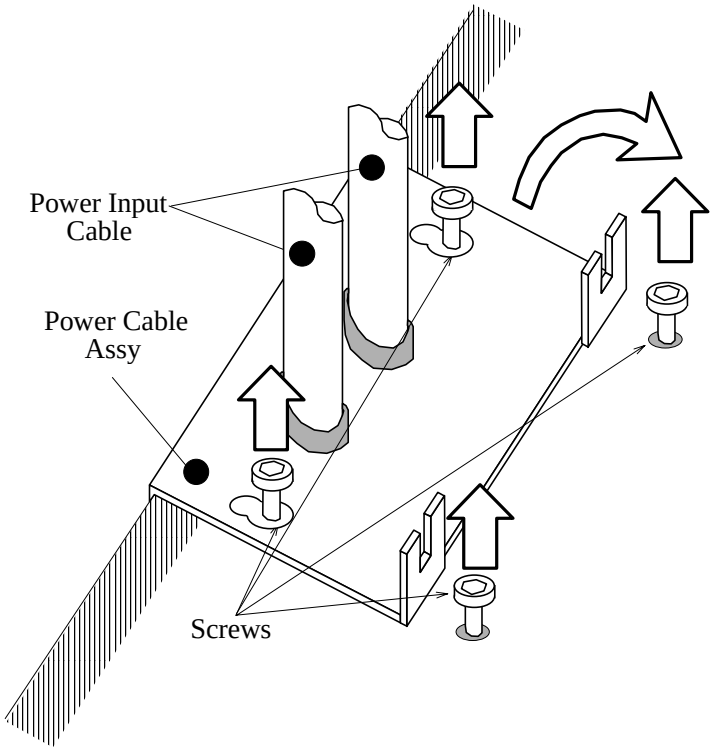


Fig. 4.4.2-19 Fixing of Power Cable Assy

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b. Secure the power cable Assy with the screws.

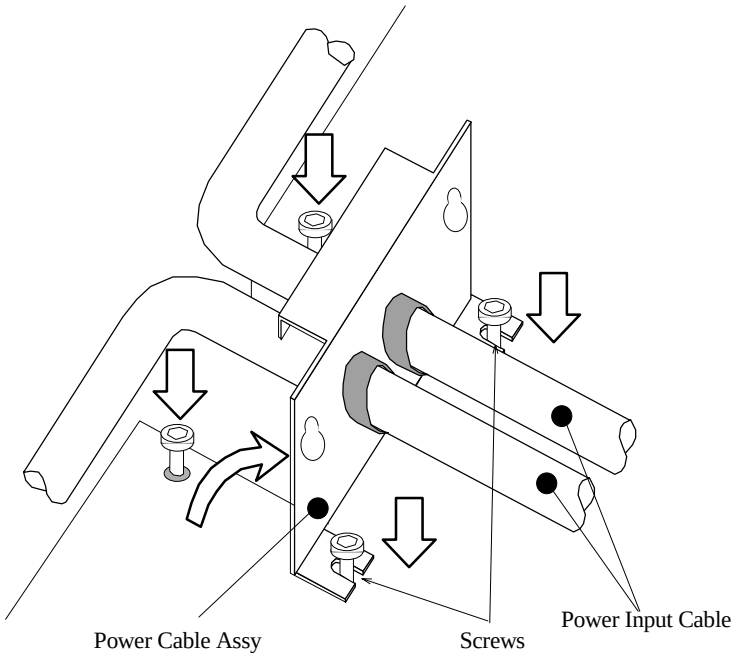


Fig. 4.4.2-20 Fixing of Power Cable Assy

9. Return to General Flow.
   Non-Disruptive De-installation : Go to INST02-170 Step (4)-5.
   Disruptive De-installation : Go to INST02-280 Step (10)-6.

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4.5 De-Installation of HDD Canister (DKU-F405I-18J4/18J1/18K4/18K1/36K4/36K1/47J4/47J1/72J4/72J1/72K4/72K1 /146J4/146J1/180H4/180H1)

4.5.1 Flowchart

(1) Checking the blocked state of the component to be de-installed.

↓

(2) Removal of the acrylic cover.

↓

(3) De-installation of the HDD canister.

↓

(4) Attachment of the acrylic cover.

↓

(5) Removal of the nameplate.

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4.5.2 Parts List

Table 4.5.2-1 Parts List for HDD Canister

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKU-F405I-18J4	HDU-18J1FC	5502391-A	4	
		Nameplate	2103570-15	1	
			3259627-2	1	
2	DKU-F405I-18J1	HDU-18J1FC	5502391-A	1	
		Nameplate	2103570-14	1	
			3259627-1	1	
3	DKU-F405I-18K4	HDU-18K1FC	5510884-A	4	
		Nameplate	2103570-51	1	
			3259627-19	1	
4	DKU-F405I-18K1	HDU-18K1FC	5510884-A	1	
		Nameplate	2103570-52	1	
			3259627-20	1	
5	DKU-F405I-36K4	HDU-36K1FC	5502398-A	4	
		Nameplate	2103570-63	1	
			3259627-31	1	
6	DKU-F405I-36K1	HDU-36K1FC	5502398-A	1	
		Nameplate	2103570-64	1	
			3259627-32	1	
7	DKU-F405I-47J4	HDU-47J1FC	5502392-A	4	
		Nameplate	2103570-17	1	
			3259627-4	1	
8	DKU-F405I-47J1	HDU-47J1FC	5502392-A	1	
		Nameplate	2103570-16	1	
			3259627-3	1	
9	DKU-F405I-72J4	HDU-72J1FC	5502393-A	4	
		Nameplate	2103570-19	1	
			3259627-6	1	
10	DKU-F405I-72J1	HDU-72J1FC	5502393-A	1	
		Nameplate	2103570-18	1	
			3259627-5	1	
11	DKU-F405I-72K4	HDU-72K1FC	5519913-A	4	
		Nameplate	2103570-69	1	
			—	1	
12	DKU-F405I-72K1	HDU-72J1FC	5519913-A	1	
		Nameplate	2103570-60	1	
			—	1	
13	DKU-F405I-146J4	HDU-146J1FC	5518495-A	4	
		Nameplate	2103570-65	1	
			3259627-33	1	
14	DKU-F405I-146J1	HDU-146J1FC	5518495-A	1	
		Nameplate	2103570-66	1	
			3259627-34	1	
15	DKU-F405I-180H4	HDU-180H1FC	5502397-A	4	
		Nameplate	2103570-57	1	
			3259627-26	1	
16	DKU-F405I-180H1	HDU-180H1FC	5502397-A	1	
		Nameplate	2103570-58	1	
			3259627-25	1	

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4.5.3 De-Installation Procedure of HDD Canister

1. De-installation of the HDD canister.
   a. Check the Shut Down LED on the HDD canister. (It should be RED.)

> **⚠ CAUTION**
> A system down may be caused by a removal of an HDD canister other than that to be removed. Make sure that it is the HDD canister to be removed.

   b. Remove the HDD Box Cover (acrylic cover).
      Process 1 : Disengage two claws at the bottom of the acrylic cover.
      Process 2 : Slide the acrylic cover upward and remove it from the screws on the HDD Box.
   c. After pushing up the stopper on the front side of the HDD canister, pull the lever toward you to remove the HDD canister.
   d. Attach the HDD Box Cover.

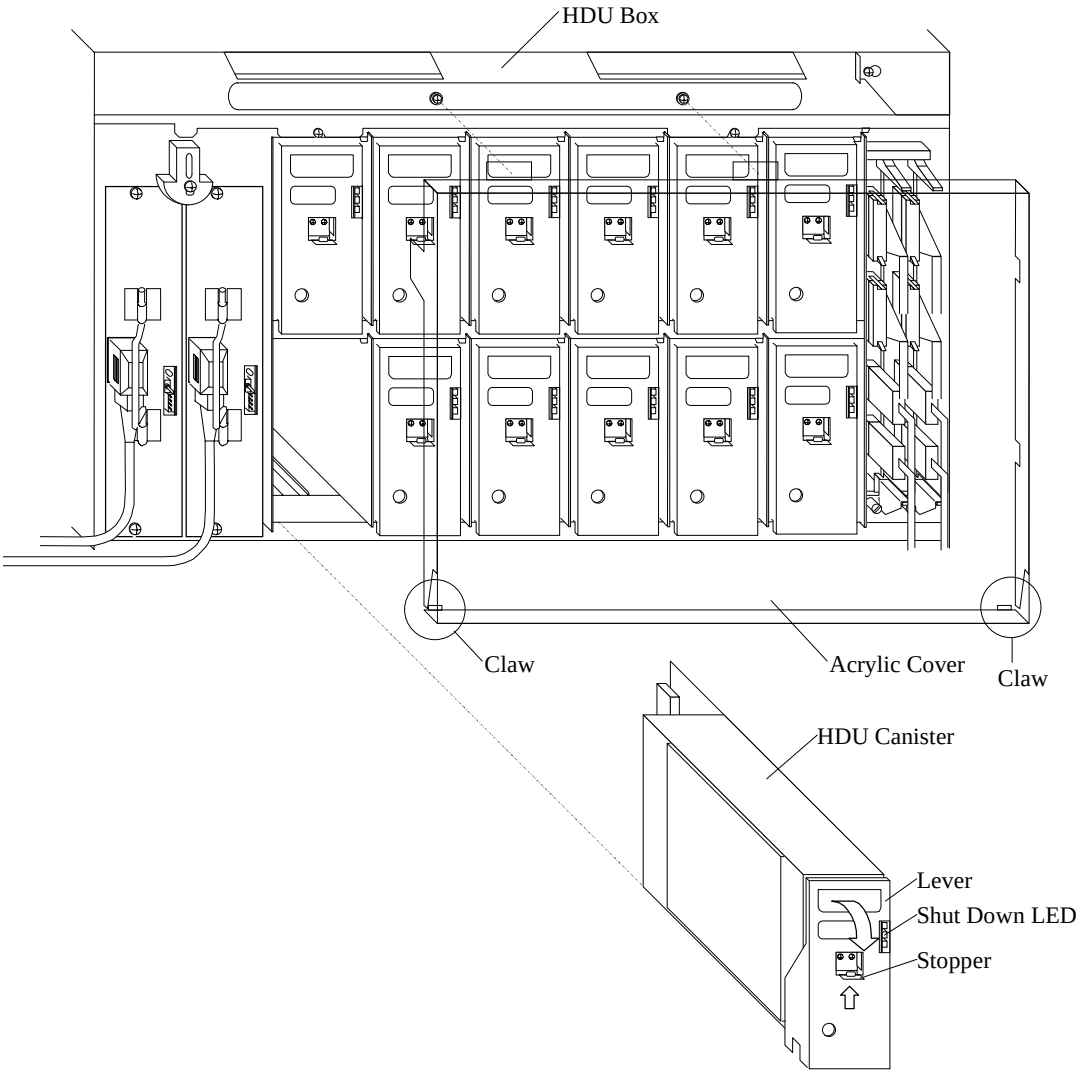
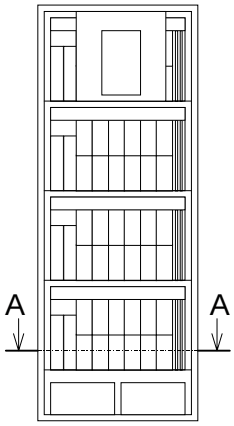


Fig. 4.5.3-1 De-Installation of HDD Canister

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2. Removal of the nameplate.
   a. Remove the nameplate corresponding to model number and serial number of the removed HDD canister(s).



Front View
of DKU

A - A

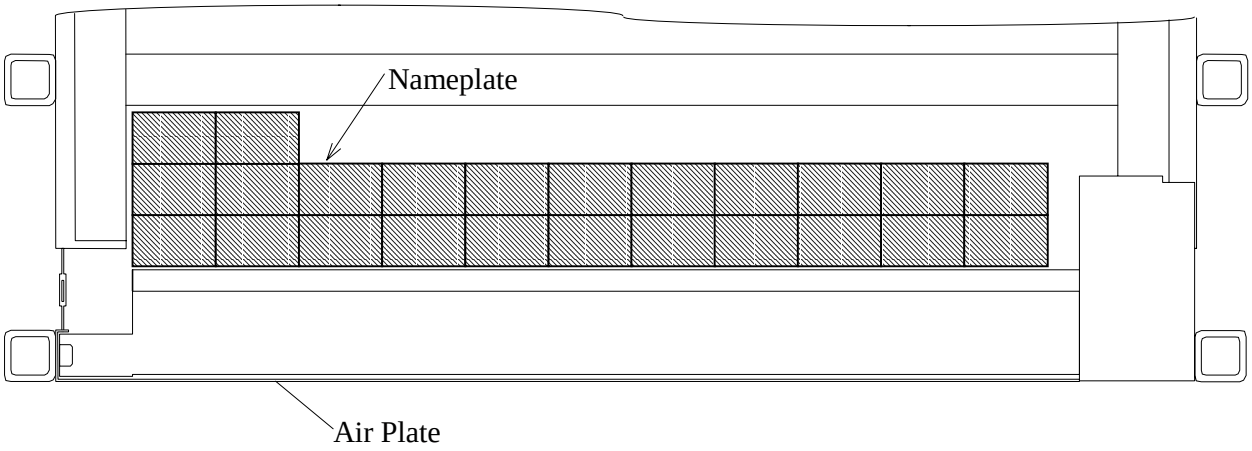


Fig. 4.5.3-2 Removal of Nameplate

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3. Return to General Flow.
   Non-Disruptive De-installation :
   - If connection of DEV interface cables (2) (DKC-F410I-EXC) De-installation, go to INST02-150 Step (1)-11.
   - If connection of DEV interface cables (2) (DKC-F410I-EXC) not De-installation, go to INST02-150 Step (1)-3.

   Disruptive De-installation : Go to INST02-270 Step (9).

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4.6 De-Installation of Platform for the Canister Mount (DKU-F405I-B4)

4.6.1 Flowchart

The procedure for de-installing the platform for the canister mount is shown below.

1. Confirmation of de-installation position of platform for the canister mount. [INST04-1770]
↓
2. Installation of the jumper plug in the DKUMN PCB. [INST04-1780]
↓
3. Setting of the PS enable switch on the multi power supply. [INST04-1790]
↓
4. Disconnection of the INLET cable. [INST04-1800]
↓
5. Removal of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly. [INST04-1810]
↓
6. Removal of the side plate. [INST04-1830]
↓
7. Disconnection of the DKUMN cable. [INST04-1840]
↓
8. De-Installation of the HDU Box. [INST04-1850]
↓
9. Attachment of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly. [INST04-1850]
↓
10. Attachment of the side plate. [INST04-1850]
↓
11. Removal of the nameplate and label (REV). [INST04-1860]

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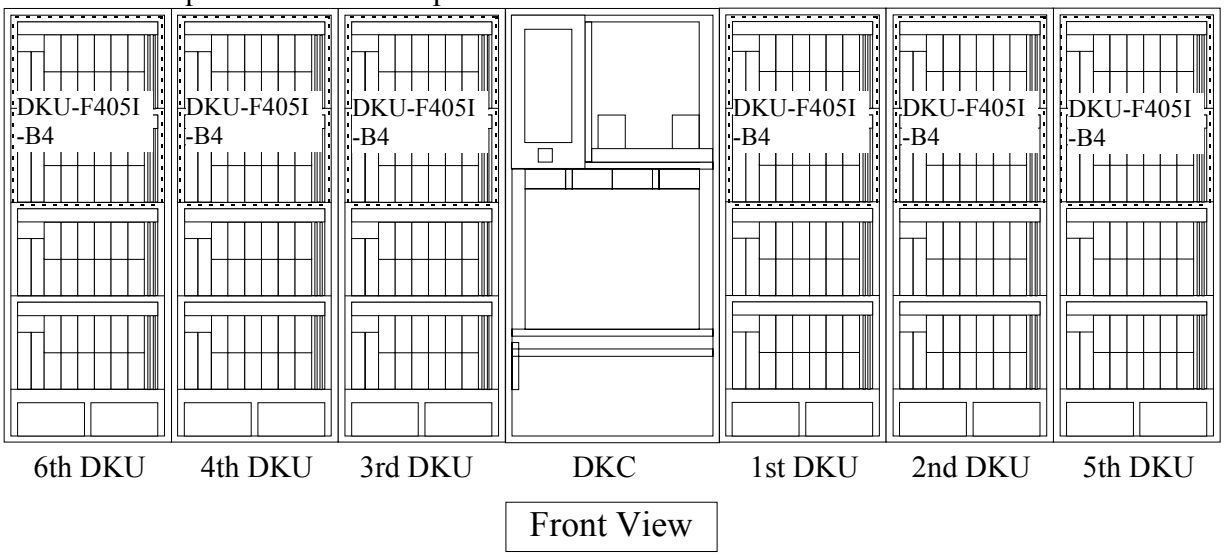
4.6.2 Parts List

Table 4.6.2-1 Parts List for Platform for Canister Mount

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-B4	HDU Box	1505217-A	4	
		Multi Power Supply	5502384-A	8	
		FSW PCB	5502386-A	8	
		HDD FAN Assembly	5502388-A	4	
		Nameplate E (DKU-F405I)	2103570-1	1	
			2103575-1	1	
		Label (REV)	3239458-1	1	

4.6.3 De-Installation Procedure of Platform for the Canister Mount

1. Confirmation of de-installation position of platform for the canister mount.
   a. Confirm a position to remove platform for the canister mount.



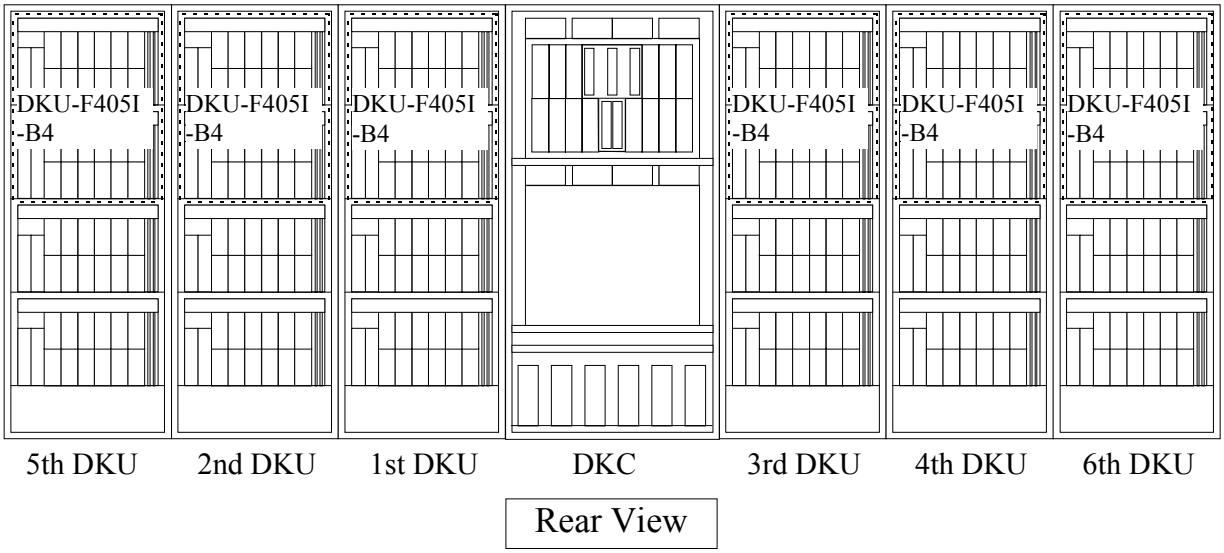
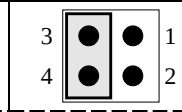
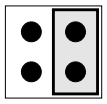
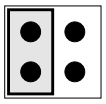
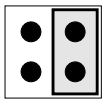
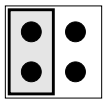
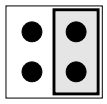
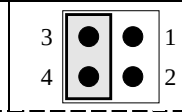
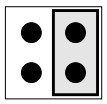
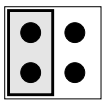
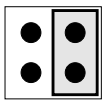
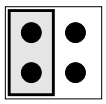
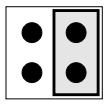


Fig 4.6.3-1 Check of the Blocked State of Component to be De-Installed

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2. Installation of the jumper plug in the DKUMN PCB.
   a. Install the jumper plugs for JP2 on the DKUMN PCBs, referring to Fig. 4.6.3-2.

	1	2	3	4	5	6
	DKUMN-R1F	DKUMN-R1R	DKUMN-R2F	DKUMN-R2R	DKUMN-L1F	DKUMN-L1R
	Front	Rear	Front	Rear	Front	Rear
JP2						
	1st DKU		2nd DKU		3rd DKU	

	7	8	9	10	11	12
	DKUMN-L2F	DKUMN-L2R	DKUMN-R3F	DKUMN-R3R	DKUMN-L3F	DKUMN-L3R
	Front	Rear	Front	Rear	Front	Rear
JP2						
	4th DKU		5th DKU		6th DKU	

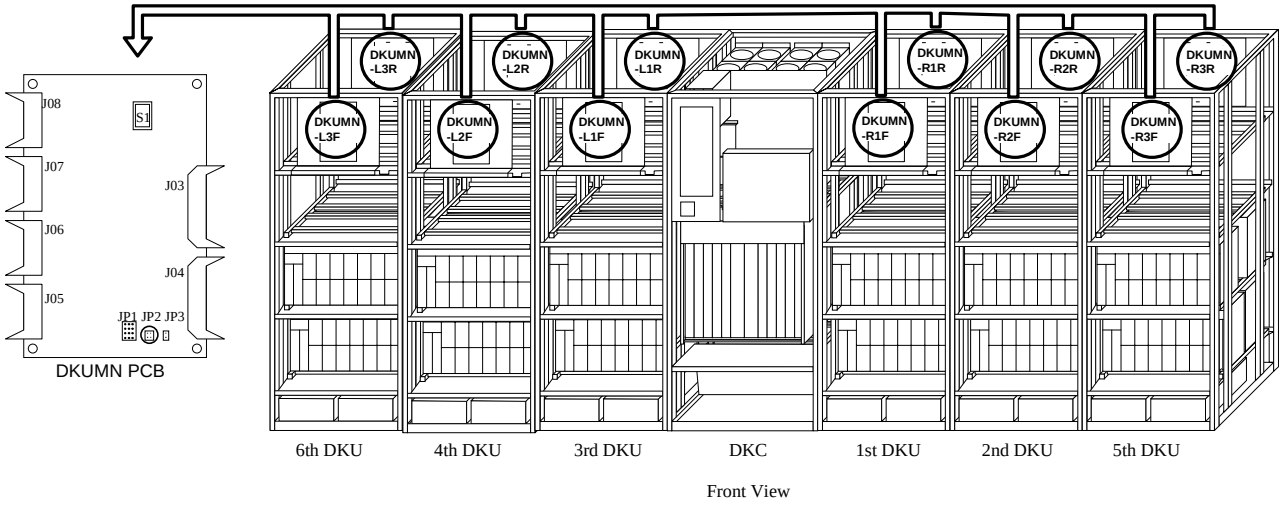


Fig. 4.6.3-2 DKUMN PCB Jumper Plug Positions

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3. Setting of the PS enable switch on the multi power supply.
   a. Set the PS enable switch on the multi power supply to Disable and make sure that the PS enable LED goes off.

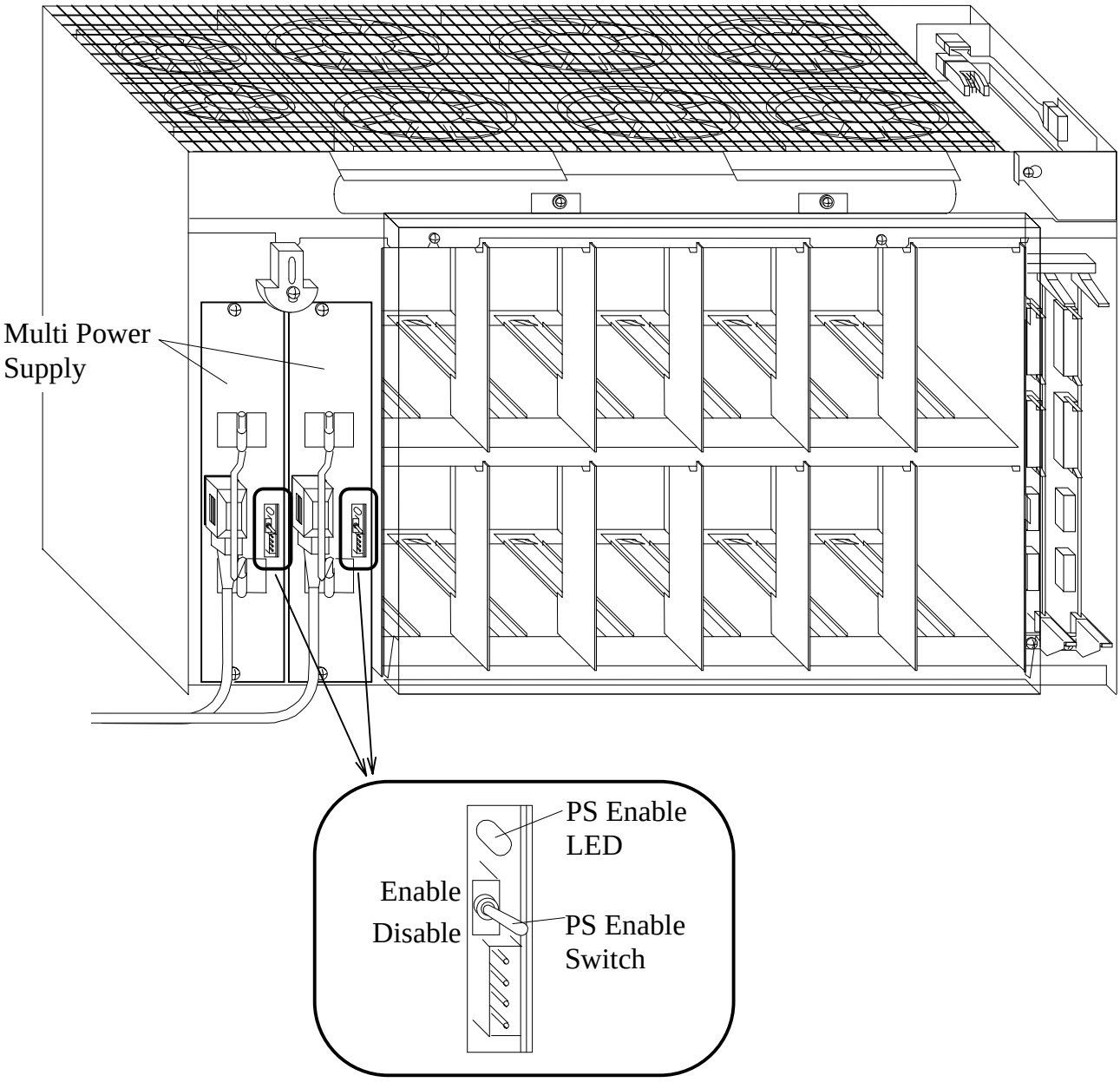


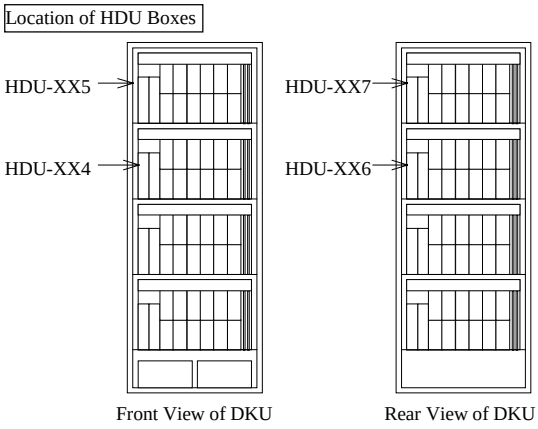
Fig. 4.6.3-3 Set the PS Enable Switch on the Multi Power Supply

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4. Disconnection of the INLET cable.
   a. Disconnect the INLET cables referring to Table 4.6.3-1 and Fig. 4.6.3-4.

Table 4.6.3-1 INLET Cables and Matching Connectors

Location of HDU Box	No.	INLET Cable	Connector
XX4	1	4-P601-1	4-J601-1
	2	4-P601-2	4-J601-2
XX5	1	5-P601-1	5-J601-1
	2	5-P601-2	5-J601-2
XX6	1	6-P601-1	6-J601-1
	2	6-P601-2	6-J601-2
XX7	1	7-P601-1	7-J601-1
	2	7-P601-2	7-J601-2



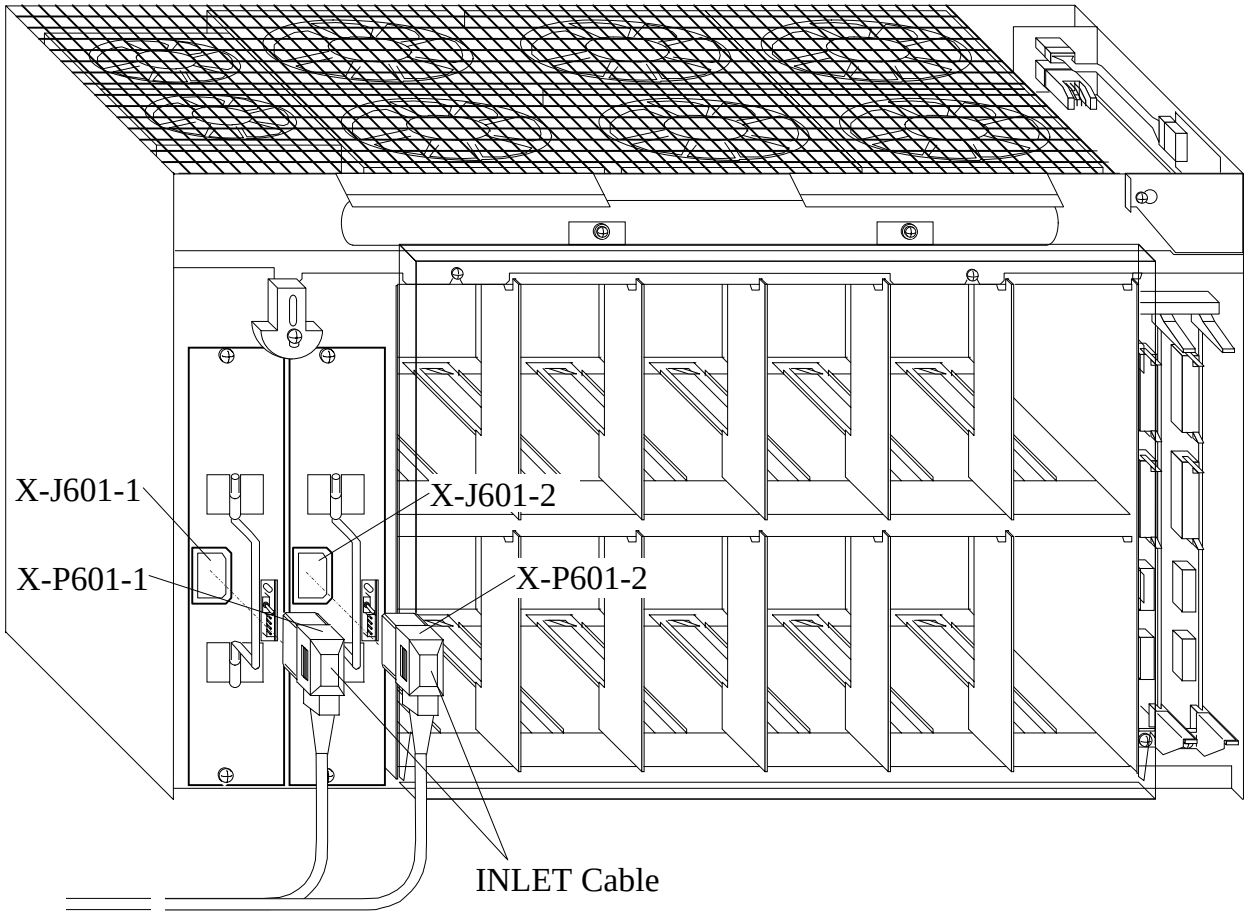


Fig. 4.6.3-4 Disconnection of the INLET Cable

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5. Removal of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly.
   a. Remove the acrylic cover.

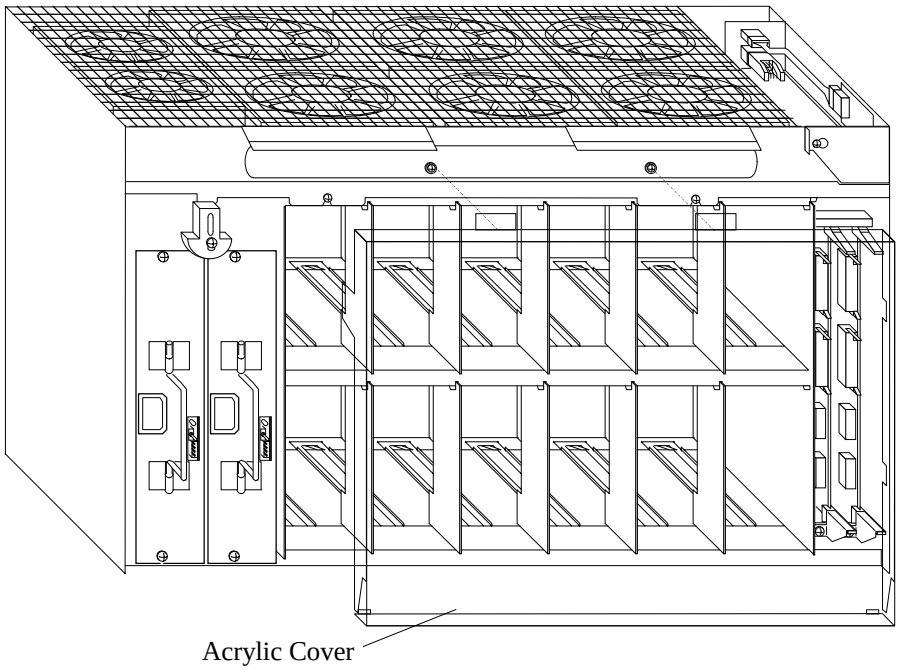


Fig. 4.6.3-5 Removal of the Acrylic Cover

   b. Loosen the screw and rotate the stopper. Remove the FSW PCB in the HDU box to be installed.

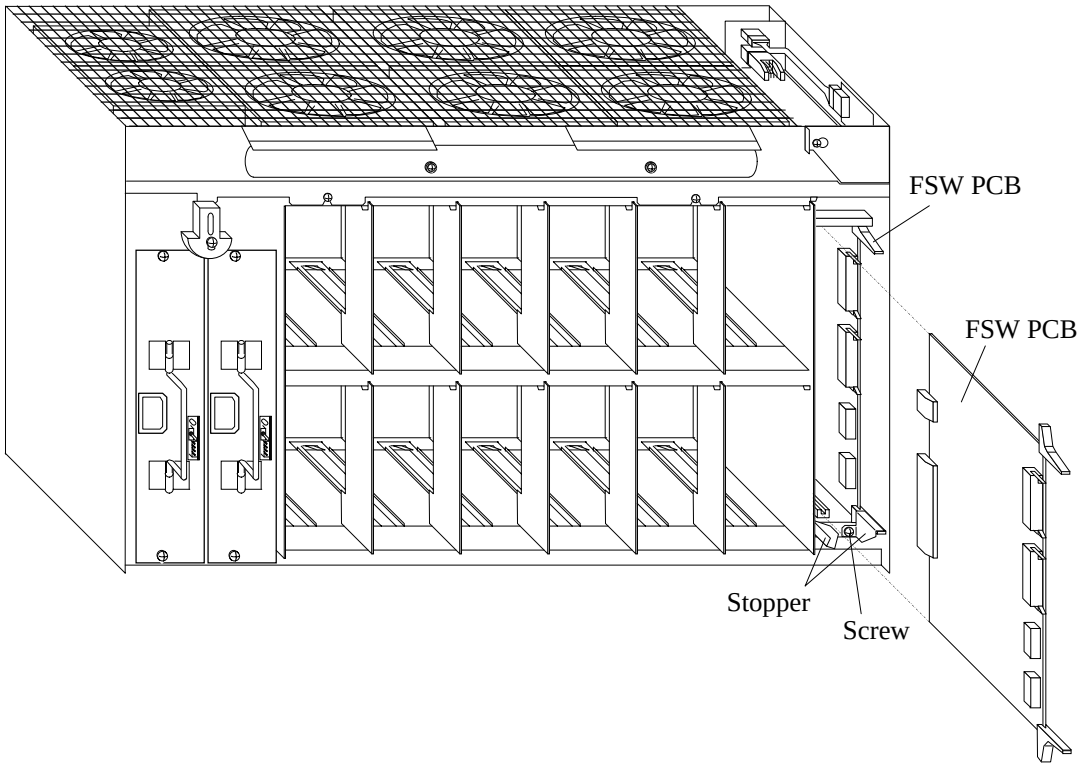


Fig. 4.6.3-6 Removal of the FSW PCB

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c. Remove screws securing the multi power supply in the HDU box to be installed, flip up the buffering rubbers, and pull out the multi power supply.

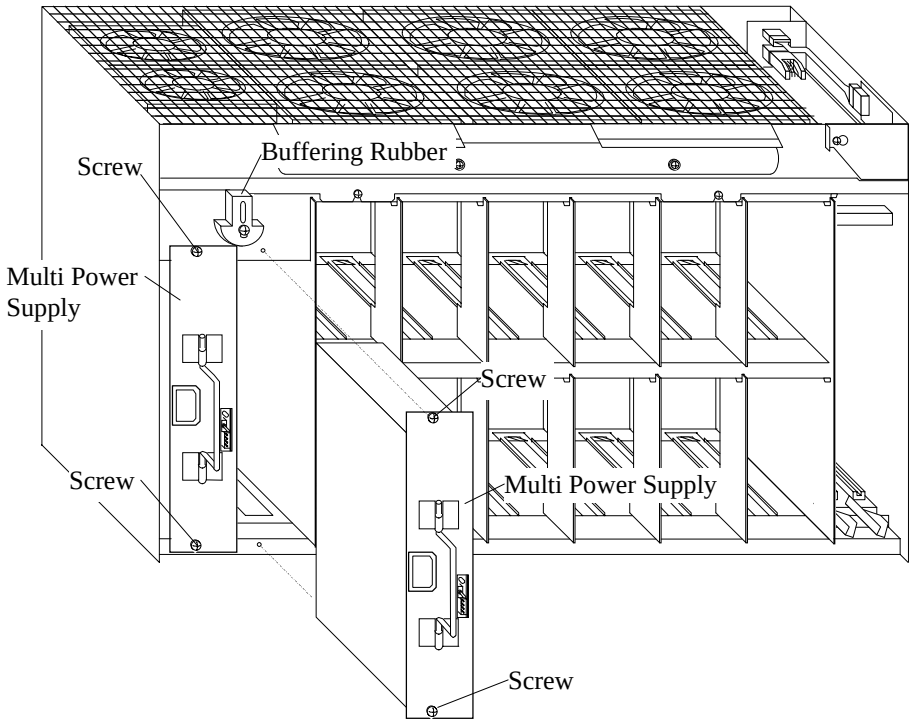


Fig. 4.6.3-7 Removal of the Multi Power Supply

d. Loosen the screw and remove the rail.

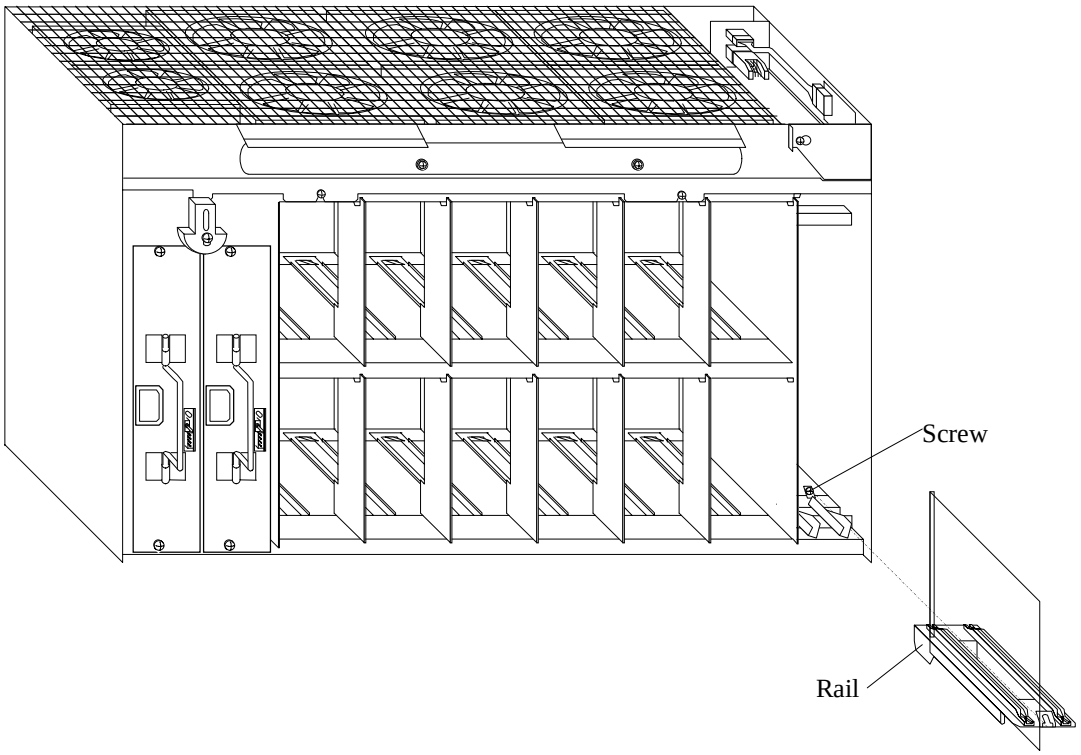


Fig. 4.6.3-8 Removal of the Rail

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e. Loosen the screw ① and remove the cover. Loosen the two screws ② and remove the HDD FAN Assembly.

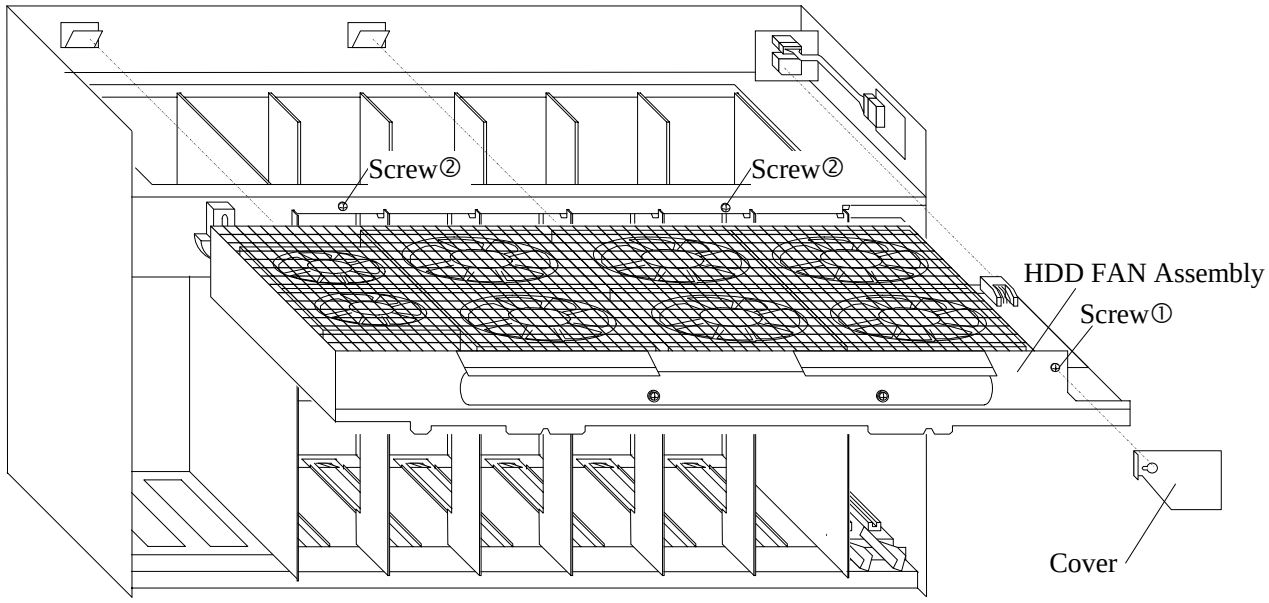


Fig. 4.6.3-9 Removal of the HDD FAN Assembly

6. Removal of the side plate.
   a. Loosen screws ① and raise DKUMN PCBs and slide DKUMN PCBs.
   b. Remove screws ② and side plates.
   c. Loosen screws ③ and raise cable ducts when de-installing the HDU box.

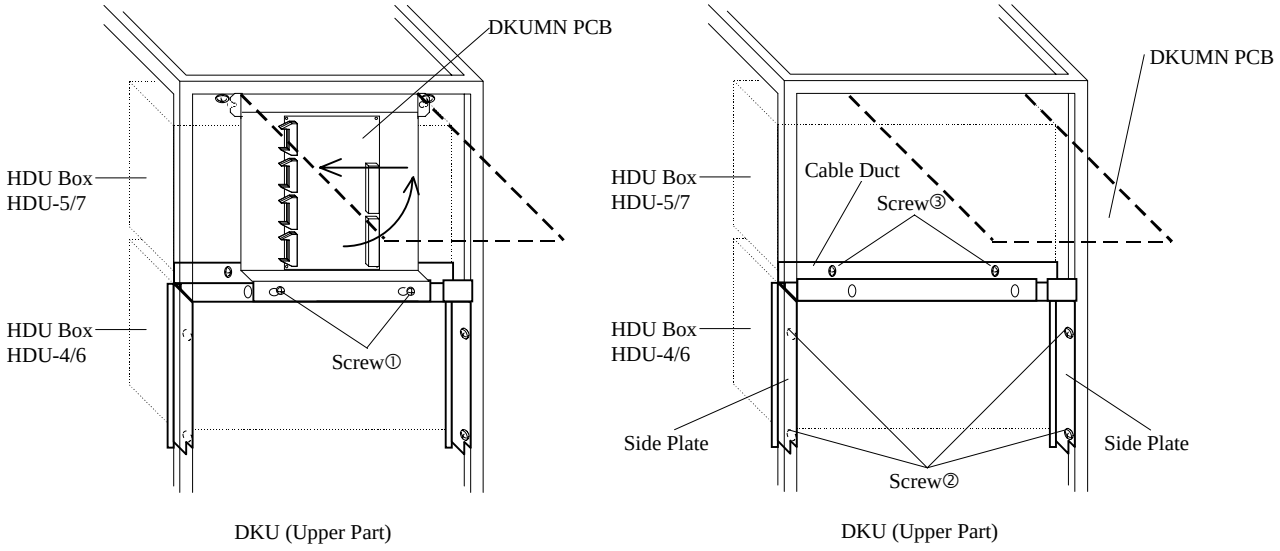


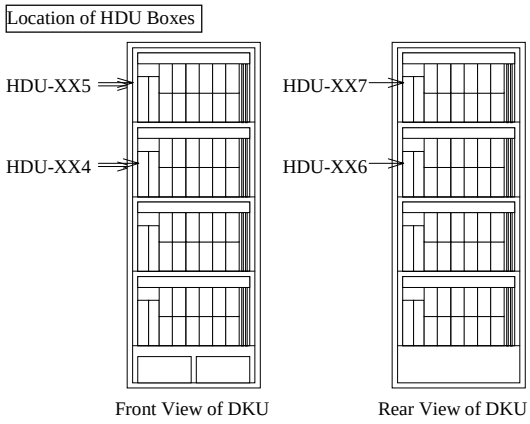
Fig. 4.6.3-10 Removal of the Side Plate

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7. Disconnection of the DKUMN cable.
   a. Loosen the screw and remove the plate referring to Table 4.6.3-2 and Fig. 4.6.3-11.
   b. Disconnect the DKUMN cables.
   c. Attach the plate and fasten the screw.

Table 4.6.3-2 DKUMN Cables and Matching Connectors

Location of HDU Box	No.	DKU MN Cable	Connector
XX4	1	4-P301	4-J301
	2	4-P302	4-J302
XX5	1	5-P301	5-J301
	2	5-P302	5-J302
XX6	1	6-P301	6-J301
	2	6-P302	6-J302
XX7	1	7-P301	7-J301
	2	7-P302	7-J302



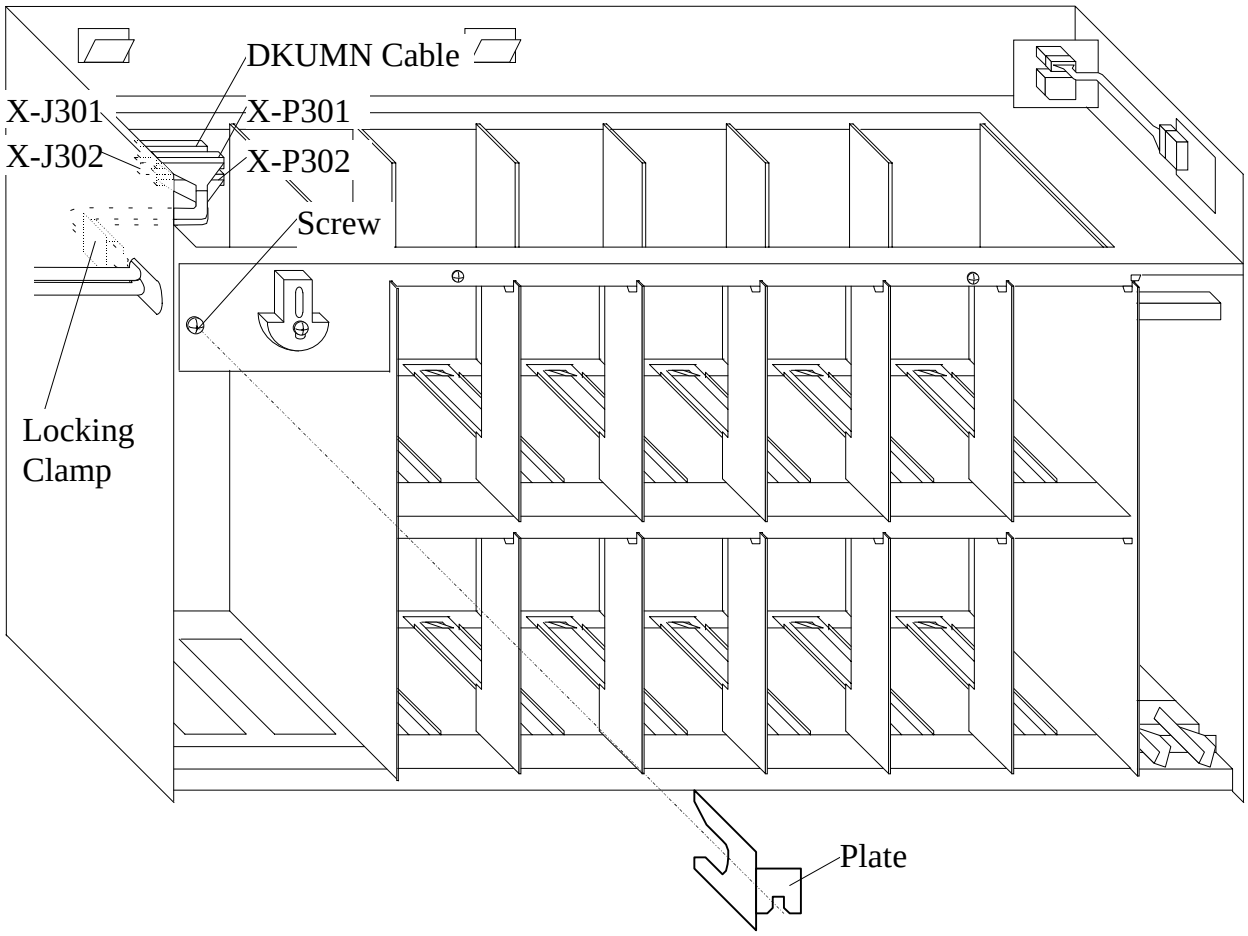


Fig. 4.6.3-11 Disconnection of the DKUMN Cable

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8. De-Installation of the HDU Box.
   a. Remove screws and plastic washers, and remove the HDU Box from the Disk Unit.

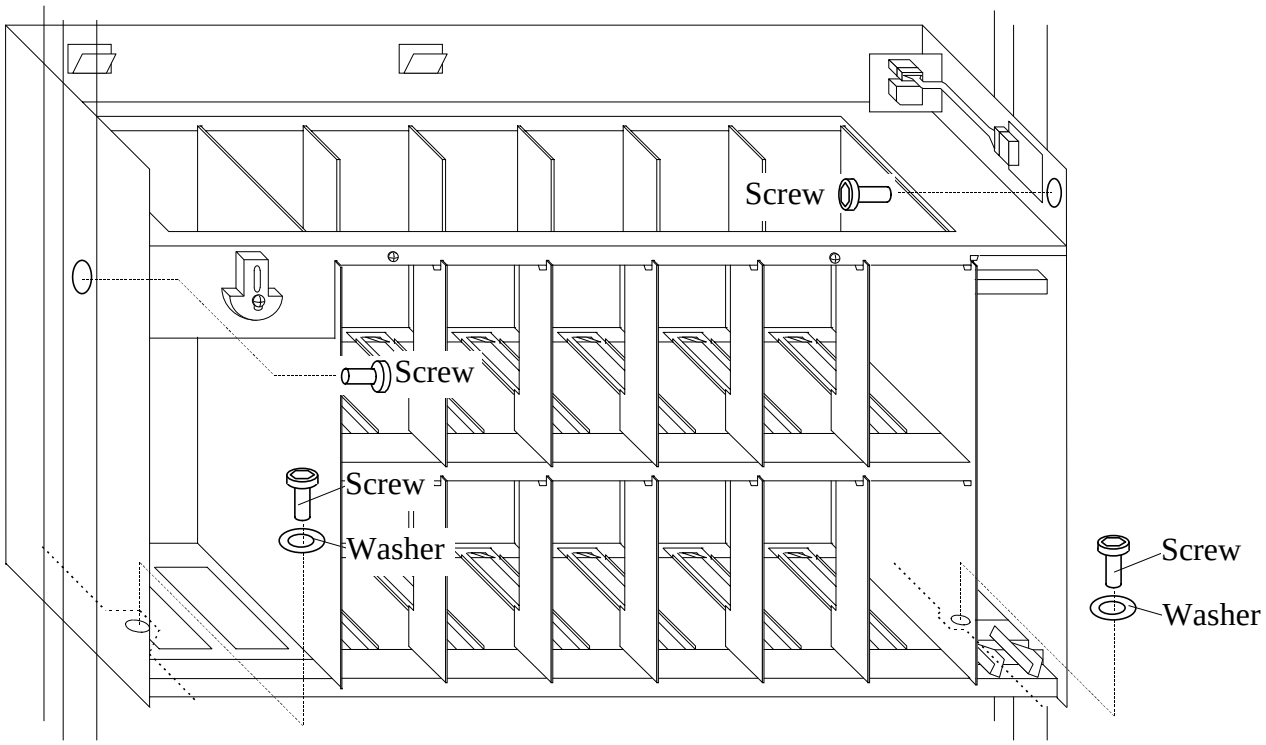


Fig. 4.6.3-12 De-Installation of the HDU Box

9. Attachment of the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly.
   a. Attach the acrylic cover, FSW PCB, multi power supply, rail, and HDD FAN Assembly in the HDU Box in the reverse order of Step 5.

10. Attachment of the side plate.
    a. Attach the side plates in the reverse order of Step 6.

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11. Removal of the nameplate and label (REV).
    a. Remove the nameplate ① and label (REV) ② of additional HUD box, referring to a Fig. 4.6.3-13.

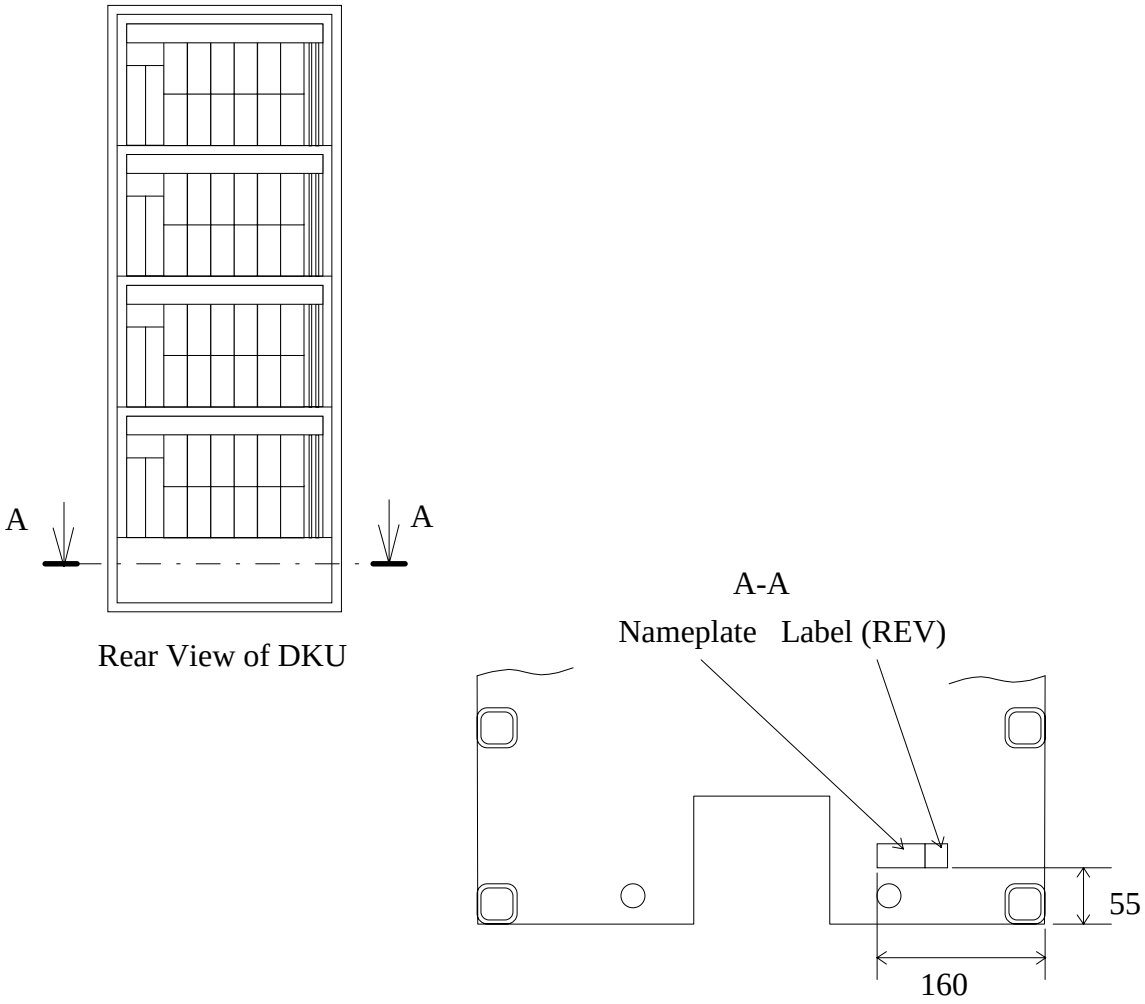


Fig. 4.6.3-13 Removal of the Nameplate and Label (REV)

12. Return to General Flow.
    Non-Disruptive De-installation : Go to INST02-160 Step (3)-8.
    Disruptive De-installation : Go to INST02-270 Step (9)-8.

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4.7 De-installation of Channel Adapter

4.7.1 De-installation of Serial 4-port Adapter (DKC-F410I-4S)

4.7.1.1 Parts List

Table 4.7.1-1 Parts List for Serial 4-port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-4S	Serial 2-port Adapter PCB	5509141-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509149-1	4	For Serial
		Holder	2084816-1	4	
		Nameplate	3257216-3	1	For DKC-F410I-4S

4.7.1.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).

↓

(2) Disconnect the optical fiber cables.

↓

(3) Remove the PCBs.

↓

(4) Remove the I/F connector panels.

↓

(5) Remove the labels.

↓

(6) Remove the nameplate.

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4.7.1.3 De-Installation Procedure of Serial 4-port Adapter

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.

1. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on.(Fig. 4.7.1-1). If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

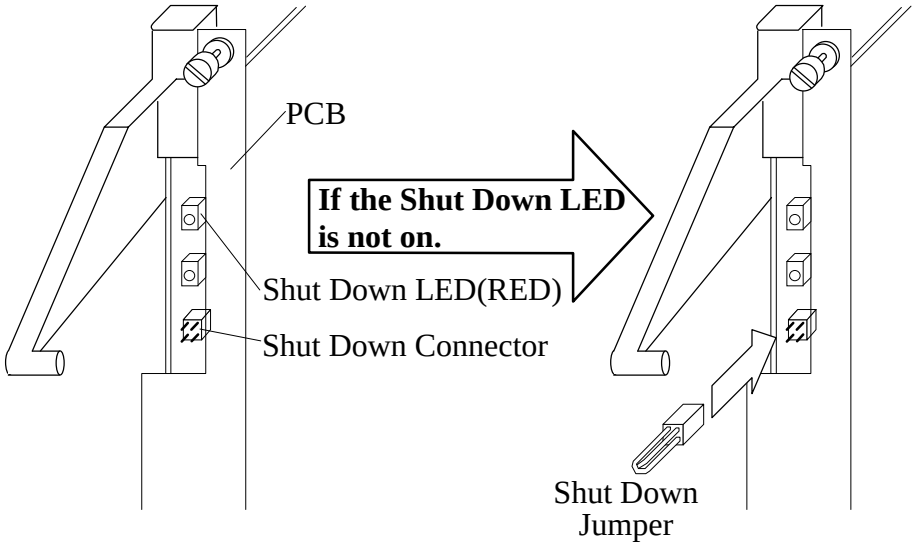


Fig. 4.7.1-1 Shut Down LED

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2. Disconnection of the optical fibre cables
   a. Remove the Bracket ③ and Strain Relief ② referring to Fig. 4.7.1-2.
   b. Disconnect the optical fibre cables and remove the Holder④ referring to Fig. 4.7.1-3.

Table 4.7.1-2 Removal Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

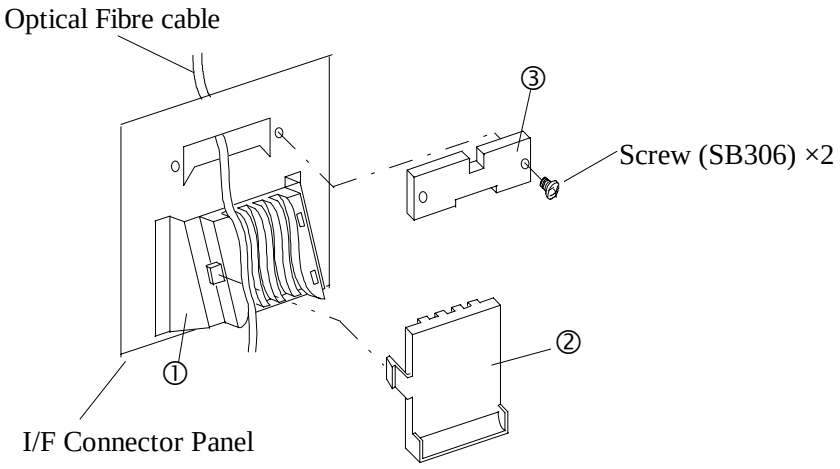


Fig 4.7.1-2 Removal of Strain Relief

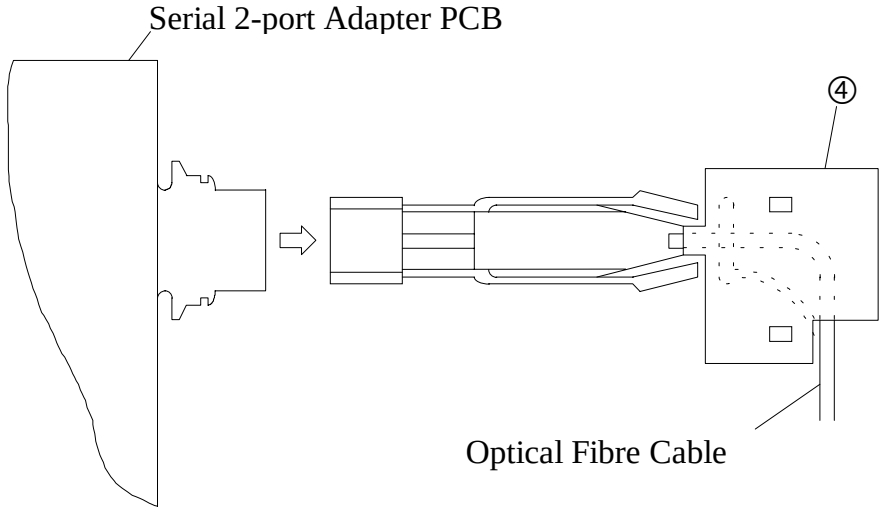


Fig. 4.7.1-3 Disconnect of Optical Fibre Cable

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3. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 4.7.1-4.
   b. Attach the dummy plates referring to Fig. 4.7.1-5

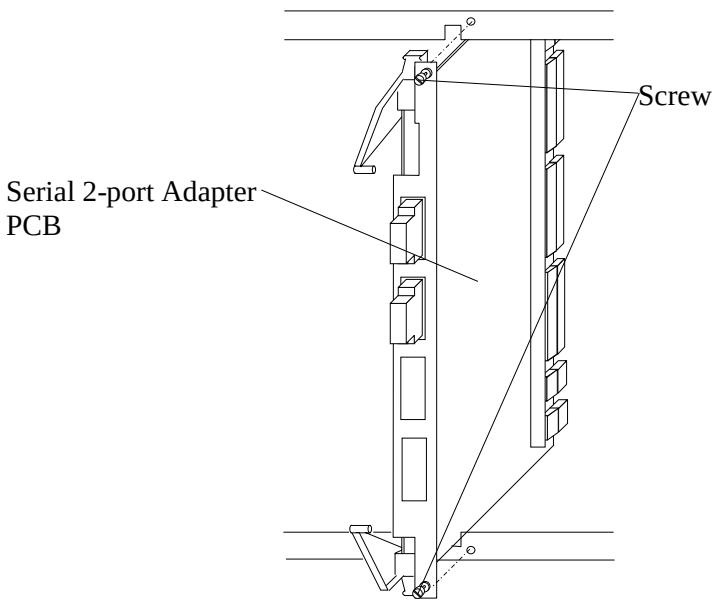


Fig. 4.7.1-4 Removal of PCB

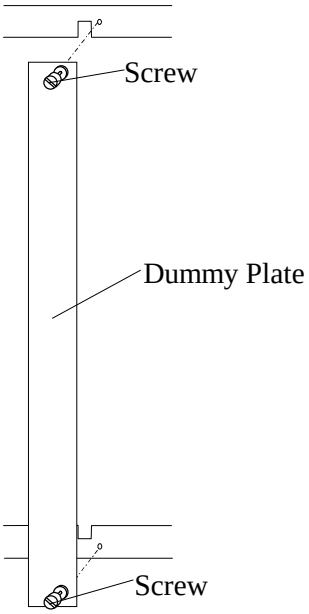


Fig. 4.7.1-5 Attachment of Dummy Plate

4. Removal of the I/F Connector Panel
   a. Remove the I/F connector panels referring to Fig. 4.7.1-6.
   b. Attach the dummy plates referring to Fig. 4.7.1-7

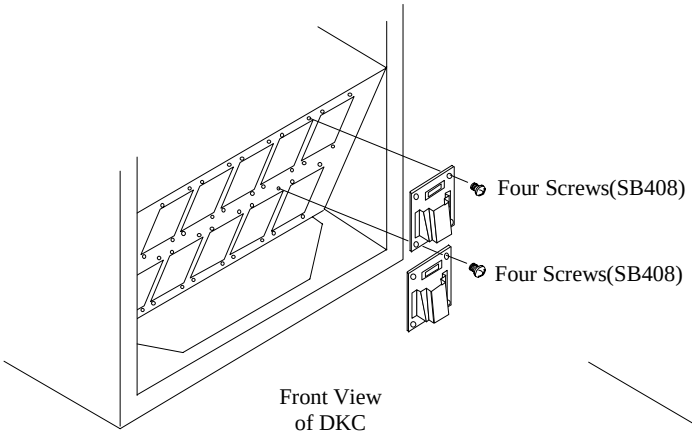


Fig. 4.7.1-6 Removal of I/F Connector Panel

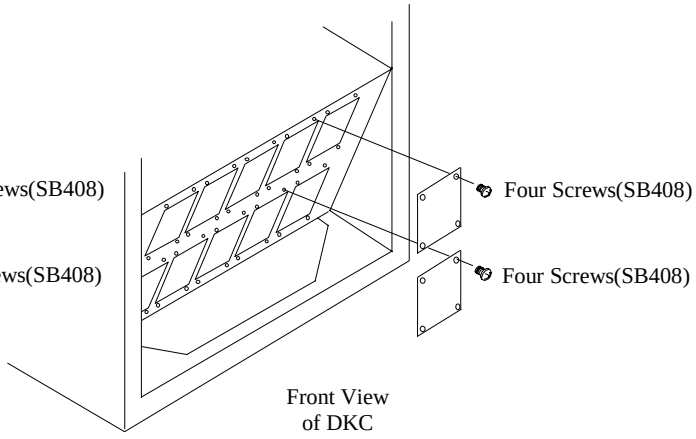


Fig. 4.7.1-7 Attachment of Dummy Plate

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5. Removal of the labels.
   a. Remove the labels " SERIAL PORT " from ①, ③, ⑤, or ⑦ referring to Fig. 4.7.1-8.

Table 4.7.1-3 Removal of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	①	③	⑤	⑦
Channel No.	A,B	E,F	J,K	N,P

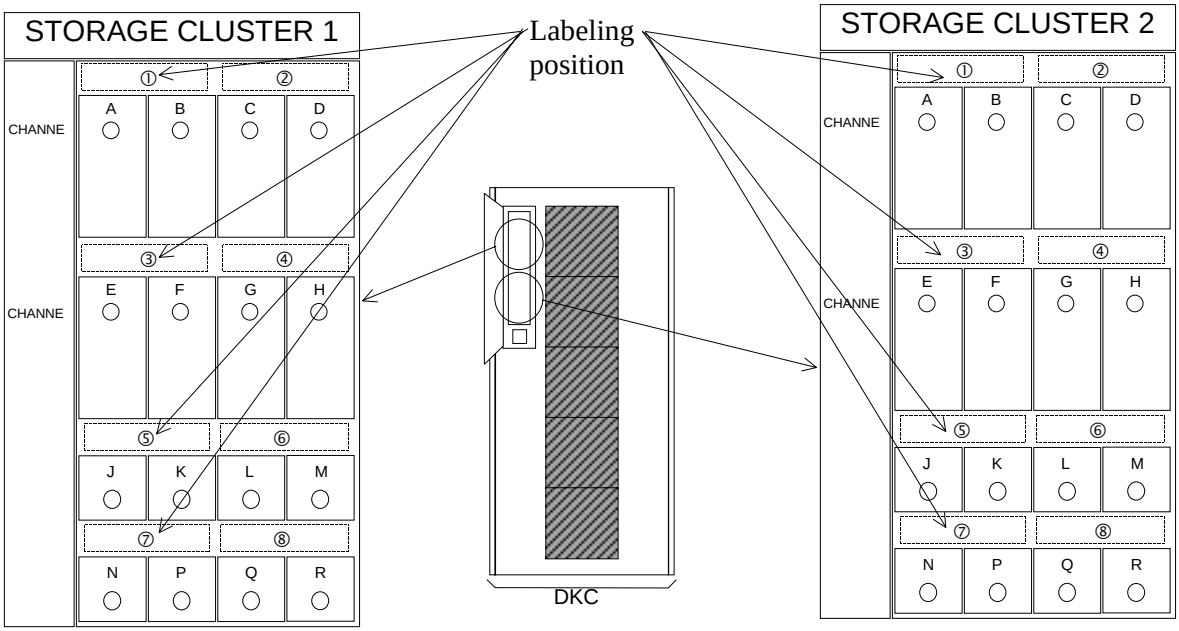


Fig. 4.7.1-8 Removal of Labels

6. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.7.1-9.

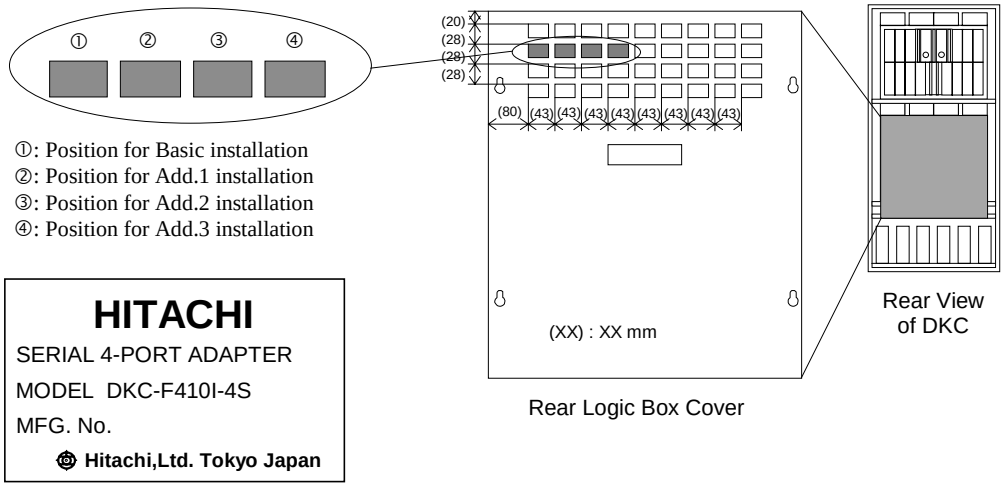


Fig. 4.7.1-9 Removal of Nameplate

7. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (6)-5.
   Disruptive De-Installation : Go to INST02-280 Step (13).

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4.7.2 De-installation of Serial 8-port Adapter (DKC-F410I-8S)

4.7.2.1 Parts List

Table 4.7.2-1 Parts List for Serial 8-port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-8S	Serial 4-port Adapter PCB	5509141-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509149-1	4	For Serial
		Holder	2084816-1	8	
		Nameplate	3257216-4	1	For DKC-F410I-8S

4.7.2.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).

↓

(2) Disconnect the optical fiber cables.

↓

(3) Remove the PCBs.

↓

(4) Remove the I/F connector panels.

↓

(5) Remove the labels.

↓

(6) Remove the nameplate.

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4.7.2.3 De-Installation Procedure of Serial 8-port Adapter

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.

1. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on.(Fig. 4.7.2-1). If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

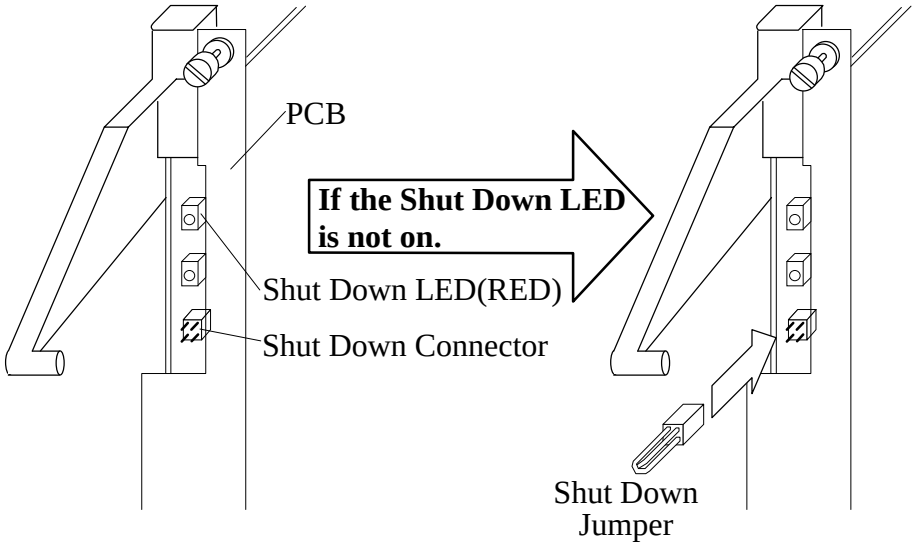


Fig. 4.7.2-1 Shut Down LED

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2. Disconnection of the optical fibre cables
   a. Remove the Bracket③ and Strain Relief ② referring to Fig 4.7.2-2.
   b. Disconnect the optical fibre cables and remove the Holder④ referring to Fig 4.7.2-3.

Table 4.7.2-2 Removal Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

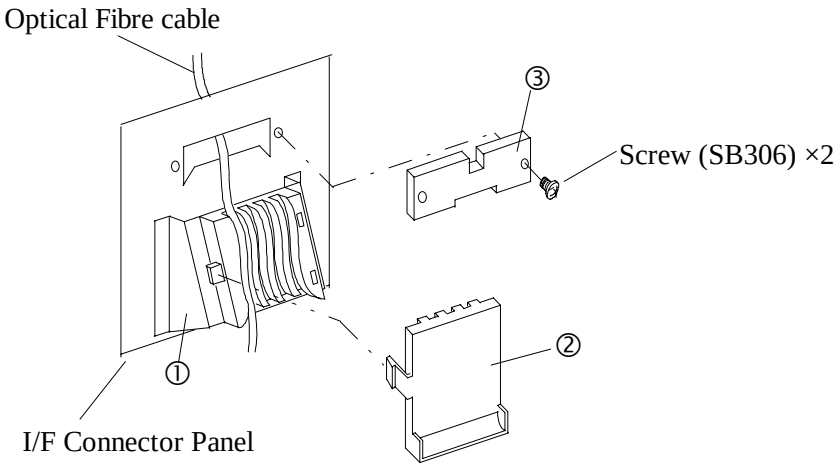


Fig 4.7.2-2 Removal of Strain Relief

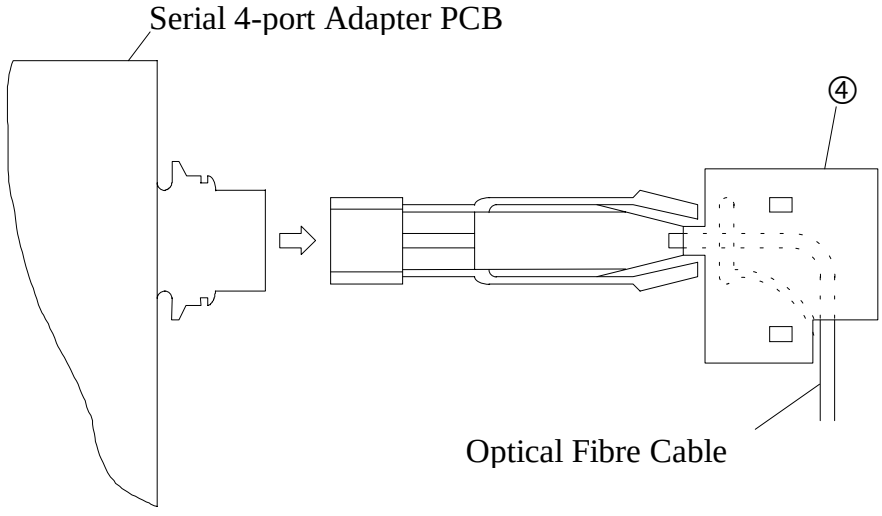


Fig. 4.7.2-3 Disconnect of Optical Fibre Cable

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3. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 4.7.2-4.
   b. Attach the dummy plates referring to Fig. 4.7.2-5.

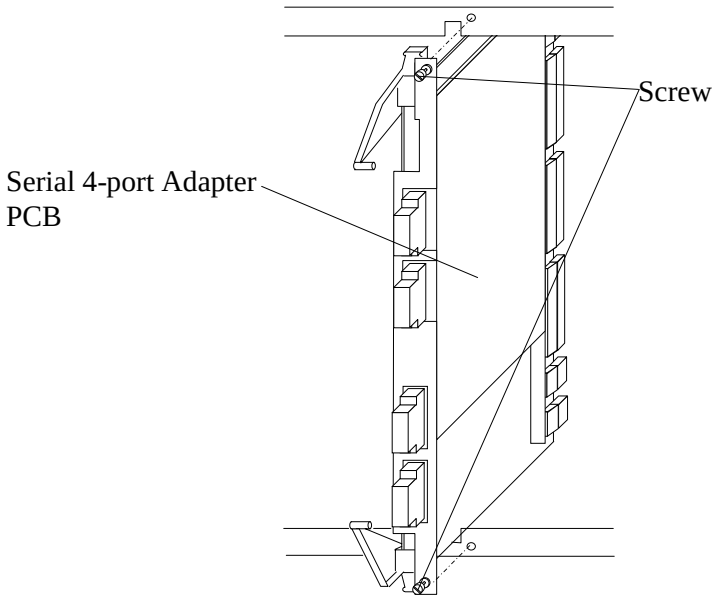


Fig. 4.7.2-4 Removal of PCB

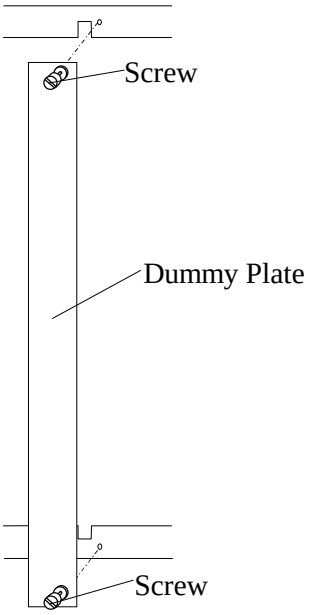


Fig. 4.7.2-5 Attachment of Dummy Plate

4. Removal of the I/F Connector Panel
   a. Remove the I/F connector panels referring to Fig. 4.7.2-6.
   b. Attach the dummy plates referring to Fig. 4.7.2-7.

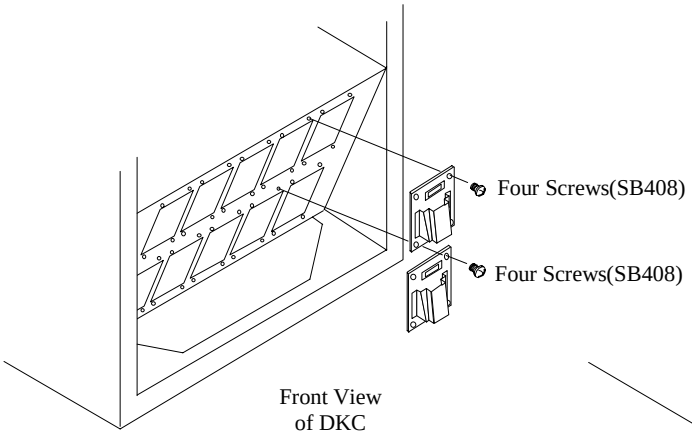


Fig. 4.7.2-6 Removal of I/F Connector Panel

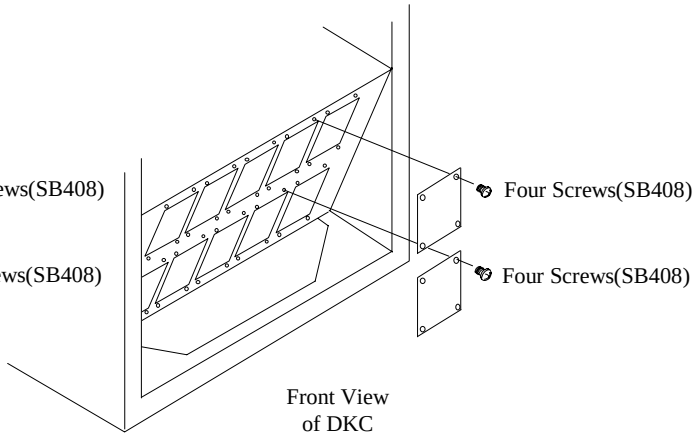


Fig. 4.7.2-7 Attachment of Dummy Plate

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5. Removal of the labels.
   a. Remove the labels " SERIAL PORT " from ① through ⑧ referring to Fig. 4.7.2-8.

Table 4.7.2-3 Removal of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A,B,C,D	E,F,G,H	J,K,L,M	N,P,Q,R

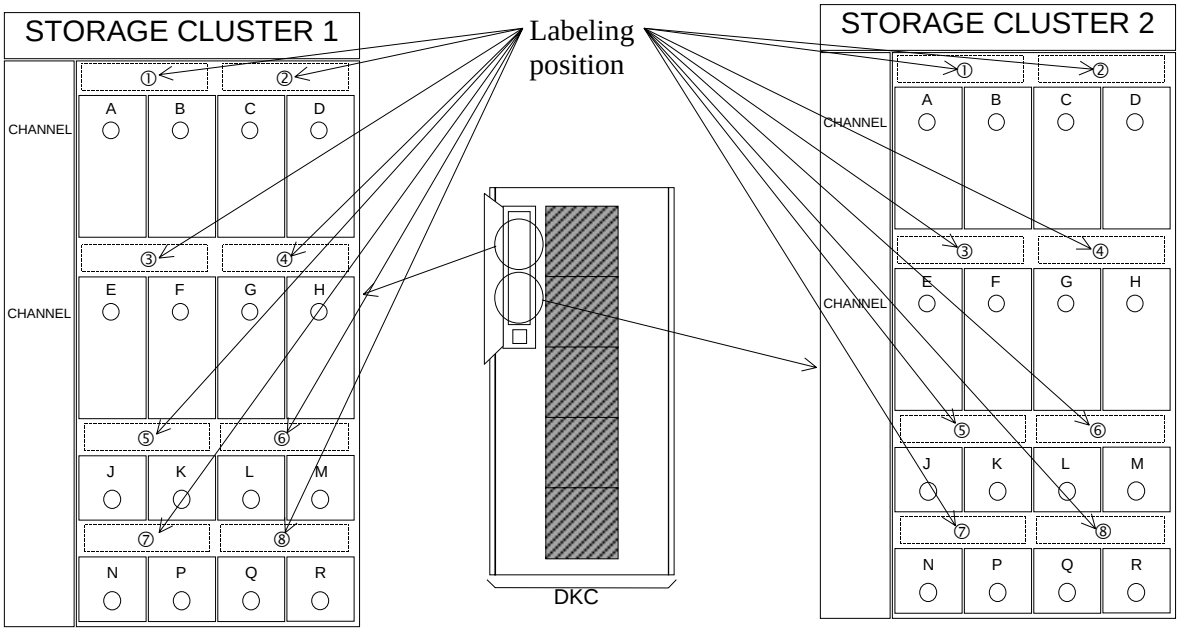


Fig. 4.7.2-8 Removal of Labels

6. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.7.2-9.

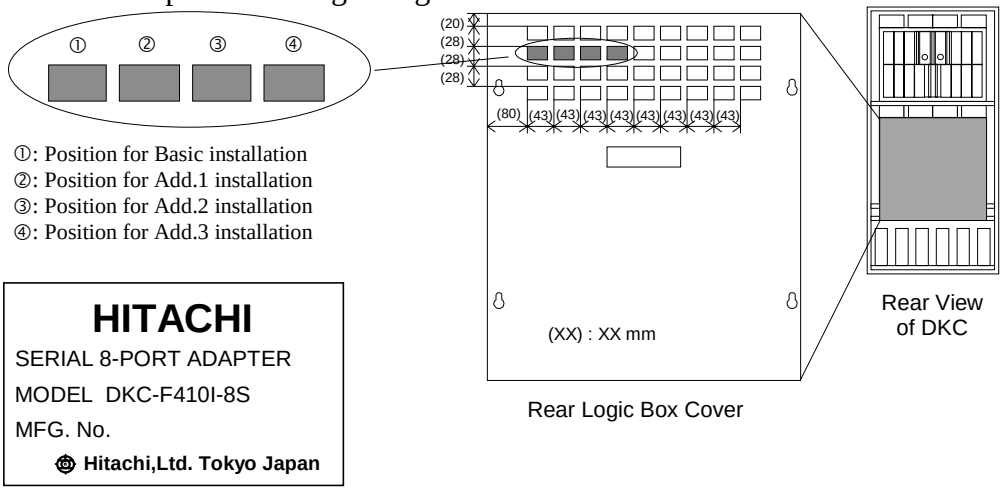


Fig. 4.7.2-9 Removal of Nameplate

7. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (6)-5.
   Disruptive De-Installation : Go to INST02-280 Step (13).

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4.7.3 De-installation of Fibre 4-port Adapter for Optical Cable (DKC-F410I-4GS/4GL)

4.7.3.1 Parts List

Table 4.7.3-1 Parts List for Fibre 4-port Adapter (Short Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-4GS (Short Wavelength)	Fibre 2-port Adapter PCB	5509143-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509217-1	4	For Fibre
		Nameplate	3257216-5	1	

Table 4.7.3-2 Parts List for Fibre 4-port Adapter (Long Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
2	DKC-F410I-4GL (Long Wavelength)	Fibre 2-port Adapter PCB	5509145-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509217-1	4	For Fibre
		Nameplate	3257216-7	1	

4.7.3.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).
↓
(2) Disconnect the optical fiber cables.
↓
(3) Remove the PCBs.
↓
(4) Remove the I/F connector panels.
↓
(5) Remove the labels.
↓
(6) Remove the nameplate.

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4.7.3.3 De-Installation Procedure of Fibre 4-port Adapter

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.

1. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on.(Fig. 4.7.3-1). If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

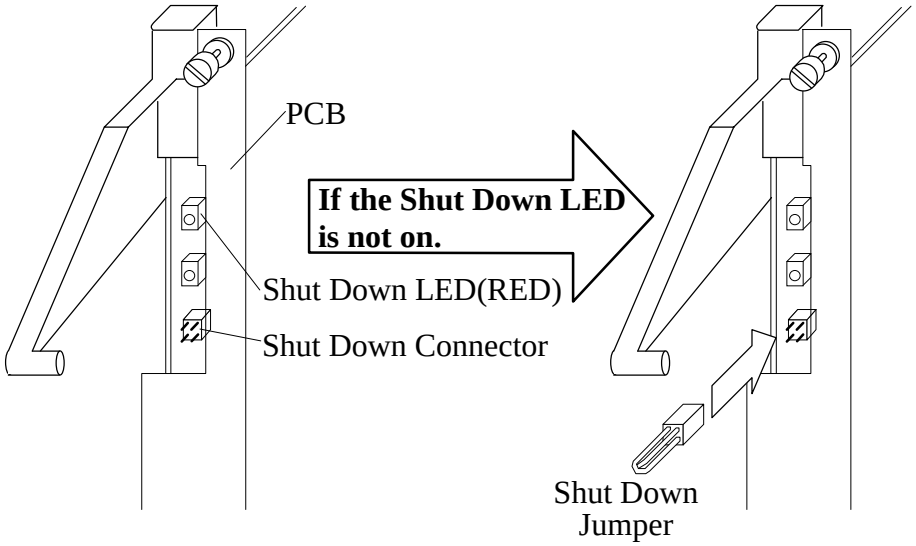


Fig. 4.7.3-1 Shut Down LED

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2. Disconnection of the optical fibre cables
   a. Remove the Bracket③ and the Strain Relief② referring to Fig. 4.7.3-2.
   b. Disconnect the optical fibre cables referring to Fig. 4.7.3-3.

Table 4.7.3-3 Removal Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

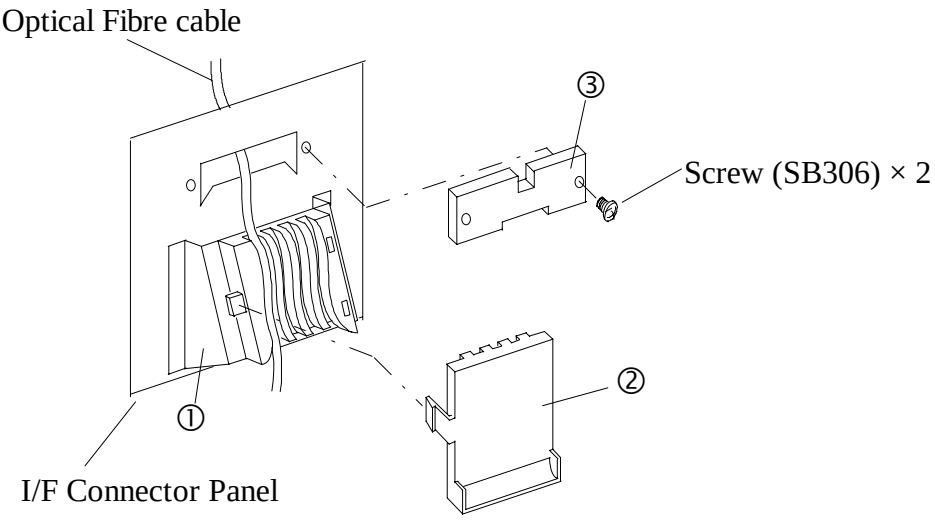


Fig 4.7.3-2 Removal of Strain Relief

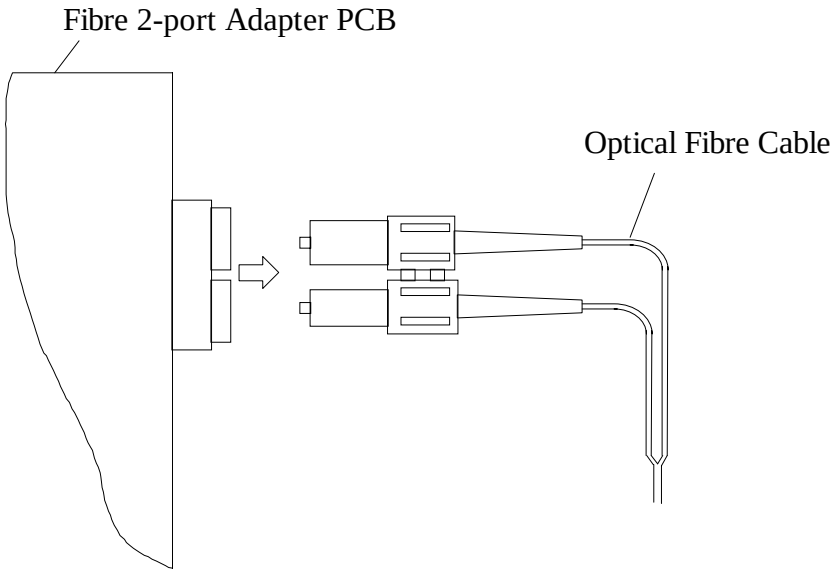


Fig. 4.7.3-3 Disconnect of Optical Fibre Cable

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3. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 4.7.3-4.
   b. Attach the dummy plates referring to Fig. 4.7.3-5.

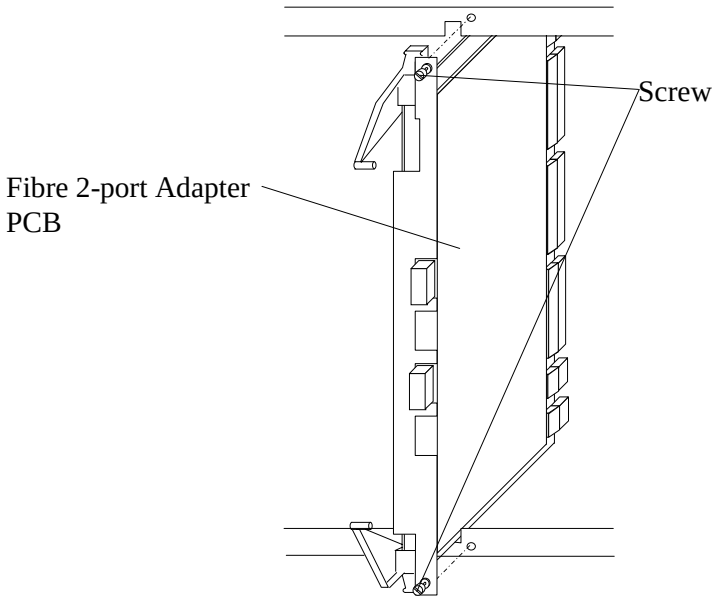


Fig. 4.7.3-4 Removal of PCB

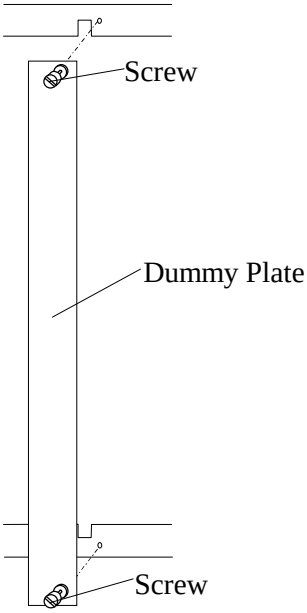


Fig. 4.7.3-5 Attachment of Dummy Plate

4. Removal of the I/F Connector Panel
   a. Remove the I/F connector panels referring to Fig. 4.7.3-6.
   b. Attach the dummy plates referring to Fig. 4.7.3-7.

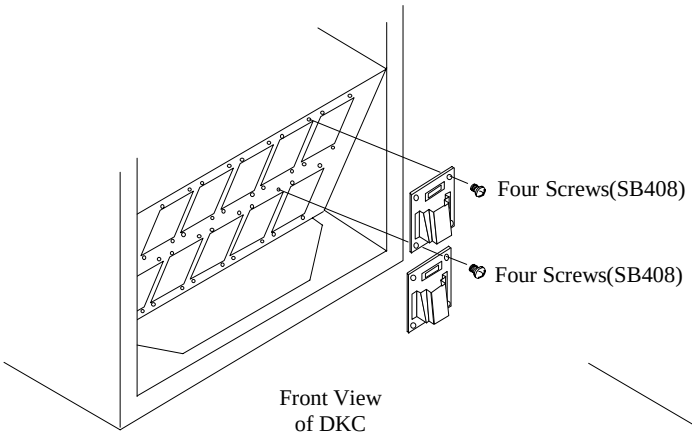


Fig. 4.7.3-6 Removal of I/F Connector Panel

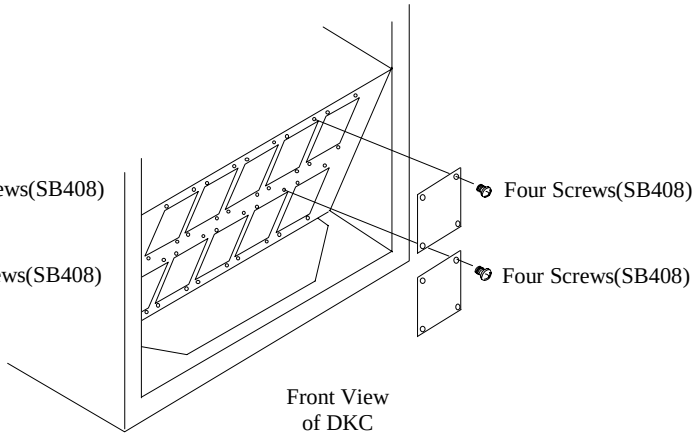


Fig. 4.7.3-7 Attachment of Dummy Plate

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5. Removal of the labels.
   a. Remove the labels " FIBRE PORT " from ①, ②, ③, or ④ referring to Fig. 4.7.3-8.

Table 4.7.6-3 Removal of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	①	②	③	④
Channel No.	A,C	E,G	J,L	N,Q

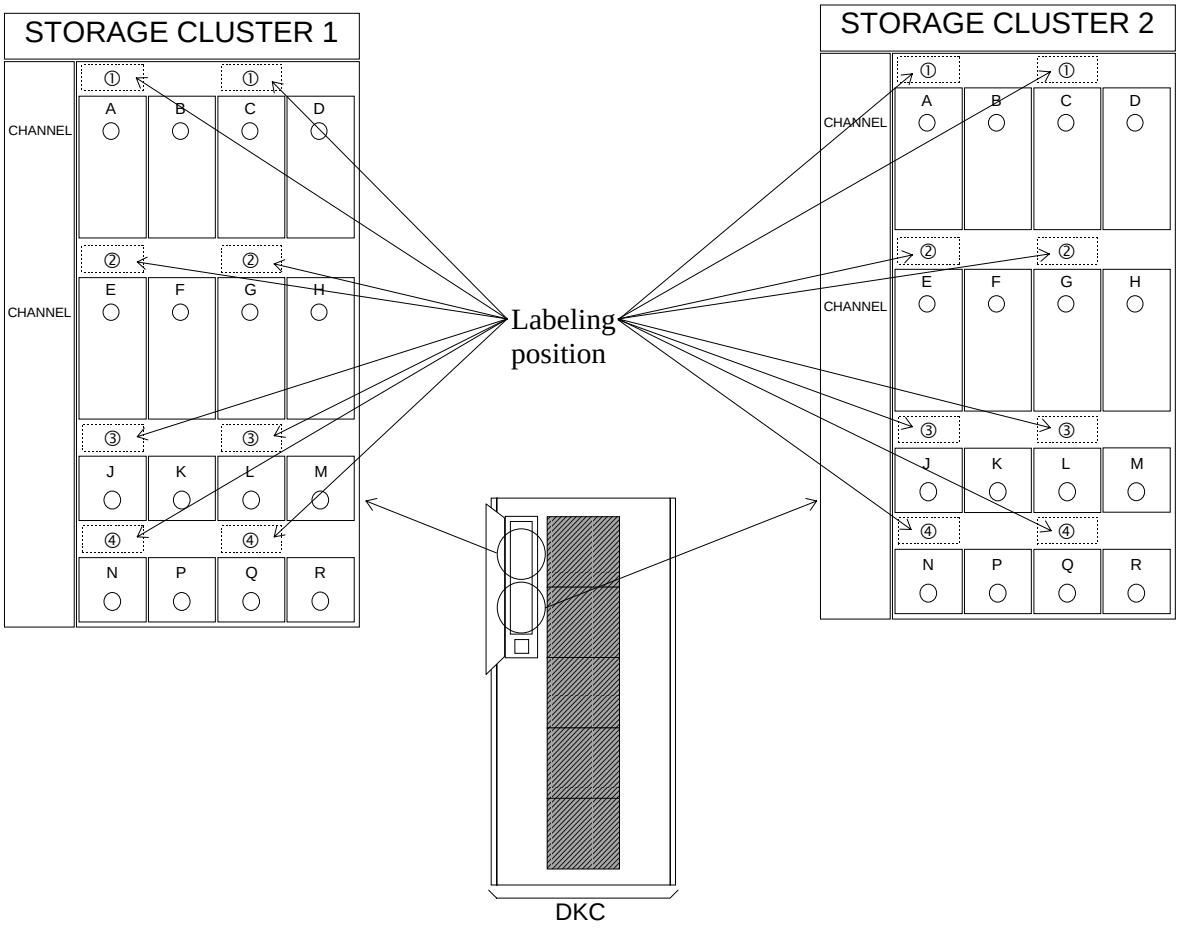


Fig. 4.7.3-8 Removal of Labels

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6. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.7.3-9.

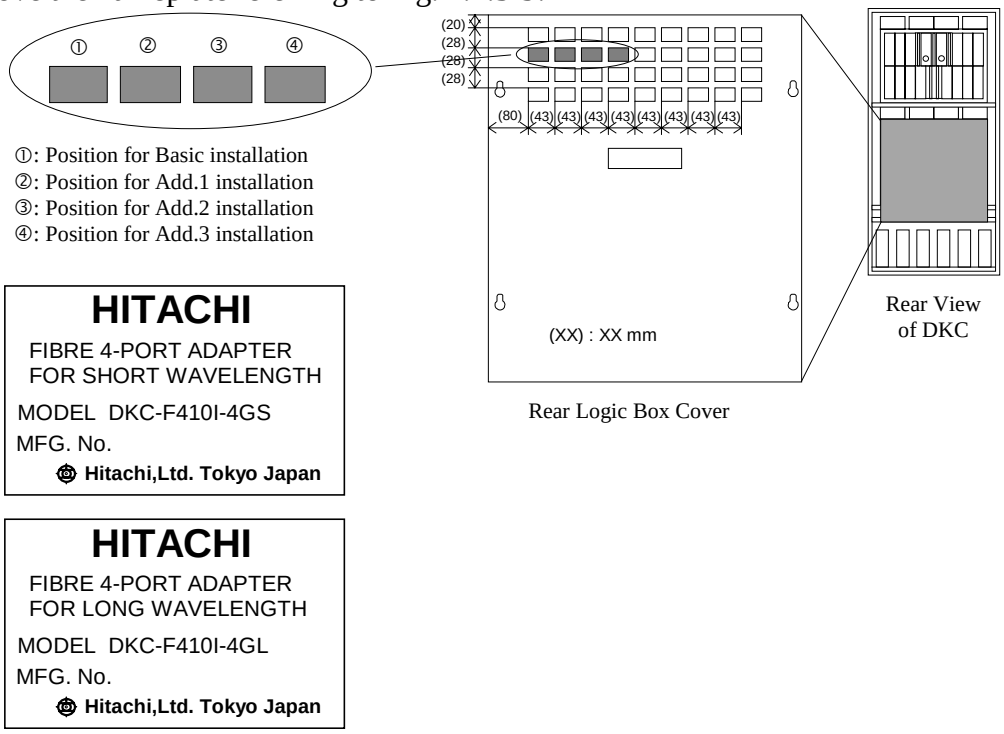


Fig. 4.7.3-9 Removal of Nameplate

7. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (6)-5.
   Disruptive De-Installation : Go to INST02-280 Step (13).

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4.7.4 De-installation of Fibre 8-port Adapter for Optical Cable (DKC-F410I-8GS/8GL/8GSE/8GLE)

4.7.4.1 Parts List

Table 4.7.4-1 Parts List for Fibre 8-port Adapter (Short Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-8GS	Fibre 4-port Adapter PCB	5509143-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-6	1	
2	DKC-F410I-8GSE	Fibre 4-port Adapter PCB	5509143-C	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-65	1	

Table 4.7.4-2 Parts List for Fibre 8-port Adapter (Long Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
3	DKC-F410I-8GL	Fibre 4-port Adapter PCB	5509145-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-8	1	
4	DKC-F410I-8GLE	Fibre 4-port Adapter PCB	5509145-C	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-67	1	

4.7.4.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).

↓

(2) Disconnect the optical fiber cables.

↓

(3) Remove the PCBs.

↓

(4) Remove the I/F connector panels.

↓

(5) Remove the labels.

↓

(6) Remove the nameplate.

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4.7.4.3 De-Installation Procedure of Fibre 8-port Adapter

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.

1. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on.(Fig. 4.7.4-1). If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

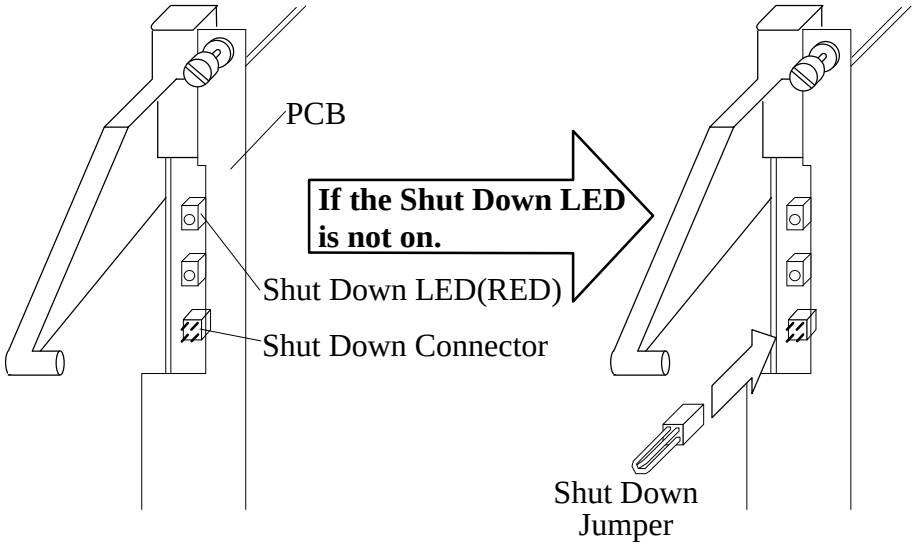


Fig. 4.7.4-1 Shut Down LED

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2. Disconnection of the optical fibre cables
   a. Remove the Bracket③ and the Strain Relief② referring to Fig. 4.7.4-2.
   b. Disconnect the optical fibre cables referring to Fig. 4.7.4-3.

Table 4.7.4-3 Removal Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

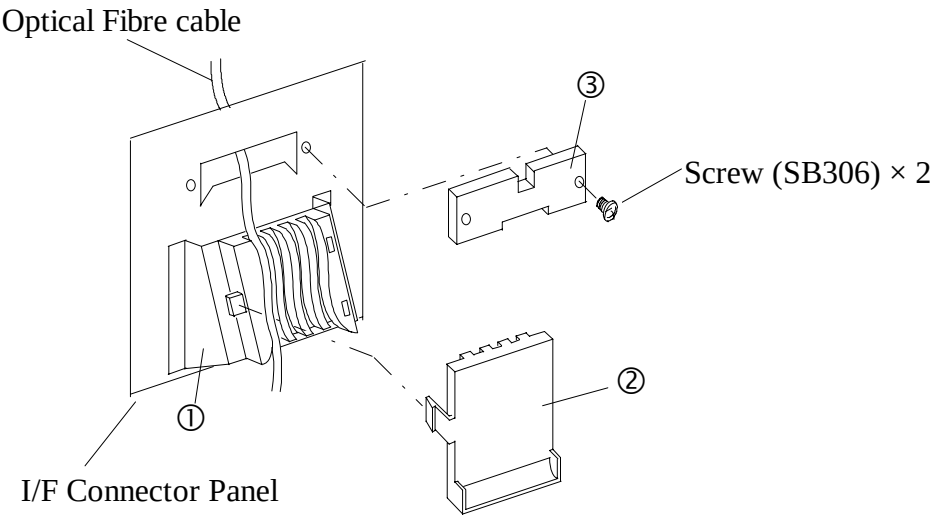


Fig 4.7.4-2 Removal of Strain Relief

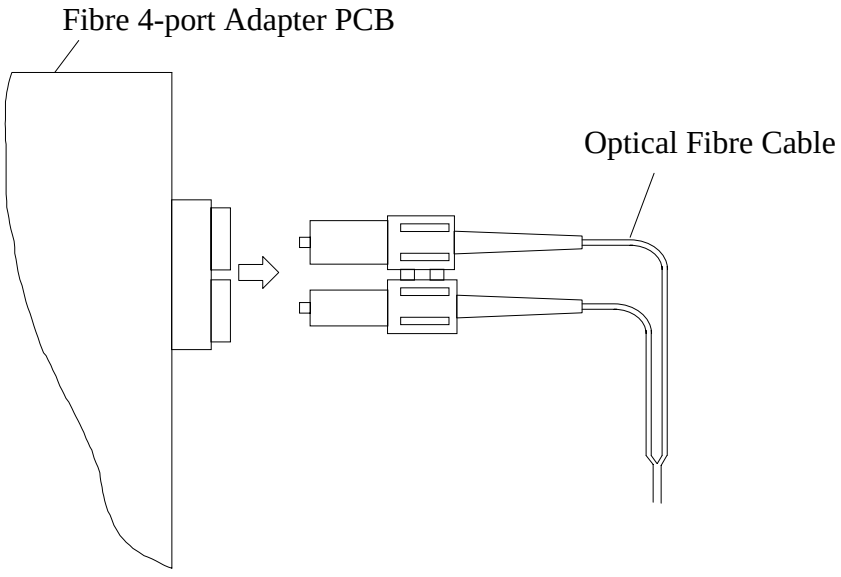


Fig. 4.7.4-3 Disconnect of Optical Fibre Cable

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3. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 4.7.4-4.
   b. Attach the dummy plates referring to Fig. 4.7.4-5.

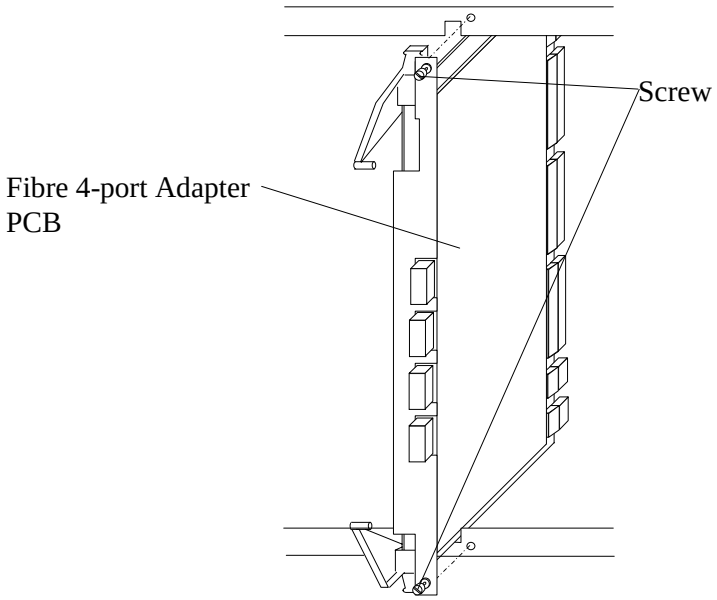


Fig. 4.7.4-4 Removal of PCB

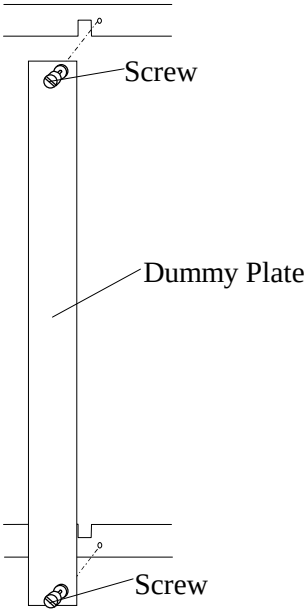


Fig. 4.7.4-5 Attachment of Dummy Plate

4. Removal of the I/F Connector Panel
   a. Remove the I/F connector panels referring to Fig. 4.7.4-6.
   b. Attach the dummy plates referring to Fig. 4.7.4-7.

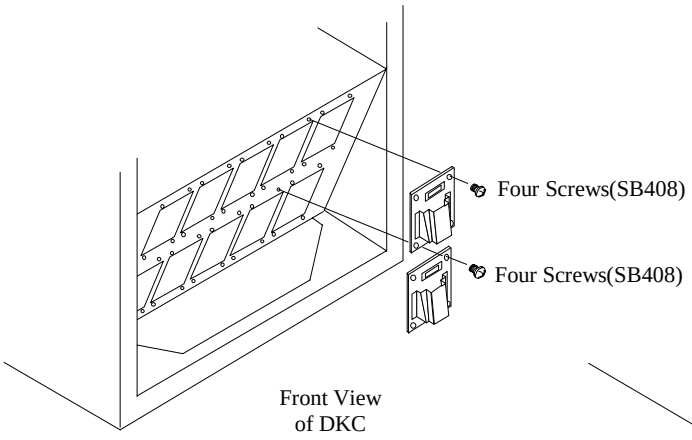


Fig. 4.7.4-6 Removal of I/F Connector Panel

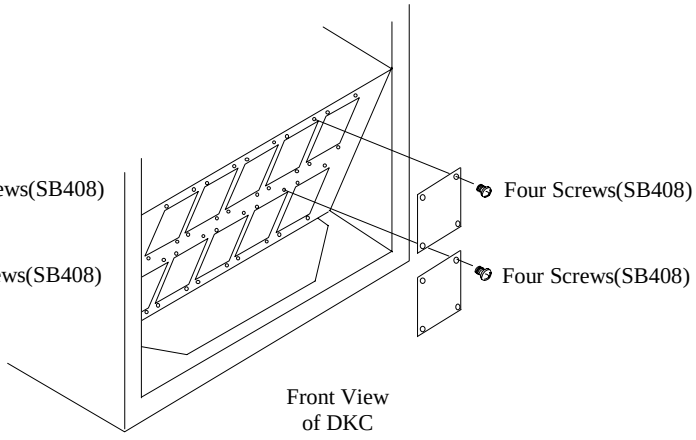


Fig. 4.7.4-7 Attachment of Dummy Plate

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5. Removal of the labels.
   a. Remove the labels " FIBRE PORT " from ① through ⑧ referring to Fig. 4.7.4-8.

Table 4.7.4-4 Removal of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A,B,C,D	E,F,G,H	J,K,L,M	N,P,Q,R

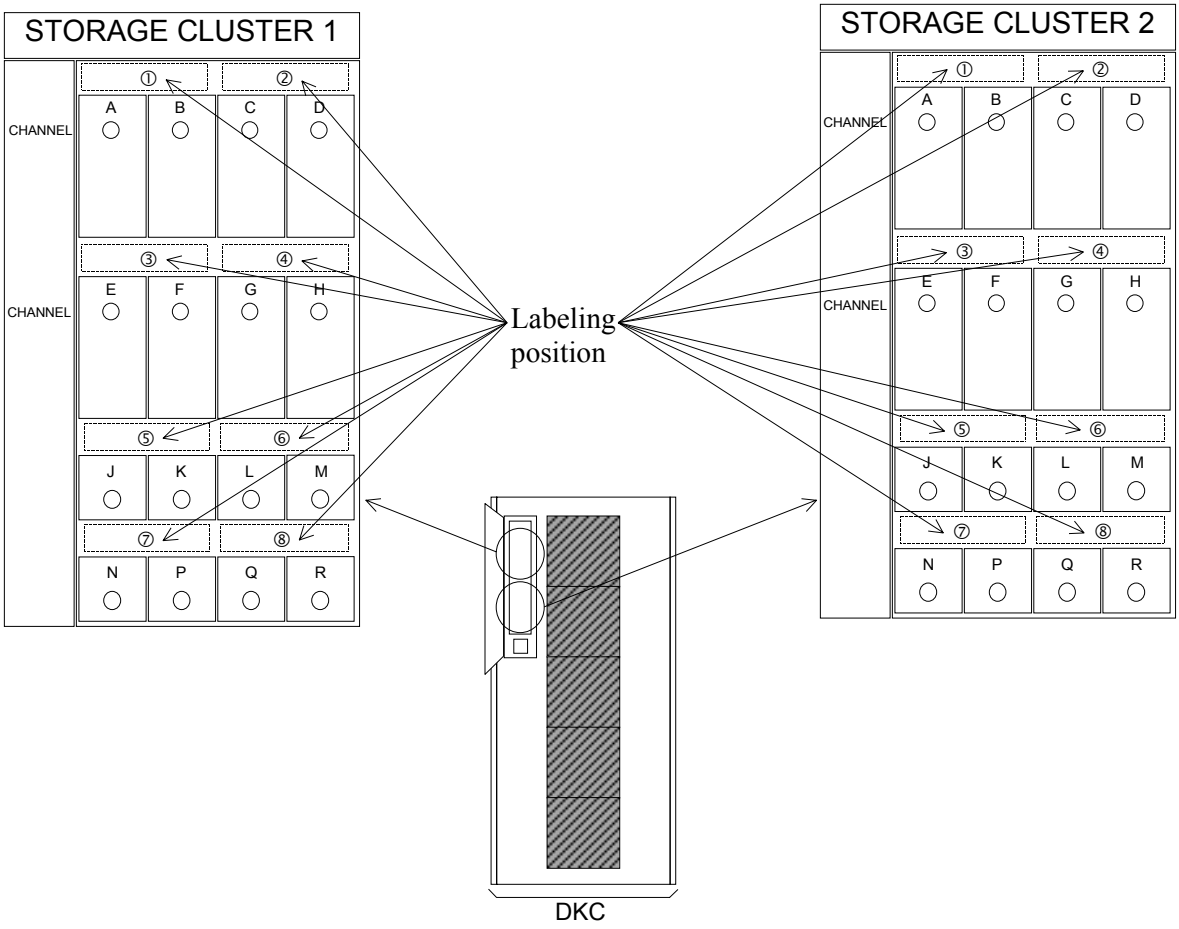


Fig. 4.7.4-8 Removal of Labels

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6. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.7.4-9.

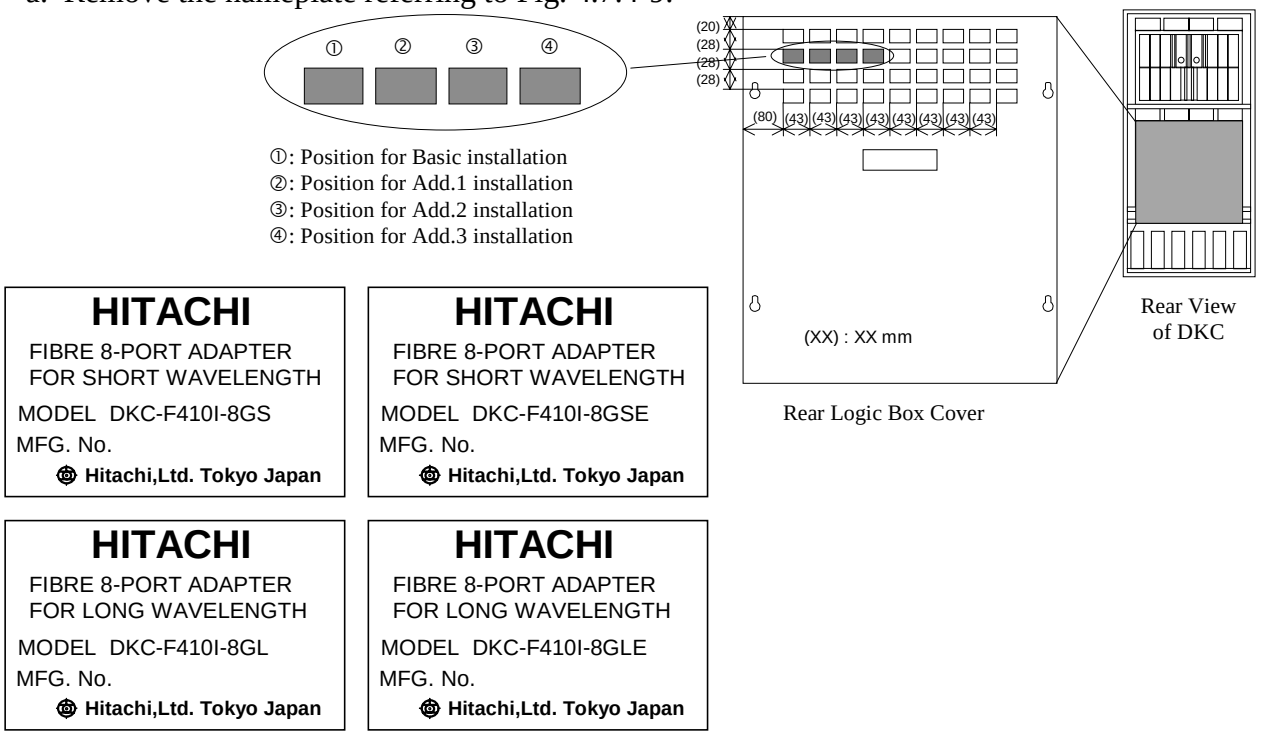


Fig. 4.7.4-9 Removal of Nameplate

7. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (6)-5.
   Disruptive De-Installation : Go to INST02-280 Step (13).

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4.7.5 De-installation of 2 Gbps Fibre 8-port Adapter for Short Wavelength (DKC-F410I-8HSE)

4.7.5.1 Parts List

Table 4.7.5-1 Parts List for 2 Gbps Fibre 8-port Adapter (Short Wavelength)

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-8HSE	Fibre 4-port Adapter PCB	5513742-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5509148-1	4	For Fibre
		Nameplate	3257216-79	1	

4.7.5.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).
↓
(2) Disconnect the optical fiber cables.
↓
(3) Remove the PCBs.
↓
(4) Remove the I/F connector panels.
↓
(5) Remove the labels.
↓
(6) Remove the nameplate.

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4.7.5.3 De-Installation Procedure of 2 Gbps Fibre 8-port Adapter

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.

1. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on.(Fig. 4.7.5-1). If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

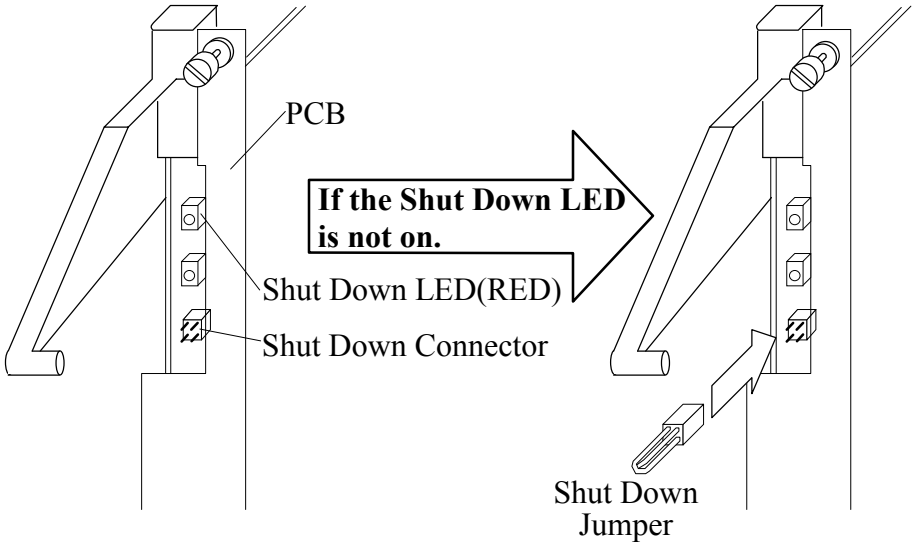


Fig. 4.7.5-1 Shut Down LED

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2. Disconnection of the optical fibre cables
   a. Remove the Bracket③ and the Strain Relief② referring to Fig. 4.7.5-2.
   b. Disconnect the optical fibre cables referring to Fig. 4.7.5-3.

Table 4.7.5-2 Removal Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

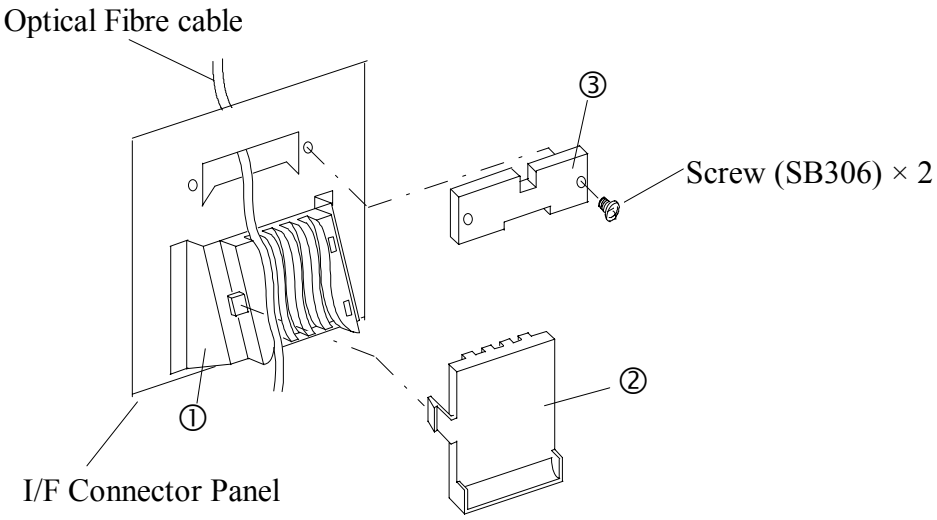


Fig 4.7.5-2 Removal of Strain Relief

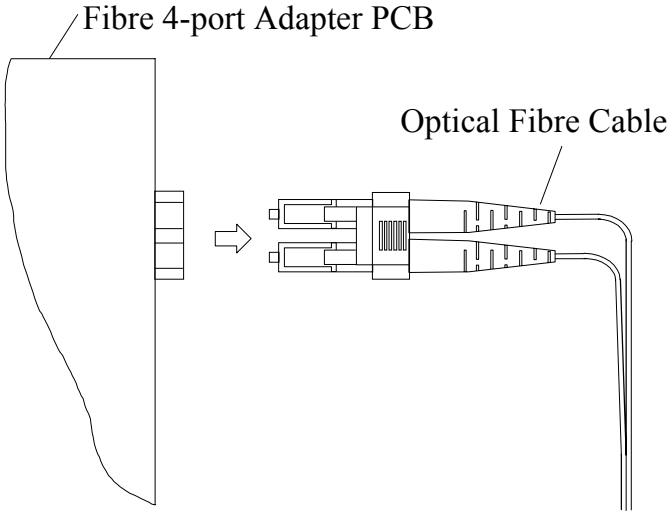


Fig. 4.7.5-3 Disconnect of Optical Fibre Cable

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3. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 4.7.5-4.
   b. Attach the dummy plates referring to Fig. 4.7.5-5.

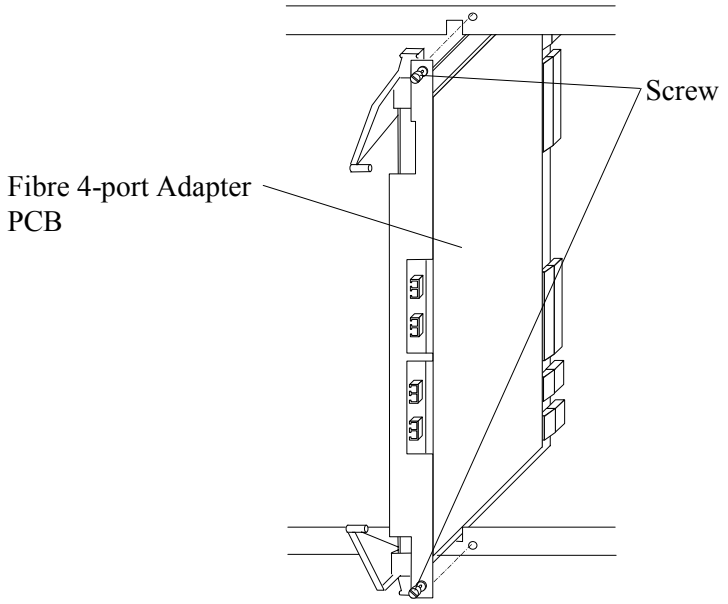


Fig. 4.7.5-4 Removal of PCB

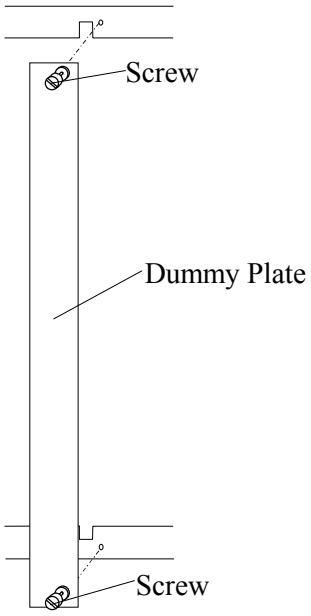


Fig. 4.7.5-5 Attachment of Dummy Plate

4. Removal of the I/F Connector Panel
   a. Remove the I/F connector panels referring to Fig. 4.7.5-6.
   b. Attach the dummy plates referring to Fig. 4.7.5-7.

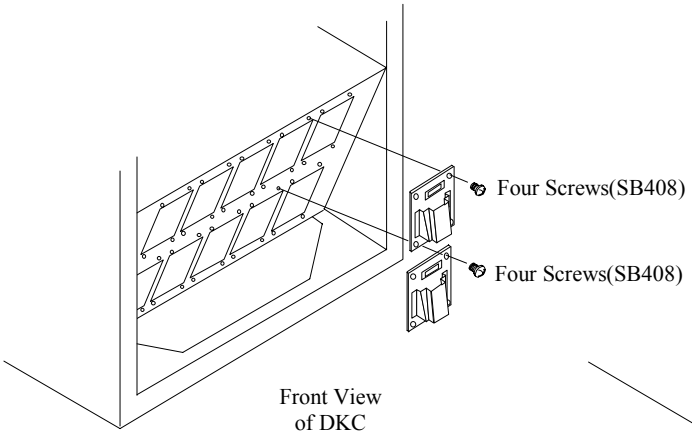


Fig. 4.7.5-6 Removal of I/F Connector Panel

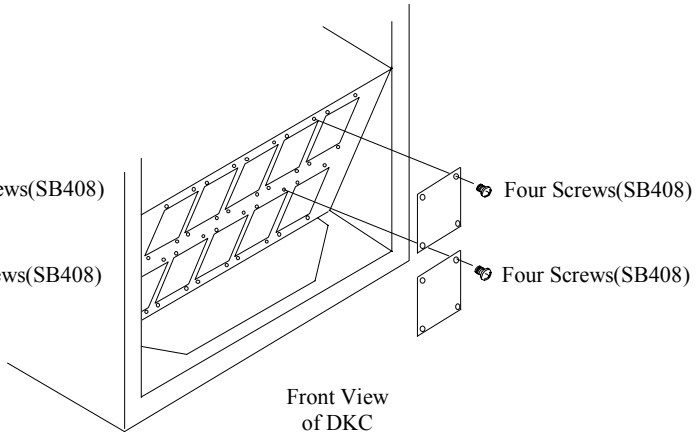


Fig. 4.7.5-7 Attachment of Dummy Plate

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5. Removal of the labels.
   a. Remove the labels " FIBRE PORT " from ① through ⑧ referring to Fig. 4.7.5-8.

Table 4.7.5-3 Removal of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A,B,C,D	E,F,G,H	J,K,L,M	N,P,Q,R

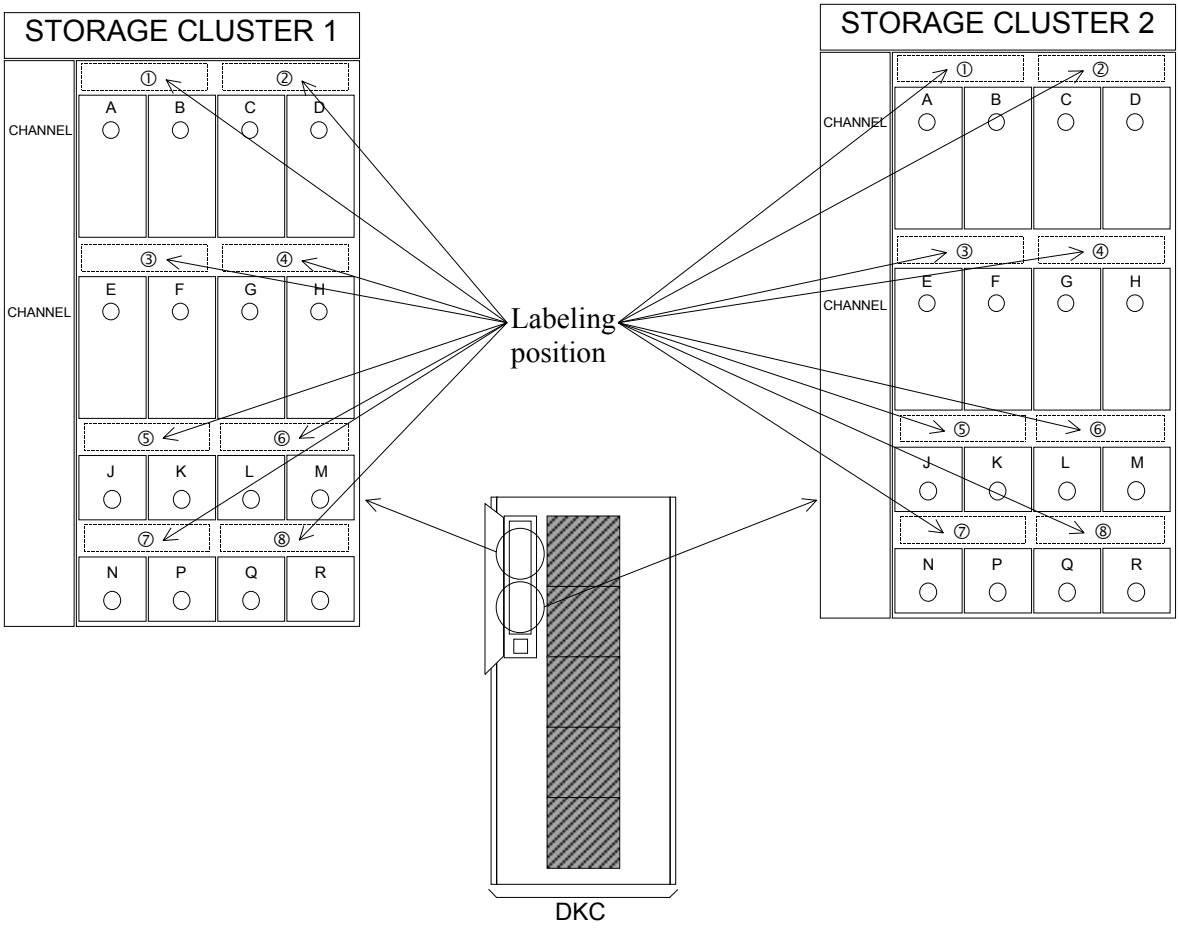


Fig. 4.7.5-8 Removal of Labels

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6. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.7.5-9.

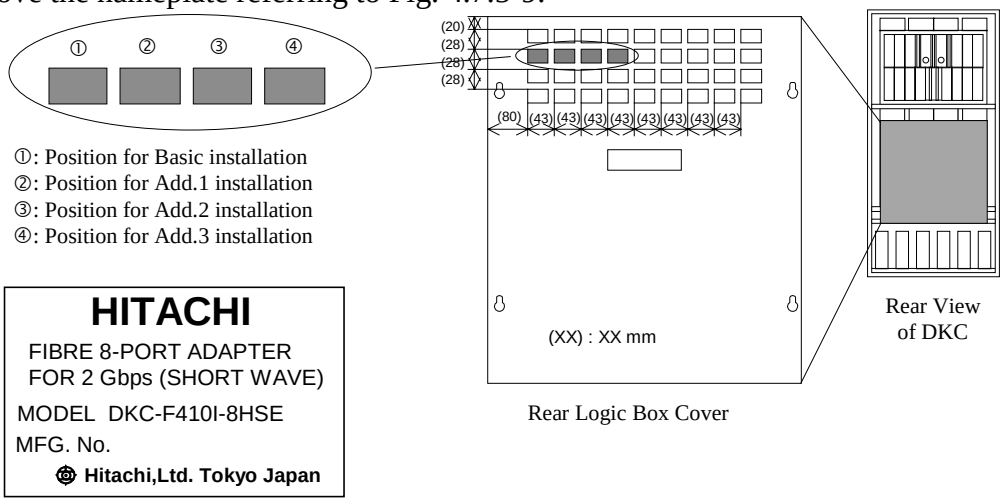


Fig. 4.7.5-9 Removal of Nameplate

7. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (6)-5.
   Disruptive De-Installation : Go to INST02-280 Step (13).

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4.7.6 De-installation of Mainframe Fibre 4-port Adapter (DKC-F410I-4MS/4ML)

4.7.6.1 Parts List

Table 4.7.6-1 Parts List for Mainframe Fibre 4-port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-4MS	MF Fibre 2-port Adapter PCB	5515596-A	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5515612-1	4	For MF Fibre
		Nameplate	3257216-82	1	
2	DKC-F410I-4ML	MF Fibre 2-port Adapter PCB	5515596-B	2	
		I/F Connector Panel	3257355-A	2	
		Screw	SB408	8	
		Label	5515612-1	4	For MF Fibre
		Nameplate	3257216-83	1	

4.7.6.2 Flowchart

(1) Confirm the Shut Down LED (only non-disruptive procedure).

↓

(2) Disconnect the optical fiber cables.

↓

(3) Remove the PCBs.

↓

(4) Remove the I/F connector panels.

↓

(5) Remove the labels.

↓

(6) Remove the nameplate.

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4.7.6.3 De-Installation Procedure of Mainframe Fibre 4-port Adapter

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.

2. Confirmation of the Shut Down LED (Only Non-Disruptive Procedure)
   a. Confirm that Shut Down LED is on.(Fig. 4.7.6-1). If the LED is not on, connect the Shut Down Jumper to the Shut Down Connector.

⚠ CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be removed. Make sure that it is the PCB to be removed.

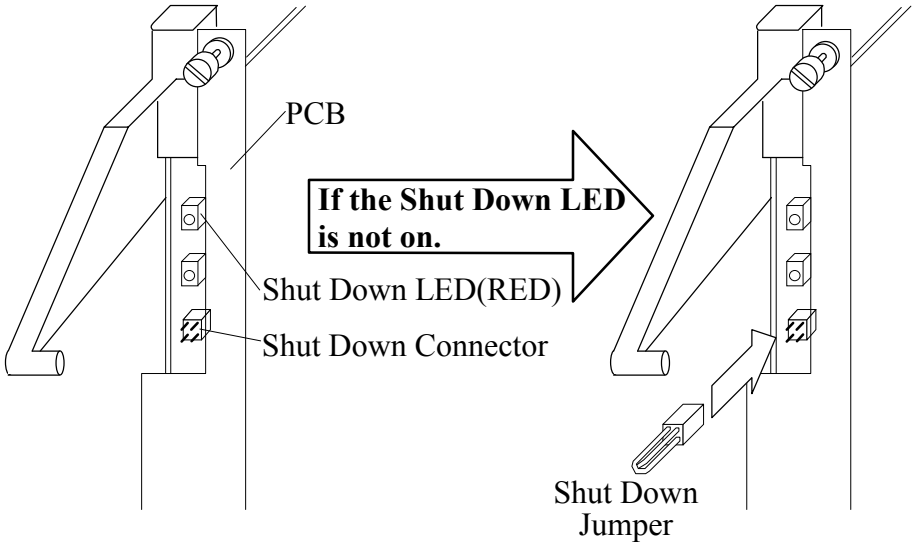


Fig. 4.7.6-1 Shut Down LED

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3. Disconnection of the optical fibre cables
   a. Remove the Bracket③ and the Strain Relief② referring to Fig. 4.7.6-2.
   b. Disconnect the optical fibre cables referring to Fig. 4.7.6-3.

Table 4.7.6-3 Removal Location (Front of the unit)

Cluster	CL1							CL2				
Slot No.	N	P	Q	R	S	T	U	V	W	X	Y	Z
Function	CSW	CHA	CHA	CHA	CHA	CACHE	CACHE	CHA	CHA	CHA	CHA	CSW
Location No.	CSW -1N	CHA -1P	CHA -1Q	CHA -1R	CHA -1S	CACHE -1T	CACHE -1U	CHA -2V	CHA -2W	CHA -2X	CHA -2Y	CSW -2Z
Order of addition		Basic	Add.1	Add.2	Add.3			Basic	Add.1	Add.2	Add.3	

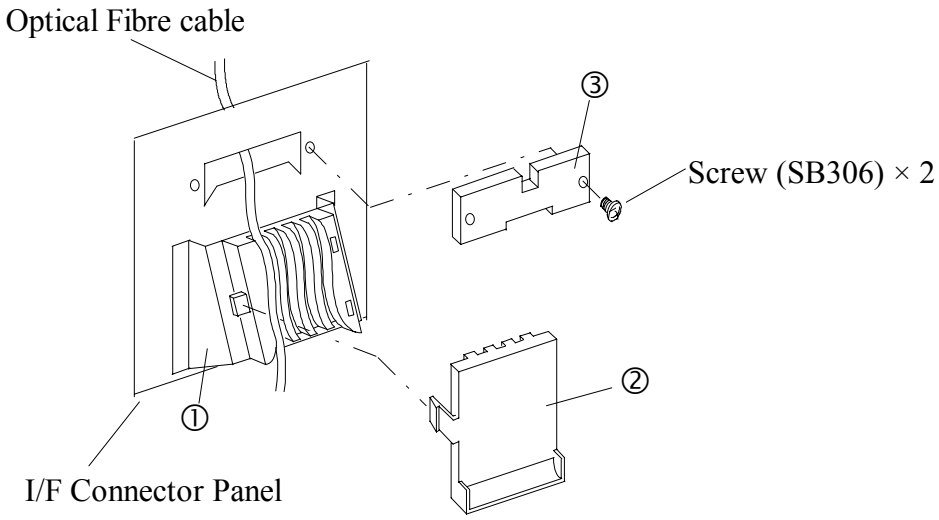


Fig 4.7.6-2 Removal of Strain Relief

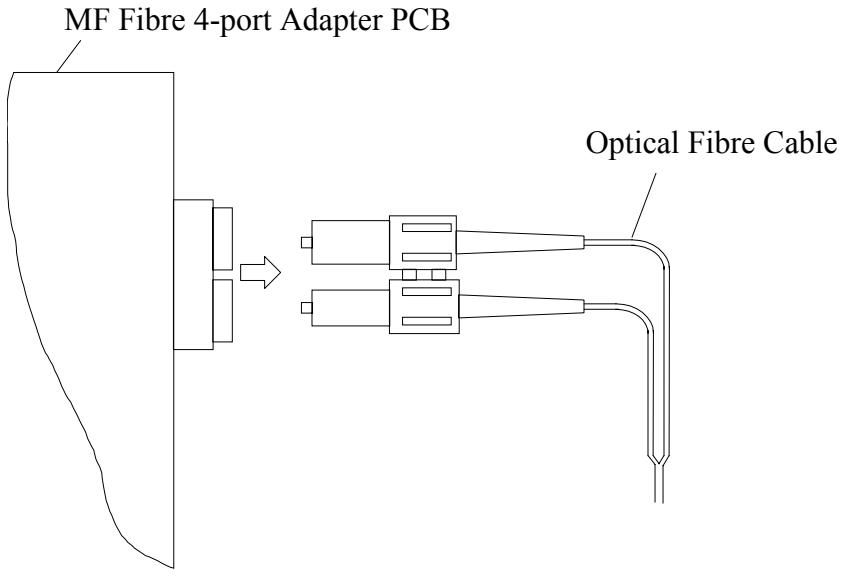


Fig. 4.7.6-3 Disconnect of Optical Fibre Cable

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4. Removal of the PCBs
   a. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 4.7.6-4.
   b. Attach the dummy plates referring to Fig. 4.7.6-5.

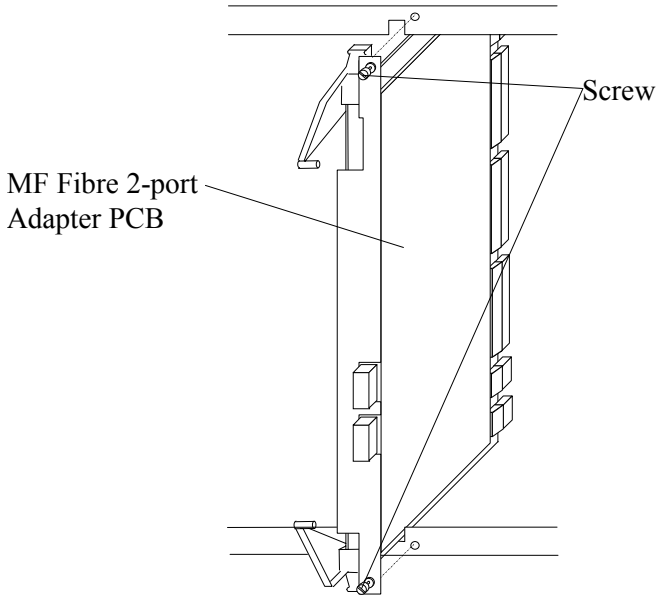


Fig. 4.7.6-4 Removal of PCB

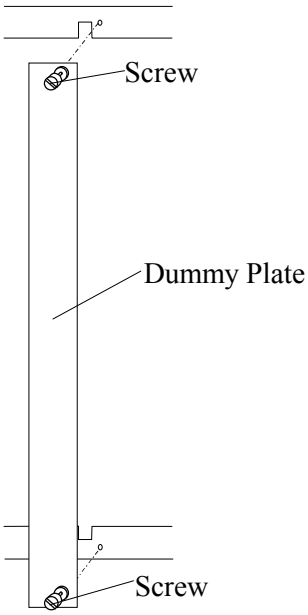


Fig. 4.7.6-5 Attachment of Dummy Plate

5. Removal of the I/F Connector Panel
   a. Remove the I/F connector panels referring to Fig. 4.7.6-6.
   b. Attach the dummy plates referring to Fig. 4.7.6-7.

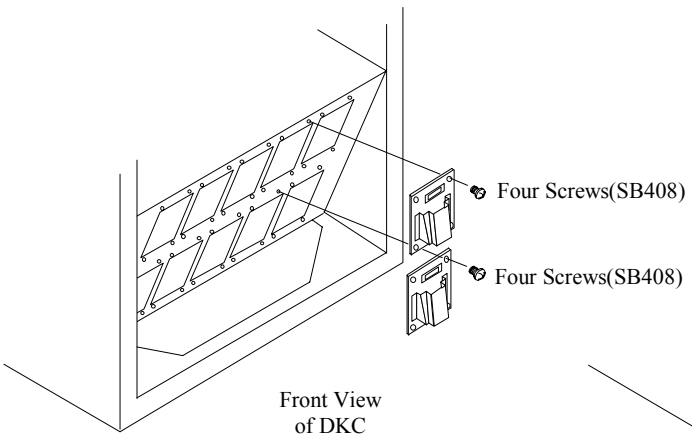


Fig. 4.7.6-6 Removal of I/F Connector Panel

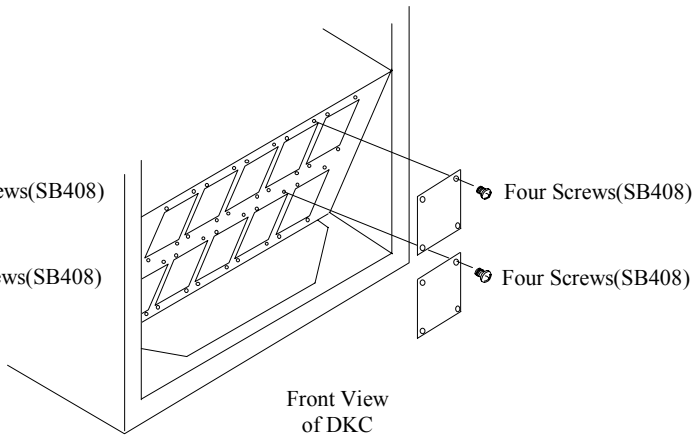


Fig. 4.7.6-7 Attachment of Dummy Plate

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6. Removal of the labels.
   a. Remove the labels " FIBRE PORT " from ① through ⑧ referring to Fig. 4.7.6-8.

Table 4.7.6-4 Removal of Labels

Order of addition	Basic	Add.1	Add.2	Add.3
Labeling position	① and ②	③ and ④	⑤ and ⑥	⑦ and ⑧
Channel No.	A, C	E, G	J, L	N, Q

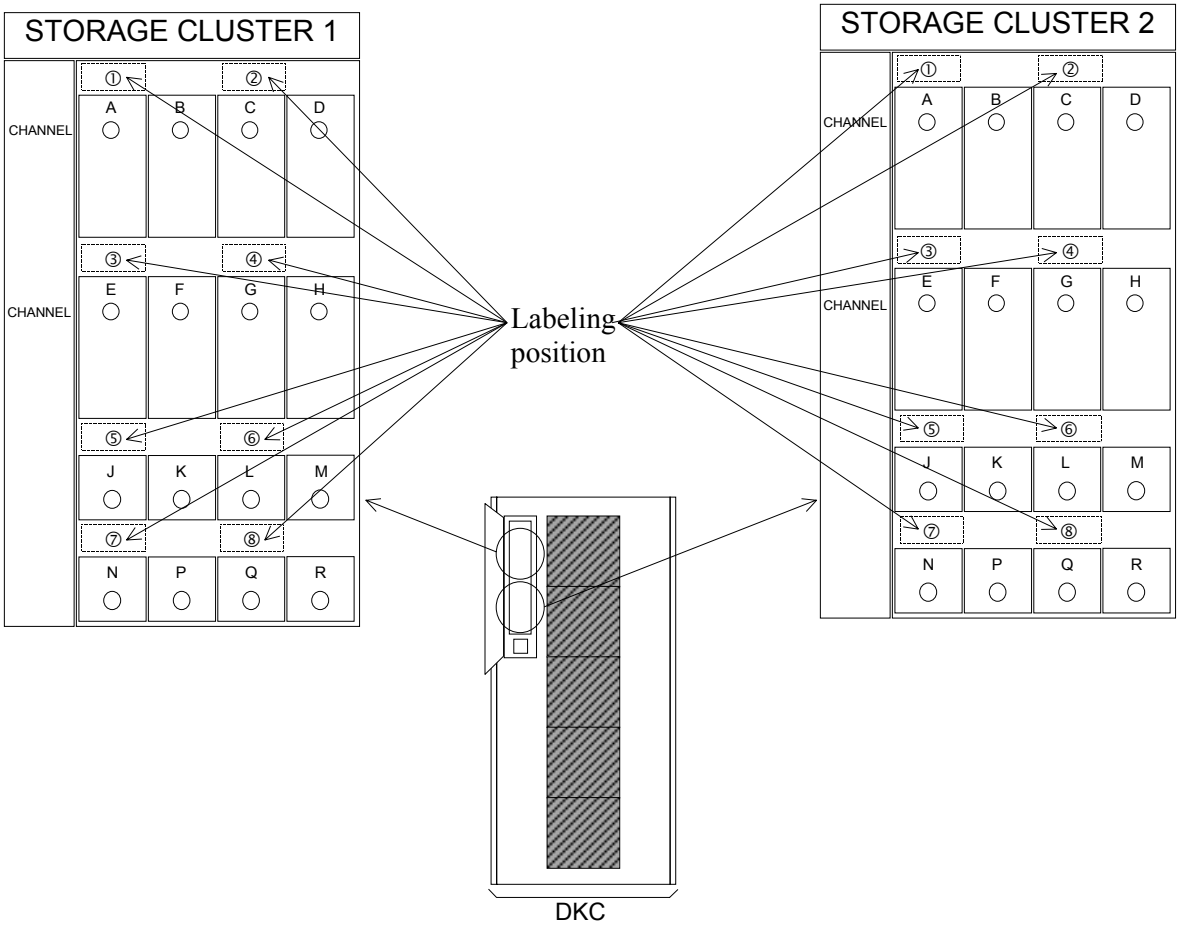


Fig. 4.7.6-8 Removal of Labels

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7. Removal of the Nameplate
   a. Remove the nameplate referring to Fig. 4.7.6-9.

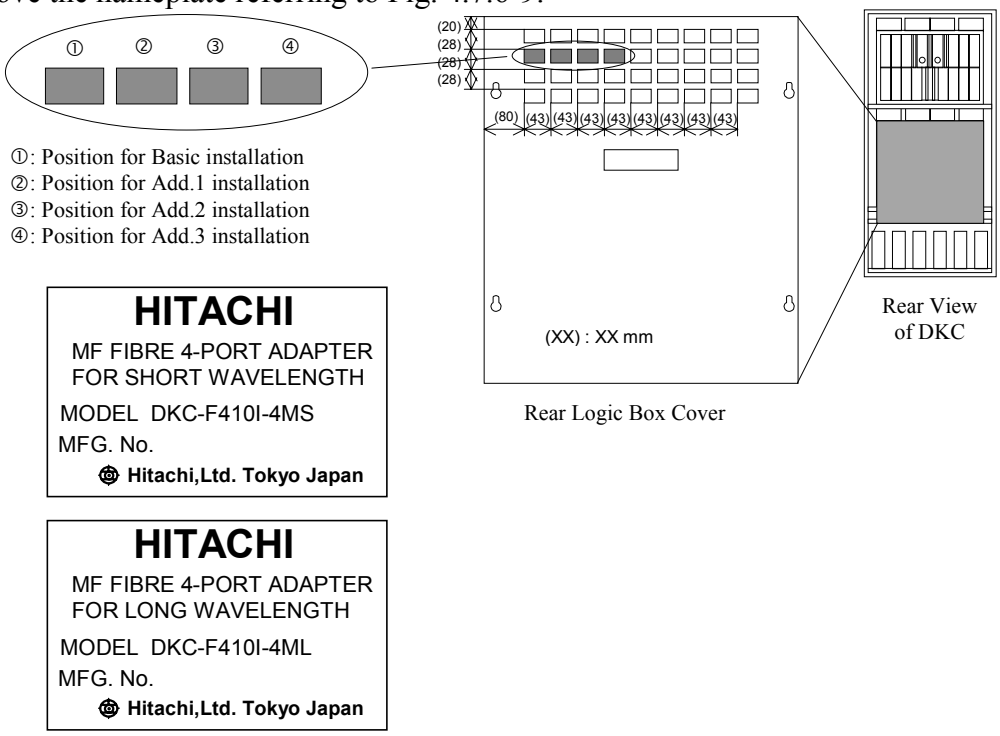


Fig. 4.7.6-9 Removal of Nameplate

8. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (6)-5.
   Disruptive De-Installation : Go to INST02-280 Step (13).

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4.8 De-Installation of Redundant Power Supply

4.8.1 De-Installation of DKC Additional Power Supply (DKC-F410I-80)

4.8.1.1 Flowchart

(1) Turn off the Additional Power Supply.
↓
(2) Disconnect the inlet cable.
↓
(3) Remove the Additional Power Supply (3V PS).
↓
(4) Remove the nameplate.

4.8.1.2 Parts List

Table 4.8.1.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-80	3V power supply	5509117-B	4	PPD03080
					TAJ-272HS
		Nameplate	3257216-9	1	

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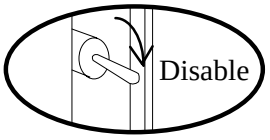
4.8.1.3 De-Installation Procedure of DKC Additional Power Supply

1. Turn off the Additional Power Supply
   a. Turn the PS Enable/Disable Switch to (DOWN) **Disable**. Refer to Table 4.8.1.3-1, Fig. 4.8.1.3-1, and Fig. 4.8.1.3-2.

> **⚠ CAUTION**
> A system down may be caused by setting the PS Enable/Disable switch of the switching power supply other than that to be removed to "Disable". Make sure that it is a switching power supply to be removed.

Table 4.8.1.3-1 Removal Location

No.	Part Name	PS Location		Remarks
		Cluster 1	Cluster 2	
1	3V Power Supply	3VPS1C	3VPS2C	
2	3V Power Supply	3VPS1D	3VPS2D	



PS Enable/Disable Switch

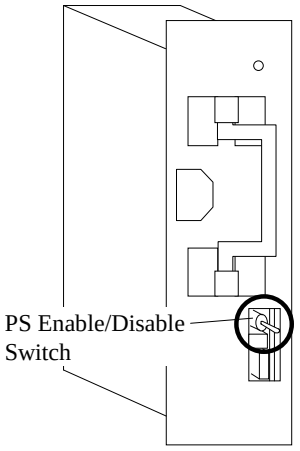


Fig. 4.8.1.3-1 Switch

Rear PS Box

–	–	–	CU	BU	AU	–	–	–
5/3V PS 2A	5/3V PS 2B	SUB PS 2	DKC MN 2	SSVP / HUB	DKC MN 1	SUB PS 1	5/3V PS 1B	5/3V PS 1A
3V PS 2A	3V PS 2B	3V PS 2C	3V PS 2D	BAT CTR 20	BAT CTR 10	3V PS 1D	3V PS 1C	3V PS 1B	3V PS 1A
–	–	–	–	BL	AL	–	–	–	–

Fig. 4.8.1.3-2 Removal Location

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2. Disconnection of the inlet cable
   a. Disconnect the inlet cables. Refer to Fig. 4.8.1.3-3.

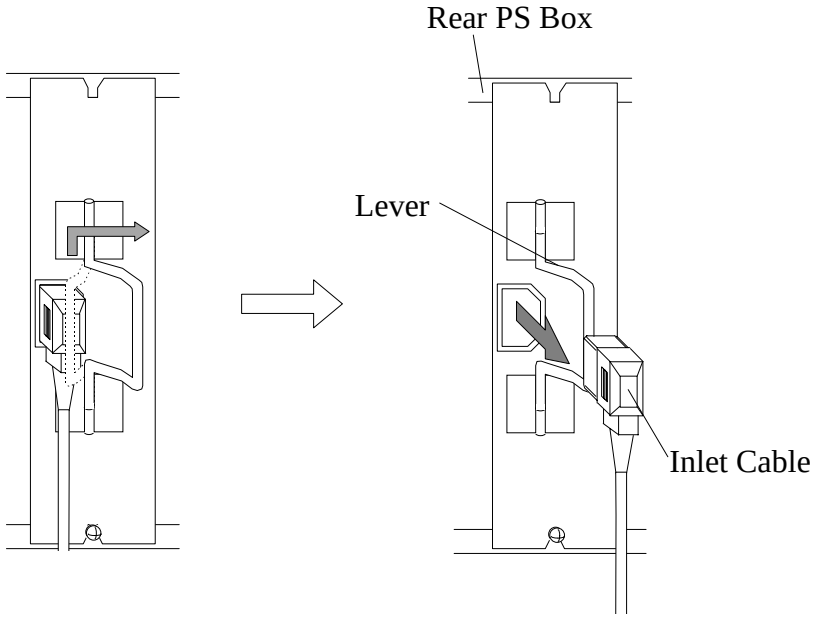


Fig. 4.8.1.3-3 Disconnection of Inlet Cable

3. Removal of the Additional Power Supply
   a. Loosen the screws and remove the Additional Power Supplies. Refer to Fig. 4.8.1.3-4.
   b. Attach the dummy plates to the removal locations and fasten the screws. Refer to Fig. 4.8.1.3-5.
   c. Insert the removed inlet cables into respective dummy plates and secure them using cable clamps.

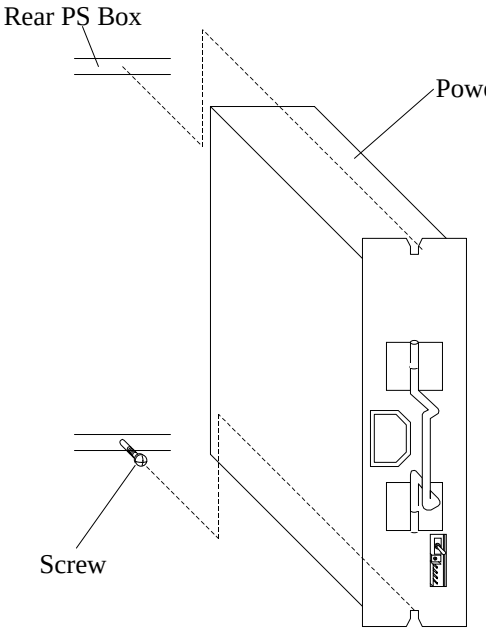


Fig. 4.8.1.3-4 Removal of Power Supply

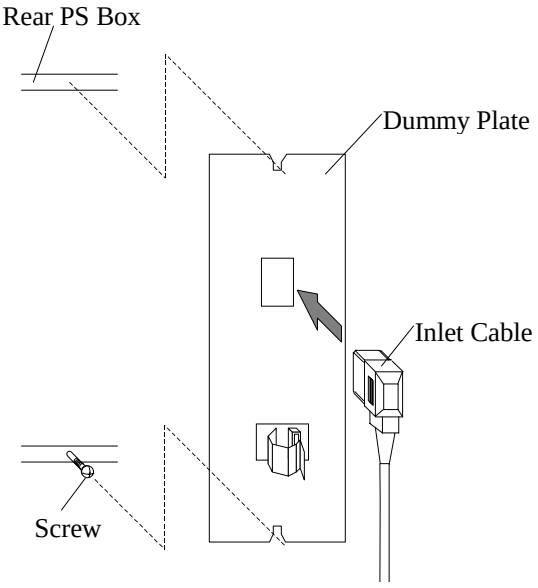


Fig. 4.8.1.3-5 Attachment of Dummy Plate.

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4. Removal of the nameplate
   a. Remove the nameplate of DKC-F410I-80 referring to Fig. 4.8.1.3-6.

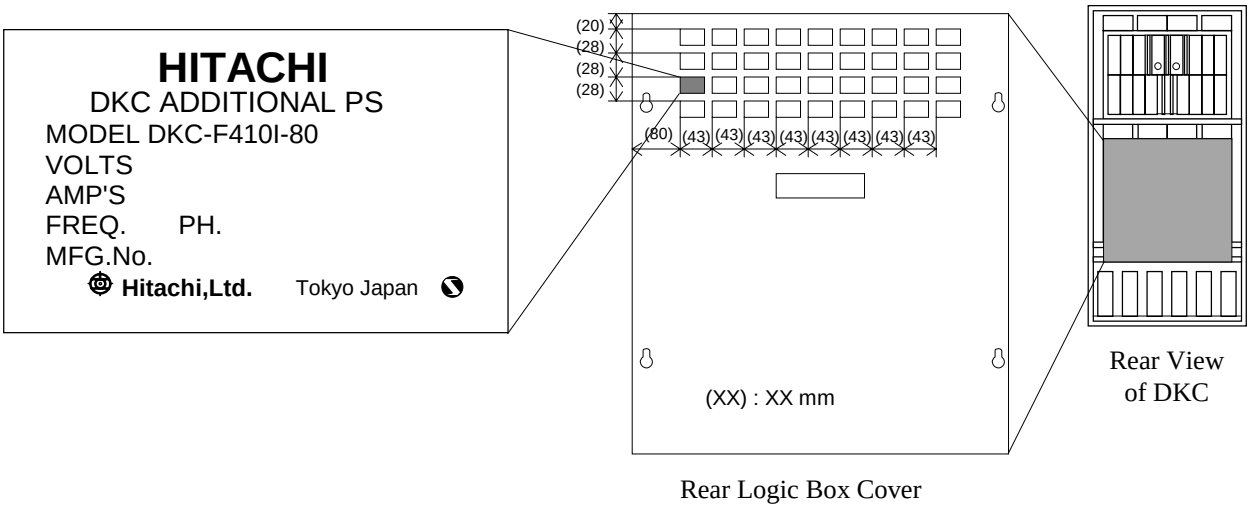


Fig. 4.8.1.3-6 Removal of Nameplate

5. Return to General Flow.
   Non-disruptive De-Installation : Go to INST02-180 Step (7)-5.
   Disruptive De-Installation : Go to INST02-290 Step (14).

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4.9 De-Installation of Interface Connector

4.9.1 De-Installation of PCI I/F Connector (DKC-F410I-18)

4.9.1.1 Flowchart

1. Confirm that the REMOTE/LOCAL Switch of DKC Panel is set to LOCAL. If not, set the REMOTE/LOCAL Switch to LOCAL.

↓

2. Connect the “CE Panel INH” jumper plug to the sockets on the DKCMN.

↓

3. Set the jumper connectors (JP1 and JP2) of the PCI CON.

↓

4. Remove the PCI CON PCB.

↓

5. Disconnect the “CE Panel INH” jumper plug from the socket on the DKCMN.

↓

6. Detach the nameplate.

4.9.1.2 Parts List

Table 4.9.1.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-18	PCI CON	5509131-A	1	
		Nameplate	3257216-11	1	

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4.9.1.3 De-Installation Procedure of PCI I/F Connector

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.

1. Confirm that the REMOTE/LOCAL Switch of DKC Panel is set to LOCAL. If not, set the REMOTE/LOCAL Switch to LOCAL.

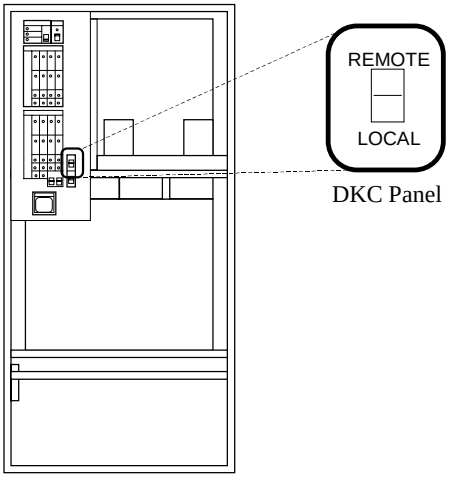
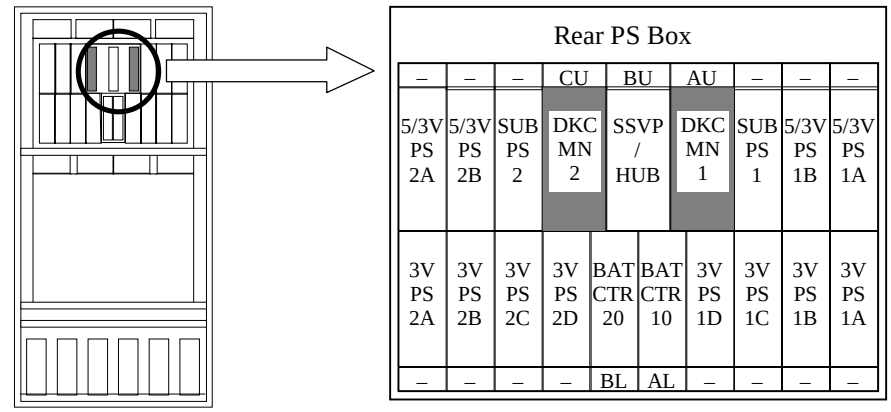


Fig. 4.9.1.3-1 Setting of REMOTE/LOCAL Switch

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2. Connect the “CE Panel INH” jumper plug to the socket on the DKCMN.



Rear View of DKC

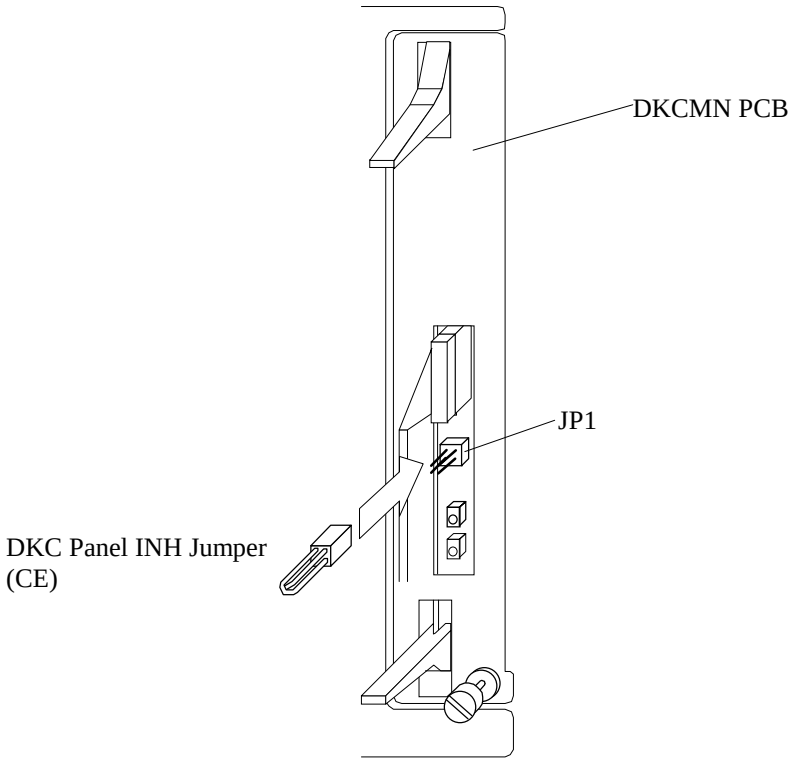


Fig. 4.9.1.3-2 Insertion of Jumper Plug

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3. Set the jumper connectors (JP1 and JP2) of the PCI CON.

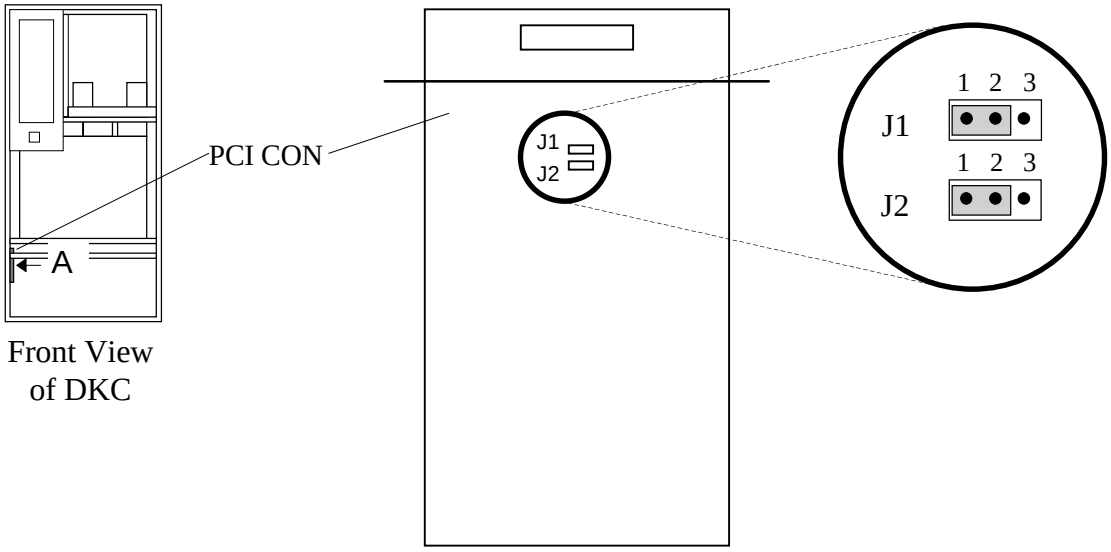


Fig. 4.9.1.3-3 Insertion of Jumper Plug

4. Remove the PCI CON PCB.
   a. Disconnect the cable.
   b. Remove the screw① and remove the plate.
   c. Loosen the screw② and remove the PCI CON PCB.
   d. Attach the plate and fasten the screw①.

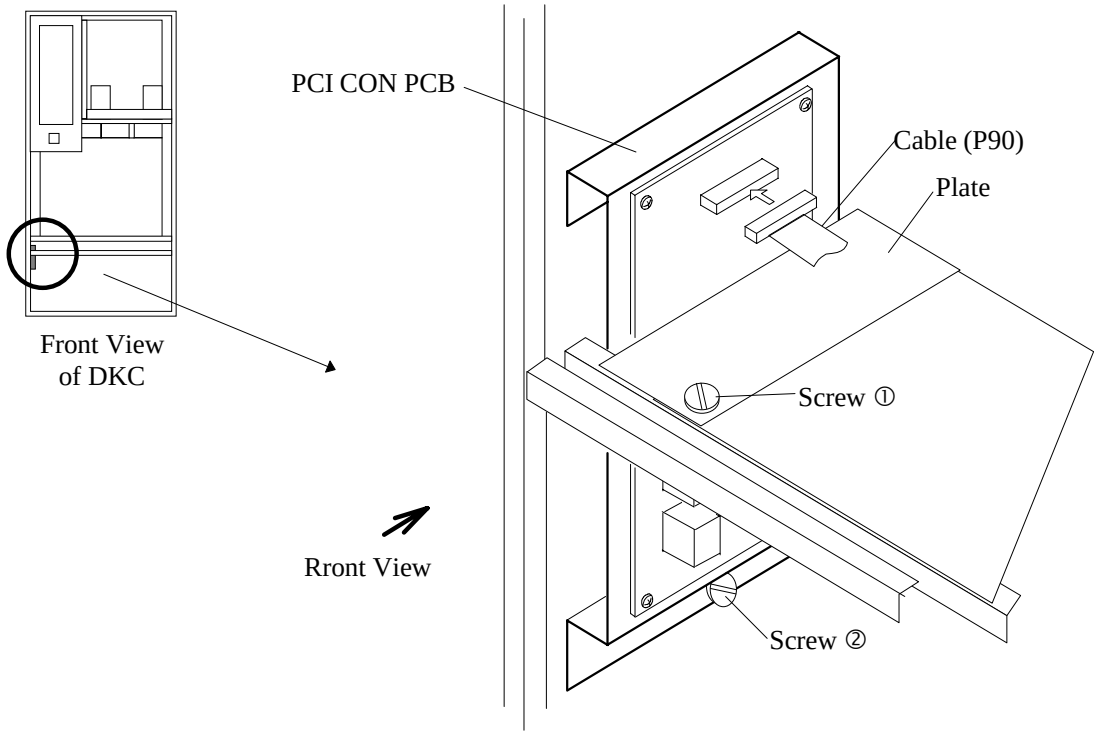


Fig. 4.9.1.3-4 Attachment of PCI CON PCB

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5. Disconnect the “DKC Panel INH” jumper plug from the socket on the DKCMN.

6. Detach the nameplate.
   a. Detach the nameplate of DKC-F410I-18.

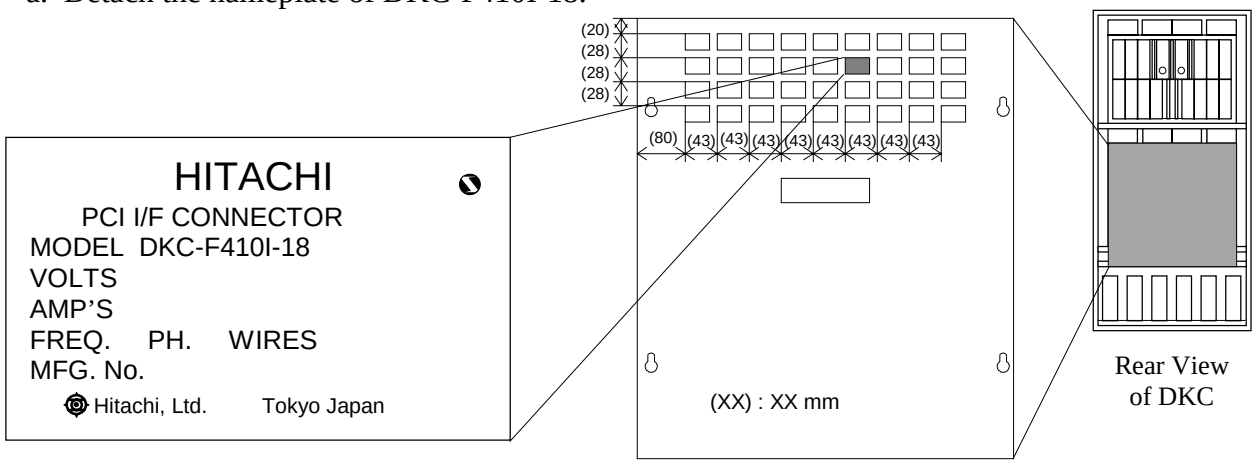


Fig. 4.9.1.3-5 Location of the Nameplate

7. Return to General Flow.
   Non-Disruptive De-Installation : Go to INST02-180 step (8)-2.
   Disruptive De-Installation : Go to INST02-290 step (15).

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4.10 De-Installation of Power Cable Kit

4.10.1 De-Installation of Power Cable Kit for Disk Unit (DKU-F405I-3EC/3UC/1EC/1UC)

⚠ CAUTION

Perform The Power Cable Kit with care.
This Power Cable Kit is concerned with Primary Circuit.
Perform this procedure before connecting the Power Cable Assy.
(Turn off the circuit breakers on the power distribution panel)
Turn off the main circuit breaker CB101 located in the AC Box.

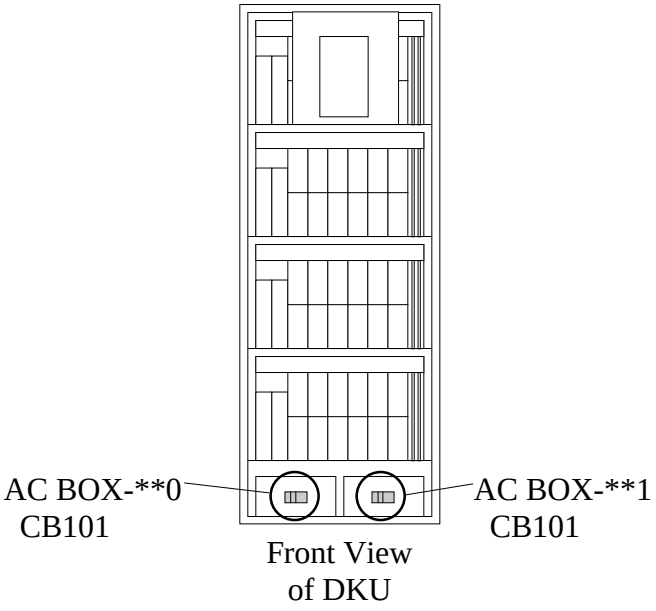


Fig. 4.10.1-1 Location of the Disk Unit Circuit Breakers

Table 4.10.1-1 Disk Unit Circuit Breakers

No.	Location No.	Breaker No.	Remarks
1	AC BOX-**0	CB101	
2	AC BOX-**1	CB101	

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4.10.1.1 Flowchart

1. Remove the Plate.
↓
2. Disconnect the Power Cable Assy.
↓
3. Attach the Plate.
↓
4. Remove the Nameplate.

4.10.1.2 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-3UC	Power Cable Assy (IU)	3239396-A	1	
		Nameplate	2103308-1	1	
			3259626-1	1	
2	DKU-F405I-3EC	Power Cable Assy (IE)	3239396-B	1	
		Nameplate	2103308-2	1	
			3259626-2	1	
3	DKU-F405I-1UC	Power Cable Assy (IU)	3255667-A	1	
		Nameplate	2103308-7	1	
			3259626-7	1	
4	DKU-F405I-1EC	Power Cable Assy (IE)	3255667-B	1	
		Nameplate	2103308-8	1	
			3259626-8	1	

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4.10.1.3 De-Installation Procedure of Power Cable Kit

1. Remove the Plate.
   a. Remove the two screws.
   b. Slide the plate toward the rear side to remove.

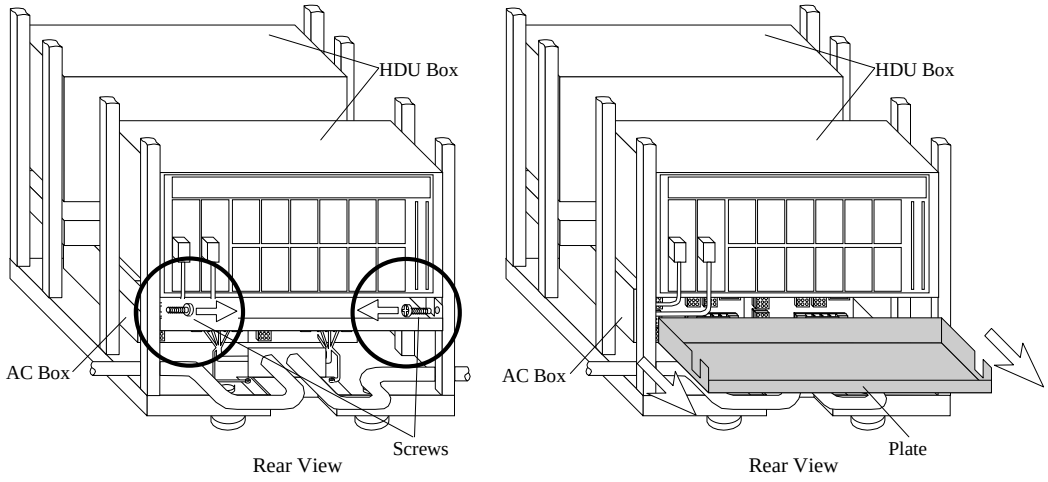


Fig. 4.10.1.3-1 Removal of Plate

   c. Remove the terminal block covers.

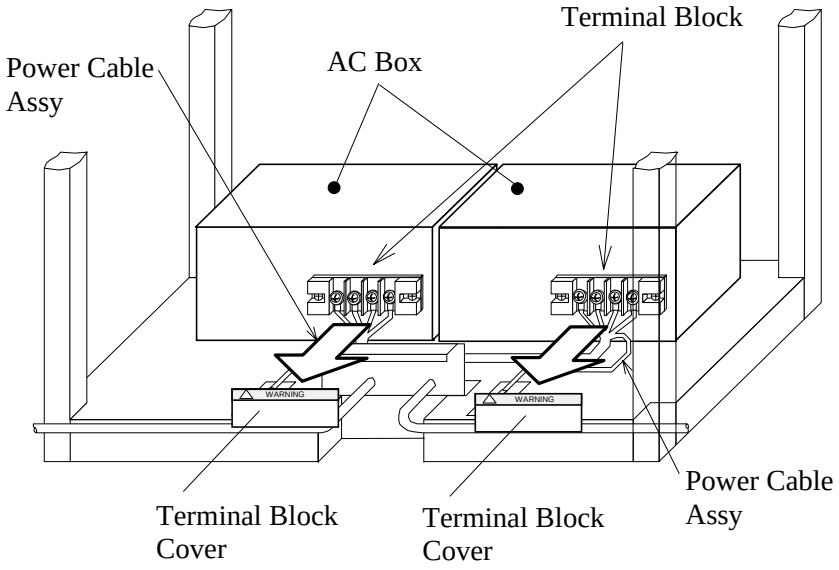


Fig. 4.10.1.3-2 Removal of Power Cable Assy (DKU-F405I-3EC)

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2. Disconnect the Power Cable Assy.
   a. Remove the screws and disconnect the power cable Assy.

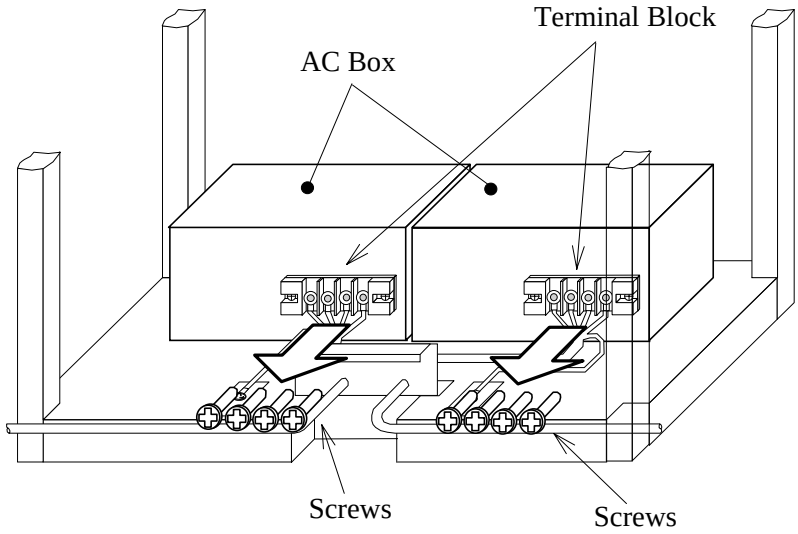


Fig. 4.10.1.3-3 Removal of Power Cable Assy (DKU-F405I-3EC)

   b. Remove the frame ground cable for each AC power cable from the frame.

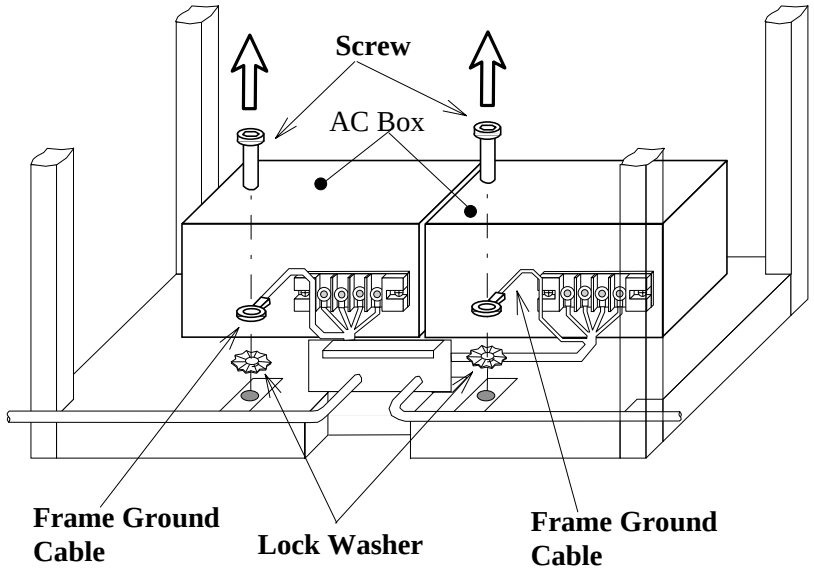


Fig. 4.10.1.3-4 Removal of Frame Ground Cable (DKU-F405I-3EC)

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c. Loosen the screws and remove the Power Cable Assy.

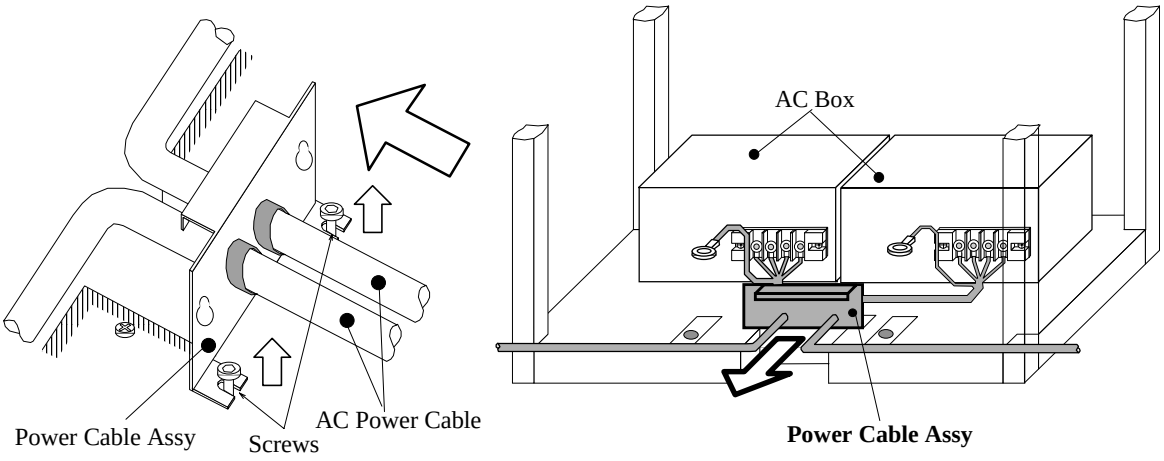


Fig. 4.10.1.3-5 Removal of Power Cable Assy (DKU-F405I-3EC)

3. Attach the Plate.
   a. Re-Install the plate.

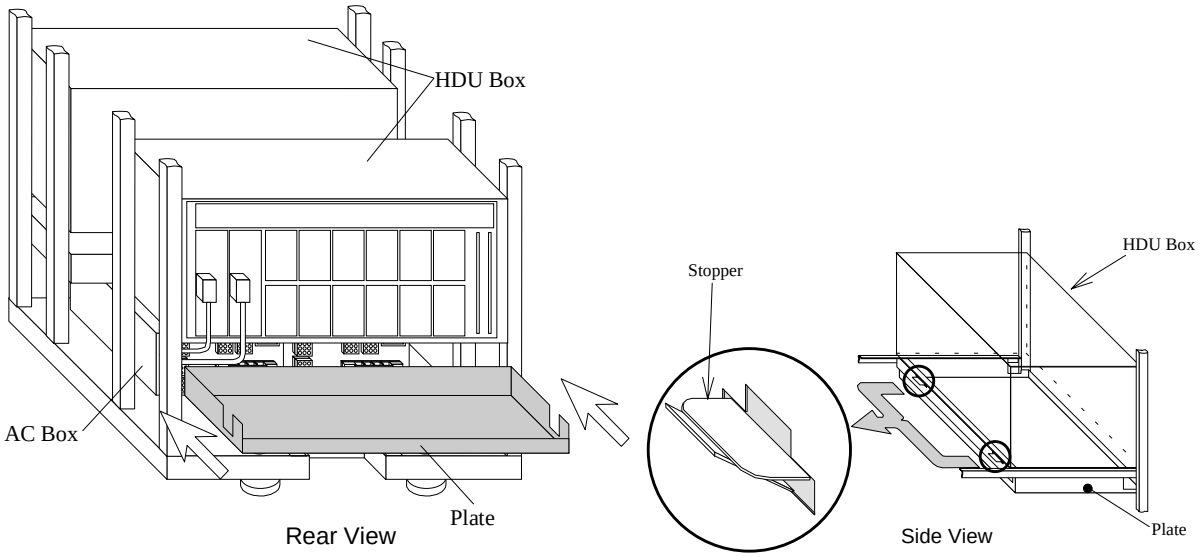


Fig. 4.10.1.3-6 Attachment of Plate

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b. Secure the plate with screws.

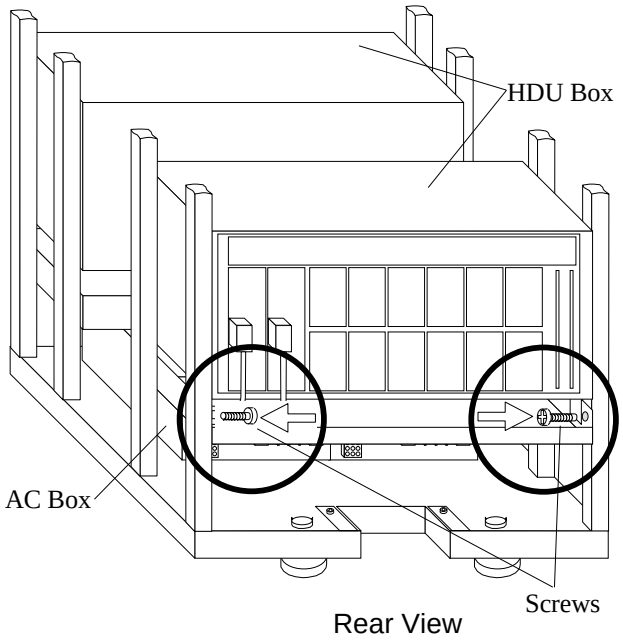


Fig. 4.10.1.3-7 Attachment of Plate

4. Remove the Nameplate.
   a. Remove the nameplate from the power cable Assy.

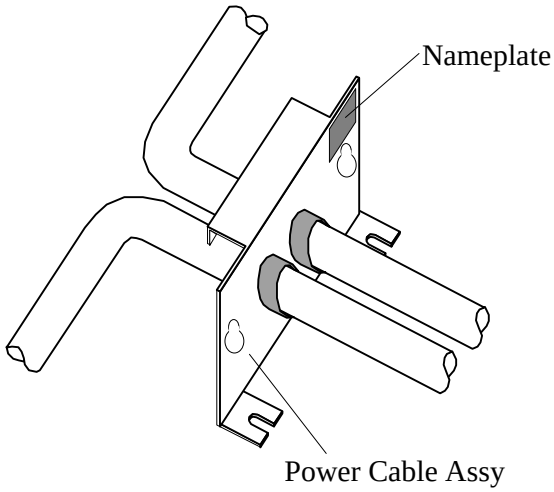


Fig. 4.10.1.3-8 Removal of Nameplate

5. Return to General Flow.
   Non-Disruptive De-Installation : Go to INST02-170 step(4)-7.
   Disruptive De-Installation : Go to INST02-280 step(10)-7.

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4.10.2 De-Installation of Power Cable Kit (DKC-F410I-1EC/1UC)

4.10.2.1 Flowchart

1. Remove the AC Power Cable.
   (Note: Limited work when transporting equipment.)

↓

2. Remove the Nameplate.

↓

3. Remove the Power Cable ASSY.

4.10.2.2 Parts List

Table 4.10.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-1UC	Power Cable ASSY	3259716-A	1	
		Screw	SB408	2	
		Repeat Binder	5409042-3	4	
		Nameplate	2103342-2	1	DKC-F410I-1UC
		Nameplate	3259765-2	1	A5951-60003
2	DKC-F410I-1EC	Power Cable ASSY	3259716-B	1	
		Screw	SB408	2	
		Repeat Binder	5409042-3	4	
		Nameplate	2103342-1	1	DKC-F410I-1EC
		Nameplate	3259765-3	1	A5951-60004

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4.10.2.3 De-Installation Procedure of Power Cable Kit

Note: Limited work when transporting equipment.

1. Remove the AC Power Cable.
   a. Open the four repeat binders and remove the AC Power Cable.

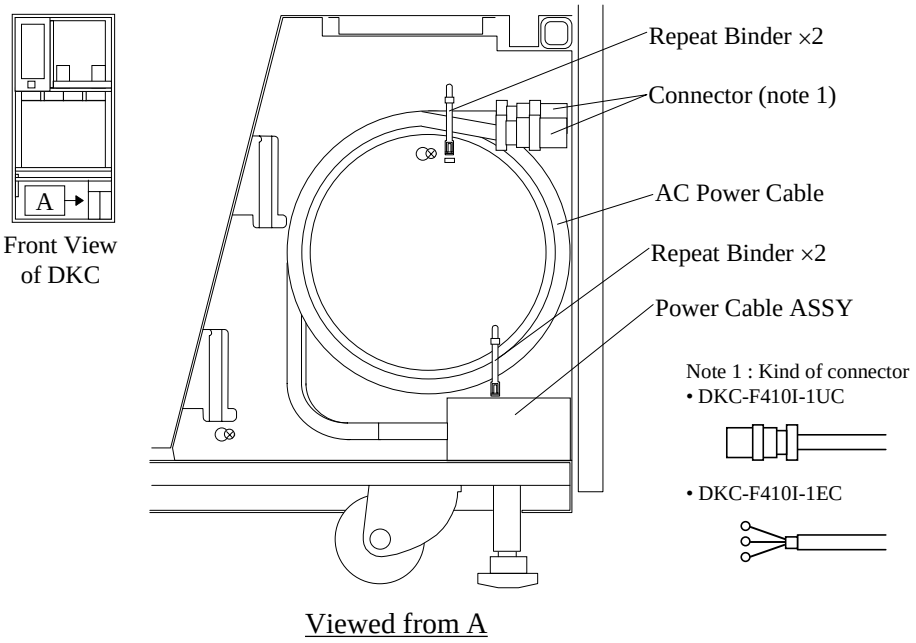


Fig. 4.10.2.3-1 Removal of AC Power Cable

2. Remove the Nameplate.
   a. Remove the nameplate from the cover.

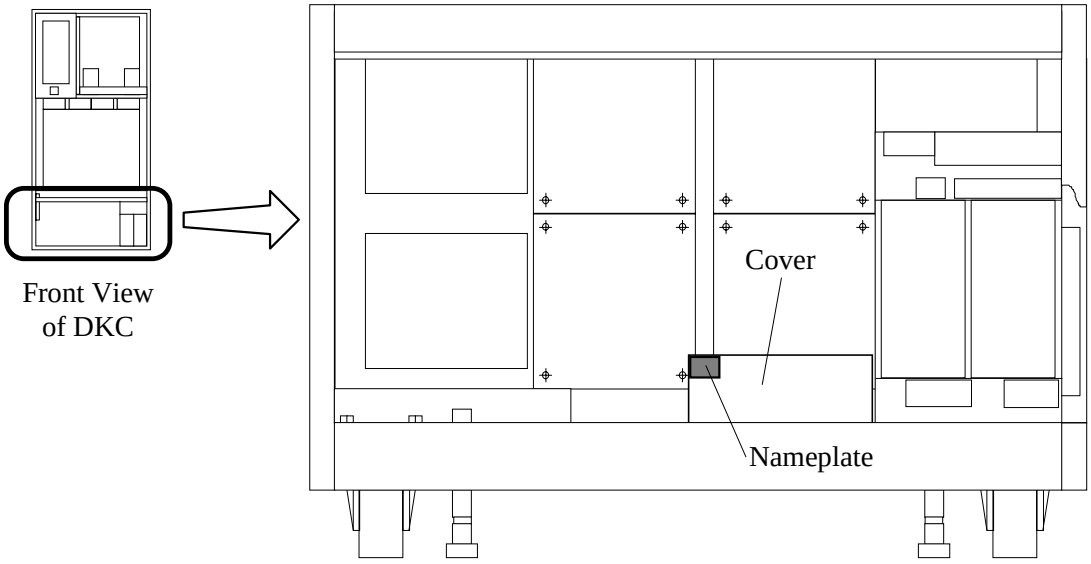


Fig. 4.10.2.3-2 Removal of Nameplate

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3. Remove the Power Cable ASSY.
   a. Loosen the two screws and remove the cover.

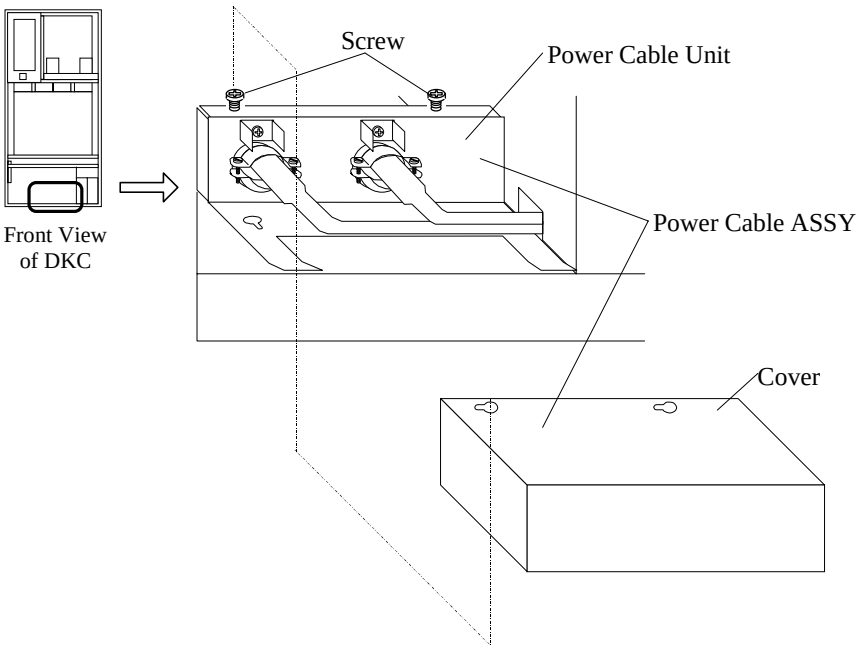


Fig. 4.10.2.3-3 Removal of Cover

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b. Loosen the four screws and remove terminal block covers.
c. Loosen the six screws and remove the AC power cables from the AC Boxes.
d. Attach the terminal block covers to AC Boxes and fasten the four screws.
e. Open the two repeat binders.

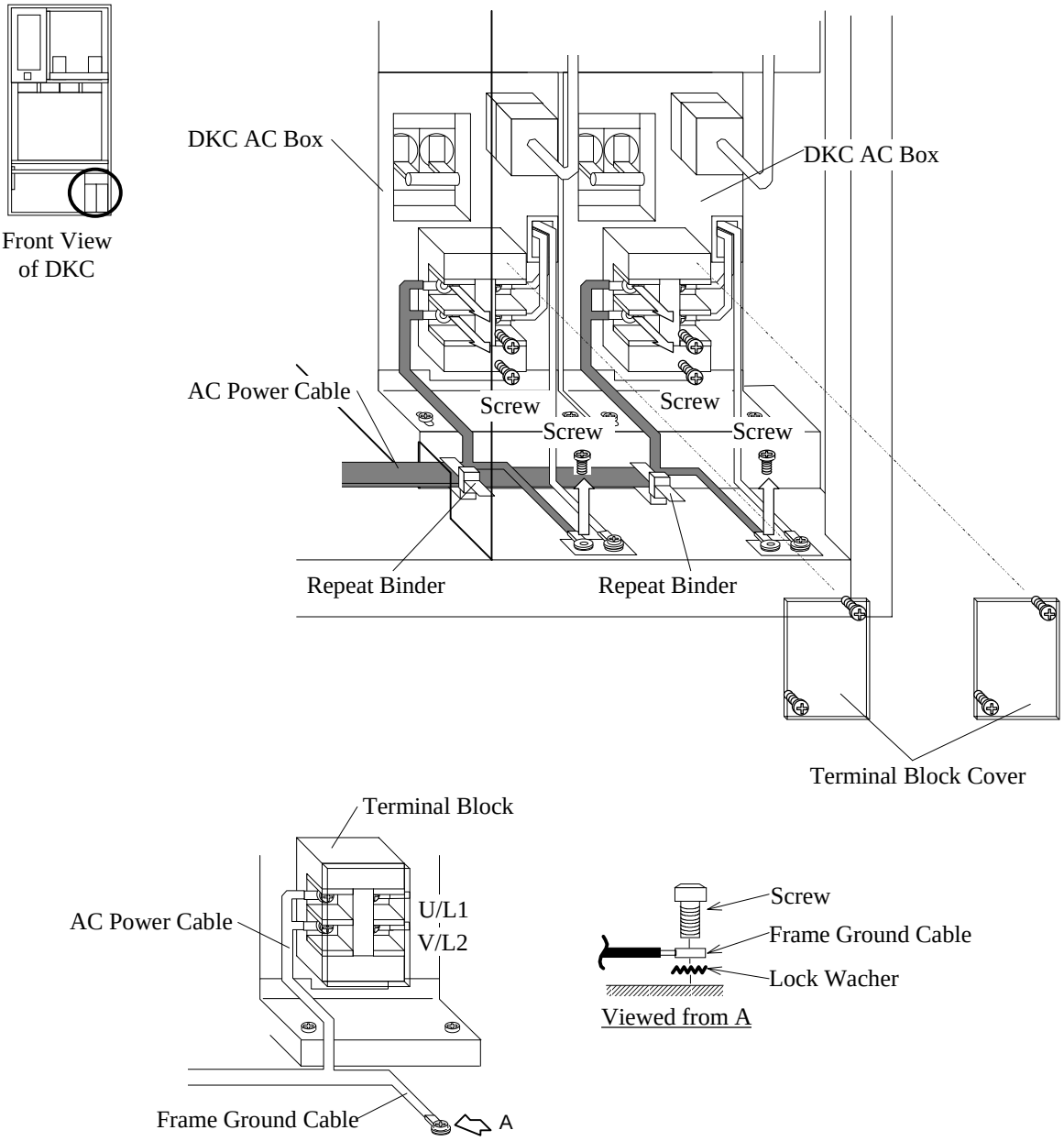


Fig. 4.10.2.3-4 Removal of AC Power Cables

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f. Loosen the two screws and remove the Power Cable Unit.

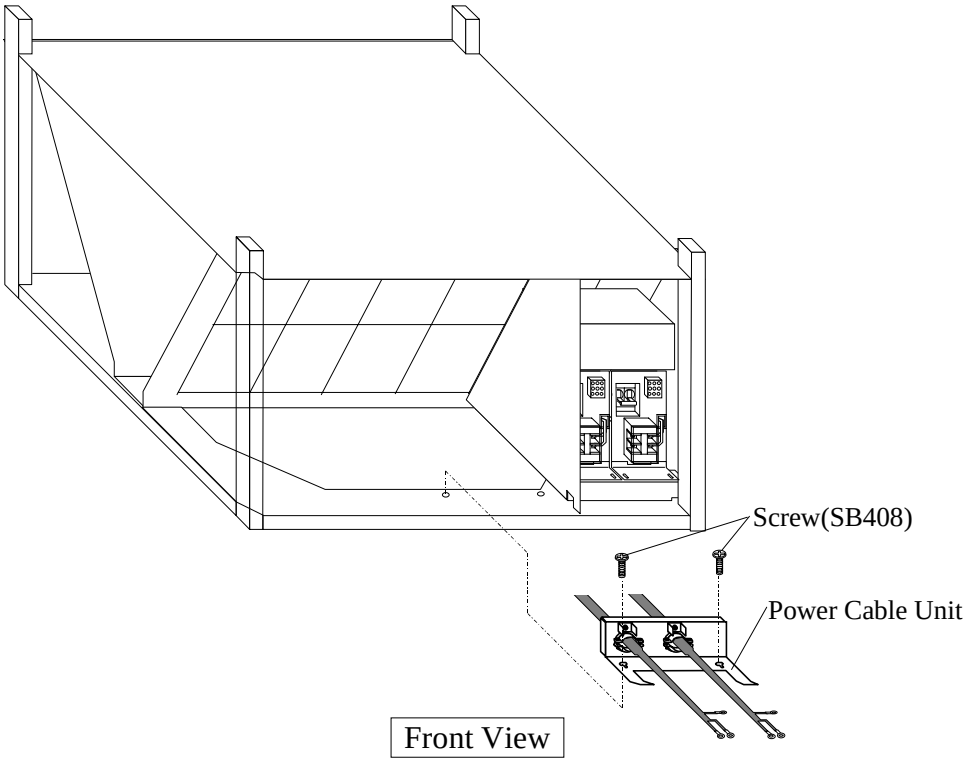


Fig. 4.10.2.3-5 Removal of Power Cable Unit

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4.11 De-Installation of AC Box Kit

4.11.1 De-Installation of AC Box Kit for DKU (DKU-F405I-3PS/1PS)

4.11.1.1 Flowchart

1. Remove the Plate.
↓
2. Disconnect the Cables.
↓
3. Remove the Nameplate.
↓
4. Remove the DKU AC Boxes.
↓
5. Attach the Plate.

4.11.1.2 Parts List

Table 4.11.1.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKU-F405I-3PS	DKU AC Box	5502383-A	2	
		Nameplate	2103308-13	1	
			3259625-1	1	
2	DKU-F405I-1PS	DKU AC Box	5487058-C	2	
		Nameplate	2103308-18	1	
			3259625-6	1	

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4.11.1.3 De-Installation Procedure of AC Box Kit for DKU

1. Remove the Plate.
   a. Remove the two screws.
   b. Slide the plate toward the rear side to remove.

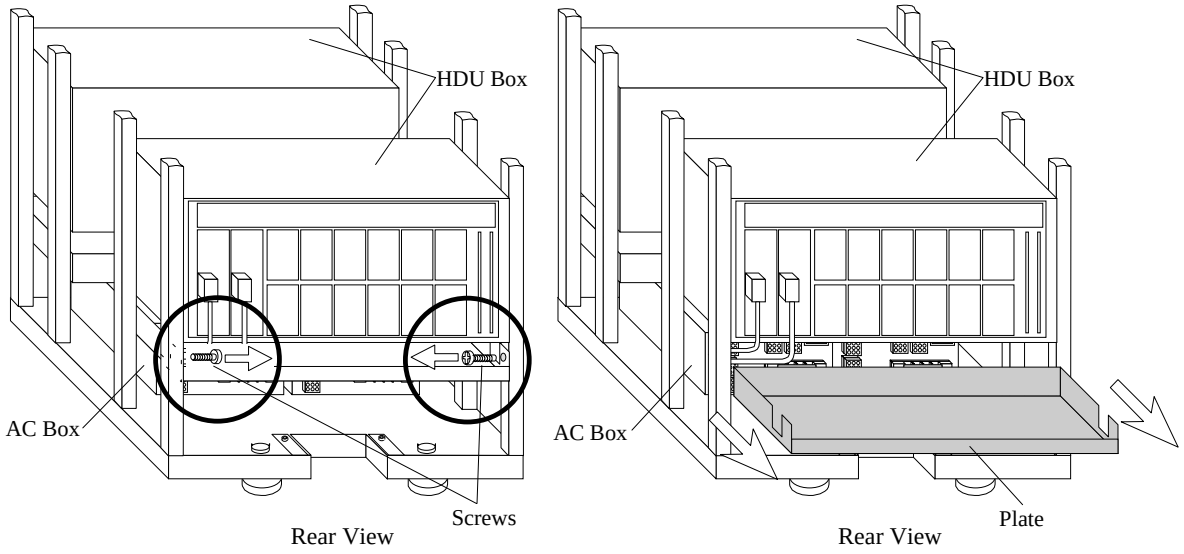


Fig. 4.11.1.3-1 Removal of Plate

2. Disconnect the Cables.

DKU-F405I-3PS

   a. Loosen the screws and remove the frame ground cables.
   b. Disconnect the cables (P101-1, P102-1, P101-2 and P102-2) from the DKU AC Boxes.

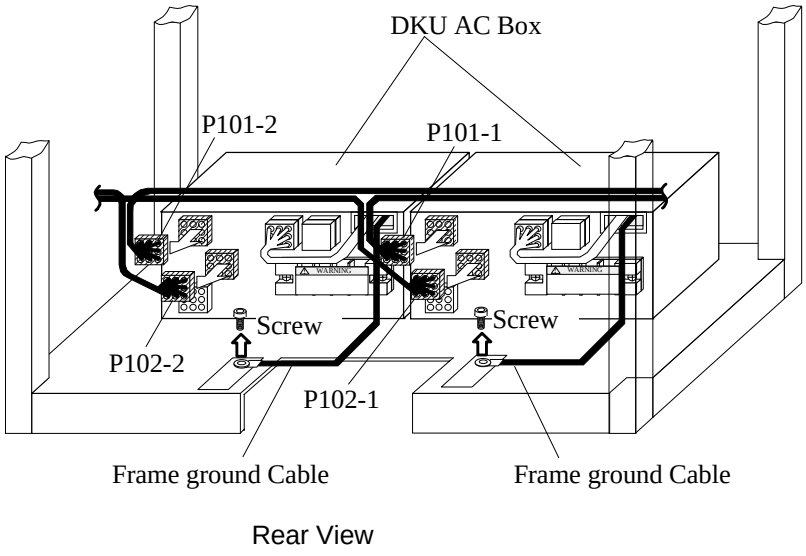


Fig. 4.11.1.3-2 Disconnection of Cables

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DKU-F405I-1PS

a. Loosen the screws and remove the frame ground cables.
b. Disconnect the cables (P101-1, P102-1, P101-2 and P102-2) from the DKU AC Boxes.

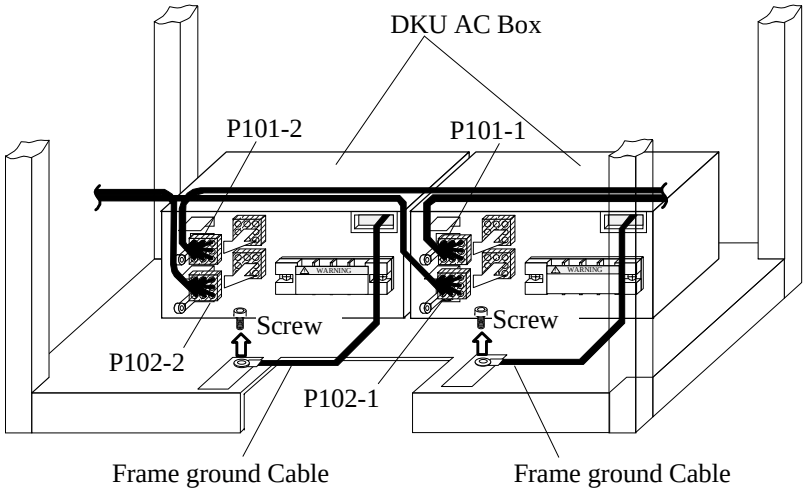


Fig. 4.11.1.3-3 Disconnection of Cables

3. Remove the Nameplate.
   a. Remove the nameplate from the left DKU AC Box.

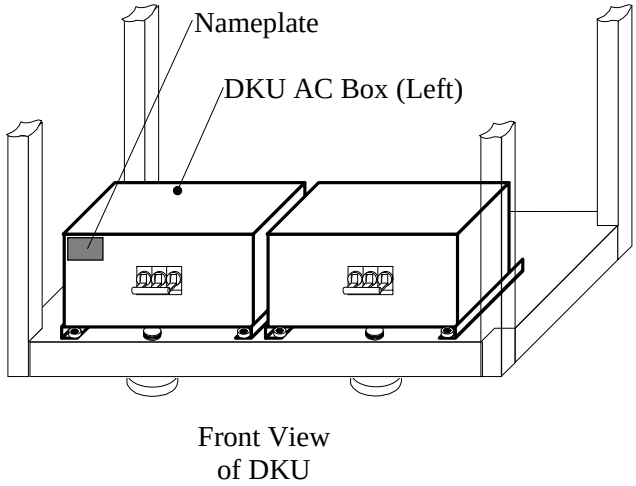


Fig. 4.11.1.3-4 Removal of Nameplate

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4. Remove the DKU AC Boxes.
   a. Remove the four screws.

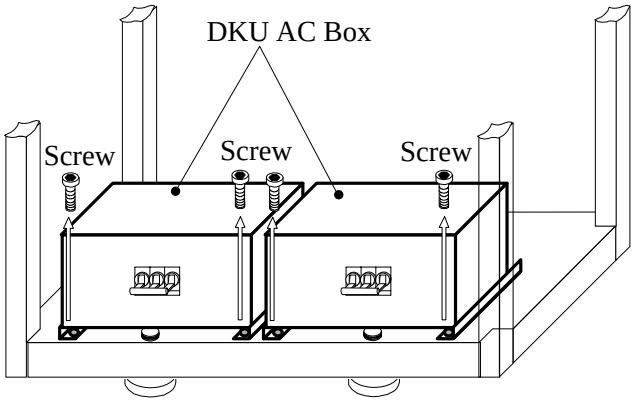


Fig. 4.11.1.3-5 Removal of Screws

   b. Remove the DKU AC Boxes from the DKU frame.

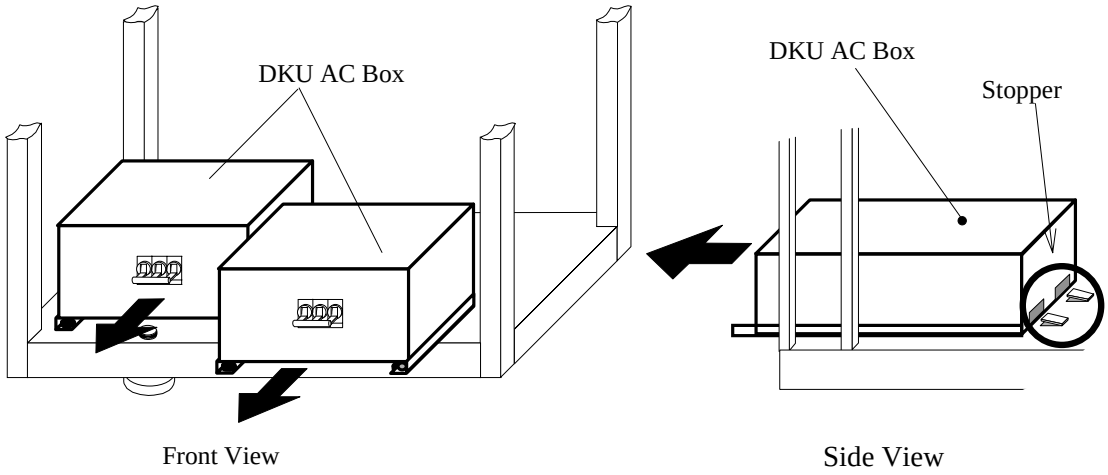


Fig. 4.11.1.3-6 Removal of DKU AC Boxes

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5. Attach the plate.
   a. Attach the plate with the two screws.

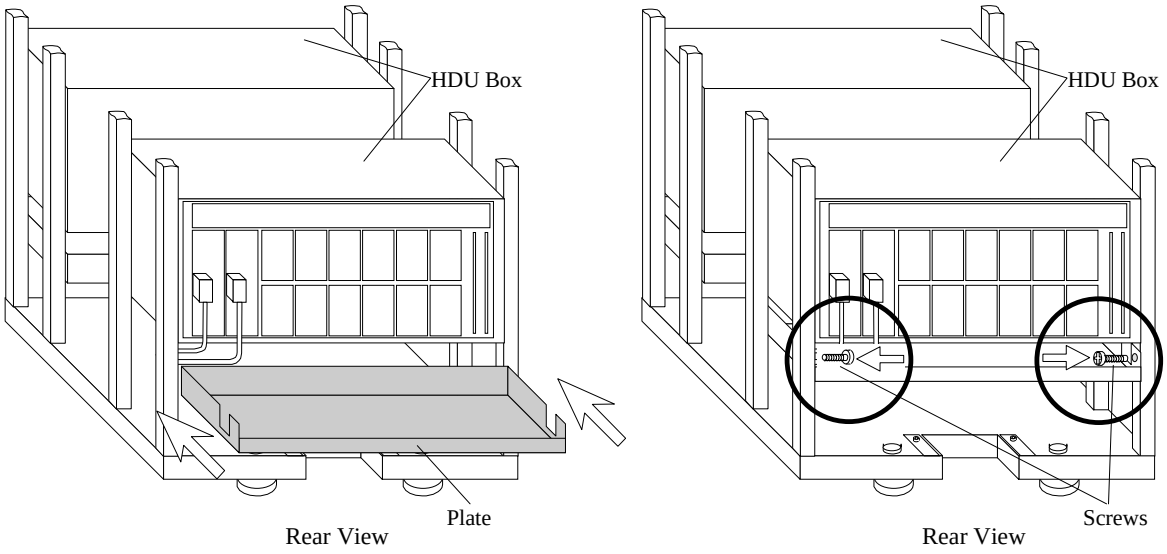


Fig. 4.11.1.3-7 Attachment of Plate

6. Return to General Flow.
   Non-Disruptive De-Installation : Go to INST02-170 step (5).
   Disruptive De-Installation : Go to INST02-280 step (11).

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4.11.2 De-Installation of AC Box Kit for DKC (DKC-F410I-1PS)

4.11.2.1 Flowchart

1. Remove the Cover.
↓
2. Remove the Nameplate and the Labels.
↓
3. Remove the Partition (Door).
↓
4. Remove the DKC AC Boxes.
↓
5. Change the Dummy Plate.

4.11.2.2 Parts list

Table 4.11.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-1PS	DKC AC Box	5509371-A	2	
		Dummy PNL ASSY	5510616-A	1	
		Base(AC BOX)	5510614-B	1	
		Upper Support	5510614-A	1	
		Partition(AC BOX)	3259558-1	1	
		Partition(Door)	5509372-1	1	
		Label(UL5)	5466325-1	1	
		Screw	SB306	6	
		Screw	SB408	14	
		Toothed Washer	WT004	4	Lock Washer
		WA Socket Bolt	3183095-408	2	
		Label	3257223-1	1	P250-1, P250-2
		Label(V/Hz)	2103353-1	1	
		Nameplate	2103342-3	1	DKC-F410I-1PS
		Nameplate	3259765-1	1	A5951-60005

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4.11.2.3 De-Installation Procedure of AC Box Kit for DKC

1. Remove the Cover.
   a. Remove the Front Logic Box cover from the Front Logic Box. Refer to page INST03-20.

2. Remove the Nameplate and the Labels.
   a. Remove the nameplate and the labels.

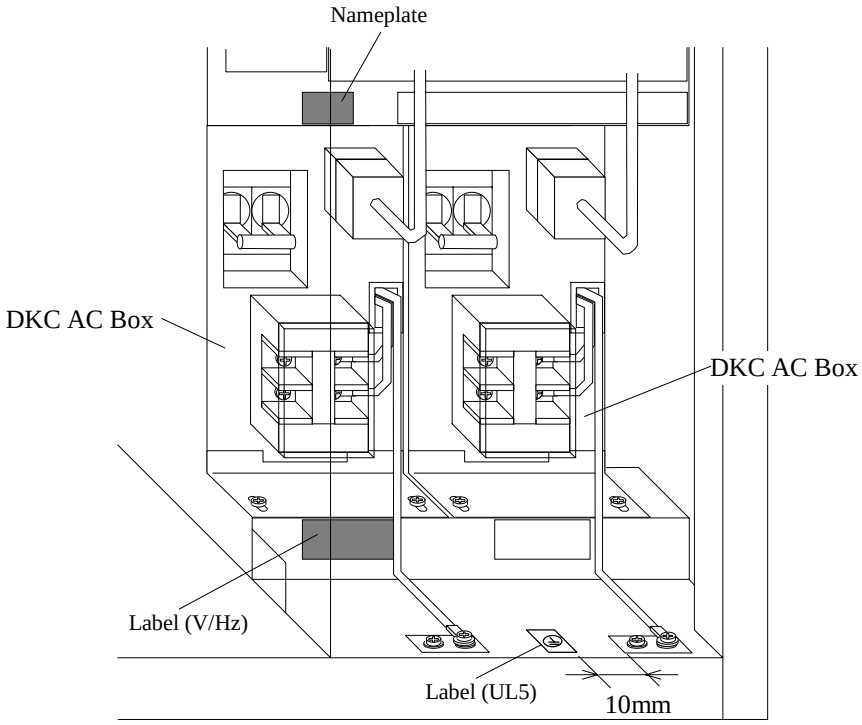


Fig. 4.11.2.3-1 Removal of Nameplate and label

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3. Remove the Partition (Door).
   a. Loosen the screw.
   b. Remove the Partition (Door) inside the front door and fasten the screw.

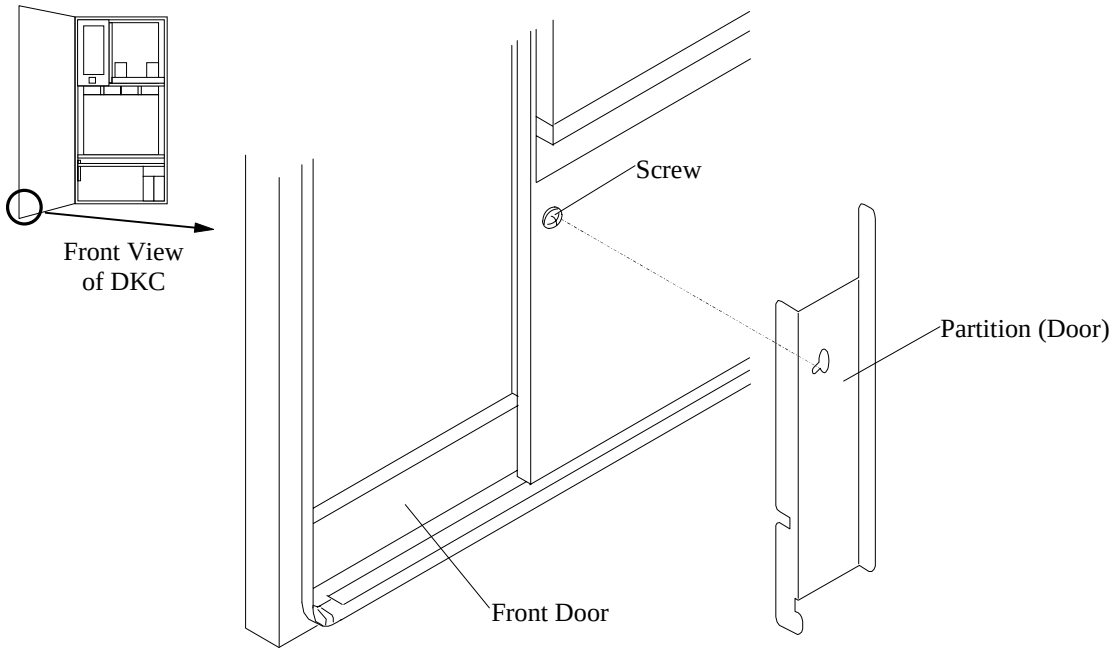


Fig. 4.11.2.3-2 Attachment of Partition (Door)

4. Remove the DKC AC Boxes.
   a. Disconnect the cables (P250-1 and P250-2) from the DKC AC Boxes.

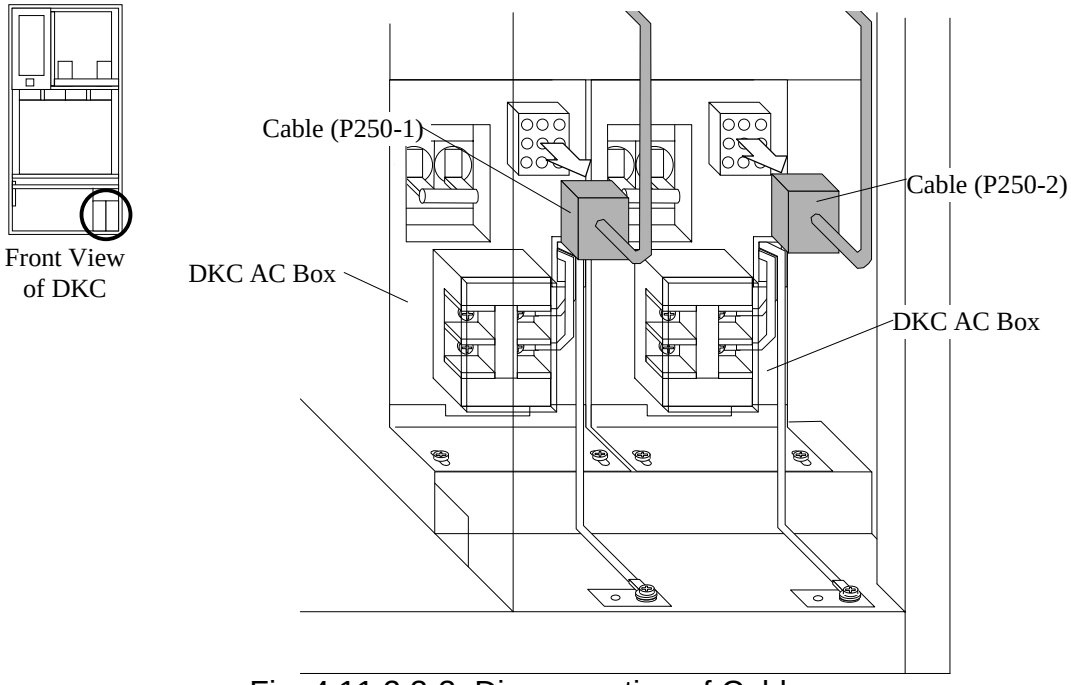


Fig. 4.11.2.3-3 Disconnection of Cables

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b. Remove the eight screws and the two lock washers.

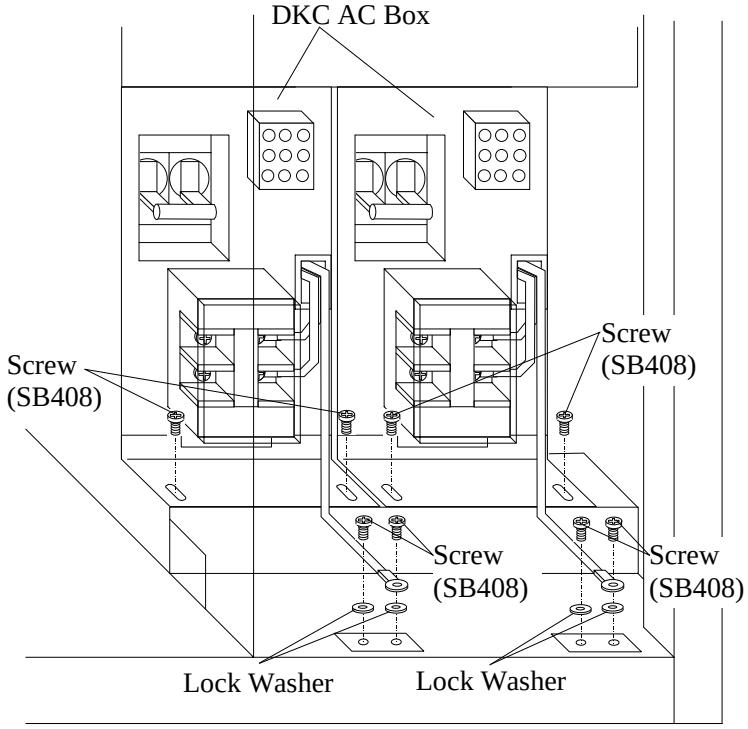


Fig. 4.11.2.3-4 Removal of Screws and Lock Washers

c. Remove the two DKC AC Boxes from the Base (AC Box).

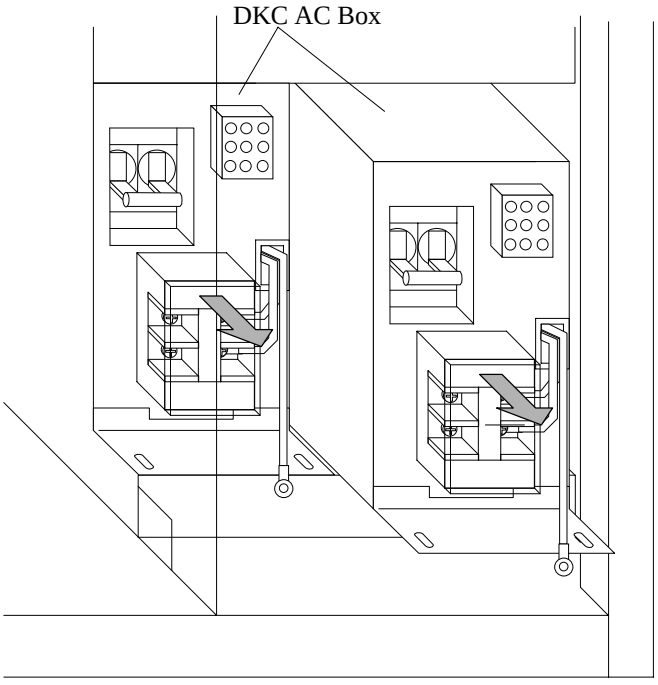


Fig. 4.11.2.3-5 Removal of DKC AC Boxes

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d. Loosen the four screws and remove the Partition (AC Box).

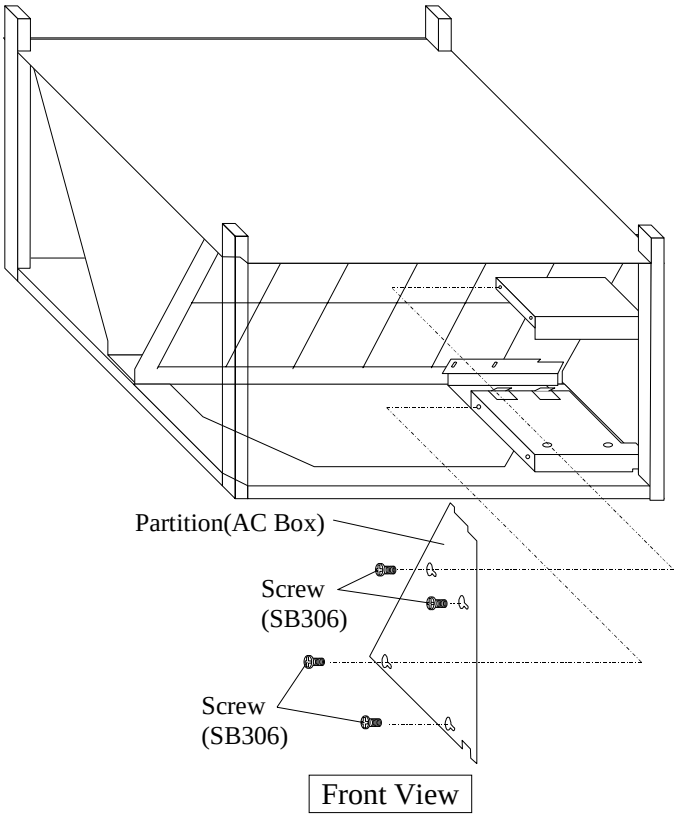


Fig. 4.11.2.3-6 Removal of Partition (AC Box)

e. Loosen the two screws ③ and remove the Upper Support. Loosen the screws ② and the two WA socket bolts and remove the Base (AC Box). Attach the two screws ① to the dummy plate.

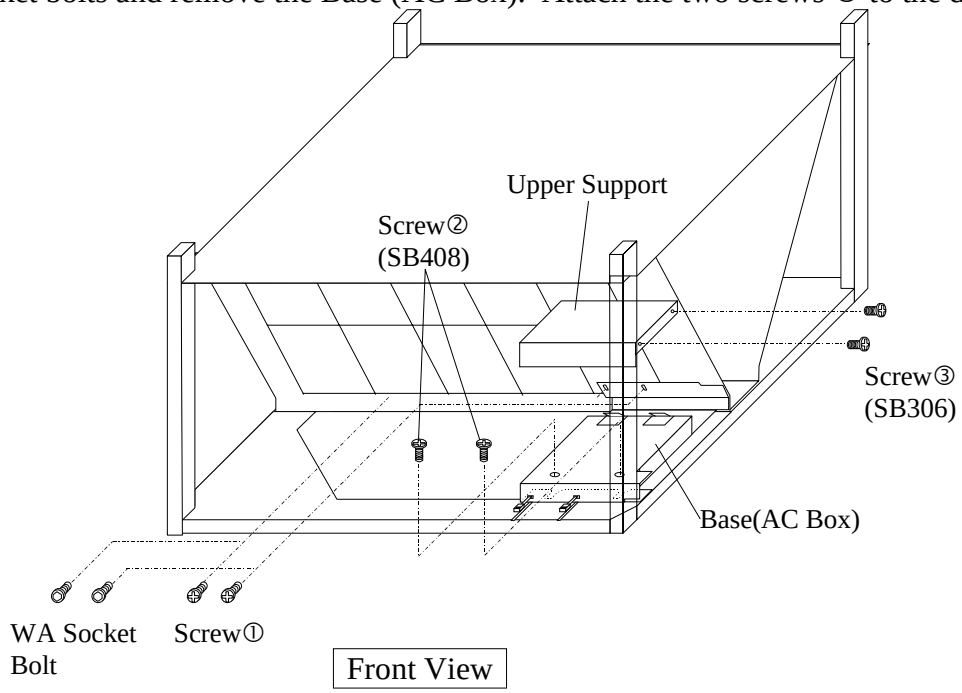
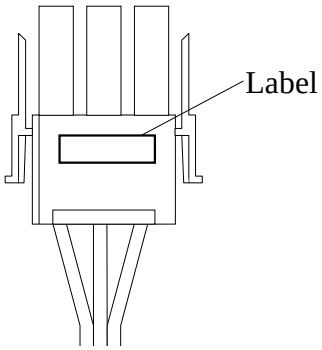


Fig. 4.11.2.3-7 Removal of Base (AC Box) and Upper Support

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f. Remove the old labels from the cables and attach the new labels.



Cable	Old Label	New Label	Remarks
1	P250-1	→ P103-1	
2	P250-2	→ P103-2	

Fig. 4.11.2.3-8 Exchange of Labels

5. Change the Dummy Plate.
   a. Open the repeat binder to remove the AC cables.
   b. Loosen the four screws and remove the Dummy PNL ASSY.
   c. Open the edging saddle.

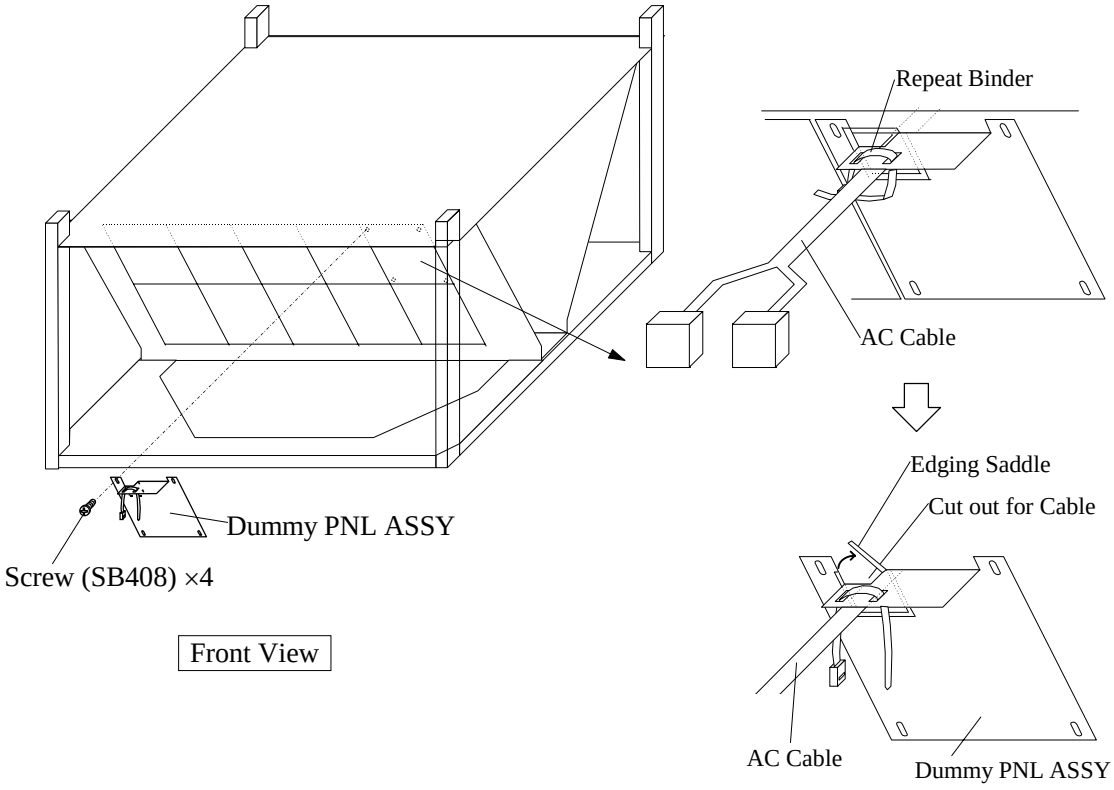


Fig. 4.11.2.3-9 Removal of Dummy PNL ASSY

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d. Attach the dummy plate with the four screws.

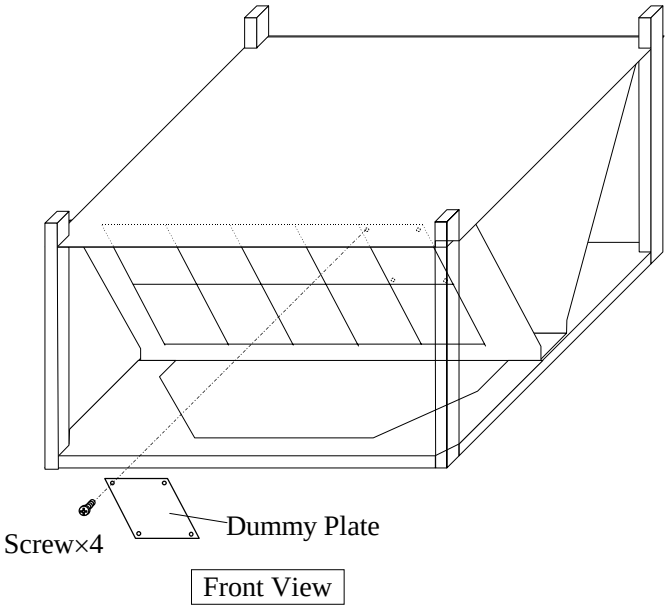


Fig. 4.11.2.3-10 Attachment of Dummy Plate

e. Remove the AC cables from the cable duct.

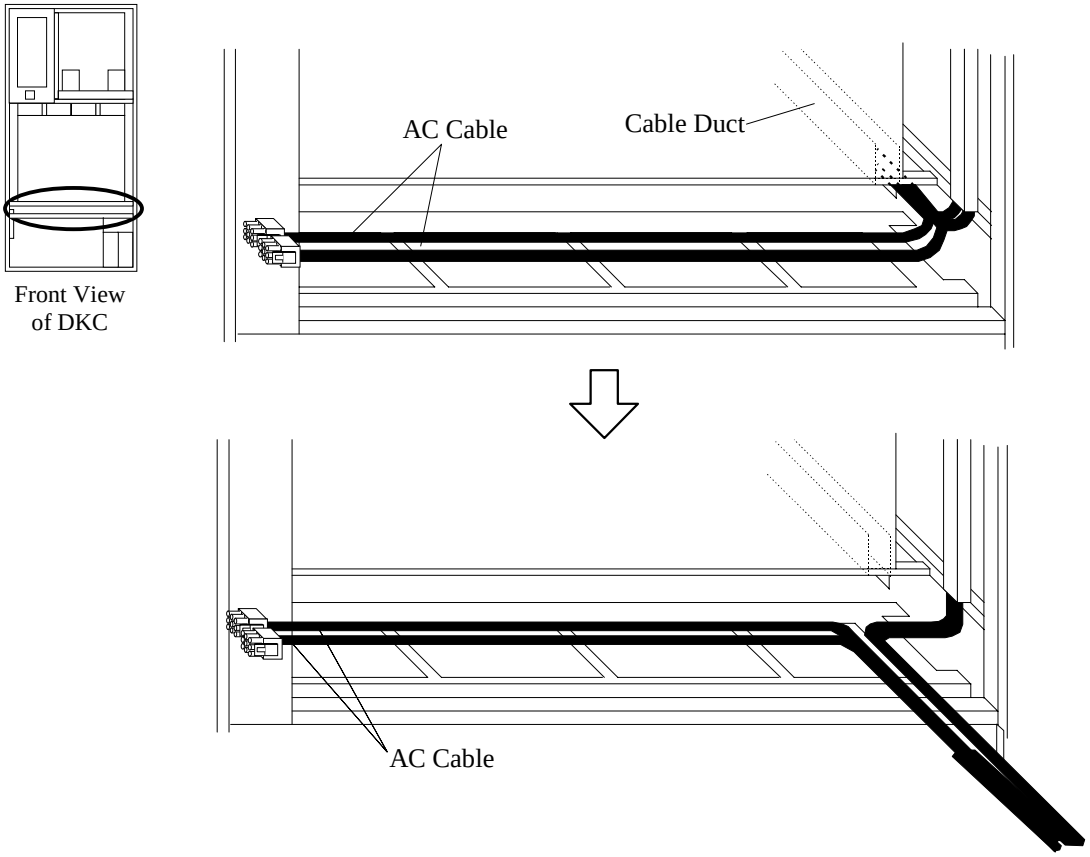


Fig. 4.11.2.3-11 Removal of AC Cables

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f. Insert the AC Cables to the cable duct.

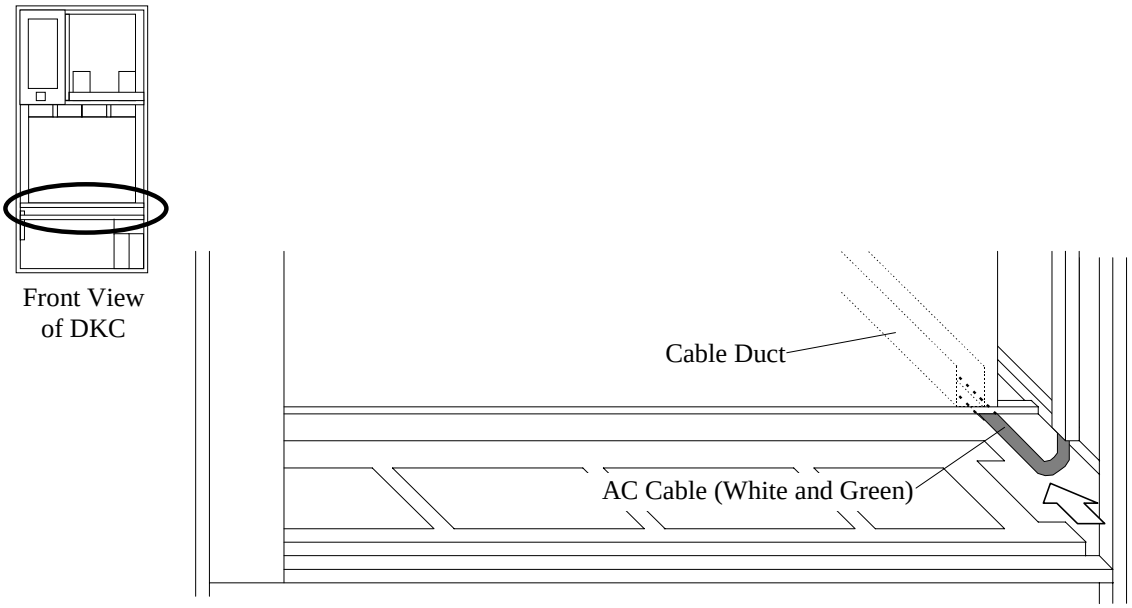


Fig. 4.11.2.3-12 Insertion of AC Cables

g. Bind the AC cables (P103-1 and P103-2) with the repeat binders.

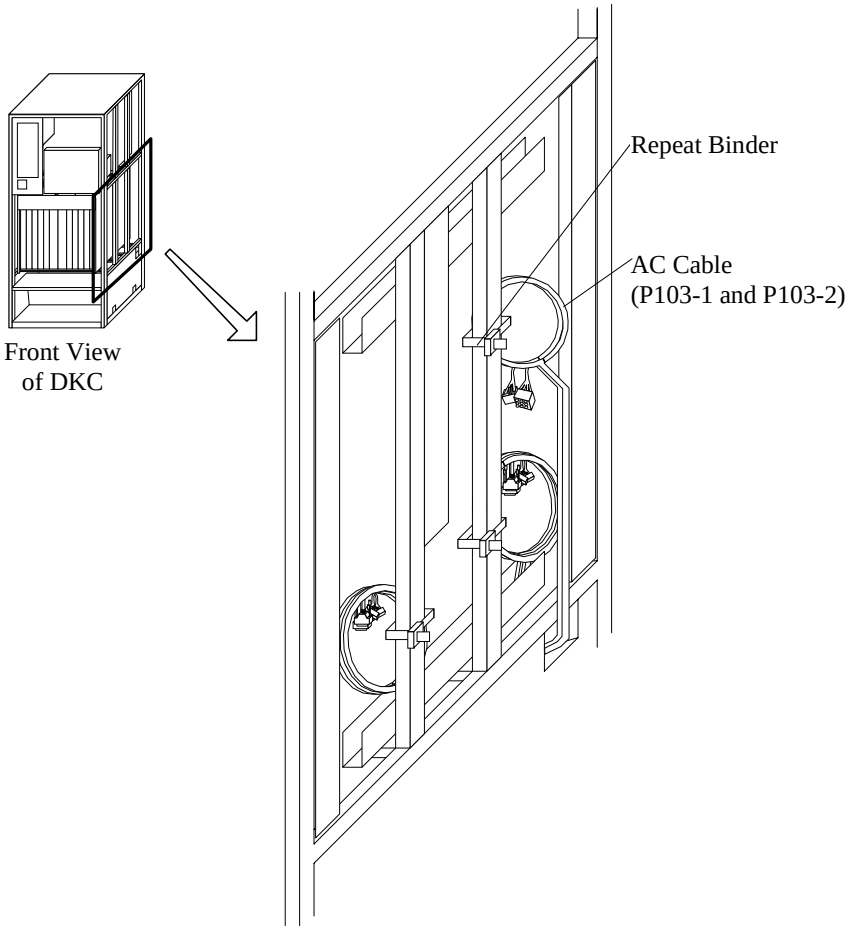


Fig. 4.11.2.3-13 Binding of AC Cables

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h. Attach the Front Logic Box cover to the Front Logic Box. Refer to page INST03-20.

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4.12 De-Installation of SNMP Support Kit (DKC-F410I-SNMP)

4.12.1 Flowchart

(1) The file on Flash Memory Card are moved to HD.
↓
(2) Remove the SVP Cover.
↓
(3) Replace the Flash Memory Card.
↓
(4) Remove the LAN Port.
↓
(5) Attach the SVP Cover.
↓
(6) Remove the Nameplate.

4.12.2 Parts List

Table 4.12.2-1 Parts List

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F410I-SNMP	LAN Port	5509116-A	1	
		USB-LAN Driver FD		1	
		Flash Memory Card	5509140-A	1	64MB Flash Memory
		Repeat Binder	5409042-3	1	
		Nameplate	3257216-36	1	

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4.12.3 De-Installation Procedure of SNMP Support Kit

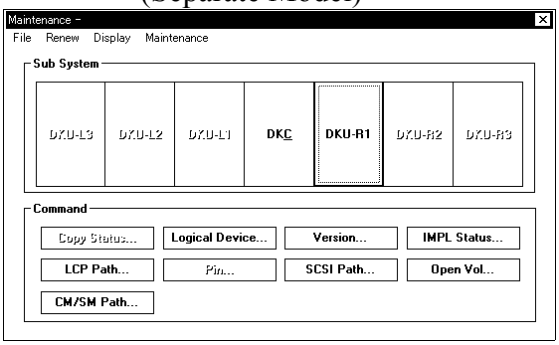
1. The file on Flash Memory Card are moved to HD.
   Disruptive De-Installation: Go to 2.
   Non-Disruptive De-Installation: Go to (1)

(1) Set the “SVP PS ON/OFF INH jumper” (JP2) [LOCATION06-50]

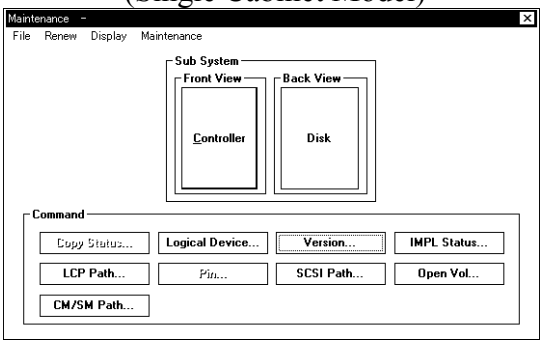
(2) <Operation mode change>
Change the mode to [Modify Mode].
Select (CL) [Maintenance].

(3) <Maintenance window>
‘Maintenance’ window is displayed.

(Separate Model)



(Single Cabinet Model)



NOTICE
Complete SIM before operation.

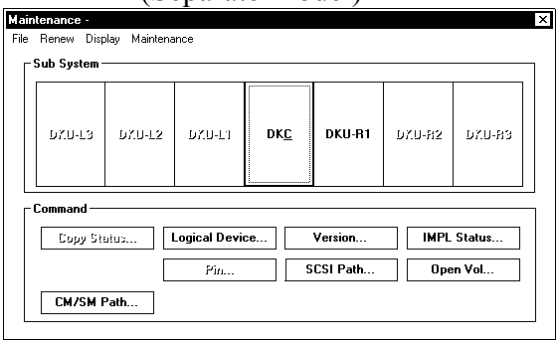
Copyright ©2000, Hitachi, Ltd.

(4) <Maintenance window>
'Maintenance' window is displayed.

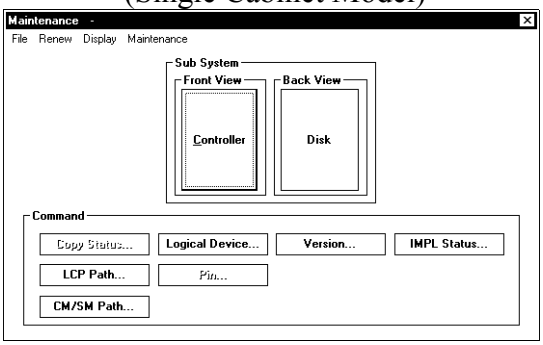
(Separate Model)
In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

(Single Cabinet Model)
In the "Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)

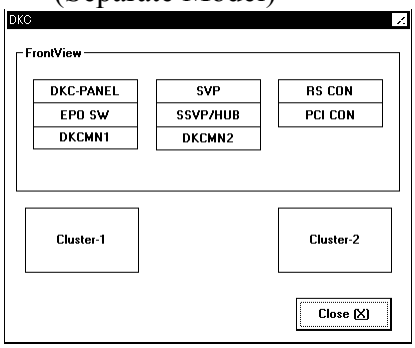


(5) <Specify special part>

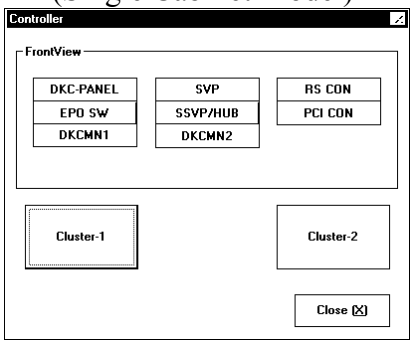
(Separate Model)
Select (CL) part [SVP] to be replaced from 'DKC'.

(Single Cabinet Model)
Select (CL) part [SVP] to be replaced from 'Controller'.

(Separate Model)

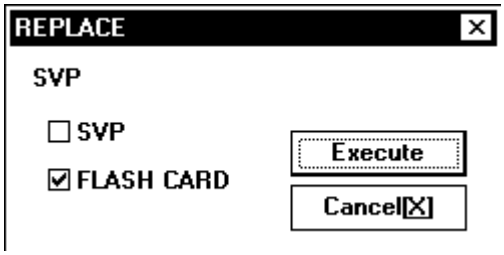


(Single Cabinet Model)

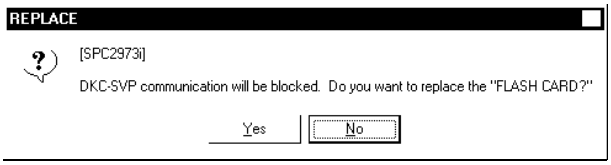


Copyright ©2000, Hitachi, Ltd.

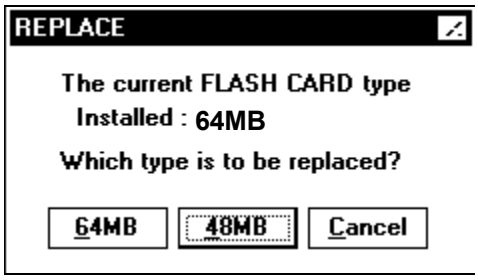
(6) <Execute>
a) Select (CL) replacement parts “FLASH CARD”. (with a check mark)
b) Check box on the left of “SVP” is ☐. (without a check mark)
c) Select (CL) [Execute].



(7) <Check beginning of special part Replacement>
Select (CL) [Yes] in response to “Do you want to replace the "FLASH CARD"”.

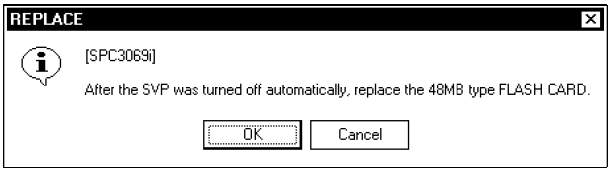


(8) <Select the type of maintenance part>
Select (CL) [48MB] in response to “The current FLASH CARD type Installed : xxxx
Which type is to be replaced?”.
xxxx : The installed FLASH CARD type
48MB : 48MB type
64MB : 64MB type
UNKNOWN : The FLASH CARD type cannot be gotten.



(ex. 64MB type is installed)

(9) <Check beginning of FLASH CARD Replacement>
The message “After the SVP was turned off automatically, replace the 48MB type FLASH CARD.” is displayed.



Select (CL) [OK], so it will reboot the SVP, and the files on FLASH CARD are moved to HD. Then SVP is turned off automatically.

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2. Remove the SVP Cover.
   a. Open the SVP Assy.
   b. Loosen the two screws and remove the SVP cover.

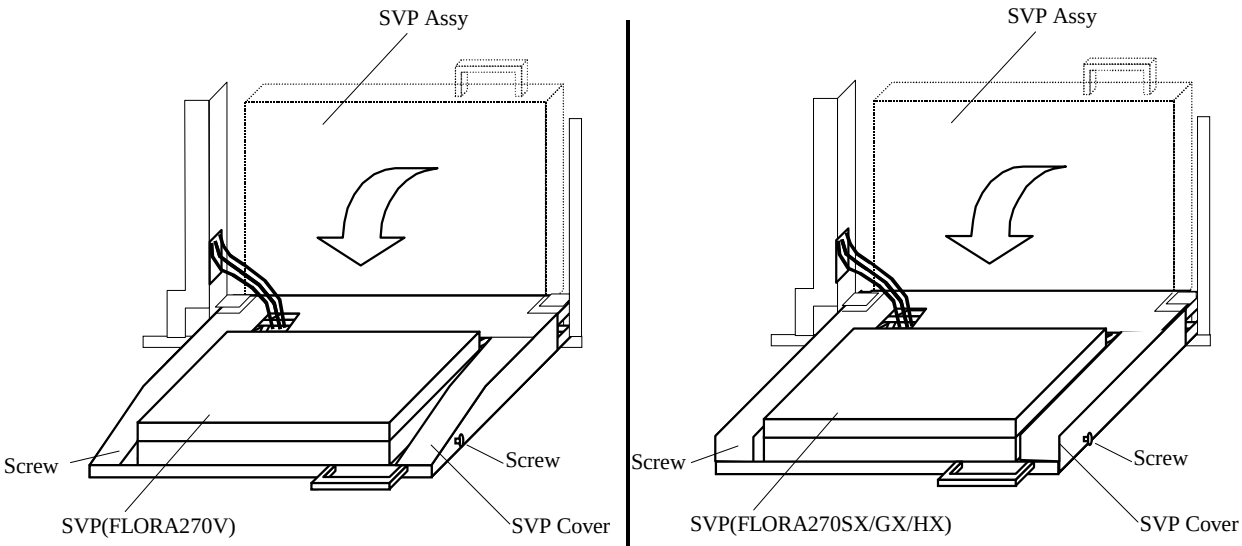
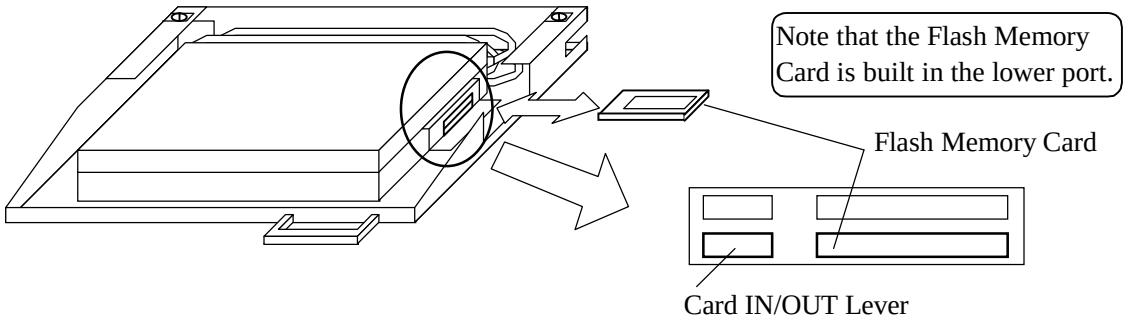


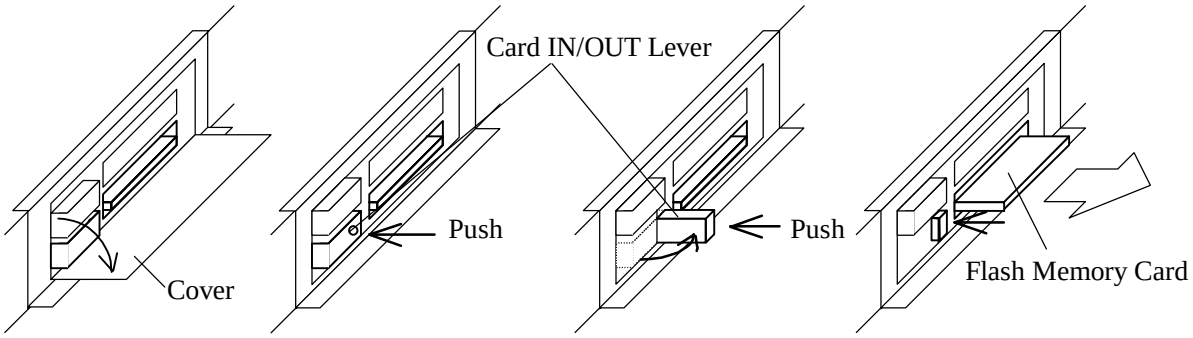
Fig. 4.12.3-1 Removal of SVP Cover

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3. Replace the Flash Memory Card.
   a. Operate the card IN/OUT lever to remove the Flash Memory Card (64MB Flash Memory Card) from SVP referring to Fig.4.12.3-2, Fig.4.12.3-3, Fig.4.12.3-4 or Fig. 4.12.3-5.
   b. Insert the Flash Memory Card (48MB Flash Memory Card).

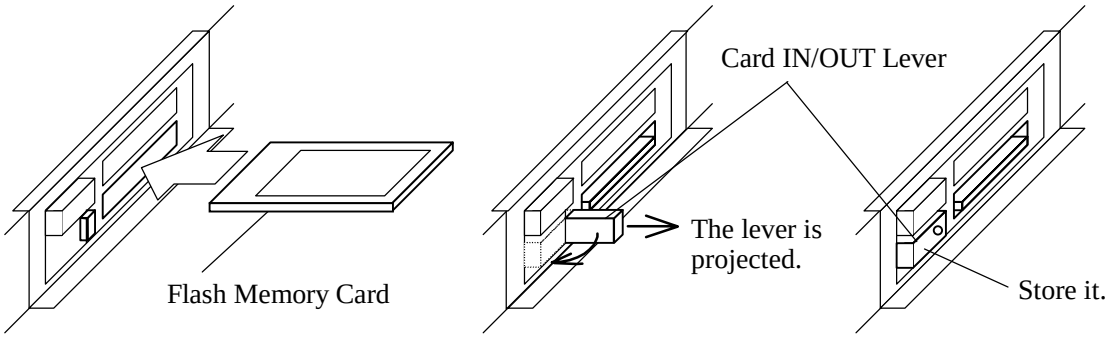
For FLORA270V





① Open the cover. ② Push the right side of the card IN/OUT lever to stand the lever. ③ Push the lever to remove the Flash Memory Card.

How to remove the Flash Memory Card



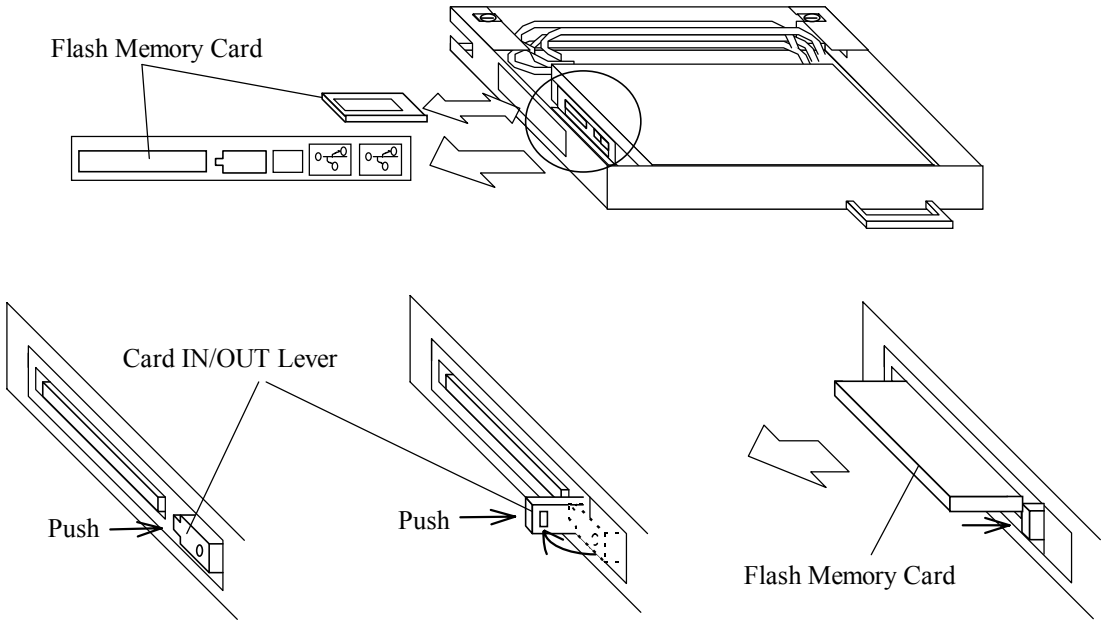
④ Insert the Flash Memory Card.(At this time, the IN/OUT lever is projected.) ⑤ Store the projected lever.

Installing the Flash Memory Card

Fig. 4.12.3-2 Replacement of Flash Memory Card

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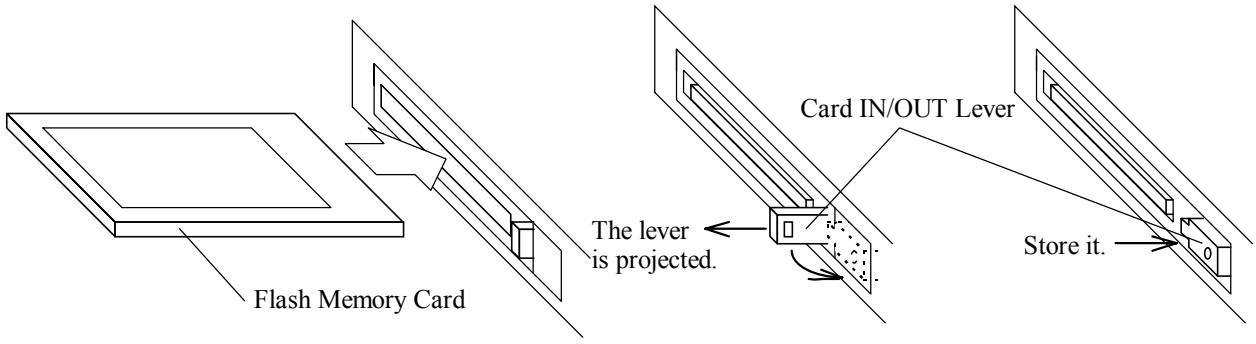
For FLORA270SX



① Push the right side of the card IN/OUT lever to stand the lever.

② Push the lever to remove the Flash Memory Card.

How to remove the Flash Memory Card



③ Insert the Flash Memory Card.(At this time, the IN/OUT lever is protected.)

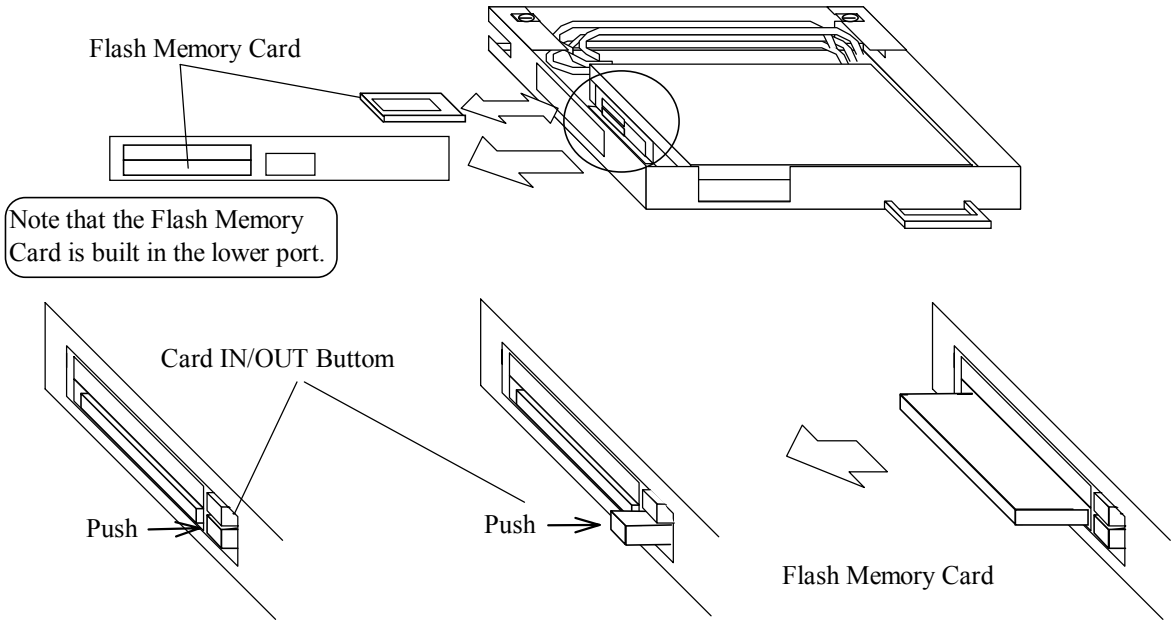
④ Store the projected lever.

Installing the Flash Memory Card

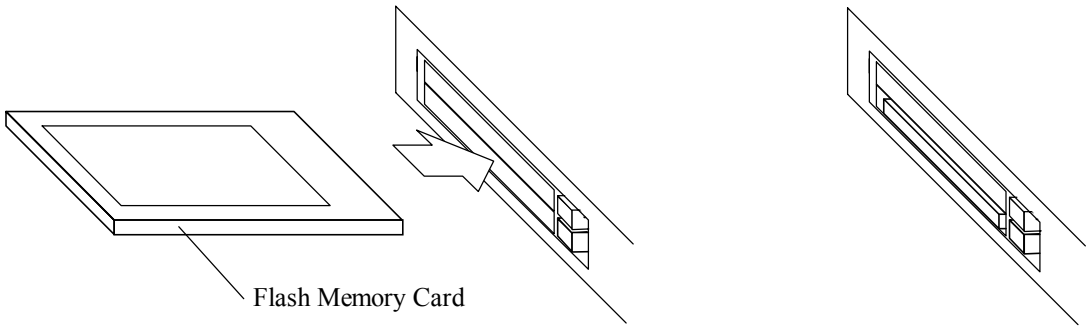
Fig. 4.12.3-3 Replacement of Flash Memory Card

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For FLORA270GX



How to remove the Flash Memory Card

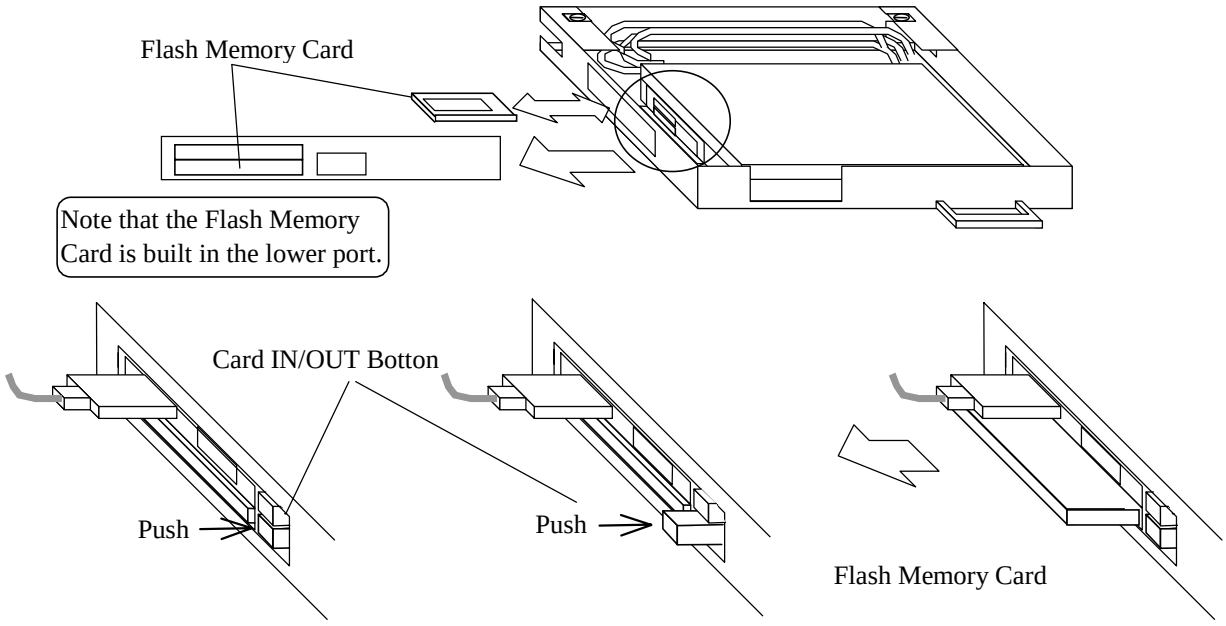


Installing the Flash Memory Card

Fig. 4.12.3-4 Replacement of Flash Memory Card

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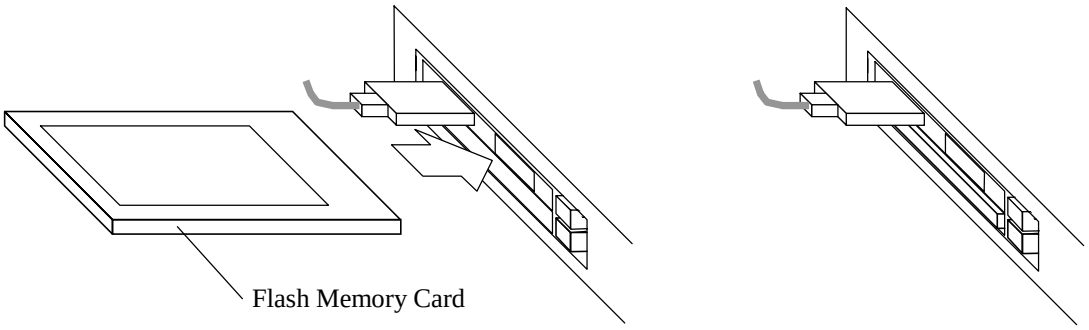
For FLORA270HX



① Push the card IN/OUT Button.

② Push the card IN/OUT Button to remove the Flash Memory Card.

How to remove the Flash Memory Card



③ Insert the Flash Memory Card.

Installing the Flash Memory Card

Fig. 4.12.3-5 Replacement of Flash Memory Card

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4. Remove the LAN Port.
   a. When the FLORA270V SVP is removed, loosen the screw and remove the cable cover.
      When the FLORA270V SVP is not removed, go to step b.

For FLORA270V

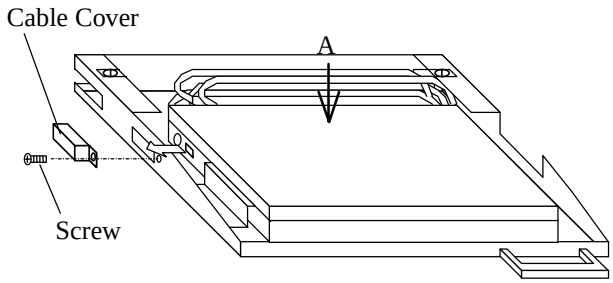
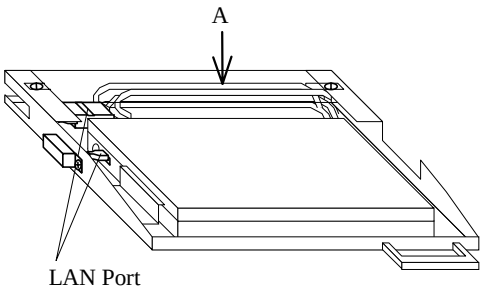


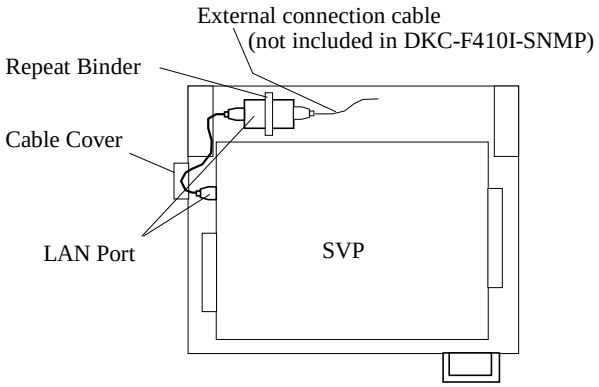
Fig. 4.12.3-5 Removal of Cable Cover

   b. Disconnect the external connection cable from the USB adapter or LAN adapter referring to Fig. 4.12.3-6, Fig. 4.12.3-7, Fig. 4.12.3-8 or Fig. 4.12.3-9.
   c. When the FLORA270GX SVP is removed, remove the LAN cable from the ferrite filter.
      When the FLORA270GX SVP is not removed, go to step d.
d. When the FLORA270HX SVP is not removed, open the repeat binder and remove the LAN Port.

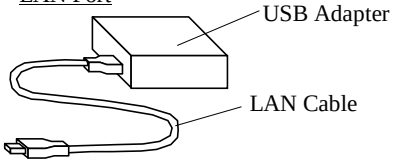
For FLORA270V

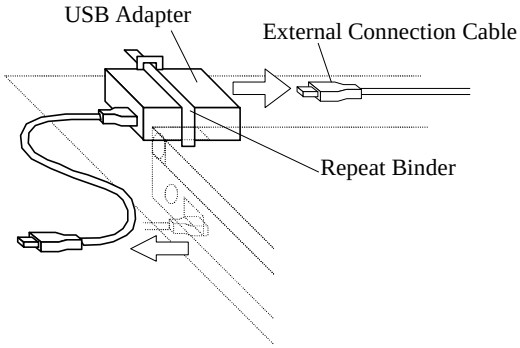


Viewed the SVP Assy from A



LAN Port





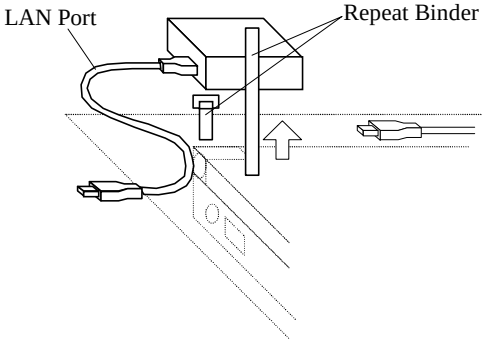


Fig. 4.12.3-6 Removal of LAN Port

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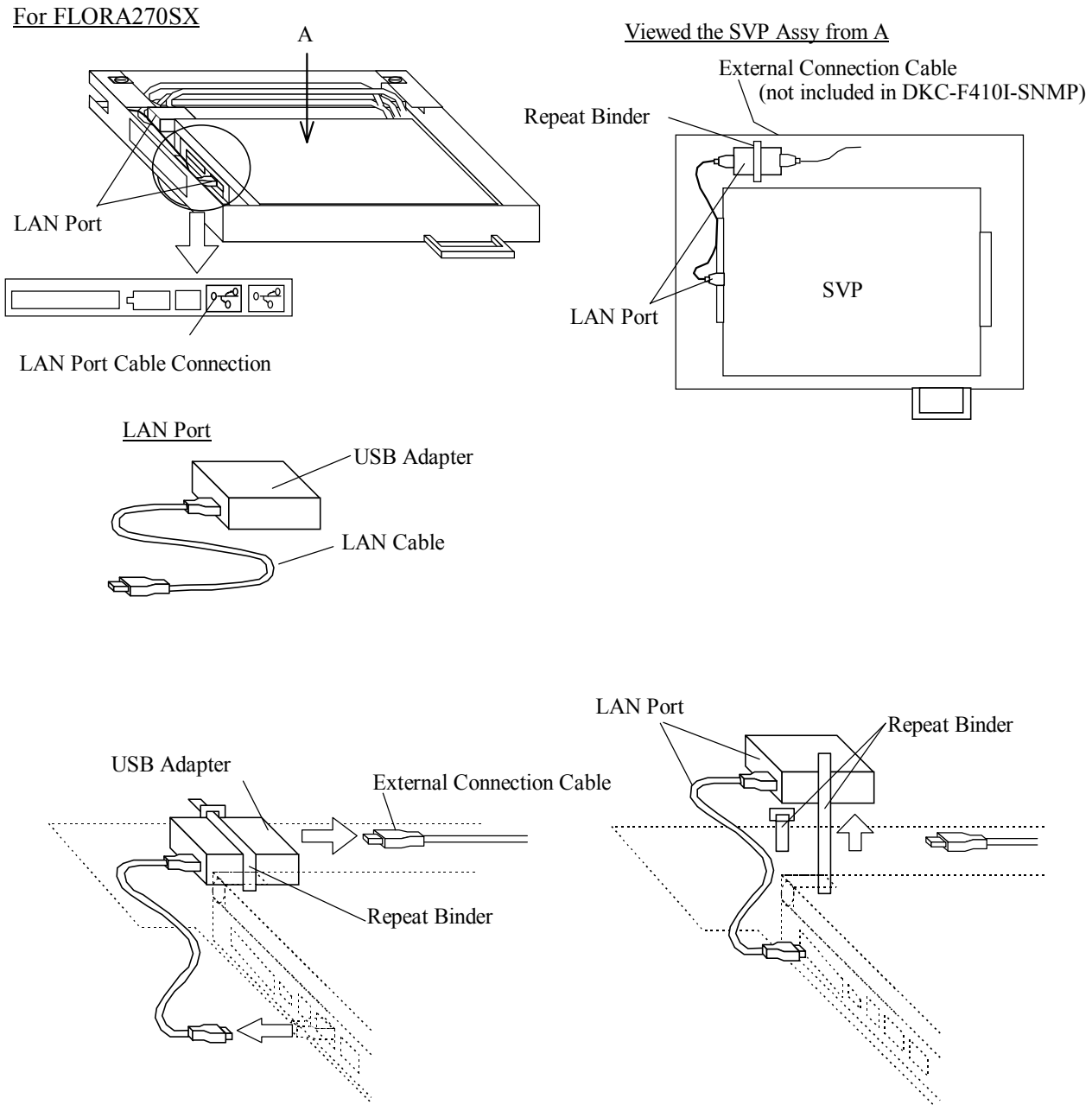


Fig. 4.12.3-7 Removal of LAN Port

Copyright ©2000, Hitachi, Ltd.

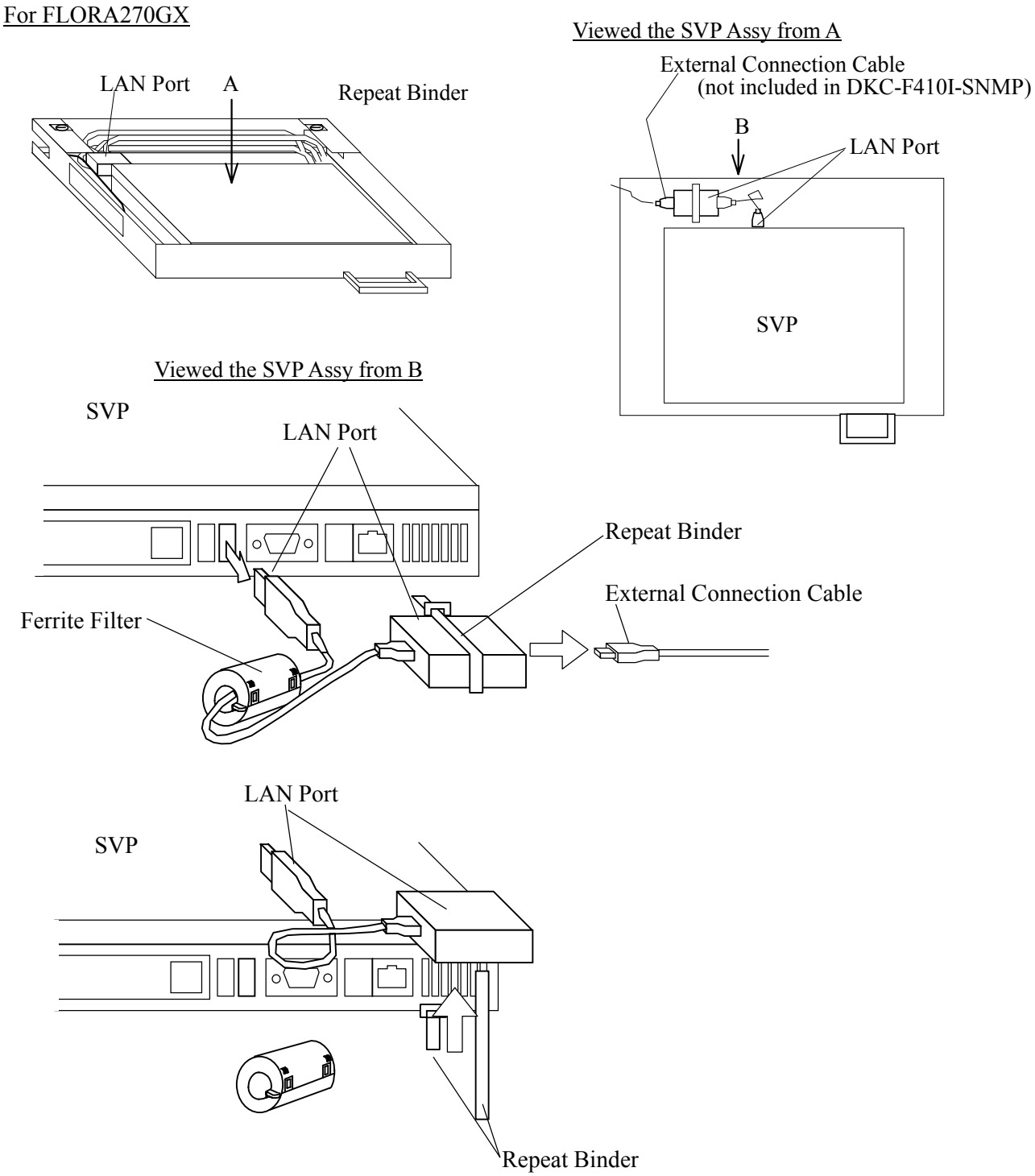


Fig. 4.12.3-8 Removal of LAN Port

Copyright ©2000, Hitachi, Ltd.

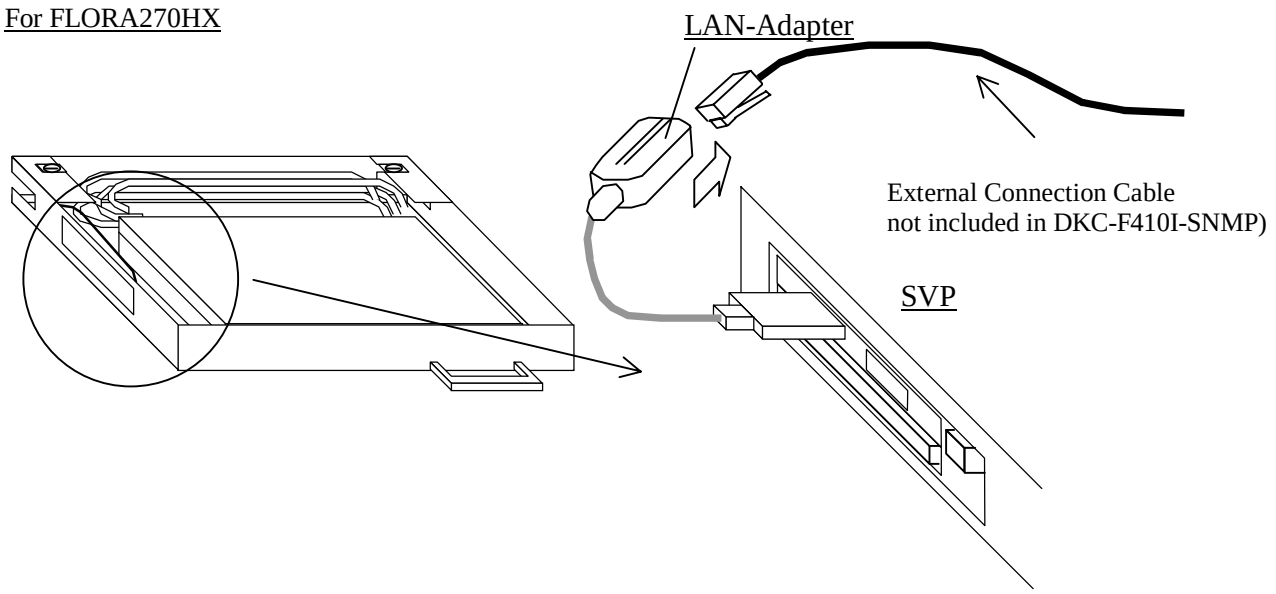


Fig. 4.12.3-9 Disconnect the external connection cable

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5. Attach the SVP Cover.
   a. Attach the SVP Cover with the two screws referring to Fig. 4.12.3-1.

6. Remove the Nameplate.

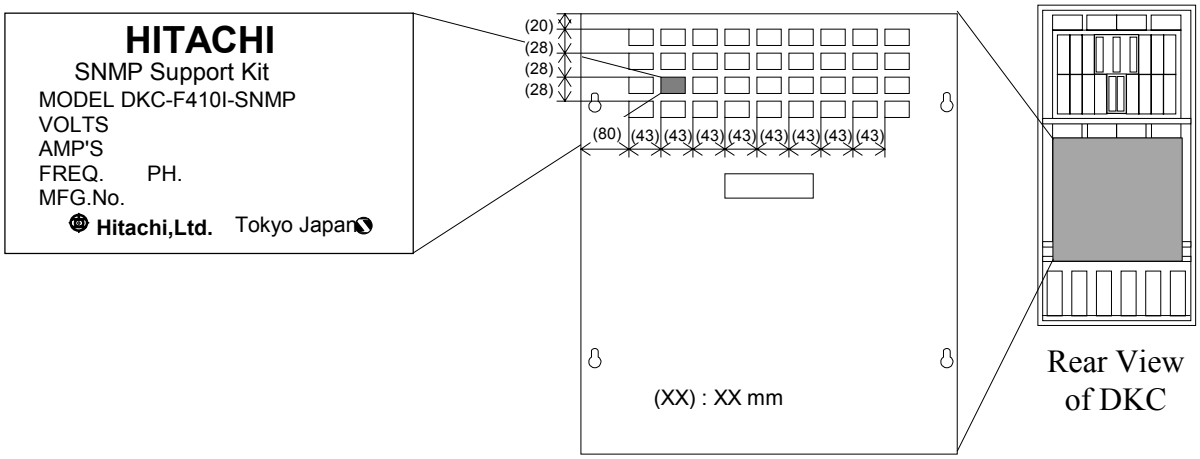


Fig. 4.12.3-9 Removal of Nameplate

7. Remove "SVP PS ON/OFF INH jumper" (JP2).
   Disruptive De-Installation: Go to 8.
   Non-Disruptive De-Installation:
   Remove the "SVP PS ON/OFF INH jumper" (JP2) [LOCATION06-50]

8. Return to General Flow.
   Non-Disruptive De-Installation : Go to INST02-180 "END"
   Disruptive De-Installation : Go to INST02-290 step (16).

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5 SVP procedure

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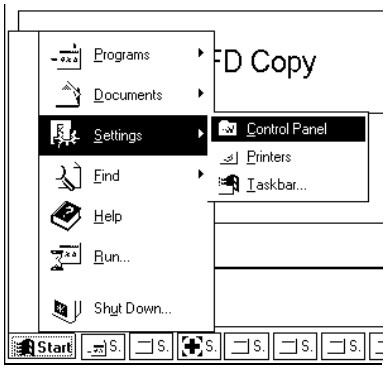
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5.2 New Installation SVP Procedure

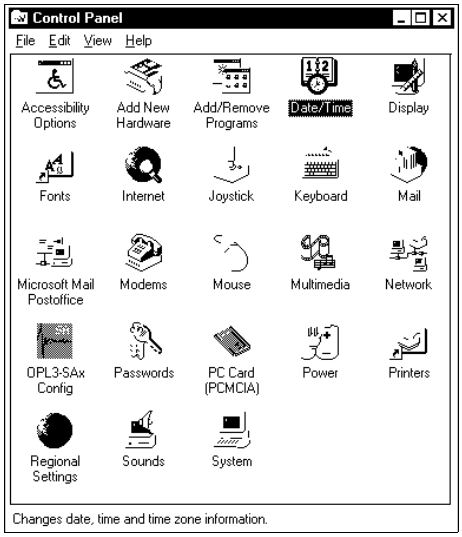
5.2.1 TOD Setting and Set IP Address

[1] TOD Setting (Turn on subsystem power before TOD Setting)

1. <Open [Control Panel]>
   Select (DR) [Settings] and then [Control Panel] from [Start].

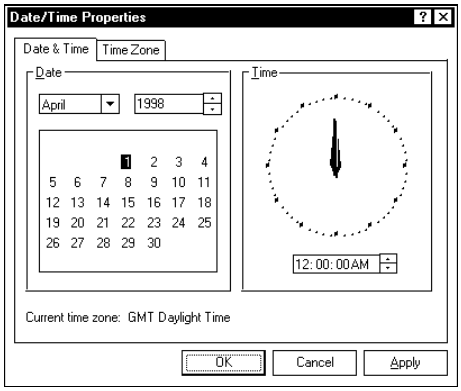


2. <Open [Date/Time]>
   Select (DC) [Date/Time] from [Control Panel].

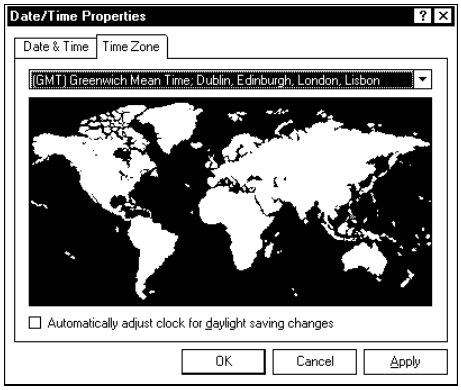


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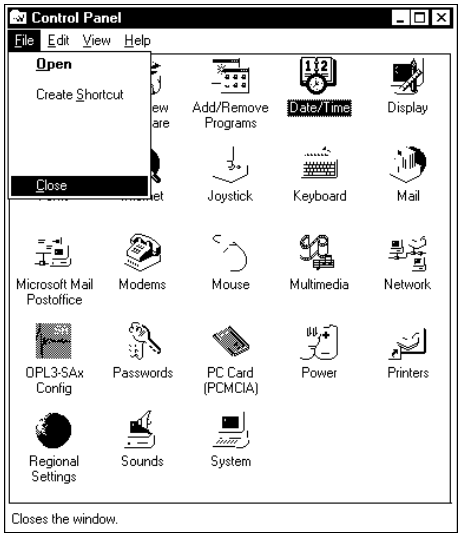
3. <Select [Time Zone]>
Select (CL) [Time Zone].



4. <Check the setting of [Time Zone]>
Make sure that the setting of [Time Zone] is "[GMT] Greenwich Mean Time; Dublin, Edinburgh, London, Lisbon". Also, make sure that a check box on the left of "Automatically adjust clock for daylight saving changes" is ☐ (without a check mark). Then, press [OK] (CL).



5. <Close [Control Panel]>
Select (DR) [File] and then [Close] from [Control Panel].



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6.

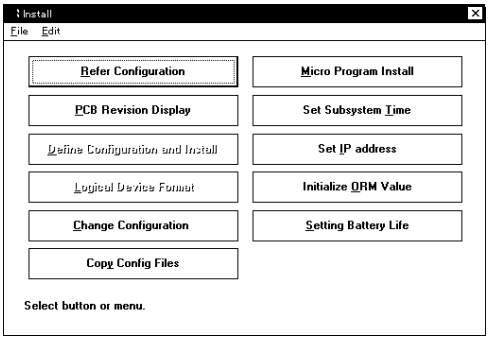
Change the mode to [Modify Mode] from [View Mode] (CL).

7.

Select (CL) [Install].

8.

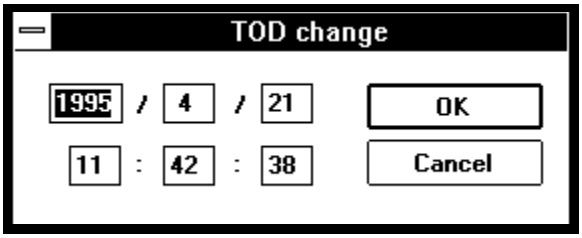
Select (CL) [Set Subsystem Time] in the 'Install' window.



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9.

Specify the date (year, month and day) and time (hour, minute and second) and select (CL) [OK].



10.

Close the ‘Install’ window.

In case of New Installation, go to INST02-530 step (5).

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[2] Set IP Address

1.

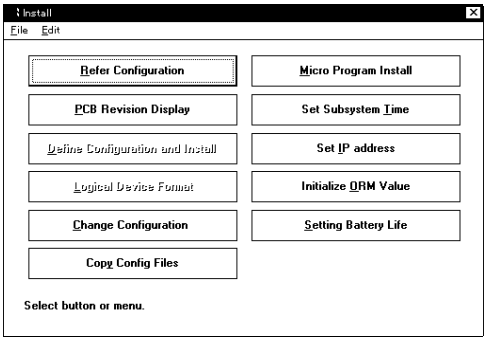
Change the mode to [Modify Mode] from [View Mode] (CL).

2.

Select (CL) [Install].

3.

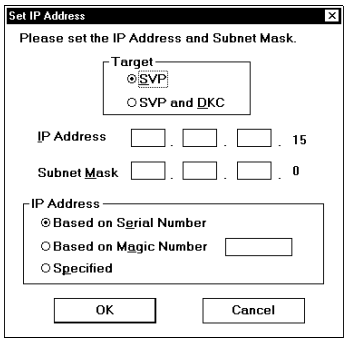
Select (CL) [Set IP address] in the ‘Install’ window.



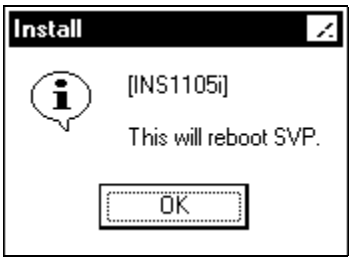
Copyright ©2000, Hitachi, Ltd.

4. <Change the IP Address>

(i) Select (CL) [SVP] and then select (CL) [OK] after entering IP Address and Subnet Mask.



(ii) In response to the message “This will reboot SVP.”, select (CL) [OK].



In case of New Installation, go to INST02-540 step (7).

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5.2.2 Configuration Information Definition

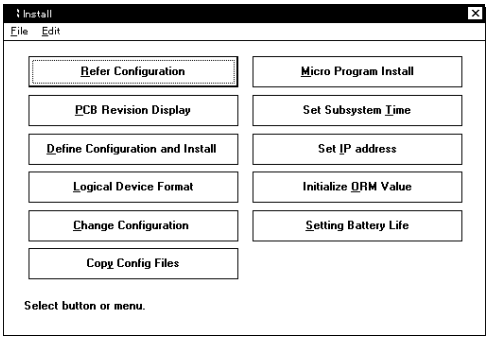
NOTICE
This operation is necessary only when a subsystem is newly installed. It is not performed afterward. If it is performed by mistake, a system down or a data loss may be caused.

⚠ CAUTION
There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

1. <Mode Change>
   Change the mode to INITIAL SETUP Mode.
   Select "Shift" + "Ctrl" + "I".

   Enter the password and select (CL) [OK].
   Please call Technical Support Center for asking it.
   Select (CL) [Install].

2.
   Select (CL) [Define Configuration and Install...].

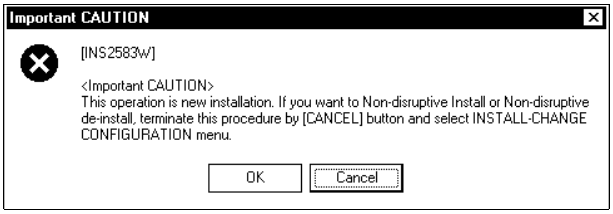


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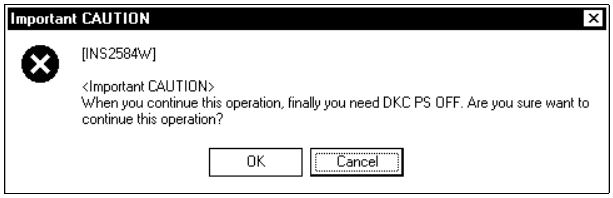
NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if executed in an occasion other the new subsystem installation, and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

3.

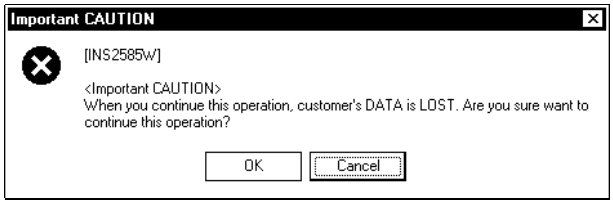
(1) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
This Operation is new installation. If you want to Non-disruptive Install or Non-disruptive de-install, terminate this procedure by [CANCEL] button and select INSTALL-CHANGE CONFIGURATION menu.".



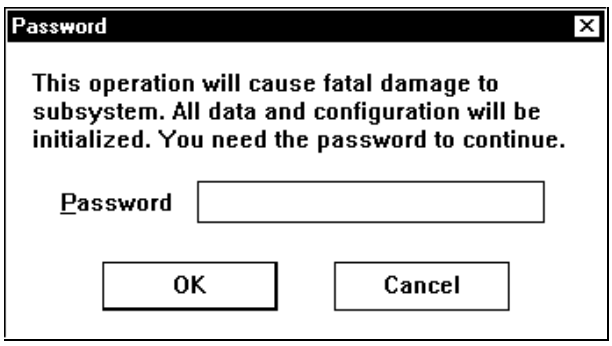
(2) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, finally you need DKC PS OFF. Are you sure want to continue this operation?".



(3) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, customer's DATA is LOST. Are you sure want to continue this operation?".

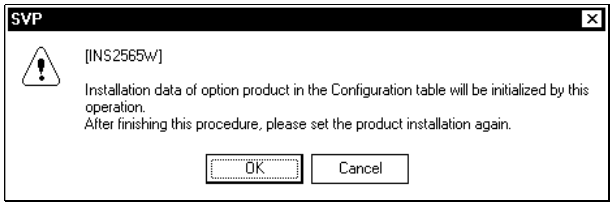


(4) Enter the password and select (CL) [OK].
Entering the password is required in this operation.
Please call Technical Support Center for asking it.



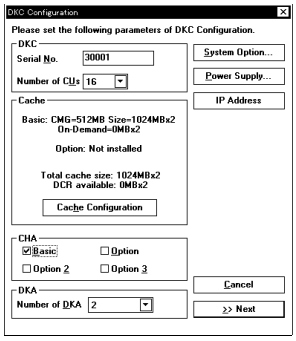
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(5) Select (CL) [OK] in response to the confirmation message “Installation data of option product in the Configuration table will be initialized by this operation. After finishing this procedure, please set the product installation again.”.



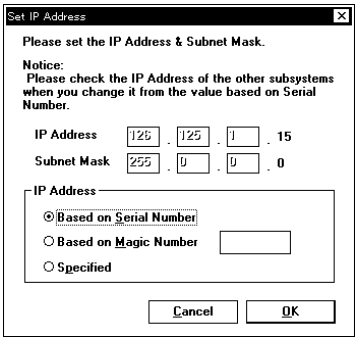
4. <Define configuration information>

Define the device configuration information from ‘DKC Configuration’ according to the device configuration worksheet.
After defining all input items is completed, select (CL) [>>Next].
If [Cache Configuration] is selected, ‘Cache Configuration’ dialog box is displayed. (See step 4-2.)
If [System Option] is selected, ‘System Option’ dialog box is displayed. (See step 4-3.)
If [Power Supply] is selected, ‘Redundant Power Supply’ dialog box is displayed. (See step 4-4.) (Separate Model only)
If [Cancel] is selected, this procedure is terminated.



4-1. <Setting IP Address>

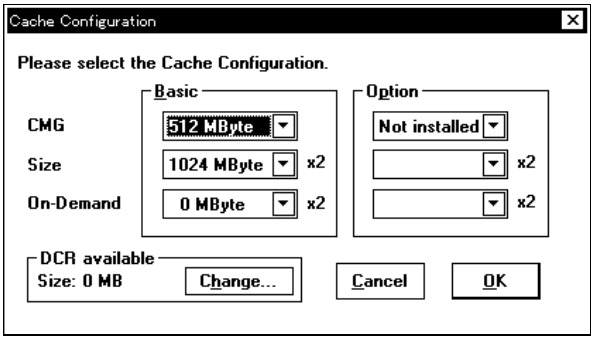
Set the IP Address and Subnet Mask in the ‘Set IP Address Configuration’ dialog box.
After setting up all items, select (CL) [OK].
Go to step 4.
Selecting (CL) [Cancel] returns you to step 4.



4-2. <Define Cache Capacity>

Define the cache capacity in the ‘Cache Configuration’ dialog box.
If you want to use DCR, select (CL) [Change...] to set DCR available size. (See SSD Optional Function Section)

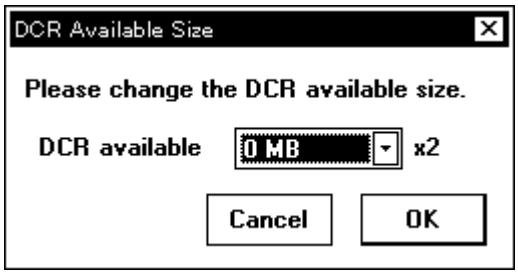
Note: In case of Single Cabinet Model, Option is not displayed.



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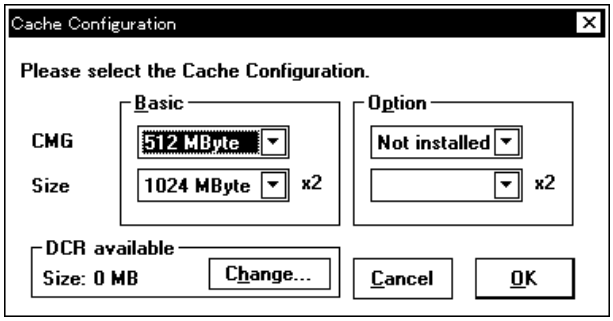
4-2-1. <Define DCR Available Size>

Define the DCR available size in the 'DCR Available Size' dialog box.
And select (CL) [OK].
Go to step 4-1.
Selecting (CL) [Cancel] returns you to step 4-1.



4-2-2.

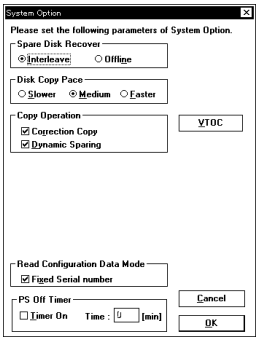
Select (CL) [OK].
Go to step 4.
Selecting (CL) [Cancel] returns you to step 4.



4-3. <Define System Options>

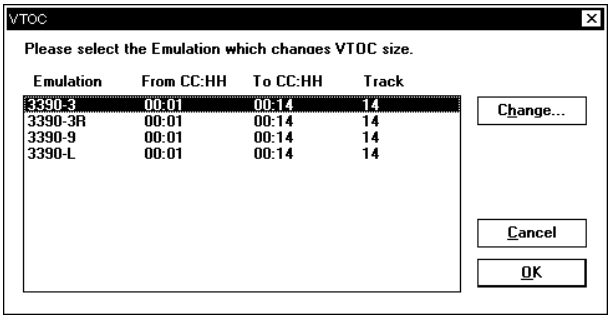
Define the device configuration information from 'System Option Setup' according to the device configuration worksheet.
[VTOC]: Setting the VTOC size. Go to step 4-3-1.

After setting up all items, select (CL) [OK].
Go to step 4.
Selecting (CL) [Cancel] returns you to step 4.



4-3-1.

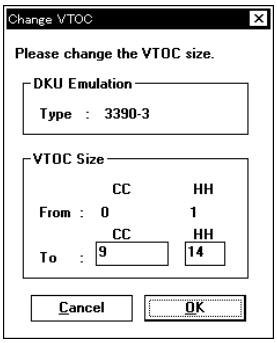
Select (CL) the DKU Emulation to be defined and select (CL) [Change...]. Go to step 4-3-2.
After setting up all items, select (CL) [OK].
Return to step 4-3.



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4-3-2.

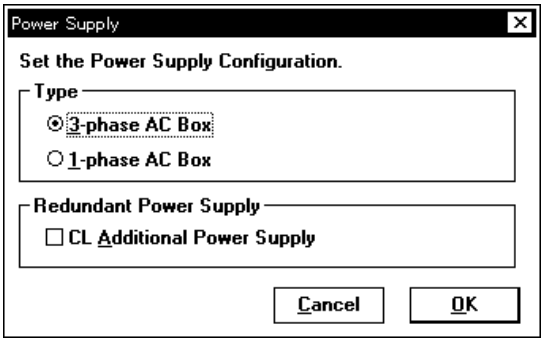
Setting the VTOC Size (to CC:HH), and select (CL) [OK].
Return to step 4-3-1.



4-4. <Set Power Supply>

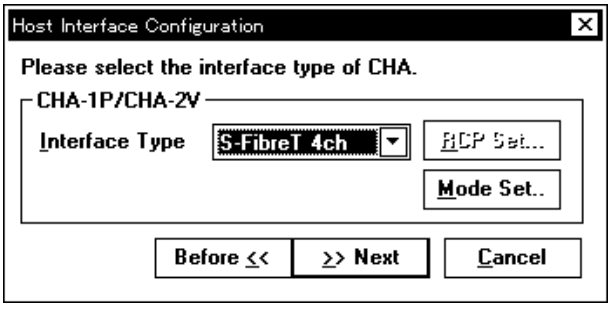
Set the power supply information in the 'Redundant Power Supply' dialog box.
After setting up all items, select (CL) [OK].
Go to step 4.
Selecting (CL) [Cancel] returns you to step 4.

Note: In case of Single Cabinet Model,
'Power Supply' dialog box is not displayed.



5. <Setting channel type>

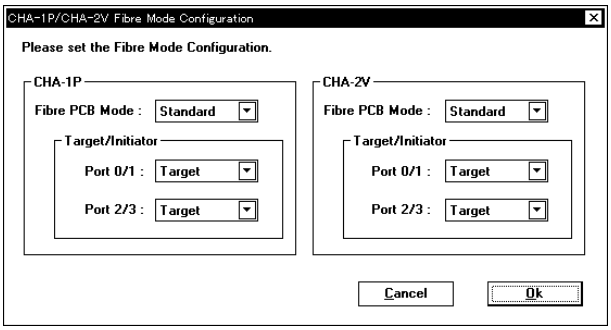
Set the subsystem configuration information in the 'Host Interface Configuration' window according to the subsystem configuration information work sheet.
When [Fibre T] is selected to set the HRC/ HORC or to change the Fibre PCB Mode, select (CL) [Mode Set ...] and go to step 5-1.
When [Serial 2 ch] or [Serial 4 ch] is selected to set the HRC/ HORC, select (CL) [RCP Set...] and go to step 5-2.
Or, when [>>Next] is selected (CL), the routine proceeds to step 5.3.
(Execute the operation above for all the channels installed.)
After all the items are set, select (CL) [>>Next]. Go to step 7.
When [Before<<] is selected (CL), the screen is returned to the previous one.



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5-1. <Setting Fibre Mode>

Set the 'Target/ Initiator' in the 'Fibre Mode Configuration' dialog box only when setting the Fibre PCB Mode or HRC/ HORC.
Then, select (CL) [OK].
The routine returns to step 5.



[Separate Model]

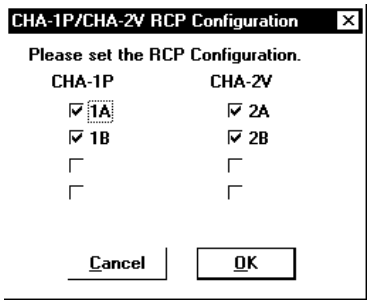
CHA name	Port 0/1	Port 2/3	CHA name	Port 0/1	Port 2/3
CHA-1P	1A/1B	1C/1D	CHA-2V	2A/2B	2C/2D
CHA-1Q	1E/1F	1G/1H	CHA-2W	2E/2F	2G/2H
CHA-1R	1J/1K	1L/1M	CHA-2X	2J/2K	2L/2M
CHA-1S	1N/1P	1Q/1R	CHA-2Y	2N/2P	2Q/2R

[Single Cabinet Model]

CHA name	Port 0/1	Port 2/3	CHA name	Port 0/1	Port 2/3
CHA-1C	1A/1B	1C/1D	CHA-2G	2A/2B	2C/2D
CHA-1D	1E/1F	1G/1H	CHA-2J	2E/2F	2G/2H
CHA-1F	1J/1K	1L/1M	CHA-2K	2J/2K	2L/2M

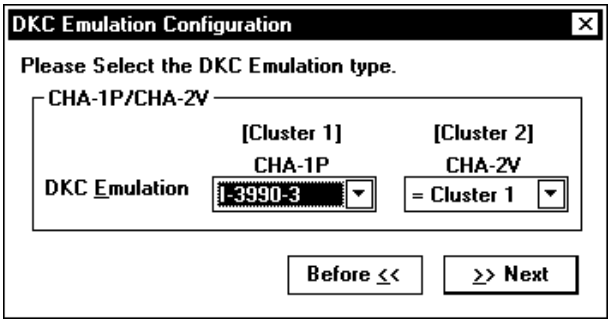
5-2. <Setting RCP port>

When setting the HRC/ HORC, select (CL) the port to be defined as the RCP port and select (CL) [OK].
Go to step 5-3.
When [Cancel] is selected (CL), the routine returns to step 5.



5-3. <Setting DKC emulation type>

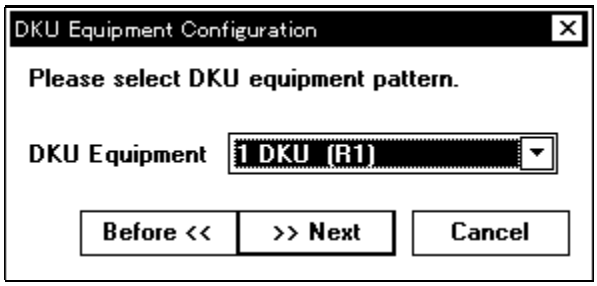
Set the subsystem configuration information in the 'DKC Emulation Configuration' window according to the subsystem configuration information work sheet.
After the setting is completed, select (CL) [>>Next]. The routine returns to step 5.
When [Before<<] is selected (CL), the routine returns to step 5.



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6. <Set DKU Equipment>

Define the DKU equipment pattern in the 'DKU Equipment'.
After setting up, select (CL) [>>Next].
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].

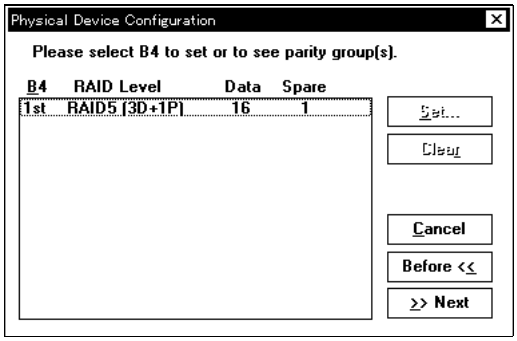


Note: In case of Single Cabinet Model,
'DKU Equipment Configuration' dialog box is not displayed.

7. <Install Drive Configuration Information>

Define drive configuration according to the 'Physical Device Configuration' screen displaying the mounted B4 based on the result of setting of DKU mount pattern.
Detailed procedure is shown below.

- Select (CL) the item and select (CL) [Set...]. Go to step 7-1.
- Selecting (CL) [Clear...] after selecting (CL) the item clears the B4 setting.



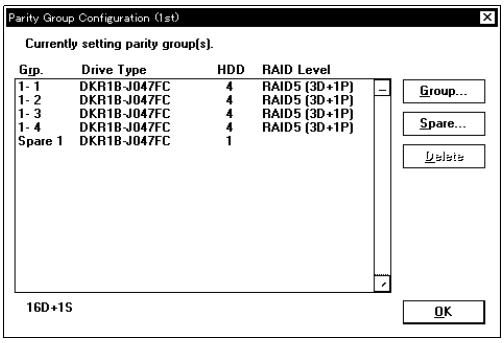
After setting up all items, select (CL) [>>Next].
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].

FB4	Location	FB4	Location
1st	HDU-R10, 11, 12, 13	7th	HDU-L20, 21, 22, 23
2nd	HDU-R14, 15, 16, 17	8th	HDU-L24, 25, 26, 27
3rd	HDU-L10, 11, 12, 13	9th	HDU-R30, 31, 32, 33
4th	HDU-L14, 15, 16, 17	10th	HDU-R34, 35, 36, 37
5th	HDU-R20, 21, 22, 23	11th	HDU-L30, 31. 32. 33
6th	HDU-R24, 25, 26, 27	12th	HDU-L34, 35, 36, 37

Note: In case of Single Cabinet Model, FB4 is '1st' only.

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7-1.

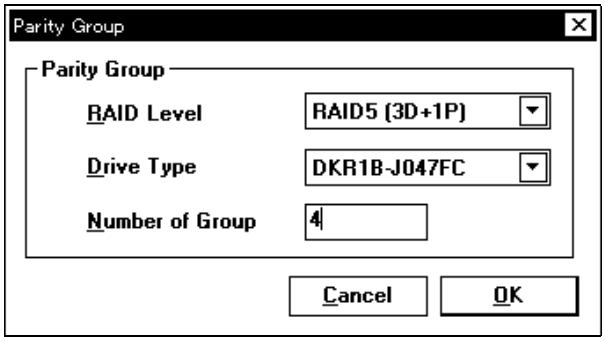


- To define Parity Group, select the drive to be defined and select (CL) [Group...] in the 'Parity Group Configuration' dialog box. See step 7-1-1.
- To define Spare, select the drive to be defined and select (CL) [Spare...] in the 'Parity Group Configuration' dialog box. See step 7-1-2.
- To delete an item, select an item to be deleted and select (CL) [Delete] in the 'Parity Group Configuration' dialog box.

After setting up all items, select (CL) [OK]. Return to step 7.

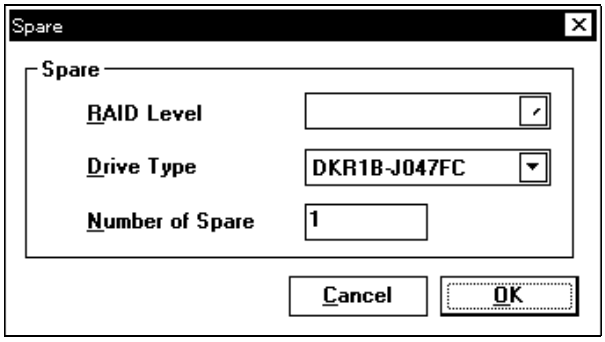
7-1-1.

Define the RAID Level and the drive capacity and the number of parity groups in the 'Parity Group' dialog box. Then select (CL) [OK]. Return to step 7-1.



7-1-2.

Define the RAID Level and the drive capacity and the number of spare drives in the 'Spare' dialog box. Then select (CL) [OK]. Return to step 7-1.



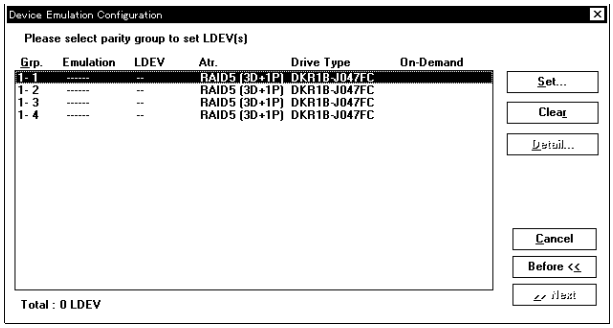
8. <Define Device Emulation>

After setting up all items for definition of Device Emulation, select (CL) [>>Next]. Selecting (CL) [Before<<] returns you to the previous screen.

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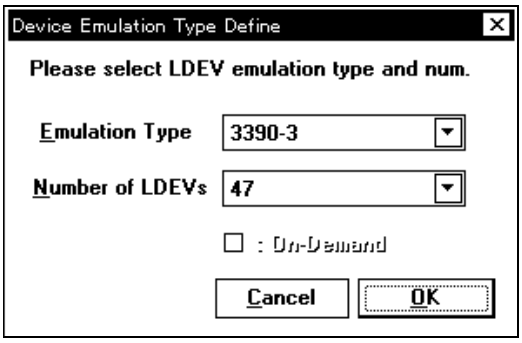
8-1.

In case of defining Device Emulation:
Select (CL) device and select (CL) [Set...].
This procedure is terminated by selecting (CL) [Cancel].



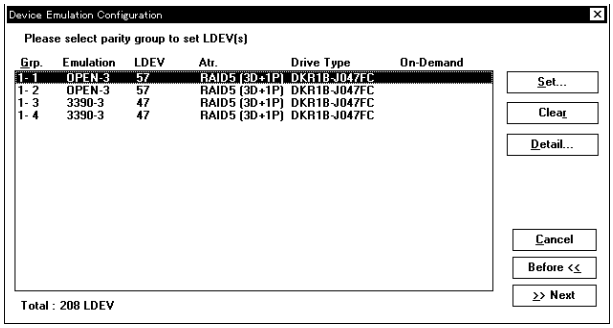
8-1-1.

After setting up all items in the 'Logical Device Emulation Type' dialog box, select (CL) [OK].
Go to step 8-1.
Selecting (CL) [Cancel] returns you to step 8-1.



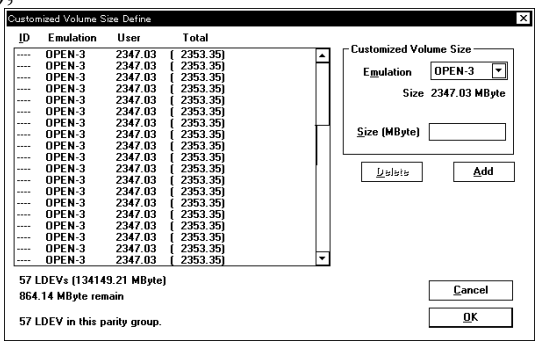
8-2. <Defining of Customized Volume Size (CVS)>

(1) Select (CL) a parity group for which the LDEV emulation type and the number of LDEVs have been set on the"Device Emulation Configuration" screen and select (CL) [Detail...].
This procedure is terminated by selecting (CL) [Cancel].



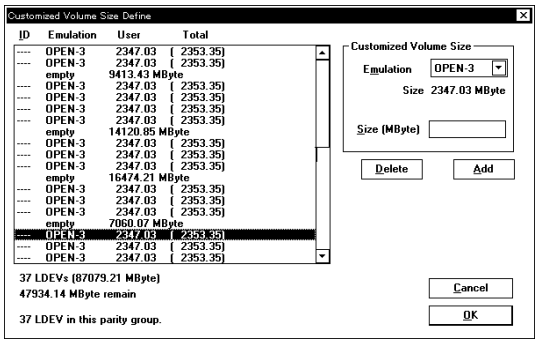
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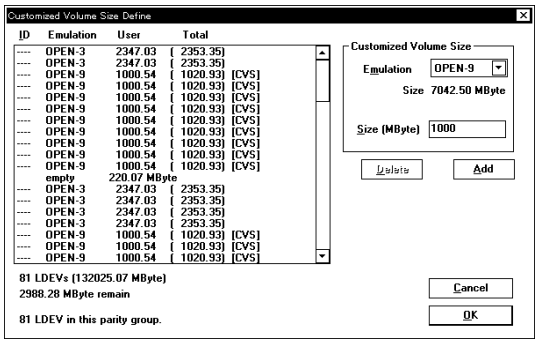
(2) Press (CL) the [Delete] button to delete the Volume(s), enter the LDEV emulation type of a customized volume(CV) to be registered and the number of user cylinders (in the case of Mainframe system. Refer to the upper screen) or the size (Mbyte) (in the case of open system. Refer to the lower screen) on the "Customized Volume Size Define" screen, then press (CL) the [Add] button to add them.
Selecting (CL) [Cancel] returns you to the previous screen.



Note : Meaning of "+" character

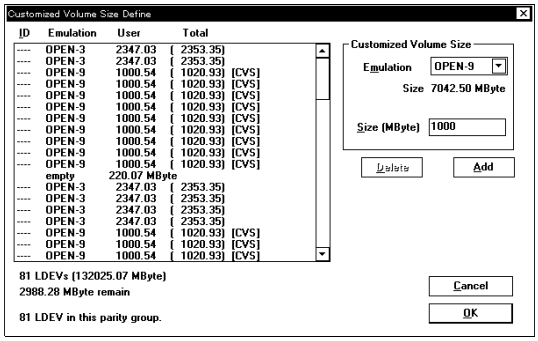
1) Volume with SCSI path.
2) LU expanded volume.
3) Volume with LDEV Security.





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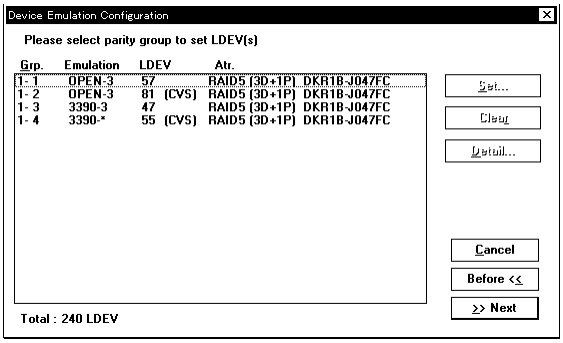
(3) The CV registered by mistake can be deleted by selecting it from the list box and pressing (CL) the [Delete] button.
Note: One or more CV can be selected.



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8-3.

In case of deletion:
Select (CL) device and select (CL) [Clear].
This procedure is terminated by selecting (CL) [Cancel].

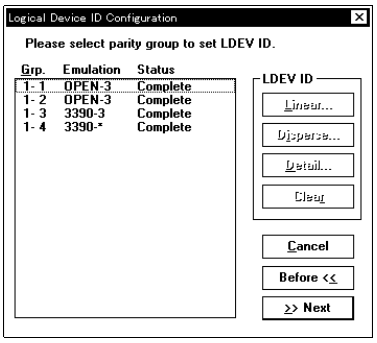


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9. <Define LDEV ID>

After setting up all items, select (CL) [>>Next]. Selecting (CL) [Before<<] returns you to the previous screen. (Refer to INST05-270)

9-1. <Definition Screen for LDEV ID>



Select (CL) the parity group to be defined and select (CL) a function from [LDEV ID] list box.

[Linear...]: LDEV ID is assigned to LDEV in the order of parity group. See step 9-3.

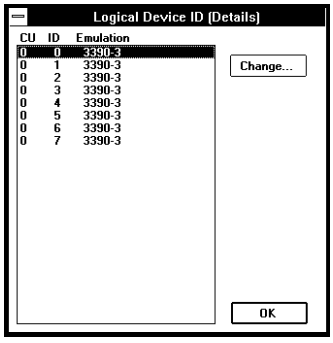
[Disperse...]: LDEV is assigned discretely in the order of parity group. See step 9-3.

[Detail...]: A screen to define LDEV in detail is displayed. See step 9-2.

- '-----' is displayed in CU area and ID area for the parity group to which LDEV ID is not assigned.
- 'xxxxx' is displayed in ID area for the parity group to which any LDEV ID is not assigned.

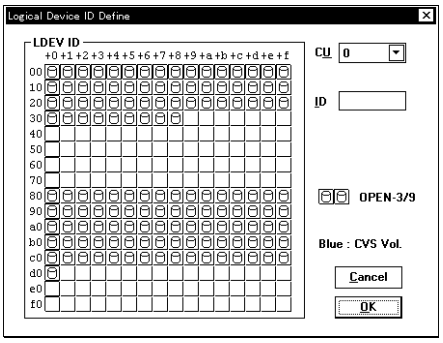
This procedure is terminated by selecting (CL) [Cancel].

9-2. <Detailed Definition Screen for LDEV ID>



LDEV ID is defined in detail for each LDEV in the parity group. Select (CL) [LEDV] from the list box and select (CL) [Change...]. The screen for LDEV ID input is displayed.

9-3. <Input LDEV ID>



Select CU ID in CU combo box.

The status of usage of ID in the CU is displayed in the LDEV ID panel.

White disk of panel: not used

Black disk of panel: using

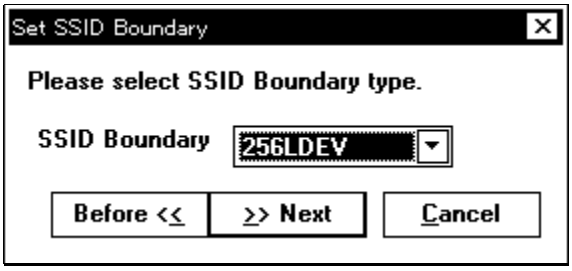
Input LDEV ID you want to set or head LDEV ID in the ID Edit box.

After setting, select (CL) [OK]. Return to step 9.

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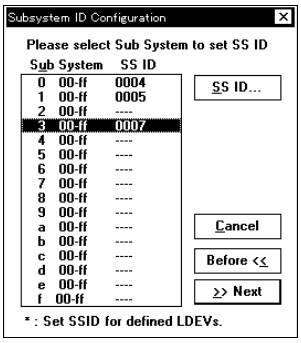
10. <Define Subsystem ID Boundary>

Set the Subsystem ID Boundary in the 'Set SSID Boundary' dialog box.
After setting up all items, select (CL) [OK].
Go to step 5.
Selecting (CL) [Cancel] returns you to step 9.



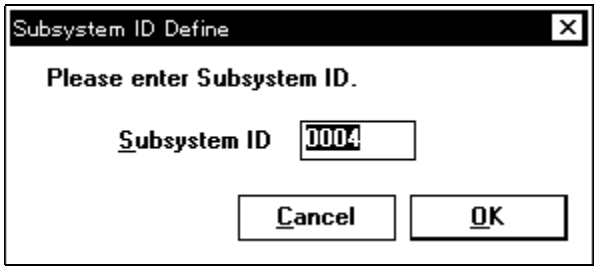
10-1. <Define Subsystem ID>

To define Subsystem ID, select (CL) [SSID].
After setting, select (CL) [>>Next].
This procedure is terminated by selecting (CL) [Cancel].



10-2.

Define Subsystem ID and select (CL) [OK].
Return to step 10-1.



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11. <Defining DCR>

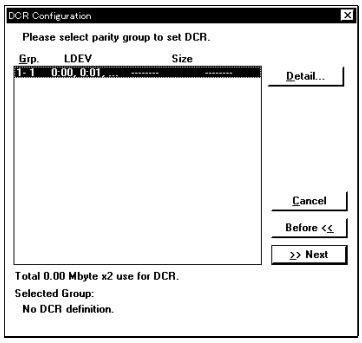
(1) Select (CL) a parity group having LDEV(s) for which the DCR is to be set on the “DCR Configuration” screen and press (CL) the [Detail...] button.

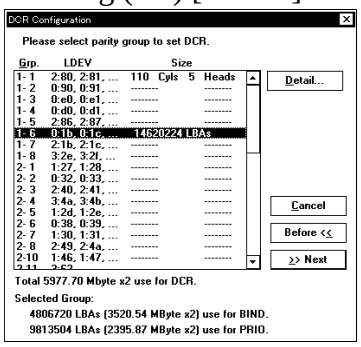
Total cache memory size which DCR area use is displayed.

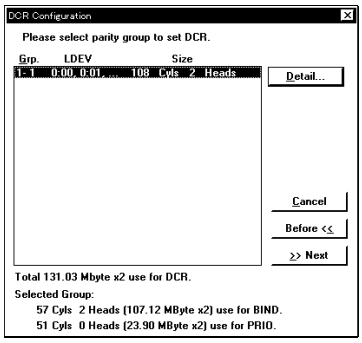
If parity group which selected have a DCR area, BIND size and PRIO size is displayed under “DCR Configuration” screen.

After setting, select (CL) [>>Next].

This procedure is terminated by selecting (CL) [Cancel].



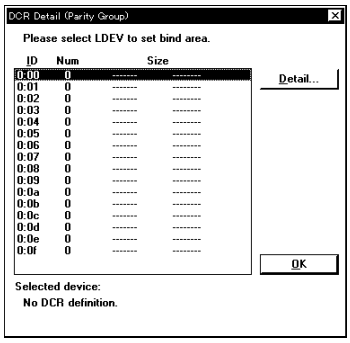


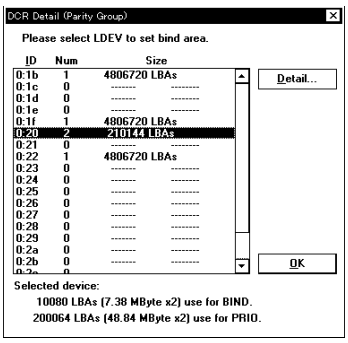


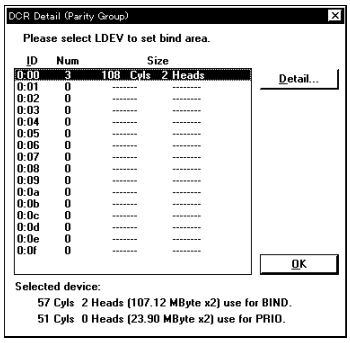
(In the case of open system) (In the case of Mainframe system)

(2) Select (CL) an LDEV for which the DCR is to be set on the “DCR Detail (Parity Group)” screen and press (CL) the [Detail...] button.

If LDEV which selected have a DCR area, BIND size and PRIO size is displayed under “DCR Detail (Parity Group)” screen.



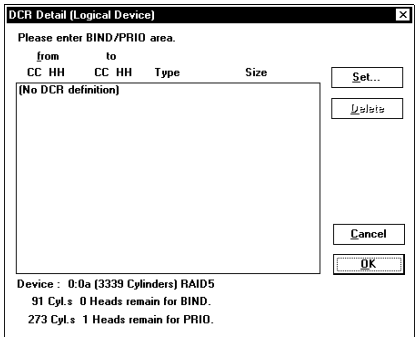




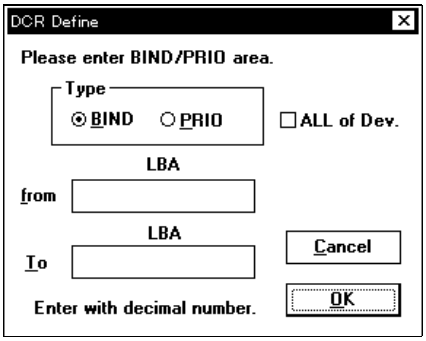
(In the case of open system) (In the case of Mainframe system)

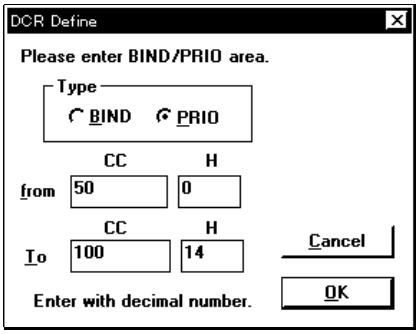
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(3) Confirm the LDEV size and the number of slots allowed to be set for each type on the “DCR Detail (Logical Device)” screen. Press (CL) the [Set...] button to set the DCR area.



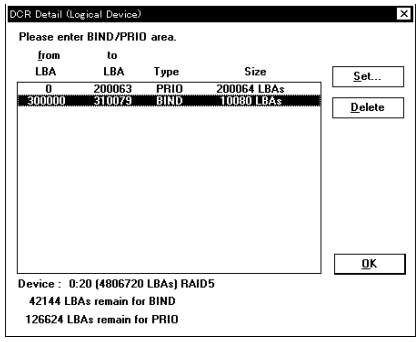
(4) Enter the type, starting cylinder number, starting head number, ending cylinder number, and ending head number (in the case of Mainframe system. Refer to the screen on the right.) or the tyepe, starting LBA, and ending LBA (in the case of open system. Refer to the screen on the left.) on the “DCR Define” screen and select (CL) [OK].
In the case of open system, all items are allowed to be set.



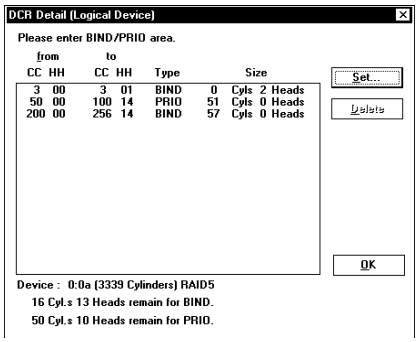


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(5) When the screen is returned to the “DCR Detail (Logical Device)” screen, the entrance result is displayed.

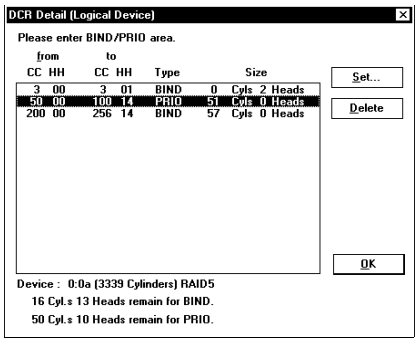


(In the case of open system)



(In the case of Mainframe system)

(6) When an item in the list box is selected (CL) and the [Delete] button is pressed (CL) on the “DCR Detail (Logical Device)” screen, the DCR setting is deleted. When the setting is completed, press (CL) the [OK] button.



(7) If you want to set other LDEV(s) in parity group which you selected, repeat steps (2) to (6) for the LDEV(s).

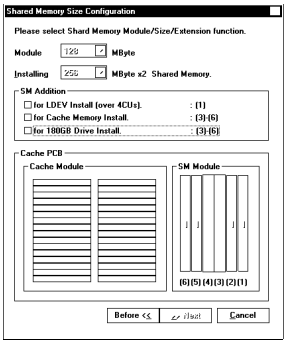
(8) If you want to set other LDEV(s) in other parity group, repeat steps (1) to (6) for the LDEV(s).

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12. <Define Shared Memory Size>

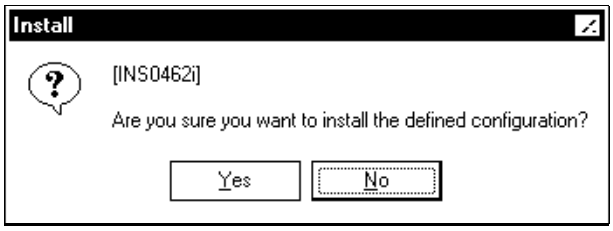
Define the shared memory module size in the 'Shared Memory Size Configuration' dialog box.
Select (CL) [>>Next].
This procedure is terminated by selecting (CL) [Cancel].

If SCSI path information is defined, go to INST05-720.

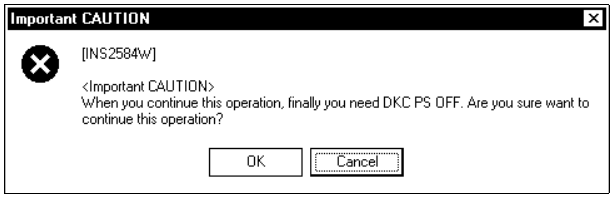


13. <Include configuration information>

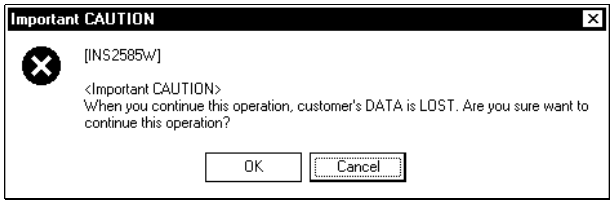
(1) Select (CL) [Yes] in response to the confirmation message "Are you sure you want to install the defined configuration?".
"Wait..." is displayed, then "Turn off DKC subsystem" is displayed.
Selecting (CL) [No] suppresses the configuration inclusion processing and terminates the installation procedure.



(2) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, finally you need DKC PS OFF. Are you sure want to continue this operation?".

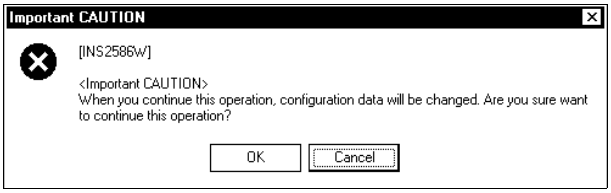


(3) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, customer's DATA is LOST. Are you sure want to continue this operation?".

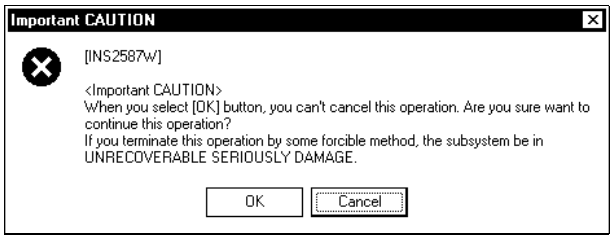


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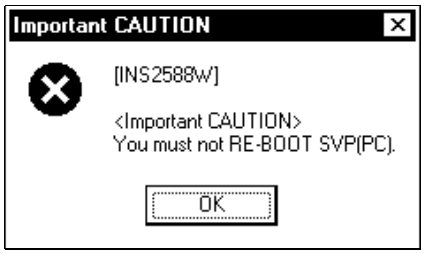
(4) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, configuration data will be changed. Are you sure want to continue this operation?".



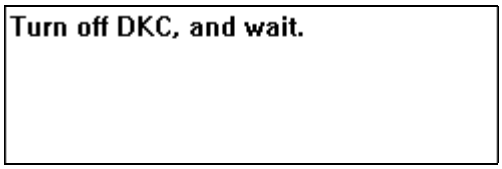
(5) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you select [OK] button, you can't cancel this operation. Are you sure want to continue this operation?
If you terminate this operation by some forcible method, the subsystem be in UNRECOVERABLE SERIOUSLY DAMAGE.".



(6) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
You must not RE-BOOT SVP(PC).".



14. <Power off DKC P/S>
Make sure that "Turn off DKC, and wait." is displayed and perform the power-off procedure from the DKC maintenance panel.



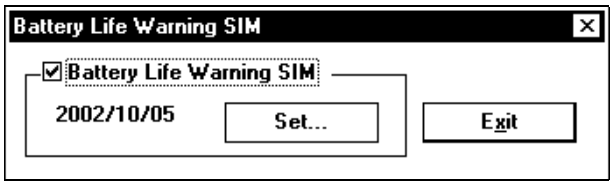
After a while "Wait..." is displayed.

15.
This step causes the contents of the SVP HD to be loaded into SM and FM.
When this procedure is completed, "Battery Life Warning SIM" is displayed.

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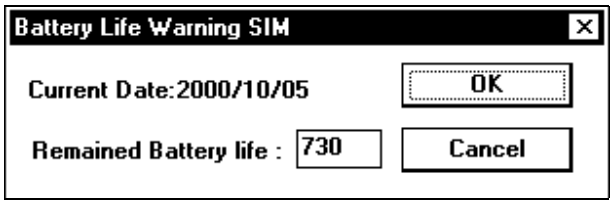
16.

Select [Set...] applying the check to 'Battery Life Warning SIM'.



17.

Select (CL) [OK] after inputting the remainder days until reporting on warning SIM.



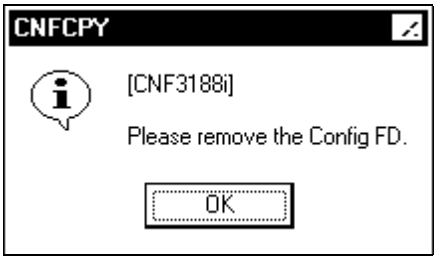
18.

Insert the configuration FD into FDD, select (CL) [OK].



19.

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



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20.

After making sure that DKC power is turned off, select (CL) [OK] in response to "Installation was finished.".
Select (CL) [OK] in response to "Please reboot PC.".
The initial Install screen is restored.



Note: SVP power will not turn off or reboot even when DKC is powered off.



21.

Close 'Install'.
Go to INST02-550 step (31).

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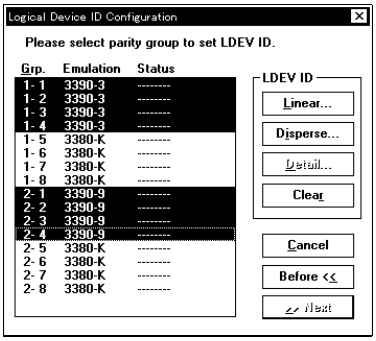
5.2.2.1 LDEV ID setting procedure when the emulation types of different systems coexist

5.2.2.1.1 Coexistence in units of parity group

The LDEV ID setting procedure is explained using an example of a case in which both the 3390 system LDEV and 3380 system LDEV are set in the same subsystem. This example shows the ID setting procedure when the B4-1/B4-2 is fully equipped with RAID5 (3D+1P), and the B4-1 and the B4-2 are defined as the 3390-3/3380-K and the 3390-9/3380-K respectively. Since systems other than the 3390 system and the 3390-3R cannot coexist in the parity group, the ID can be defined in this procedure.

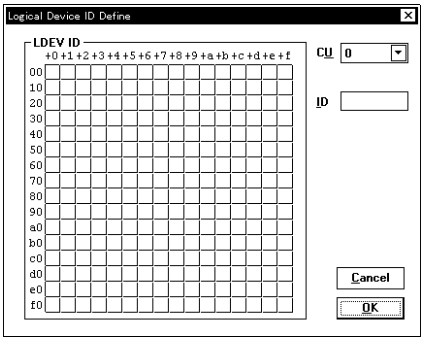
1.

Select only the parity group for which the 3390 system emulation type has been defined.



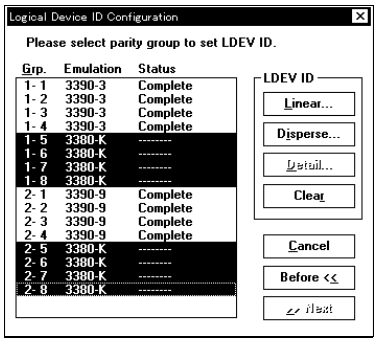
2.

Press the Linear or Disperse button to open the LDEV ID input screen and input the LDEV ID. (In the example, the Disperse button is pressed.)



3.

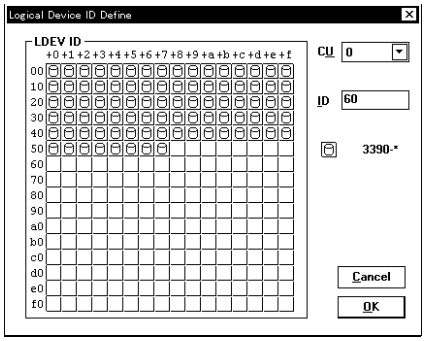
Next, select only the parity group for which the 3380 system emulation type has been set.



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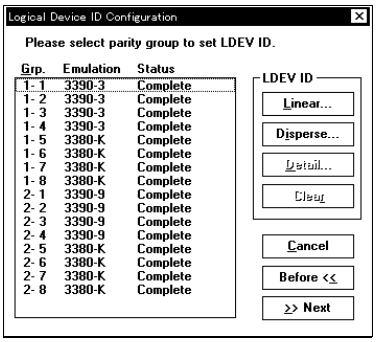
4.

Press the Linear or Disperse button to open the LDEV ID input screen and input the LDEV ID. In this case, take care not to make a coexistence occur in the block. In the example, 0:60 and the subsequent are unused blocks. Therefore, input 60.



5.

Setting is completed.



Needless to say, the setting sequence of steps (1) and (3) may reversed.
If emulation types of different systems are selected at the same time, the guarding function works to prevent the setting by making the Linear and Dispense buttons unselectable.

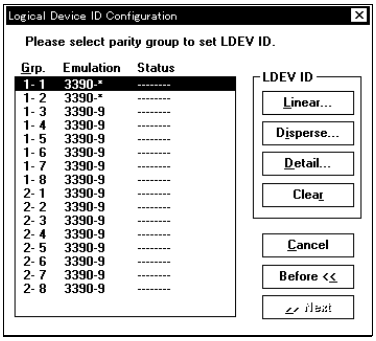
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5.2.2.1.2 Coexistence in a parity group

The 3390-3R can be set as a CV in the 3390 system parity group. The 3390 system LDEV can also be set as a CV in the 3390-3R parity group. If the ID is set in the procedure explained in Section 3.1 when this emulation setting has been performed, an intra-block coexistence setting violation occurs. To prevent the coexistence violation, set the ID following the procedure below.

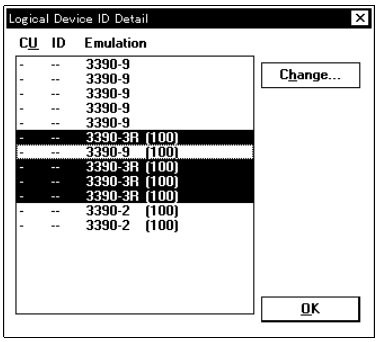
1.

For the parity group for which definitions of the 3390 system and 3390-3R coexist, the emulation type is displayed as "3390-*". Select one parity group defining the 3390-3R as the CV and press the Detail button to open the screen displaying the LDEV definition detail in the parity group.



2.

Select the 3390-3R on the detail screen and define the LDEV ID.

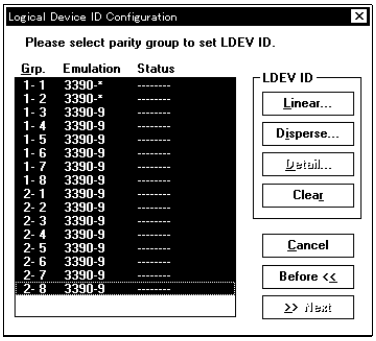


3.

Repeat (1) and (2) until the definition of the 3390-3R LDEV ID is finished. In the example, the 3390-3R is assigned to IDs starting from ID 0:80.

4.

When the definition of the 3390-3R is completed, select the parity group defining emulation type of the same system and define the LDEV ID in the same way as that Section 3.1.



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5.2.3 Check Procedure

NOTICE
This operation is necessary only when a subsystem is newly installed. It is not performed afterward. If it is performed by mistake, a system down or a data loss may be caused.

⚠ CAUTION
There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

1. <Execute Power-on CUDG>
   Perform the power-on procedure from the DKC-PANEL.
   (See INST03-3030)
   Power-on CUDG is automatically executed on the DKC logic circuitry.
   If an error occurs, SIM Log, SSB Log has logging.
   (See SVP02-30)

2. <Execute DKU Path inline test>
   Perform DKU Path inline tests on all DKAs installed during the new installation procedure to check the validity of the drives.
   See DIAGNOSIS SECTION for the test procedure. (DIAG04-140)

   Note: Before carrying out the DKU Path inline test, switch the current application to the program manager and have the SVP initial screen (which is shown in the right figure) displayed.

3. <Check subsystem status and all MPs micro-version>
   Check the subsystem Status and all MPs micro-version.
   (See SVP03-10 and SVP03-130)

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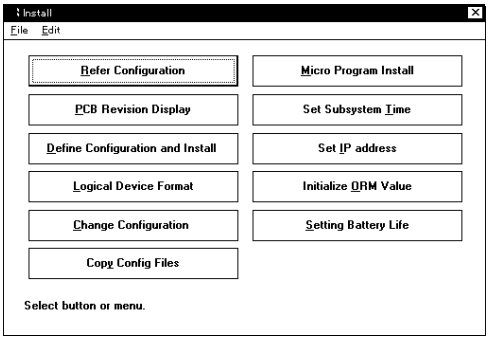
NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if executed in an occasion other the new subsystem installation, and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

4. <Format L-DEV>

(1) Change the mode to INITIAL SETUP Mode.
Select "Shift" + "Ctrl" + "I".
Enter the password and select (CL) [OK].
Please call Technical Support Center for asking it.
Select (CL) [Install].

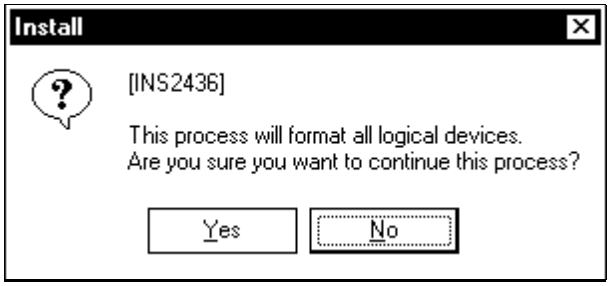
(2) Select (CL) [Logical Device Format].

Note: Execute Format Logical Device after confirming all Logical Device is blocked.



4.1.

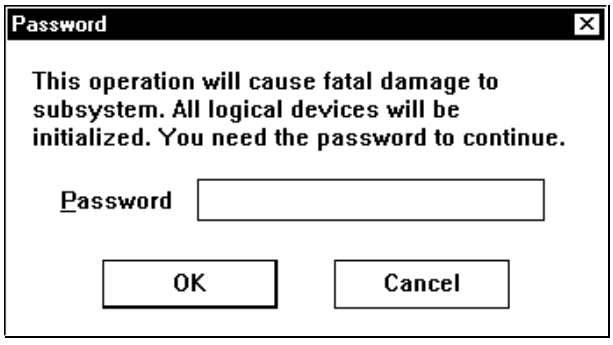
Select (CL) [Yes] in response to "This process will format all logical devices. Are you sure you want to continue this process?"



NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if executed in an occasion other the new subsystem installation, and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

4.2.

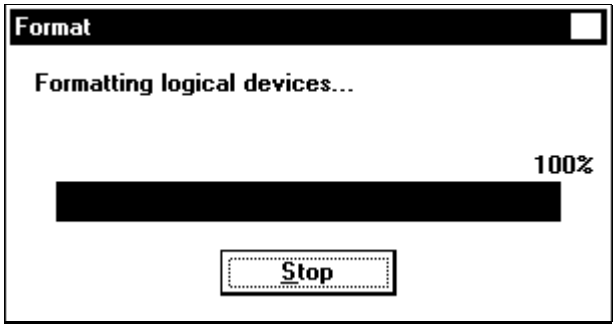
Enter the password and select [OK] (CL).
Password is needed for this operation.
Please call Technical Support Center to obtain password and authorization.



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4.3.

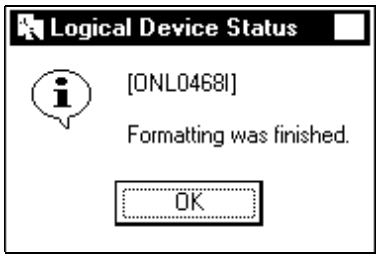
When L-DEV Formatting is complete, 'Formatting logical devices...' shown in the right figure disappears and "Formatting was finished." is displayed.



4.4.

Select (CL) [OK] in response to "Formatting was finished.".

L-DEV formatting is abnormally terminated if the message "Formatting logical devices rejected by DKC." or "Formatting the logical device is failed." is displayed.
Identify the error cause according to the procedure shown in "Section 6 TROUBLE SHOOTING" .



4.5. <Check logical device status>

Check normality of Logical Devices with referring 'Logical Device Status' display.

5. <Check subsystem status>

Check normality of all parts with referring 'Maintenance'.

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6. <Check system interlock operation>
   Start the test program from the host to check for normal subsystem's interlocked operation with the host.

7. <Delete error log>
   Power cycle the subsystem to make sure that the subsystem starts normally (neither ALARM nor MESSAGE indicators should light).

   Delete all error log information from the SVP and transfer the subsystem to the user. See page SVP02-170.

   Go to INST02-30 step (END).

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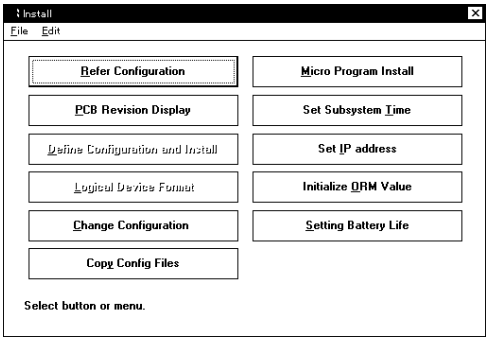
5.2.4 Refer Configuration

⚠ CAUTION

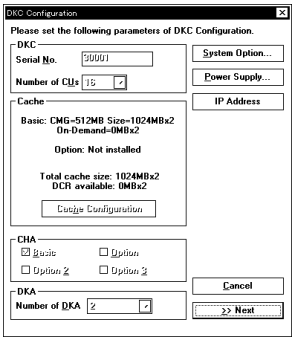
There is some possibility that “Syserr’s Clues” occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with “Syserr’s Clues” caused have no effects on the system.

1. <Start [Install]>
   Select (CL) [Install] from ‘SVP’.

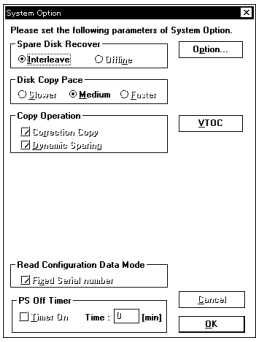
2.
   Select (CL) [Refer Configuration].



3. <DKC configuration information>
   When you select (CL) [>>Next], ‘Host Interface Configuration’ is automatically displayed.
   This procedure finishes when you select (CL) [Cancel].
   If [System Options...] is selected (CL), ‘System Option’ is automatically displayed.
   If [Power Supply...] is selected (CL), ‘Redundant Power Supply’ is automatically displayed. (Separate Model only)



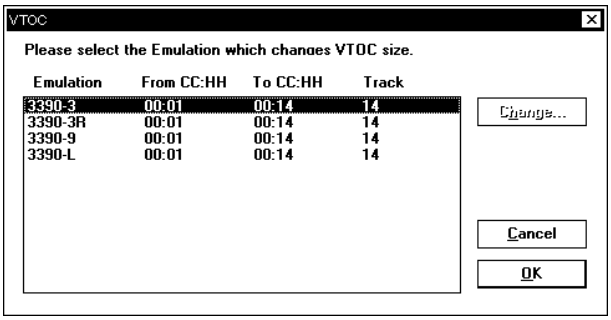
4.
   Selecting (CL) [VTOC] go to step 4-1.
   Selecting (CL) [OK] returns the screen to step 3.



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4-1.

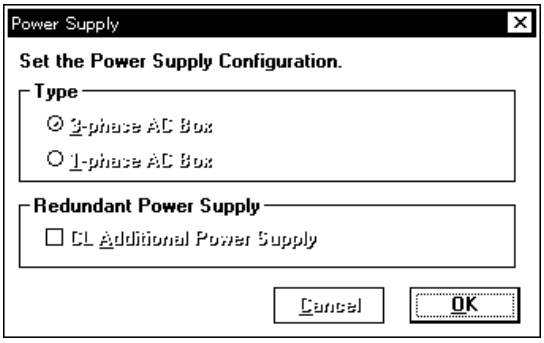
The VTOC size of a DKU emulation unit is displayed.
Select (CL) [OK]. Return to step 4.



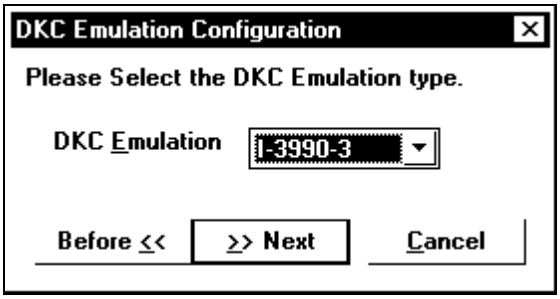
5.

Selecting (CL) [OK] returns the screen to step 3.

Note: In case of Single Cabinet Model,
'Power Supply' dialog box is not displayed.



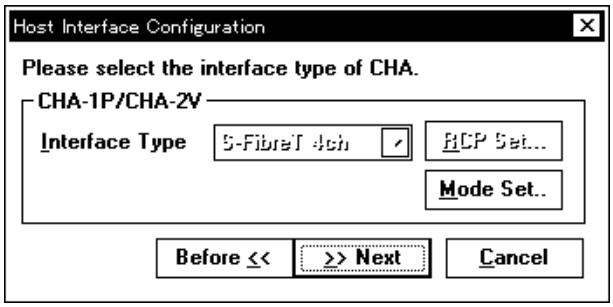
6. <Set DKC Emulation>
DKC Emulation type is displayed.
Select (CL) [>>Next].



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7.

When you select (CL) [Fibre T], [Mode set] is enabled, selecting (CL) [Mode set] processing skip to step 8. When you select (CL) [Serial 4ch] or [Serial 2ch].
The [RCP Set...] button is enabled. Selecting (CL) [RCP Set...] skip the screen to step 9.
Processing skip to step 10 if you selecting (CL) [>>Next].
Selecting (CL) [Before <<] returns the screen to step 6.



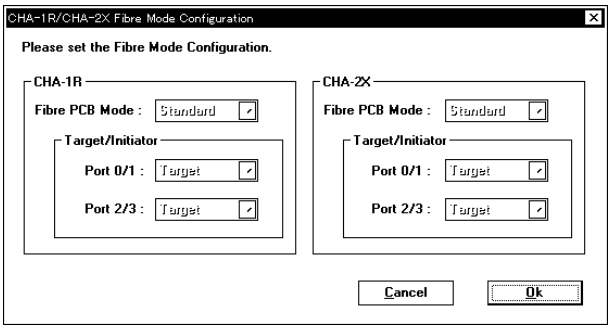
[Separate Model]

CHA name	Port 0/1	Port 2/3	CHA name	Port 0/1	Port 2/3
CHA-1P	1A/1B	1C/1D	CHA-2V	2A/2B	2C/2D
CHA-1Q	1E/1F	1G/1H	CHA-2W	2E/2F	2G/2H
CHA-1R	1J/1K	1L/1M	CHA-2X	2J/2K	2L/2M
CHA-1S	1N/1P	1Q/1R	CHA-2Y	2N/2P	2Q/2R

[Single Cabinet Model]

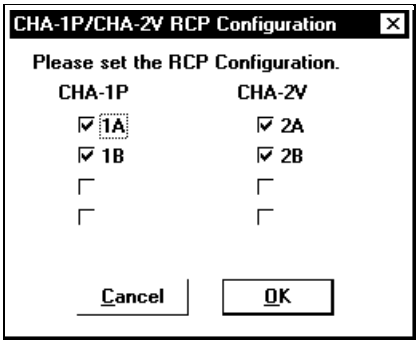
CHA name	Port 0/1	Port 2/3	CHA name	Port 0/1	Port 2/3
CHA-1C	1A/1B	1C/1D	CHA-2G	2A/2B	2C/2D
CHA-1D	1E/1F	1G/1H	CHA-2J	2E/2F	2G/2H
CHA-1F	1J/1K	1L/1M	CHA-2K	2J/2K	2L/2M

8. <Set Fibre Mode>
'Fibre Mode Configuration' is displayed.
Selecting (CL) [OK] returns the screen to step 7.



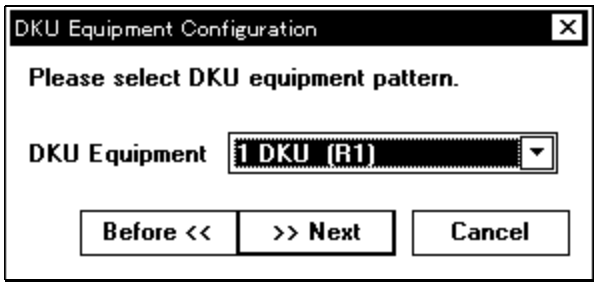
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9. <Set RCP port>
RCP port setting is displayed.
Then by selecting (CL) [OK] returns the screen to step 7.

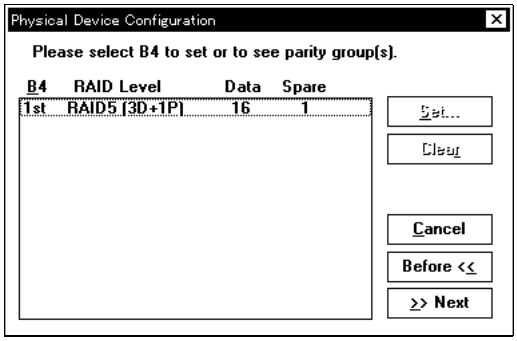


10. <Set DKU Equipment>
DKU Equipment pattern is displayed.
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].

Note: In case of Single Cabinet Model, 'DKU Equipment Configuration' dialog box is not displayed.



11. <Set Physical Device>
Physical device configuration is displayed.
Select (CL) the FB4 and select (CL) [Detail...].
Go to 11-1
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].



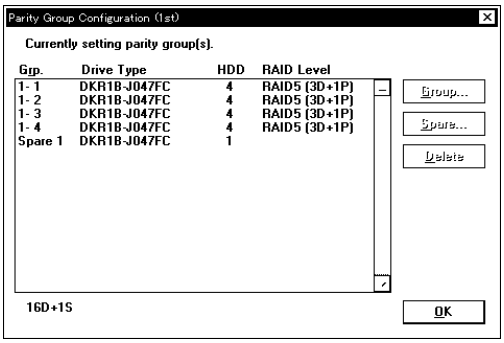
FB4	Location
1st	HDU-R10, 11, 12, 13
2nd	HDU-R14, 15, 16, 17
3rd	HDU-L10, 11, 12, 13
4th	HDU-L14, 15, 16, 17
5th	HDU-R20, 21, 22, 23
6th	HDU-R24, 25, 26, 27
7th	HDU-L20, 21, 22, 23
8th	HDU-L24, 25, 26, 27
9th	HDU-R30, 31, 32, 33
10th	HDU-R34, 35, 36, 37
11th	HDU-L30, 31, 32, 33
12th	HDU-L34, 35, 36, 37

Note: In case of Single Cabinet Model, FB4 is '1st' only.

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11-1.

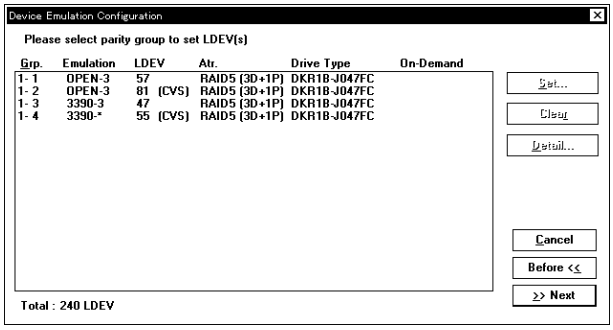
Parity Group Configuration is displayed.
Select (CL) [OK]. Return to step 11



12. <Set Device Emulation>

Device Emulation Configuration is displayed.
Select (CL) parity group and select (CL) [Detail...].
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].

(CVS): The parity group which CVS is installed.

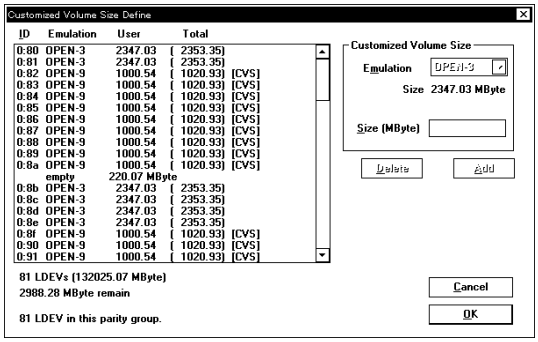


12-1.

Customized Volume Size Define is displayed.
Select (CL) [OK]. Return to step 12.

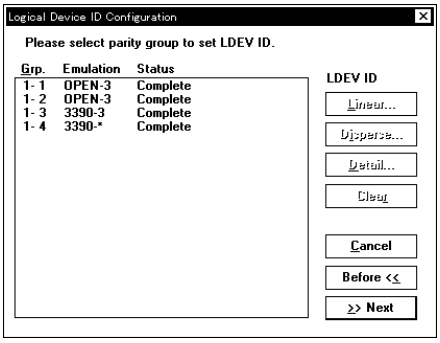
Note : Meaning of "+" character

1) Volume with SCSI path.
2) LU expanded volume.
3) Volume with LDEV Security.



13. <Set Logical Device ID>

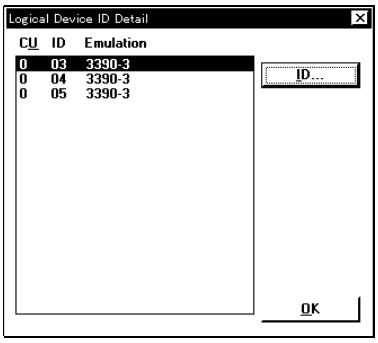
Logical Device ID Configuration is displayed.
Select (CL) parity group and select (CL) [Detail...].
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].



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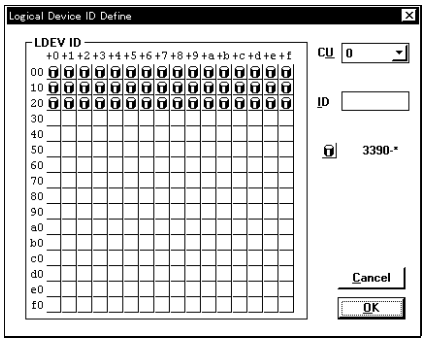
13-1.

Logical Device ID Detail is displayed.
Select (CL) [ID...].
Select (CL) [OK]. Return to step 13.



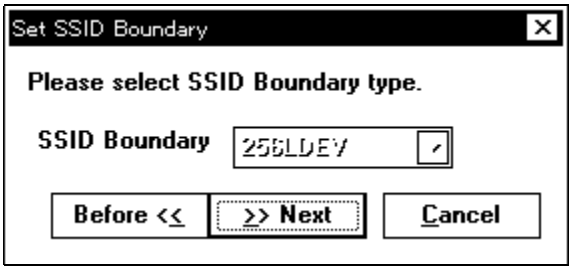
13-2.

Logical Device ID allocation is displayed.
Select (CL) [OK] or [Cancel]. Return to step 13-1.



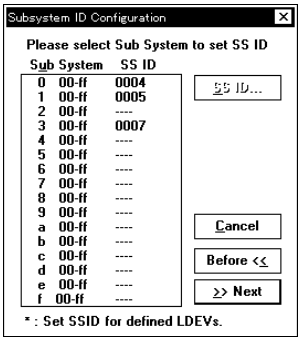
14. <Define Subsystem ID Boundary>

Set the Subsystem ID Boundary in the 'Set SSID Boundary' dialog box.
After setting up all items, select (CL) [OK].
Go to step 5.
Selecting (CL) [Cancel] returns you to step 9.



14-1. <Set Subsystem ID>

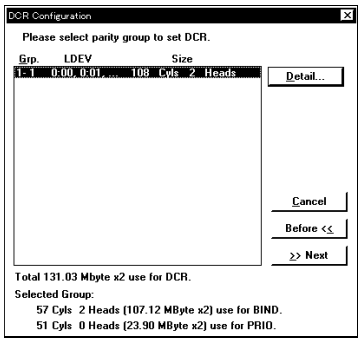
Subsystem ID Configuration is displayed.
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].



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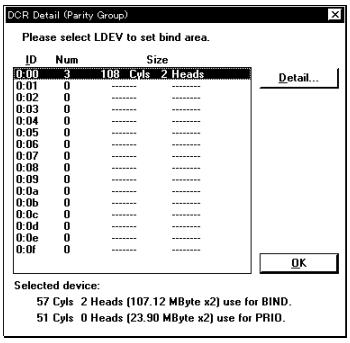
15. <Set DCR>

DCR Configuration is displayed.
Select (CL) parity group and select (CL) [Detail...]. Go to step 15-1.
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].



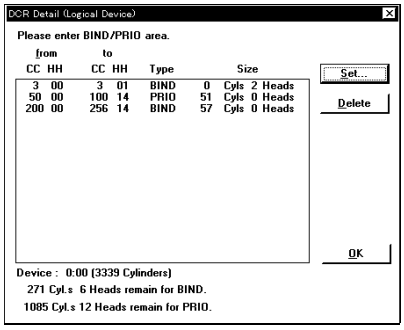
15-1.

DCR detail (Parity group) is displayed.
Select (CL) LDEV and select [Detail...]. Go to step 15-2
Select (CL) [OK] . Return to step 15.



15-2.

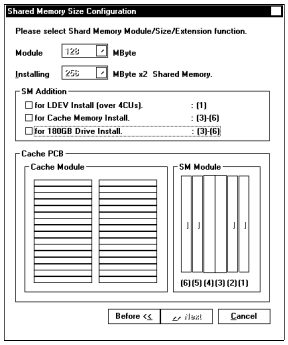
DCR detail (Logical device) is displayed.
Select (CL) [OK]. Return to step 15-1.



16. <Set Shared Memory Size >

Shared Memory Size Configuration is displayed.
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].

If SCSI path information is defined, go to INST05-790.



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17.

Select (CL) [OK].
Close the ‘Install’ window.



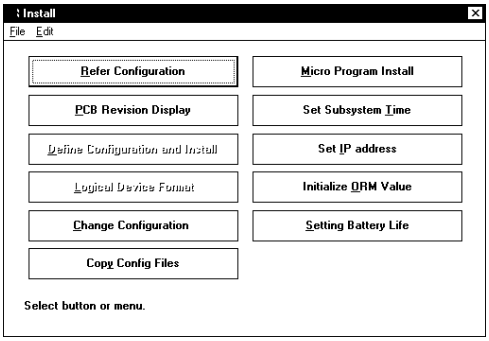
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5.3 Installation and De-Installation SVP procedure

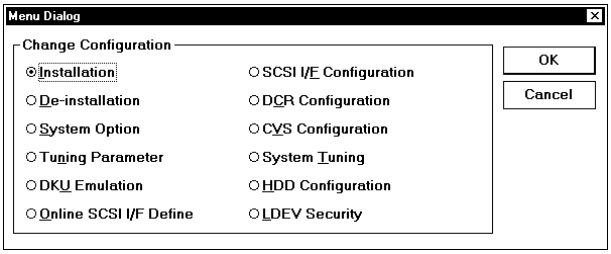
5.3.2 Setting up the New Device Structure Information

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

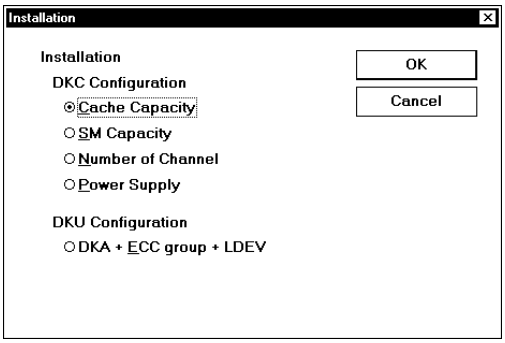
2. <Start 'Menu Dialog' screen>
   Select (CL) [Change Configuration].



3. <Start Device Structure Setup screen>
   Select (CL) the item in the 'Menu Dialog' dialog box and select (CL) [OK].
   Except for the case of installation and de-installation, go to INST05-430.



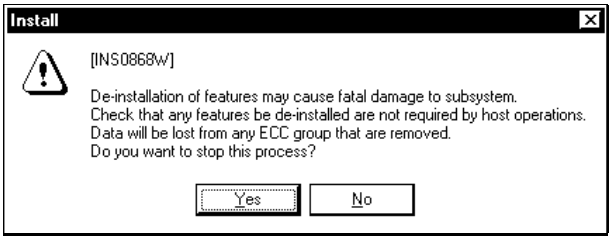
4. <Select a part to be changed>
   Select (CL) a part to be changed.
   When installation is selected on step 3, go to INST05-430.



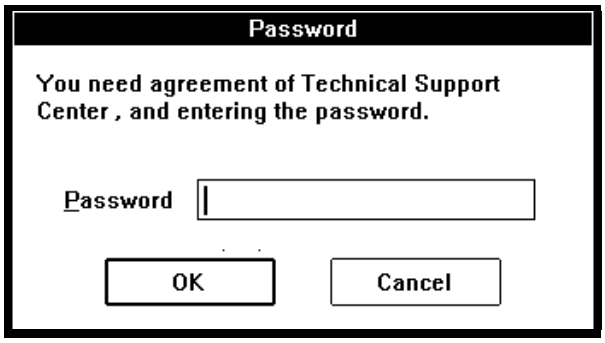
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5.

Select (CL) [No] in response to “De-installation of features may cause fatal damage to subsystem. Check that any features be de-installed 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].



NOTICE
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 center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

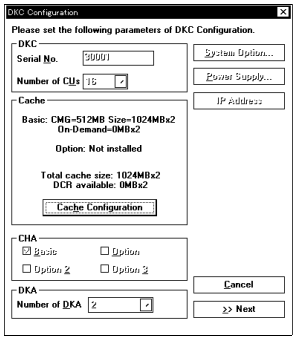
Copyright ©2000, Hitachi, Ltd.

5.3.2.1 Install

> **⚠ CAUTION**
> There is some possibility that “Syserr’s Clues” occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with “Syserr’s Clues” caused have no effects on the system.

1. Cache Capacity

(1) <Update Configuration Information>
Select (CL) [Cache Configuration] in the ‘DKC Configuration’.
(Go to step (2).)

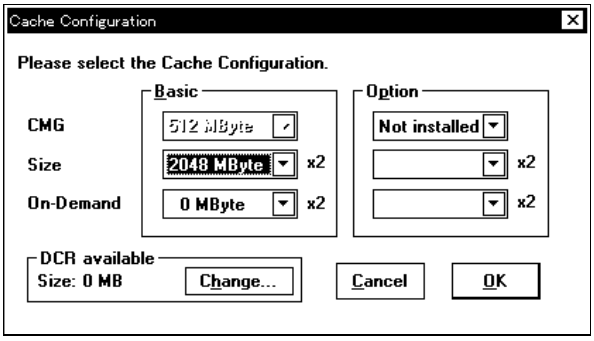


Note: It is not possible to install or de-install plural parts at the same time.

Make sure that all entered items are correct and select (CL) [>>Next].
Go to step (3).

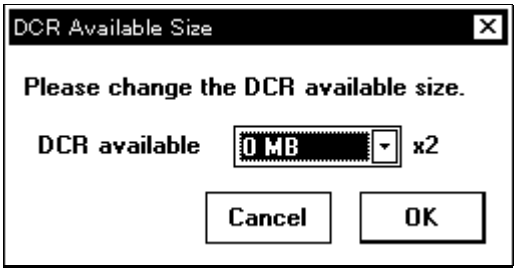
---

(2) <Define Cache>
Define each item in the ‘Cache Configuration’.
If you want to change DCR available size, select (CL) [Change...] to change it.
(See SSD Optional Function Section)



Note: In case of Single Cabinet Model, Option is not displayed.

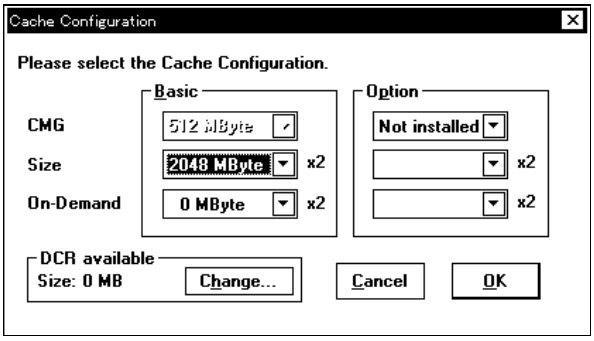
(2-1) <Define DCR Available Size>
Define the DCR available size in the ‘DCR Available Size’ dialog box.
And select (CL) [OK].



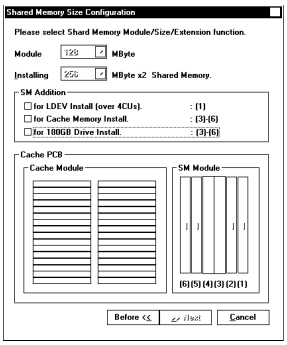
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(2-2)

After setting up all items, select (CL) [OK].
Return to step (1).



(3) <Display SM size>
'Shared Memory size Configuration' dialog box is displayed.
Select (CL) [>>Next].

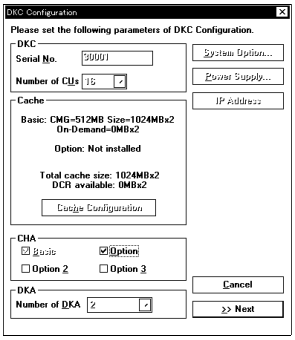


(4) <Return to General flow page>
Go to INST02-380.

2. Number of Channel

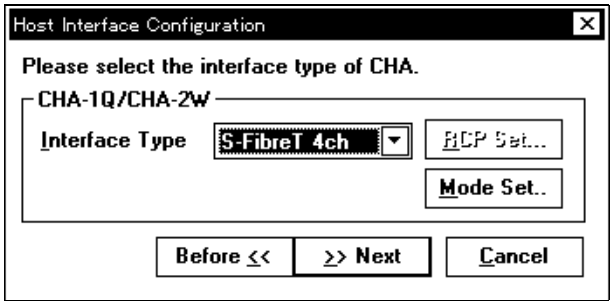
(1) <Update Configuration Information>
Enter the item to CHA in the 'DKC Configuration'.
Make sure that the entered item is correct and select (CL) [>>Next].

Note: In case of Single Cabinet Model, 'Option 3' is not displayed.

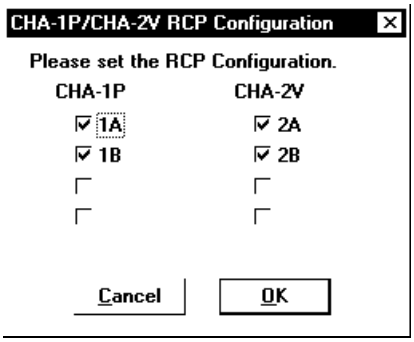


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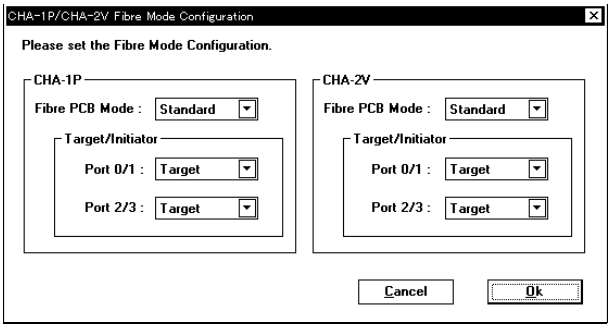
(2) <Defining channel type>
Input each item in the “Host Interface Configuration” window.
Repeat the operation above as many times as the number of channels installed.
When [Fibre T] is selected to set the HRC/ HORC or to change the Fibre PCB Mode, select (CL) [Mode Set...] and go to step (4).
When [Serial 2ch] or [Serial 4ch] is selected to set the HRC/ HORC, select (CL) [RCP Set...] and go to step (3).
Verify that the inputted item is correct and select (CL) [>>Next].



(3) <Defining RCP port>
When setting the HRC/ HORC, select (CL) the item to be defined as an RCP port and select (CL) [OK].
The routine returns to step (2).
When [Cancel] is selected (CL), the routine returns to step (2).



(4) <Defining Fibre Mode>
Select (CL) the item to be defined as the Fibre Mode (set the ‘Target/ Initiator’ only when setting the 'Fibre PCB Mode' or HRC/ HORC) and select (CL) [OK].
The routine returns to step (2).
When [Cancel] is selected (CL), the routine returns to step (2).



[Separate Model]

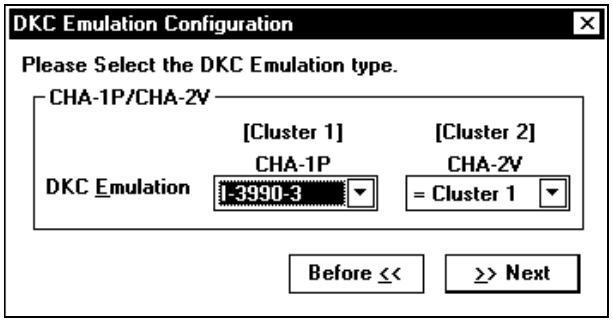
CHA name	Port 0/1	Port 2/3	CHA name	Port 0/1	Port 2/3
CHA-1P	1A/1B	1C/1D	CHA-2V	2A/2B	2C/2D
CHA-1Q	1E/1F	1G/1H	CHA-2W	2E/2F	2G/2H
CHA-1R	1J/1K	1L/1M	CHA-2X	2J/2K	2L/2M
CHA-1S	1N/1P	1Q/1R	CHA-2Y	2N/2P	2Q/2R

[Single Cabinet Model]

CHA name	Port 0/1	Port 2/3	CHA name	Port 0/1	Port 2/3
CHA-1C	1A/1B	1C/1D	CHA-2G	2A/2B	2C/2D
CHA-1D	1E/1F	1G/1H	CHA-2J	2E/2F	2G/2H
CHA-1F	1J/1K	1L/1M	CHA-2K	2J/2K	2L/2M

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(5) <Defining DKC emulation type>
Define the DKC emulation type in the “DKC Emulation Configuration” window.
After the setting is completed, select (CL) [>>Next].



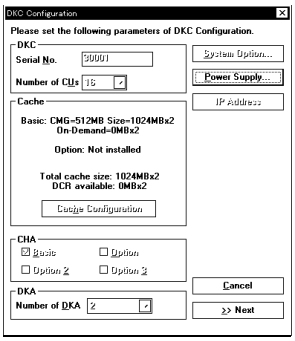
Copyright ©2002, Hitachi, Ltd.

(6) <Return to General flow page>
Non-disruptive Installation : Go to INST02-90 step (3)-3
Disruptive Installation : Go to INST02-230 step (14)-2

3. Redundant Power Supply

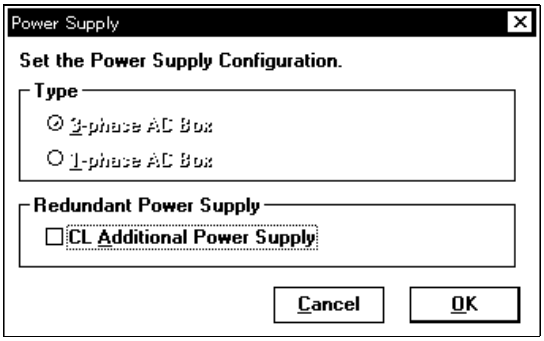
(1) <Update Configuration Information>
Select (CL) [Power Supply] in the 'DKC Configuration'. Make sure that the entered item is correct and select (CL) [>>Next].

Note: In case of Single Cabinet Model, [Power Supply] is not displayed.



(2) <Define Redundant Power Supply>
Select (CL) redundant power supply to be added in the 'Redundant Power Supply'. Select (CL) [OK]. Return to step (1).

Note: If entered item is wrong, the part not to be installed or de-installed may be blocked.



(3) <Return to General flow page>
Non-disruptive Installation : Go to INST02-80 step (2)-3
Disruptive Installation : Go to INST02-230 step (13)-2

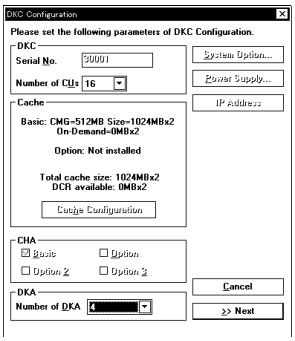
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4. DKA + ECC group + LDEV

(1) <Update Configuration Information>
Define the number of CU in DKC and The number of DKA in the 'DKC Configuration'.

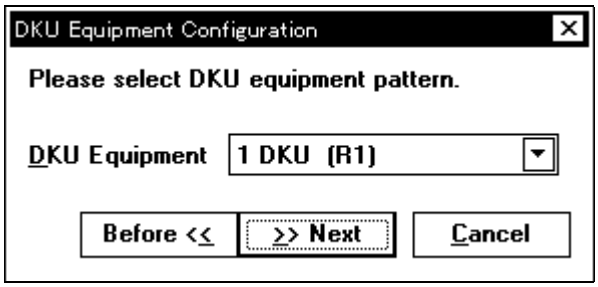
Make sure that the entered item is correct and select (CL) [>>Next].

Note: In case of Single Cabinet Model, not define the number of DKA.



(2) <DKU Equipment>
The DKU equipment pattern is displayed in the 'DKU Equipment'.
Select (CL) [>>Next].

Note: In case of Single Cabinet Model, 'DKU Equipment Configuration' dialog box is not displayed.



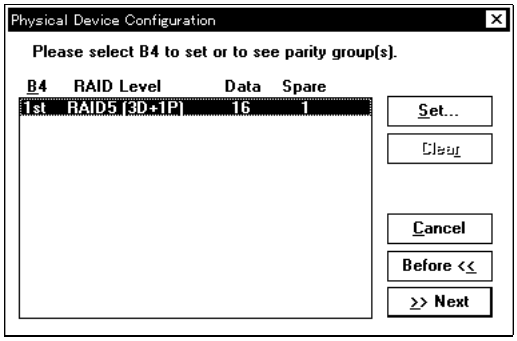
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(3) <Change Drive Configuration Information>

Define drive configuration according to the 'Physical Device Configuration' screen displaying the mounted B4 based on the result of setting of DKU mount pattern.

Detailed procedure is shown below.

- Select (CL) the item and select (CL) [Set...]. Go to step (4).
- Selecting (CL) [Clear...] after selecting (CL) the item clears the B4 setting.



After setting up all items, select (CL) [>>Next]. Go to step (6).

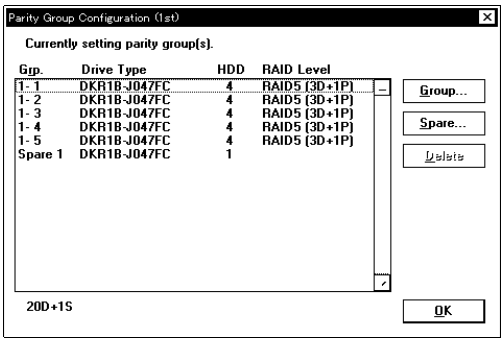
Selecting (CL) [Before<<] returns you to the previous screen.

B4	Location	B4	Location
1st	HDU-R10, 11, 12, 13	11th	HDU-L30, 31, 32, 33
2nd	HDU-R14, 15, 16, 17	12th	HDU-L34, 35, 36, 37
3rd	HDU-L10, 11, 12, 13		
4th	HDU-L14, 15, 16, 17		
5th	HDU-R20, 21, 22, 23		
6th	HDU-R24, 25, 26, 27		
7th	HDU-L20, 21, 22, 23		
8th	HDU-L24, 25, 26, 27		
9th	HDU-R30, 31, 32, 33		
10th	HDU-R34, 35, 36, 37		

Note: In case of Single Cabinet Model, B4 is '1st' only.

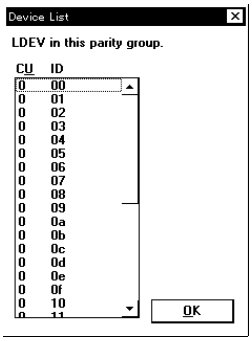
(4) <Define Parity Group>

- To define Parity Group, select (CL) [Group...] in the 'Parity Group Configuration' dialog box. See step (5)-1.
- To define Spare, select (CL) [Spare...] in the 'Parity Group Configuration' dialog box. See step (5)-2.
- To delete an item, select an item to be deleted and select (CL) [Delete] in the 'Parity Group Configuration' dialog box.



After setting up all items, select (CL) [OK]. Return to step (3).

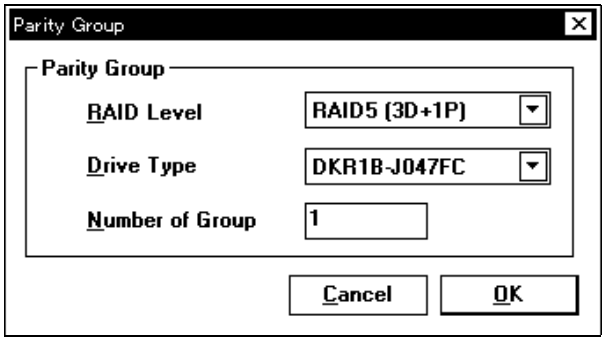
- To display LDEV ID in Parity group, select an item to be displayed and select (DC) this item on list box. 'Device List' dialog box will appear.



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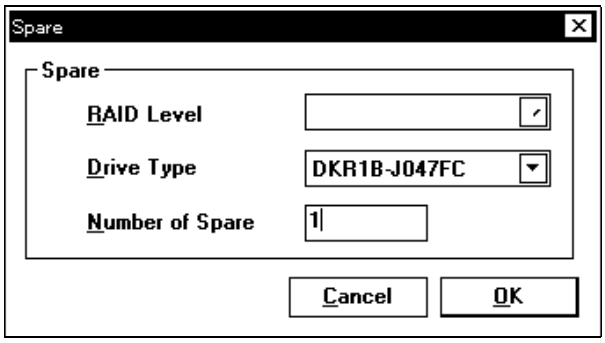
(5)-1

Define the RAID Level and the Drive Type and the number of parity groups in the 'Parity Group' dialog box.
Then select (CL) [OK]. Return to step (4).



(5)-2

Define the RAID Level and the Drive Type and the number of spare drives in the 'Spare' dialog box.
Then select (CL) [OK]. Return to step (4).

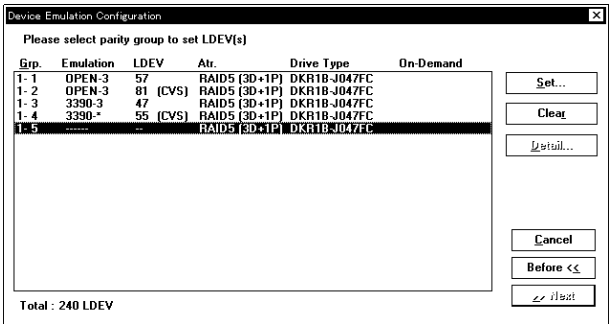


(6) <Define Device Emulation>

After setting up all items for definition of Device Emulation, select (CL) [>>Next].
Go to step (7).
Selecting (CL) [Before<<] returns you to the previous screen.

(6)-1

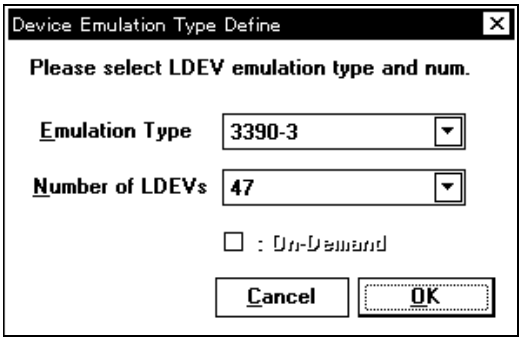
In case of defining Device Emulation:
Select (CL) device and select (CL) [Set...].



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(6)-1-1

After setting up all items in the 'Logical Device Emulation Type Define' dialog box, select (CL) [OK] returns you to step (6).
Selecting (CL) [Cancel] returns you to step (6)-1.



(6)-2

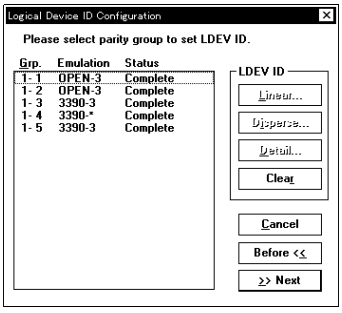
In case of detailed display:
Select (CL) device and select (CL) [Detail...].
The detailed information is displayed.

---

(7) <Define LDEV ID>

(7)-1 Definition Screen for LDEV ID

Select (CL) the parity group to be defined and select (CL) a function from [LDEV ID] list box.
[Linear...]: LDEV ID is assigned to LDEV in the order of parity group. See step (7)-3.
[Disperse...]: LDEV is assigned discretely in the order of parity group. See step (7)-3.
[Detail...]: A screen to define LDEV in detail is displayed.
See step (7)-2. (When plural groups are selected (CL), it is invalid.)
[Clear]: Select (CL) [Clear] to delete.

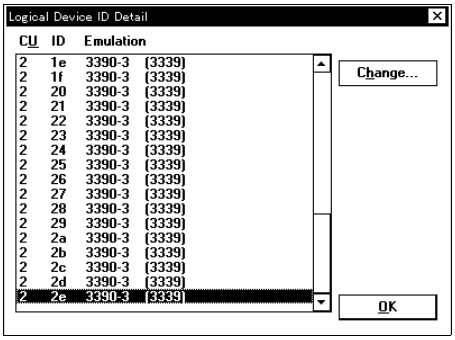


- '-----' is displayed in CU area and ID area for the parity group to which LDEV ID is not assigned.
- 'xxxxx' is displayed in ID area for the parity group to which any LDEV ID is not assigned.

After setting up all items, select (CL) [>>Next].
Go to step (8).

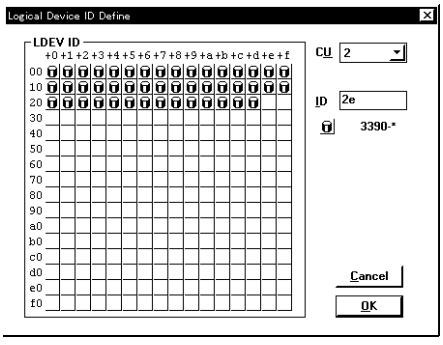
(7)-2 Detailed Definition Screen for LDEV ID

LDEV ID is defined in detail for each LDEV in the parity group.
Select (CL) [LDEV] from the list box and select (CL) [Change...].
The screen for LDEV ID input is displayed.



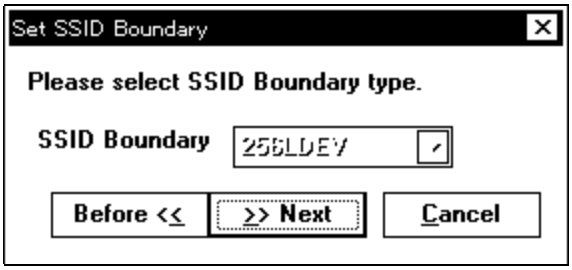
(7)-3 Input LDEV ID

Select CU ID in CU combo box.
The status of usage of ID in the CU is displayed in the LDEV ID panel.
White disk of panel: not used
Patterned disk of panel: using
Input LDEV ID you want to set or head LDEV ID in the ID Edit box.
After setting, select (CL) [OK]. Return to step (7).

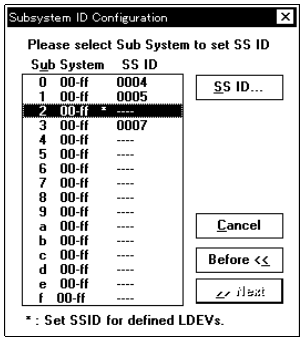


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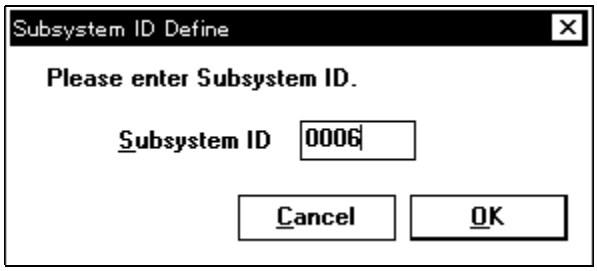
(8) <Define Subsystem ID Boundary>
Press (CL) the [>>Next] button to change the screen to the "Set SSID Boundary" screen.



(9) <Define Subsystem ID>
To define Subsystem ID, select (CL) the item from the list box and select (CL) [SSID]. Go to step (9)-1.
After setting or not to define Subsystem ID, select (CL) [>>Next].



(9)-1 Define Subsystem ID and select (CL) [OK].
Return to step (9).



(10) <Return to General flow page>
[In case of DKAs Installation]
Non-disruptive Installation : Go to INST02-100 step (7)-3
Disruptive Installation : Go to INST02-230 step (16)-2

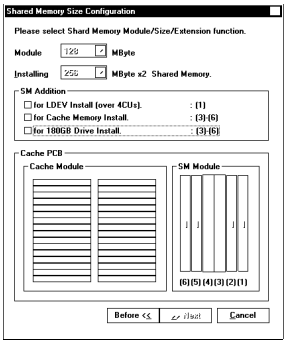
[In case of HDDs Installation]
(In case of Separate Model)
• In case of DEV I/F Cable 2 (DKU-F405I-EXC) Installation
Non-disruptive Installation : Go to INST02-110 step (8)-5
Disruptive Installation : Go to INST02-240 step (17)-5
• In case of DEV I/F Cable 2 (DKU-F405I-EXC) not Installation
Non-disruptive Installation : Go to INST02-110 step (8)-15
Disruptive Installation : Go to INST02-240 step (17)-5
(In case of Single Cabinet Model)
Non-disruptive Installation : Go to INST02-110 step (8)-4
Disruptive Installation : Go to INST02-240 step (17)-5

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5. SM Capacity

(1) <Define Shared Memory Size>

Define the shared memory size in the 'Shared Memory Size Configuration' dialog box.



[In case of LDEV Install]
Check (CL) the "for LDEV Install (over 4CUs)".

[In case of Cache Memory Install]
Check (CL) the "for Cache Memory Install" and select the memory size.

[In case of 180 GB Drive Install]
Check (CL) the "for 180GB Drive Install" and select the memory size.

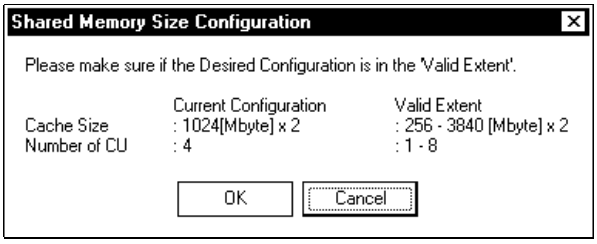
Select (CL) [>>Next].

---

(2)

Make sure if the desired configuration is in the valid extent.

In the valid extent : Select (CL) [OK].
Out of the valid extent : Select (CL) [Cancel].



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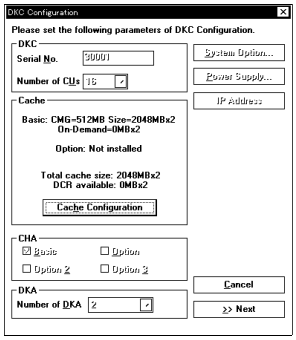
5.3.2.2 De-Install

⚠ CAUTION

There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

1. Cache Capacity

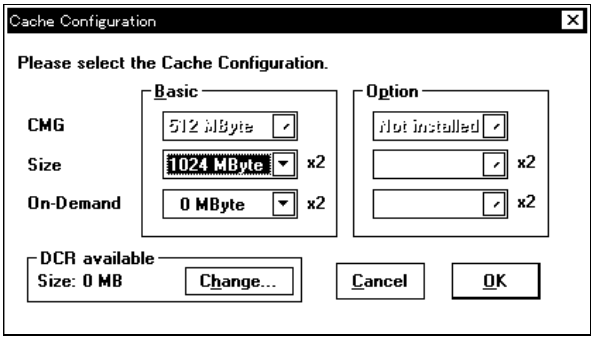
(1) <Update Configuration Information>
Select (CL) [Cache Configuration] in the 'DKC Configuration'.
(Go to step (2).)



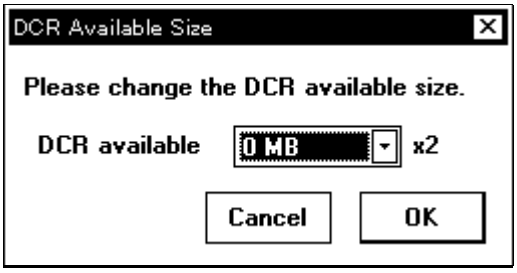
Note: It is not possible to install or de-install plural parts at the same time.

Make sure that all entered items are correct and select (CL) [>>Next].
Go to step (3).

(2) <Define Cache>
Define each item in the 'Cache Configuration'.
If you want to change DCR available size, select (CL) [Change...] to change it.
(See SSD Optional Function Section)



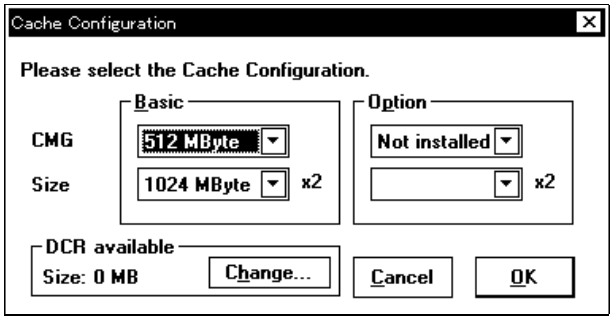
(2-1) <Define DCR Available Size>
Define the DCR available size in the 'DCR Available Size' dialog box.
And select (CL) [OK].



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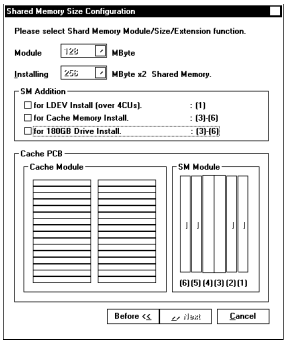
(2-2)

After setting up all items, select (CL) [OK].
Return to step (1).



(3) <Display SM size>

'Shared Memory size Configuration' dialog box is displayed.
Select (CL) [>>Next].

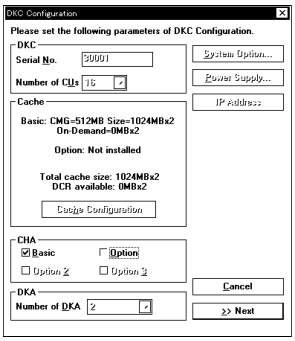


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2. Number of Channel

(1) <Update Configuration Information>

Define the item to CHA in the 'DKC Configuration'.



Note 1: It is not possible to install or de-install plural parts at the same time.

Note 2: In case of Multiplatform configuration,

1. If you want to change Multiplatform into ALL SCSI, after de-installing mainframe volumes, then CHA must be de-installed.
2. If you want to change ALL SCSI into Multiplatform, after de-installing open volumes, then CHS/CHF/CHT must be de-installed.

Make sure that the entered item is correct and select (CL) [>>Next].

---

(2) <Return to General flow page>

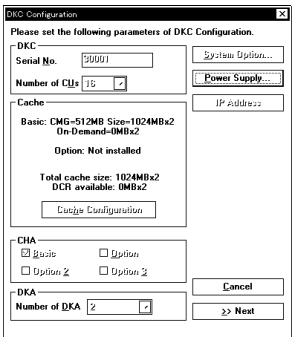
Non-disruptive De-Installation : Go to INST02-180 step (6)-3

Disruptive De-Installation : Go to INST02-260 step (5)-2

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3. Redundant Power Supply

(1) <Update Configuration Information>
Select (CL) [Power Supply] in the 'DKC Configuration'.

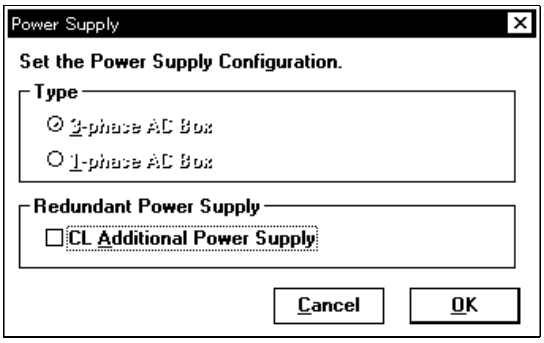


Note 1: It is not possible to install or de-install plural parts at the same time.
Note 2: In case of Single Cabinet Model, [Power Supply] is not displayed.

Make sure that the entered item is correct and select (CL) [>>Next].

(2) <Define Redundant Power Supply>
Select (CL) redundant power supply to be de-installed in the 'Redundant Power Supply'.
Select (CL) [OK]. Return to step (1).

Note: If entered item is wrong, the part not to be installed or de-installed may be blocked.



(3) <Return to General flow page>
Non-disruptive De-Installation : Go to INST02-180 step (7)-3
Disruptive De-Installation : Go to INST02-260 step (6)-2

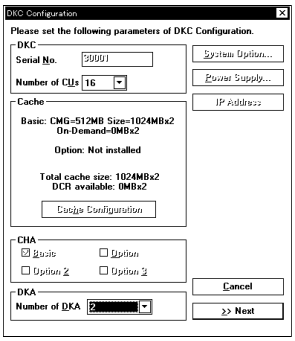
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4. DKA + ECC group + LDEV

(1) <Update Configuration Information>

Set the item to be de-installed for DKC and DKA in the 'DKC Configuration'.

- Change the value of [Number of CUs] if the number of CUs decreases when you de-install HDDs.
- If you want to de-install a DKA, change the value of "Number of DKA".



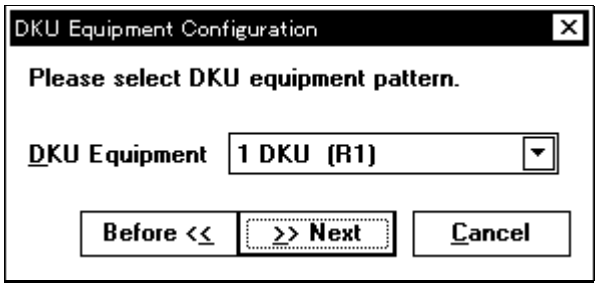
Note: It is not possible to install or de-install plural parts at the same time.

Make sure that the entered item is correct and select (CL) [>>Next].

---

(2) <Set DKU Equipment>

Set the DKU equipment pattern in the 'DKU Equipment'.
After setting up, select (CL) [>>Next].



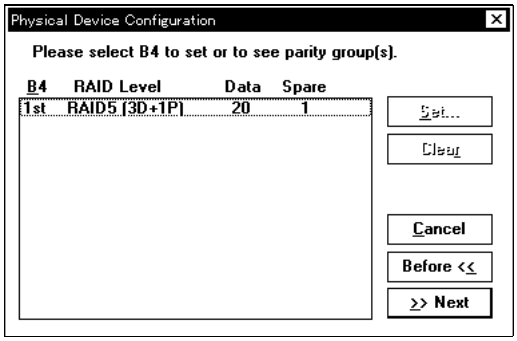
Note: In case of Single Cabinet Model, 'DKU Equipment Configuration' dialog box is not displayed.

---

(3) Change Drive Configuration Information>

Set drive configuration according to the 'Physical Device Configuration' screen displaying the mounted B4 based on the result of setting of DKU mount pattern.
Detailed procedure is shown below.

- Select (CL) the B4 Group and select (CL) [Set...]. Go to step (4).
- Selecting (CL) [Clear...] after selecting (CL) the B4 Group clears the B4 setting.------(Note2)



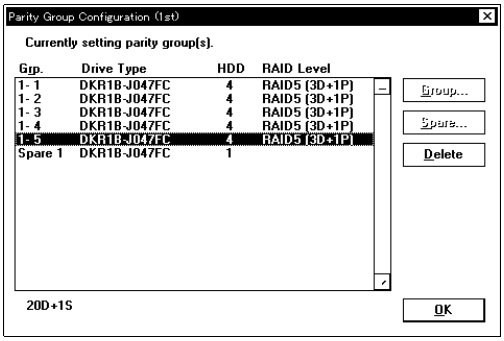
After setting up all items, select (CL) [>>Next]. Go to step (6).
Selecting (CL) [Before<<] returns you to the previous screen.

B4	Location	B4	Location
1st	HDU-R10, 11, 12, 13	7th	HDU-L20, 21, 22, 23
2nd (*)	HDU-R14, 15, 16, 17	8th (*)	HDU-L24, 25, 26, 27
3rd	HDU-L10, 11, 12, 13	9th	HDU-R30, 31, 32, 33
4th (*)	HDU-L14, 15, 16, 17	10th (*)	HDU-R34, 35, 36, 37
5th	HDU-R20, 21, 22, 23	11th	HDU-L30, 31, 32, 33
6th (*)	HDU-R24, 25, 26, 27	12th (*)	HDU-L34, 35, 36, 37

Note1: In case of Single Cabinet Model, B4 is '1st' only.
Note2: In case of De-Installation for the locations attached with (*) (B4 option parts) in the above table, do the step "(5) Set DKUMN Jumper".

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(4) <Define Parity Group>
Select (CL) the group to be de-installed and select (CL) [Delete] in the 'Parity Group Configuration' dialog box.
After setting, select (CL) [OK]. Return to step (3).



(5) <Set DKUMN Jumper> (Only for Separate Model)
In case of De-Installation for B4 option parts (See Fig. 4.6.3-1 INST04-1770), change DKUMN Jumper of this DKU to the setting in Fig. 4.6.3-2 (INST04-1780). Don't change the setting in the DKU Jumpers without De-Installation.
Return to step (3).

(6) <Return to General flow page>
[In case of DKAs De-Installation]
Non-disruptive De-Installation : Go to INST02-150 step (2)-3
Disruptive De-Installation : Go to INST02-260 step (3)-2

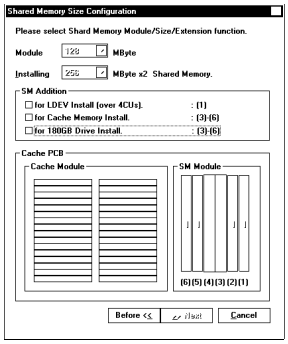
[In case of HDDs De-Installation]
(In case of Separate Model)
- In case of DEV I/F Cable 2 (DKU-F405I-EXC) De-Installation
  Non-disruptive De-Installation : Go to INST02-150 step (1)-8
  Disruptive De-Installation : Go to INST02-250 step (2)-2
- In case of DEV I/F Cable 2 (DKU-F405I-EXC) not De-Installation
  Non-disruptive De-Installation : Go to INST02-150 step (1)-2A
  Disruptive De-Installation : Go to INST02-250 step (2)-2

(In case of Single Cabinet Model)
Non-disruptive De-Installation : Go to INST02-150 step (1)-3
Disruptive De-Installation : Go to INST02-250 step (2)-2

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5. SM Capacity

(1) <Define Shared Memory Size>
Define the shared memory size in the 'Shared Memory Size Configuration' dialog box.



[In case of LDEV De-install]
Delete Check (CL) the "for LDEV Install (over 4CUs)".

[In case of Cache Memory De-install]
Check (CL) the "for Cache Memory Install" and select the memory size.

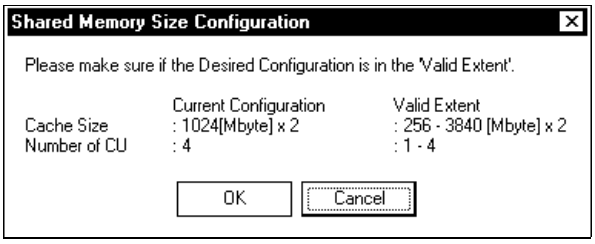
[In case of 180 GB Drive De-install]
Check (CL) the "for 180GB Drive Install" and select the memory size.

Select (CL) [>>Next].

---

(2)
Make sure if the desired configuration is in the valid extent.

In the valid extent : Select (CL) [OK].
Out of the valid extent : Select (CL) [Cancel].



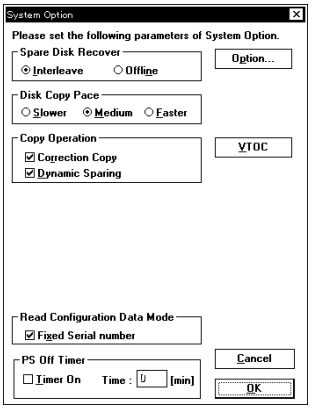
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5.3.2.3 System Option

⚠ CAUTION

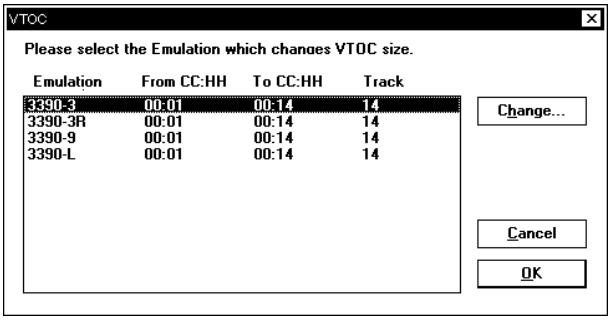
There is some possibility that “Syserr’s Clues” occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with “Syserr’s Clues” caused have no effects on the system.

1. <System Option Definition>
   Define system option information in the ‘System Option’.
   [VTOC]: Setting the VTOC size. Go to step 2.
   After setting up all items, select (CL) [OK].



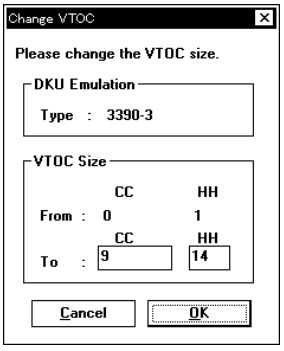
2.

Select (CL) the DKU Emulation to be defined and select (CL) [Change...]. Go to step 3.
After setting up all items, select (CL) [OK].
Return to step 1.



3.

Setting the VTOC Size (to CC:HH), and select (CL) [OK].
Return to step 2.



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5.3.2.4 DCR Configuration

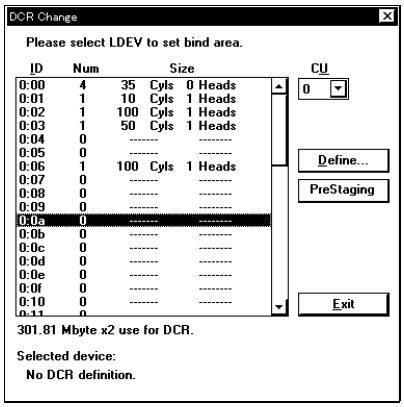
⚠ CAUTION

There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

(1) The "DCR Change" screen opens and the contents of the setting which has been made are displayed. When the CU is selected (DR) is the combo box, installed LDEV(s) and contents of the DCR definition are updated. Select (CL) and LDEV the setting for which is to be changed, then press (CL) the [Define...] button.

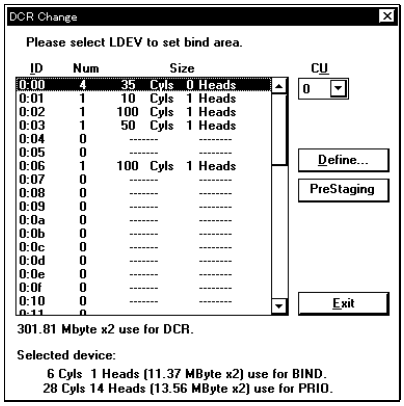
Total cache memory size which DCR area use is displayed.

If LDEV which selected have a DCR area, BIND size and PRIO size is displayed under "DCR Change" screen.

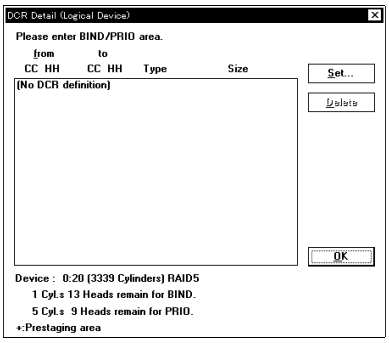


NOTICE

To use DCR function, you should install DCR program product (P-242R-J4641-L) for mainframe volumes or Open DCR program product (P-242R-J4642-L) for open volumes into the DKC.

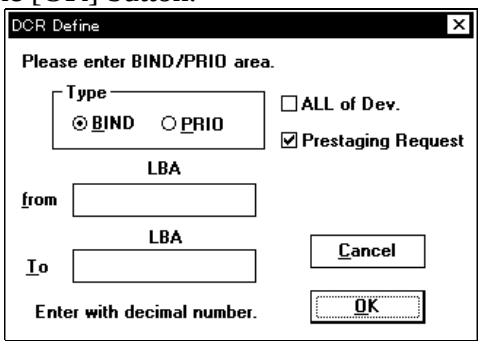


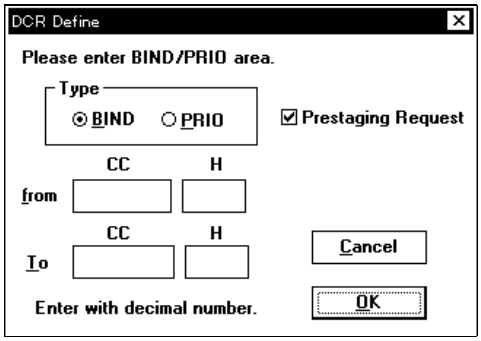
(2) The "DCR Detail (Logical Device)" screen opens and the setting of the DCR in the LDEV is displayed.
To add a new setting, press (CL) the [Set...] button.



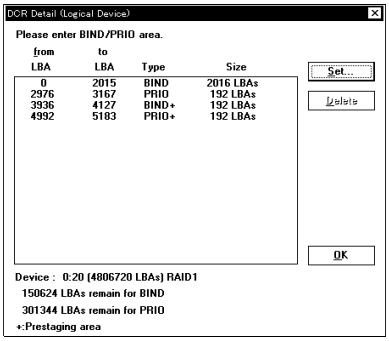
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(3) When the [Set...] button is pressed (CL) on the "DCR Detail (Logical Device)" screen, the "DCR Define" screen appears. Enter the type, starting cylinder number, starting head number, ending cylinder number, and ending head number (in the case of Mainframe. Refer to the screen on the right.) or the type, starting LBA, and ending LBA (in the case of the open system. Refer to the screen on the left.) of the DCR area to be newly registered.
If you want to stage the data on the cache, check the Prestaging Request box.
When the entry is completed, return the screen to the "DCR Detail (Logical Device)" screen by pressing (CL) the [OK] button.

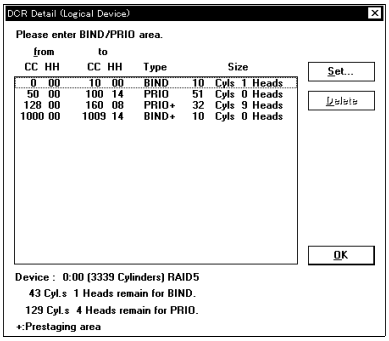




(4) Contents of the setting which has been made are displayed in the list box on the "DCR Detail (Logical Device)" screen.

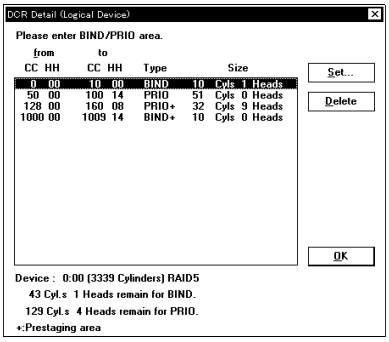


(In the case of open system)



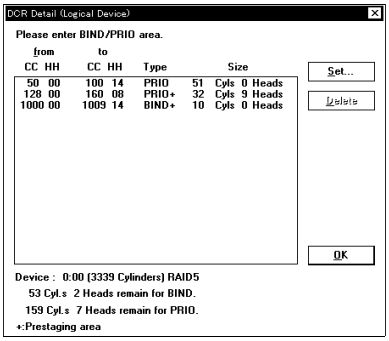
(In the case of Mainframe system)

(5) To delete a set item, select (CL) the DCR setting to be deleted and press (CL) the [Delete] button on the "DCR Detail (Logical Device)" screen.

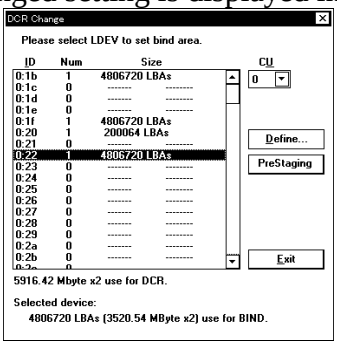


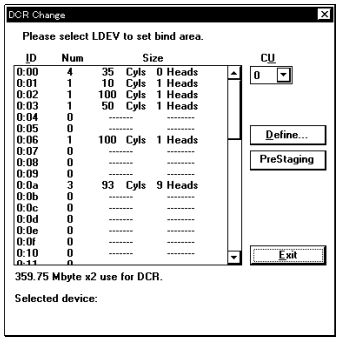
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(6) By pressing (CL) the [OK] button on the “DCR Detail (Logical Device)” screen after the setting is decided, a process to change the setting for the LDEV is executed.
When no change is necessary, press (CL) the [Cancel] button.



(7) The screen returns to the “DCR Change” screen after the processing is completed. The changed setting is displayed in the list box.





(In the case of open system) (In the case of Mainframe system)

(8) Repeat steps (1) to (7) for the LDEV(s) you want to change the setting of it.

(9) The [PreStaging] button begins the Pre-staging processing.

(10) When the changing operation is completed, quit the “DCR Change” screen by pressing (CL) the [EXIT] button.

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5.3.2.5 CVS Configuration

⚠ CAUTION

There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

1. <Volume to Space>

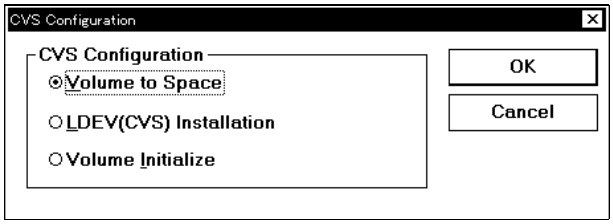
NOTICE

When you set HMDE volumes to customized volumes and reset them to the normal volume again, these volumes could not be set as HMDE volumes. Please refer to the following table.

Emulation Types for HMDE volumes	Emulation types after changing from Customized volume to normal volume
3390-3A	3390-3
3390-3B	
3390-3C	
3380-KA	3380-K
3380-KB	
3380-KC	

If you want to reset these volumes as HMDE, please call technical support center to set them to HMDE volumes by SVP.

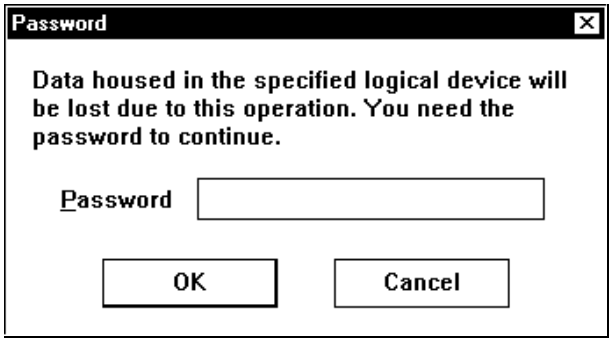
(1) Select (CL) [Volume to Space] and press (CL) the [OK] button.



NOTICE

To use CVS function, you should install CVS program product (P-242R-J4541) for mainframe volumes or Open CVS program product (P-242R-J4542) for open volumes into the DKC.

Enter the password and select (CL) [OK].



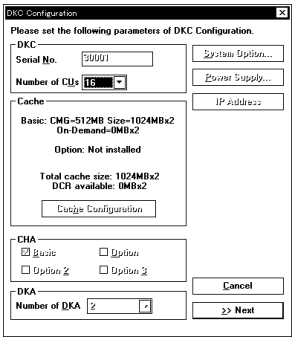
NOTICE

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

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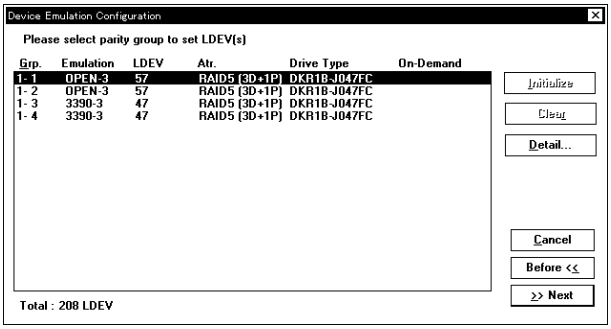
(1-1) Define the number of CU in DKC in the 'DKC Configuration'.

Make sure that the entered item is correct and select (CL) [>>Next].



(2) Select (CL) a parity group having Volume(s) to be changed on the "Device Emulation Configuration" screen and press (CL) the [Detail...] button.

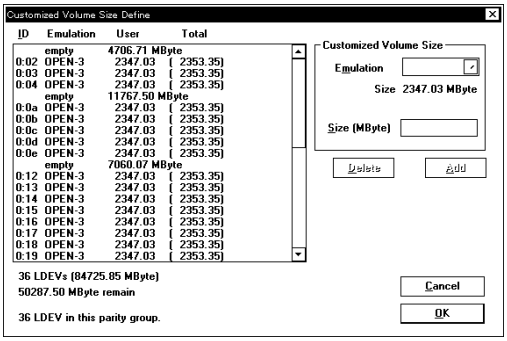
(CVS): The parity group which CVS is installed.

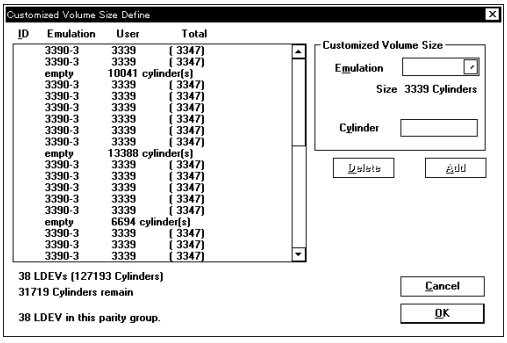


(3) When the Volume(s) to be deleted is selected (CL) on the "Customized Volume Size Define" screen and the [Delete] button is pressed (CL), the Volume(s) is deleted. When the operation fails, the screen can be returned to the preceding one by pressing (CL) the [Cancel] button.

Note: In the following case, [Delete] button is not available.

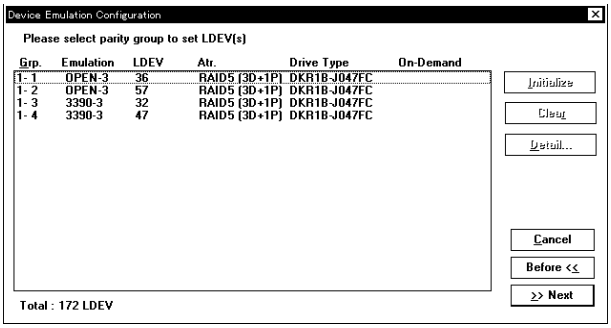
1) The last CV is selected.
2) Volume with SCSI path(s) ("+" indicated) is selected.
3) Volume with LUSE ("+" indicated) is selected.
4) Volume with LDEV Security ("+" indicated) is selected.





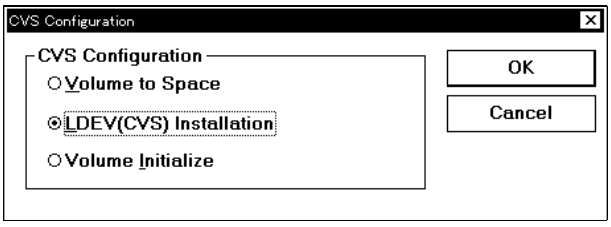
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(4) When the screen is returned to the “Device Emulation Configuration” screen by pressing (CL) the [OK] button and the[>>Next] button is pressed (CL), the definition of reduction is decided.



2. <LDEV(CVS) Installation>

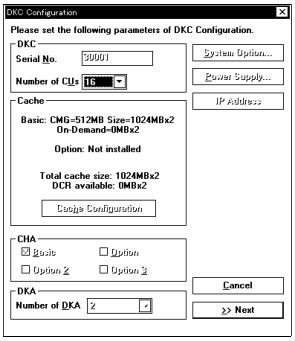
(1) Select (CL) [LDEV(CVS) Installation] and press (CL) the [OK] button.



(1-1) Define the number of CUs in DKC in the ‘DKC Configuration’.

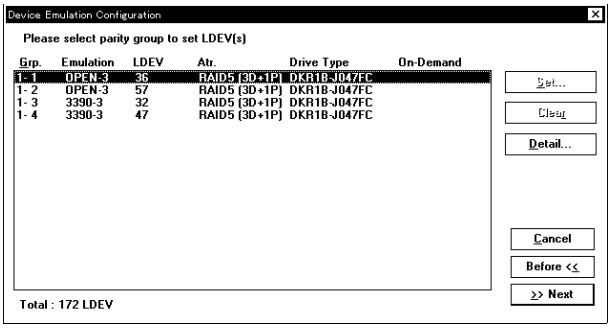
When no alteration was made on the number of CUs owing to the addition of the LDEV (CVS), select (CL) [>>Next].

Make sure that the entered item is correct and select (CL) [>>Next].



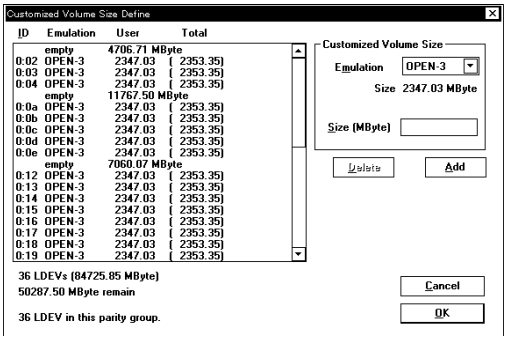
(2) Select (CL) a parity group to which the CV(s) is to be added on the “Device Emulation Configuration” screen and press (CL) the [Detail] button.

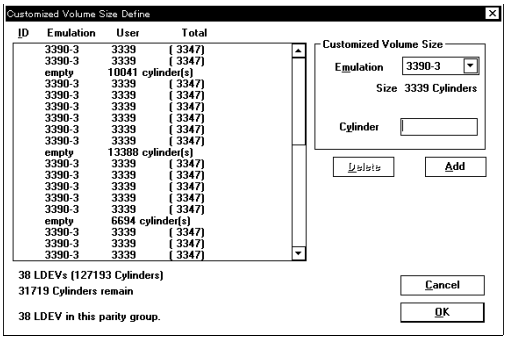
(CVS): The parity group which CVS is installed.



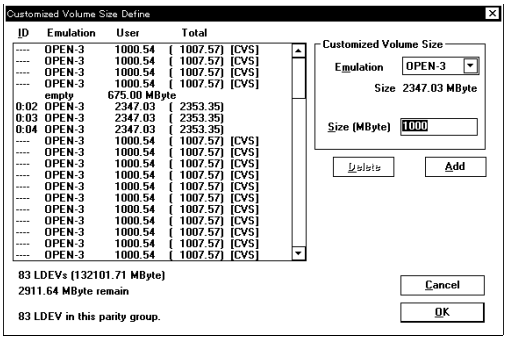
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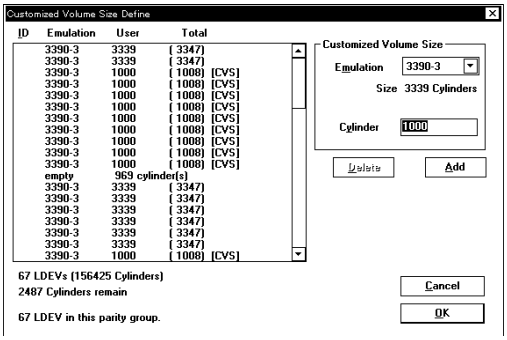
(3) Register the CV to be added by selecting (CL) the emulation type of it, entering the number of cylinders, and selecting (CL) [Add] on the "Customized Volume Size Define" screen. The two or more CVs can be registered when the operation above is performed repeatedly.
When an emulation type for open host is selected, the size per cylinder is displayed in M bytes.





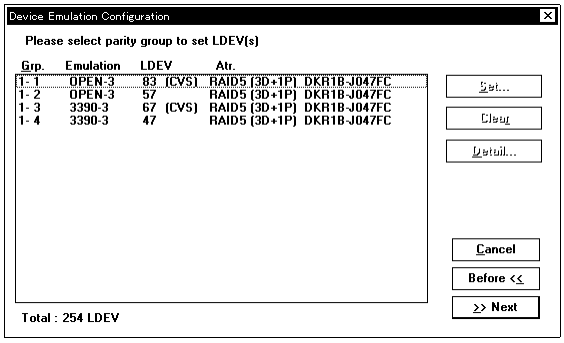
(4) The contents of the registration which has been made are displayed in the list box. The deletion can be made only for the added CV(s). When the addition is made incorrectly, select (CL) [Cancel] to make the setting invalid and perform the setting again.
When CV for open host is selected, the size is displayed in M bytes.





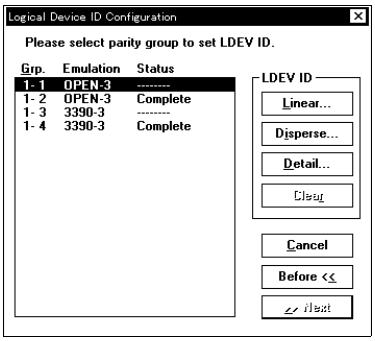
Copyright ©2000,2001, Hitachi, Ltd.

(5) When the screen is returned to the "Device Emulation Configuration" screen by a pressing (CL) of the [OK] button, the setting result is displayed.
The LDEV status is displayed as [CVS] for the parity group for which the CV was set.

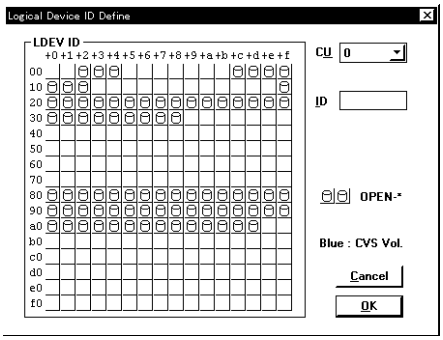


(6) When the [>>Next] button is pressed (CL), the LDEV ID setting screen appears.
Set LDEV ID(s) for the added CV(s). For the parity group having the added CV(s), status which shows the ID allocation is indicated as "---------". Therefore, select (CL) such parity group.

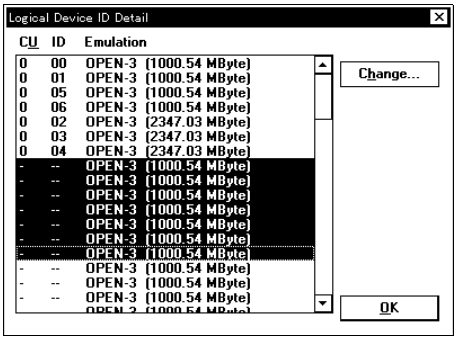
When [Linear...] or [Disperse...] was selected (CL), the routine proceeds to Step (7).
When [Detail...] is selected (CL), the routine proceeds to Step (7)-1.



(7) Press (CL) the [Linear...] button and enter a CU and LDEV ID you want to allocate on the "Logical Device ID Define" screen.

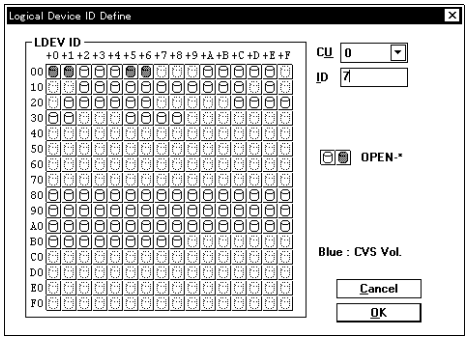


(7)-1 When the [Detail...] is selected (CL), the [Logical Device ID Detail] screen is displayed. Select an emulation type for which the CU and ID status are displayed as "- --" and select (CL) [Change...].
When you want to register successive IDs, you can select the two or more emulation types.

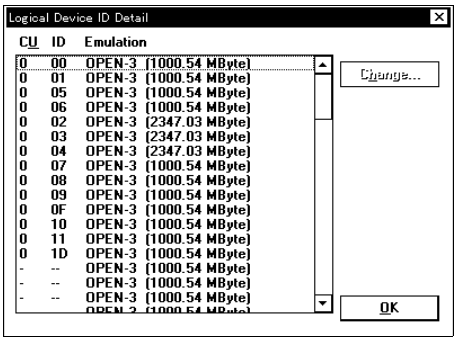


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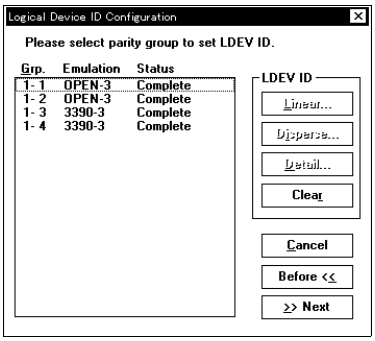
(7)-2 Enter a CU and LDEV ID you want to allocate on the "Logical Device ID Define" screen. Then, select (CL) [OK].
Go to Step (7)-3.



(7)-3 Make sure that the CU(s) and ID(s) have been registered.
If there is any emulation type for which the CU and ID status are displayed as "- --", return to Step (7)-1.
If all the settings have been made, select (CL) [OK].
Go to Step (8).

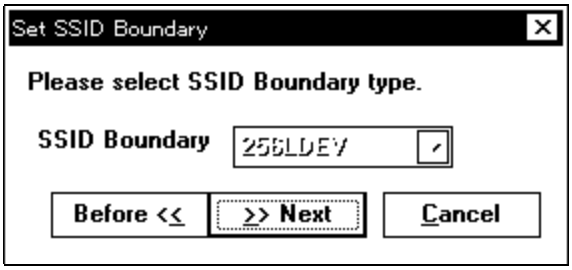


(8) When the screen is returned to the "Logical Device ID Configuration" screen by pressing (CL) the [OK] button, the setting result is displayed.



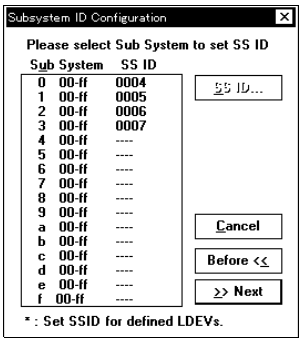
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(9) When [>>Next] is selected (CL).
Press (CL) the [>>Next] button to change the screen to the “Set SSID Boundary” screen.

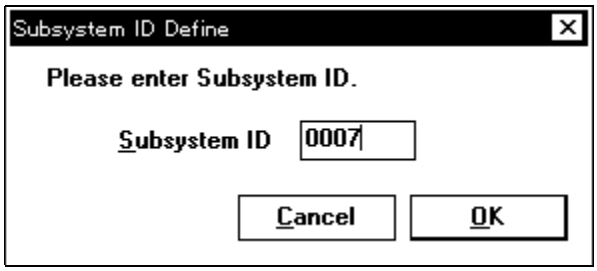


(10) When the [>>Next] button is pressed (CL), the “Subsystem ID Configuration” screen is opened. If a new SS ID is required as a result of defining an LDEV ID, define it. Select (CL) a subsystem for which the SS ID is to be newly defined and press (CL) the [SS ID...] button.

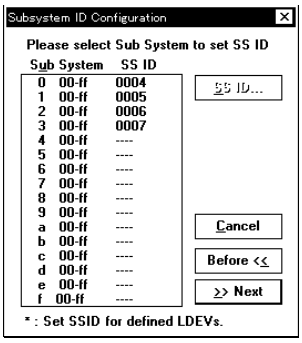
When no subsystem ID is to be defined, go to Step (13) by selecting [>>Next].



(11) Enter the SS ID on the “Subsystem ID Define” screen and select (CL) [OK].



(12) When the screen is returned to the “Subsystem ID Configuration” screen by pressing (CL) the [OK] button, the contents of the setting which has been made are displayed.



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(13) When [>>Next] is selected (CL), the definition of the addition ends. (Adding process starts.)

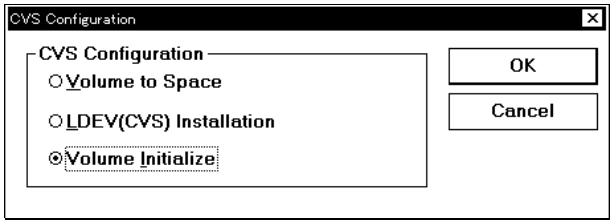
3. <Volume Initialize>

NOTICE
When you set HMDE volumes to customized volumes and reset them to the normal volume again, these volumes could not be set as HMDE volumes. Please refer to the following table.

Emulation Types for HMDE volumes	Emulation types after changing from Customized volume to normal volume
3390-3A	3390-3
3390-3B	
3390-3C	
3380-KA	3380-K
3380-KB	
3380-KC	

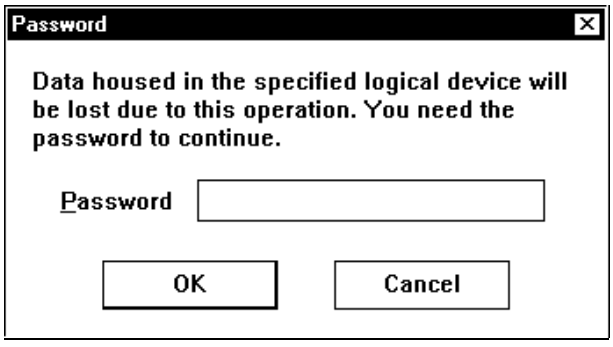
If you want to reset these volumes as HMDE, please call technical support center to set them to HMDE volumes by SVP.

(1) Select (CL) [Volume Initialize], then select (CL) [OK].



Enter the password and select (CL) [OK].

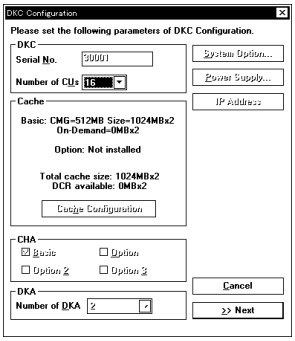
NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.



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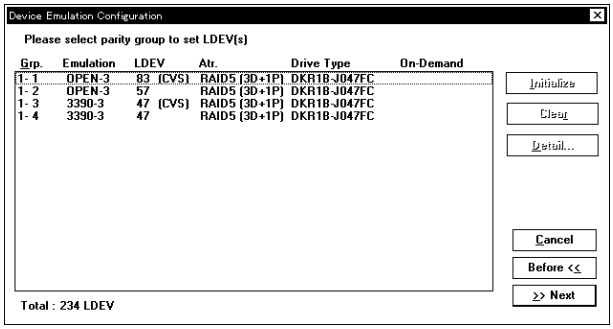
(1-1) Define the number of CU in DKC in the 'DKC Configuration'.

Make sure that the entered item is correct and select (CL) [>>Next].

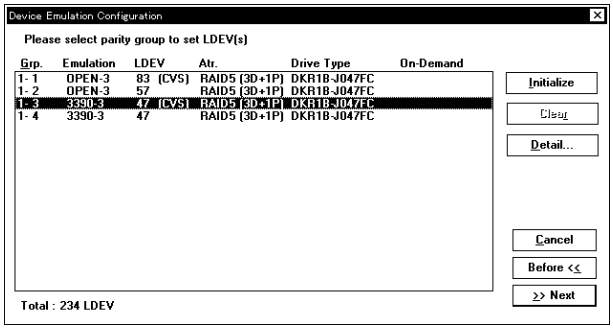


(2) Select (CL) a parity group having volume(s) to be changed on the "Device Emulation Configuration" screen.

(CVS): The parity group which CVS is installed.



(3) Select (CL) a CV from the list box on the "Customized Volume Size Define" screen, press (CL) the [Initialize] button to delete the CV, and return it to a normal volume. When the operation fails, the screen can be returned to the preceding one by pressing (CL) the [Cancel] button.



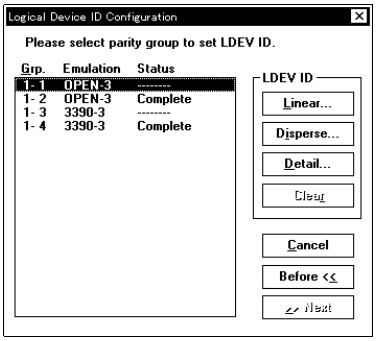
Note: In the following case, [Initialize] button is not available.

1) Volume with SCSI path(s) is selected.
2) Volume with LUSE is selected.
3) Volume with LDEV Security is selected.

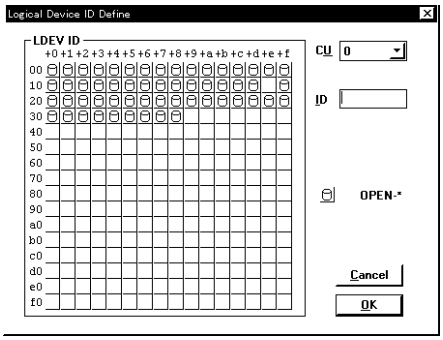
(4) To return the volume(s) in other parity group(s) to the normal LDEV(s), repeat steps (3).

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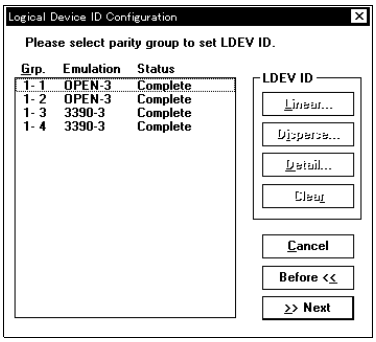
(5) Press (CL) the [>>Next] button to change the screen to the "Logical Device ID Configuration" screen. Since the normal LDEV returned from the base volume is an LDEV newly defined, define the ID for it. Select (CL) the parity group having the LDEV(s) for which the ID(s) has not been set, then select (CL) [Linear...]. Two or more parity groups can be selected. (Refer to INST05-270)



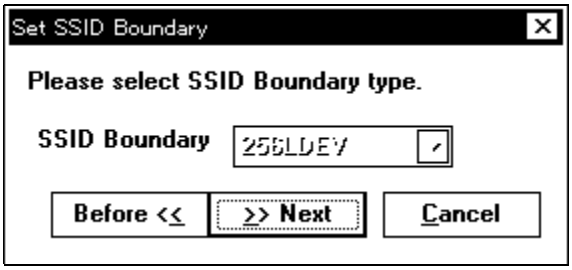
(6) Select CU ID in CU combo box.
Input LDEV ID you want to set in the ID edit box.
After setting, select (CL) [OK] button.



(7) Status of the parity group the setting for which is completed changes to "Complete".
Press (CL) the [>>Next] button.

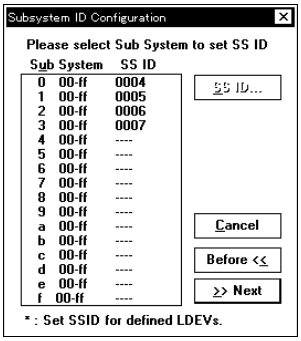


(8) Press (CL) the [>>Next] button to change the screen to the "Subsystem ID Configuration] screen.

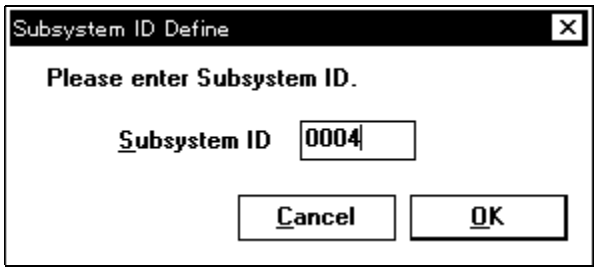


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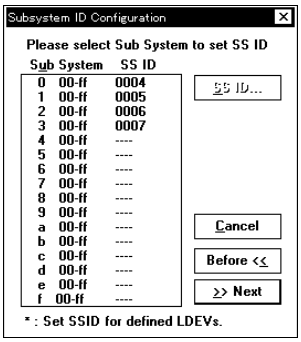
(9) When it is necessary to set a new SS ID, define the SS ID newly. Select (CL) a subsystem for which SS ID is not defined, then select (CL) [SS ID...].



(10) Enter an SS ID on the "Subsystem ID Define" screen and select (CL) [OK].



(11) When the screen is returned to the "Subsystem ID Configuration" screen, the registered SS ID is displayed.
Press (CL) the [>>Next] button to quit the definition screen.



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5.3.2.6 SCSI I/F Configuration ('SCSI Path-LDEV Configuration' window)

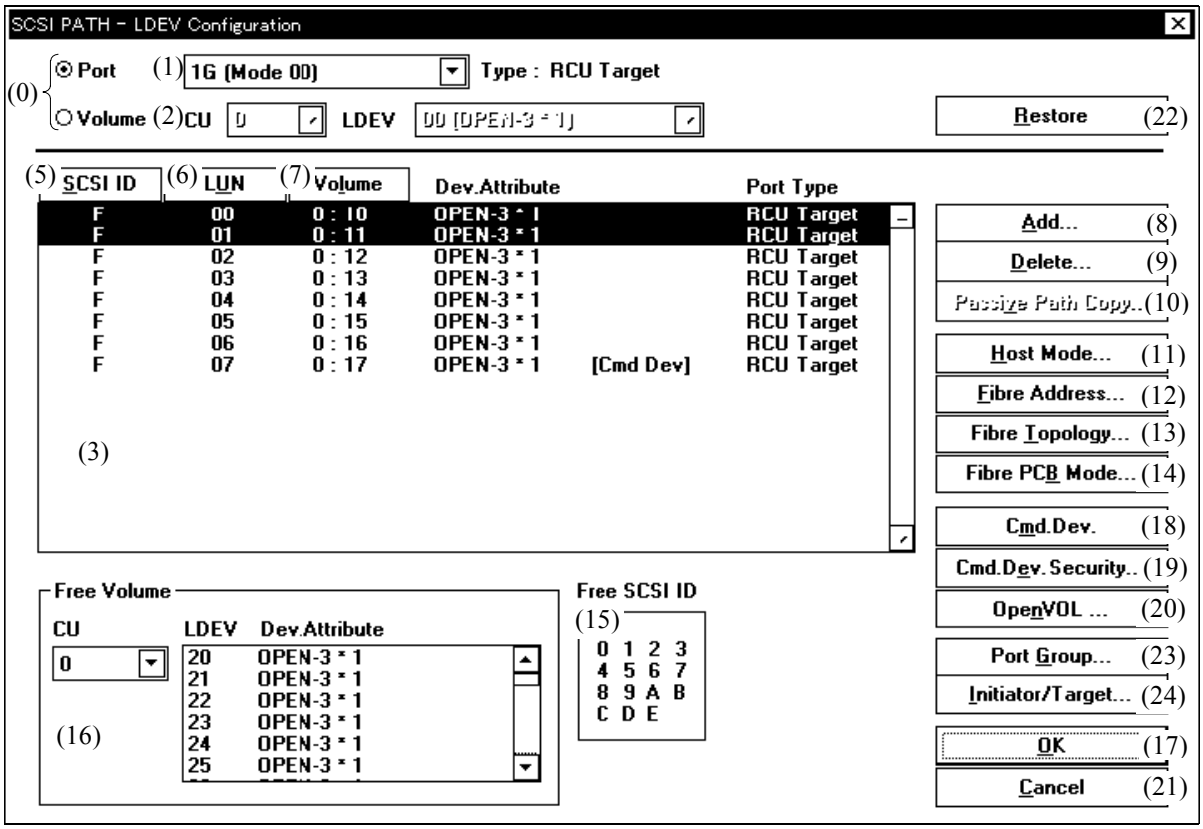
⚠ CAUTION

Please do not use this function with CESTPATH and CDELPATH commands (for Fibre-HRC) at the same time.

* In case of "Refer Configuration", there are some buttons which cannot be selected in this window.

1. Summary

1-1 The name of each part ('SCSI Path-LDEV Configuration' window)



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1-2 Outline of each part

(0) Display pattern button
- PORT : SCSI paths defined on the selected port are displayed in SCSI path list
- Volume : SCSI paths defined in the selected CU:LDEV ID are displayed in SCSI path list.

(1) Installed port list
Installed ports of CHA for SCSI I/F configuration are displayed.

(2) Installed Volume list
Installed CU:LDEV ID of Volume for SCSI I/F configuration is displayed.
HIHSM reserve volume is not displayed.
LUN On Demand volume is not displayed.

(3) SCSI path list
According to (0), displayed the defined SCSI paths.
* If PORT is selected in (0), '+' added to Volume denotes multiple path setting.

(4) PORT button (in the case of Volume in (0))
SCSI paths are sorted increasingly in port number. The precedence of sorting follows: PORT, SCSI ID and LUN.

(5) SCSI ID button
SCSI paths are sorted increasingly in SCSI ID. The precedence of sorting follows: SCSI ID, PORT and LUN (or SCSI ID, LUN and LDEV ID).

(6) LUN button
SCSI paths are sorted increasingly in LUN. The precedence of sorting follows: LUN, PORT and SCSI ID (or LUN, SCSI ID and LDEV ID).

(7) Volume button (in the case of PORT in (0))
SCSI paths are sorted increasingly in CU:LDEV ID. The precedence of sorting follows: CU:LDEV ID, SCSI ID and LUN.

(8) Add button
A new SCSI path definition is added (go to 2-1).

(9) Delete button
Defined SCSI paths are deleted (go to 2-2)

(10) Passive Path Copy button
Alternate SCSI paths on Cluster-2 corresponding to the ones on Cluster-1 are automatically generated (go to 2-5).

(11) Host Mode button
The window which shows the setting situation of host identification codes for each installed CHS/CHF port is displayed (go to 2-3).

CAUTION

On the CHF, Host Mode must be set to "Mode 00".

(12) Fibre Address button
Fibre Address information is displayed (go to 2-5).

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(13) Fibre Topology button
Fibre Topology information is displayed (go to 2-5).

(14) Fibre PCB Mode button
Fibre PCB Mode information is displayed (go to 2-6).

(15) Free SCSI ID area
Unused SCSI IDs are displayed.

(16) Free Volume area
Unused CU:LDEV IDs are displayed.
HIHSM reserve volume is not displayed.
LUN On Demand volume is not displayed.

(17) OK button
SCSI path definition is ended (go to 2-7).

(18) Cmd. Dev. button
Command Device is set (go to 2-8).

(19) Cmd. Dev. Security button
Command Device for LUN Security is set (go to 2-8).

(20) Open VOL button
Open VOLs can be set (go to 2-10).

(21) Cancel button
SCSI path definition is canceled (go to 2-7).

(22) Restore button
SCSI path definition is restored from the backup configuration (go to 2-9).

(23) Port Group button
Port Group is set (go to 2-11).

(24) Initiator/Target button
Port type is changed (go to 2-12).

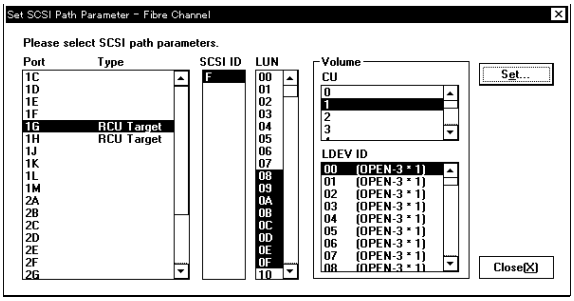
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2. Detail

2-1 Add

(1) Select (CL) [Add...] button in 'SCSI Path-LDEV Configuration' window.

'Set SCSI Path Parameter' window is displayed. Multiple PORT, SCSI ID, LUN and LDEV ID can be selected (Single CU can be selected).



- Port : All installed port of CHA for SCSI I/F configuration are displayed.
- SCSI ID : Only 1 SCSI ID F is displayed. *
- LUN : 256 LUNs from 00 to FF are displayed.
- Volume : CU:LDEV IDs in which the emulation type ports of CHA for SCSI I/F configuration is set are displayed.
  HIHSM reserve volume is not displayed.
  LUN On Demand volume is not displayed.
  The symbol '+' added to LDEV ID denotes the existence of path setting as follow:

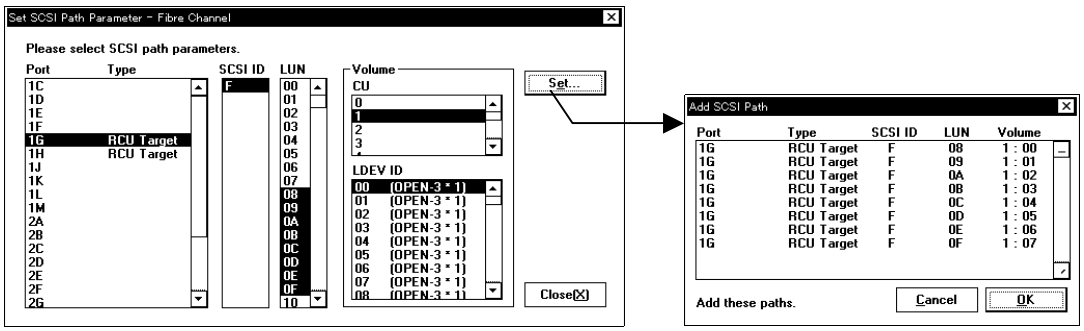
'+'	a path is set
'++'	multiple paths are set
none	no path is set

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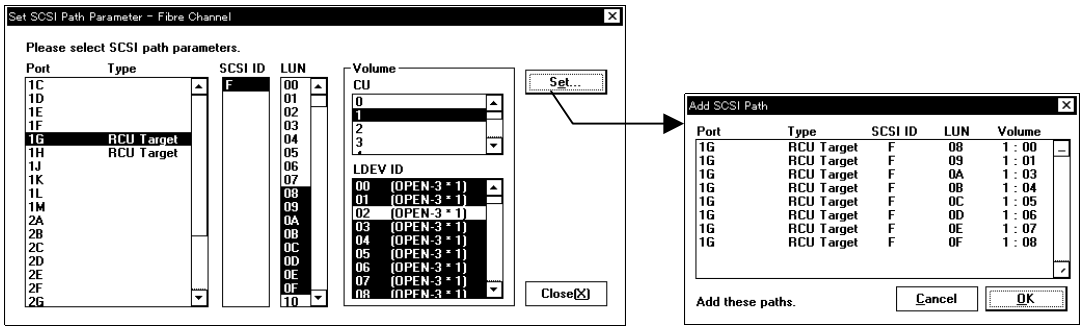
(2) Select (CL) [Set...] in 'Set SCSI Path Parameter' window.
SCSI paths are constructed based on the above selection, and the confirmation window is displayed.
* This button comes to be available just after selections from all lists are completed.

According to the number of the selected LDEV ID, "continuous LDEV ID allocation" and "arbitrary LDEV ID allocation" are possible.

Ex.1 Continuous LDEV ID allocation



Ex.2 Arbitrary LDEV ID allocation



(3) Confirm in 'Add SCSI Path' window.

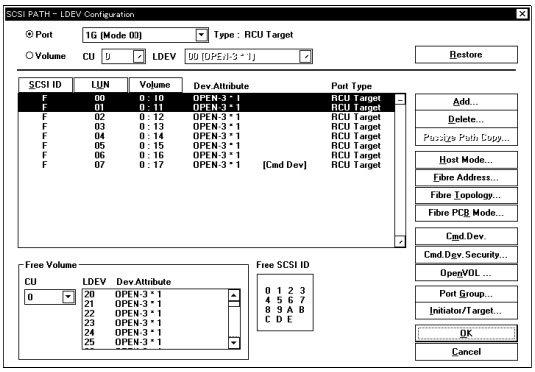
- [OK] : Newly set paths are displayed in the 'SCSI Path-LDEV Configuration' window, and go back to 'Set SCSI Path Parameter' window.

- [Cancel] : Go back to 'Set SCSI Path Parameter' window.

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2-2 Delete

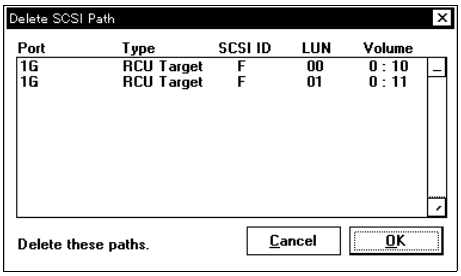
(1) SCSI paths are selected at the SCSI path list in 'SCSI Path-LDEV Configuration' window.



(2) Select (CL) [Delete...] in 'SCSI Path-LDEV Configuration' window.

The confirmation window for the deleted paths is displayed.

* This button comes to be available just after selections from SCSI path list.



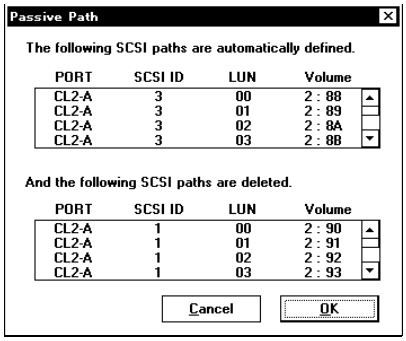
(3) Confirm in 'Delete SCSI Path' window.

- [OK] : The situation in that selected paths are deleted is displayed in 'SCSI Path-LDEV Configuration' window.
- [Cancel] : Go back to 'SCSI Path-LDEV Configuration' window with nothing done.

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2-3 Passive Path Copy

(1) Select (CL) [Passive Path Copy...] in 'SCSI Path-LDEV Configuration' window.



'Passive Path' window is displayed.
* This button comes to available under the following conditions.
  1. PORT is selected at Display pattern button.
  2. The selected port is in Cluster-1.
  3. The mode of the selected port is 01, 11, 02 or 12.
  4. SCSI path is defined which has even SCSI ID.

(2) Confirm in 'Passive Path' window.

- [OK] : SCSI paths in the upper list are defined, and SCSI paths in the lower list are deleted. And then go back to 'SCSI Path-LDEV Configuration' window.
- [Cancel] : Go back to 'SCSI Path-LDEV Configuration' window with nothing done.

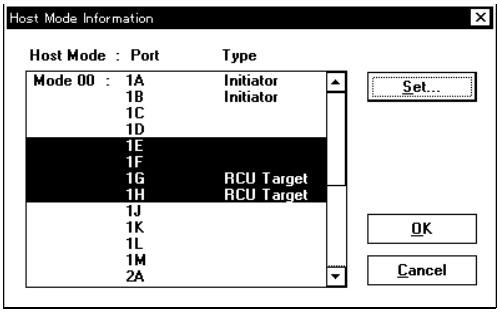
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2-4 Host Mode

(1) Select (CL) [Host Mode...] button in 'SCSI Path-LDEV Configuration' window.

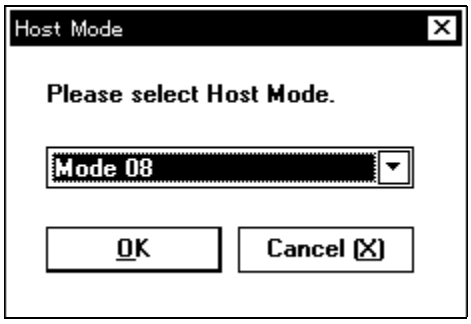
'Host Mode Information' window is displayed.

* When invalid value for Host identification information is read, "MODE xx" is reversibly displayed. And [OK] button is not available.



(2) Select port(s) of which you want to change Host Mode and then select (CL) [Set...] in 'Host Mode Information' window.

'Host Mode' window is displayed and you can select Host Mode.



- [OK] : Host Mode is updated, which is displayed on 'Host Mode Information' window.
- [Cancel] : Go back to 'Host Mode Information' window with nothing done.

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2-5 Fibre

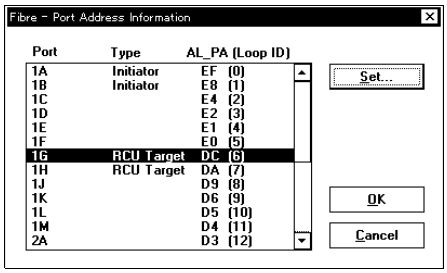
(0) Select (CL) [Fibre Address...] or [Fibre Topology...] in 'SCSI Path-LDEV Configuration' window.

Go to 2-5-1 or 2-5-2.

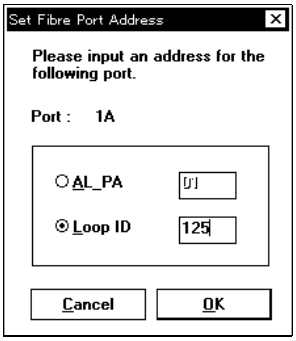
2-5-1 Fibre Address

(1) Select (CL) port of which Address information is changed, and select (CL) [Set...] in 'Fibre - Port Address Information' window.

'Set Fibre Port Address' window is displayed.
* [Set...] button comes to be available just after selections of port.



(2) Input address value in 'Set Fibre Port Address' window.
AL_PA : 01 ~ EF (HEXA DECIMAL number)
Loop ID : 0 ~ 125 (DECIMAL number)
AL_PA is an ID based on Fibre standard. It denotes an address of each port on Fibre loop.
Loop ID, whose initial value is 0, is an identifier continuously assigned to each AL_PA in descending order. (see page INST05-810)



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Fibre port address (AL_PA and Loop ID)

AL PA	Loop ID	AL PA	Loop ID	AL PA	Loop ID	AL PA	Loop ID	AL PA	Loop ID	AL PA	Loop ID	AL PA	Loop ID	AL PA	Loop ID
EF	0	CD	16	B2	32	98	48	72	64	55	80	3A	96	25	112
E8	1	CC	17	B1	33	97	49	71	65	54	81	39	97	23	113
E4	2	CB	18	AE	34	90	50	6E	66	53	82	36	98	1F	114
E2	3	CA	19	AD	35	8F	51	6D	67	52	83	35	99	1E	115
E1	4	C9	20	AC	36	88	52	6C	68	51	84	34	100	1D	116
E0	5	C7	21	AB	37	84	53	6B	69	4E	85	33	101	1B	117
DC	6	C6	22	AA	38	82	54	6A	70	4D	86	32	102	18	118
DA	7	C5	23	A9	39	81	55	69	71	4C	87	31	103	17	119
D9	8	C3	24	A7	40	80	56	67	72	4B	88	2E	104	10	120
D6	9	BC	25	A6	41	7C	57	66	73	4A	89	2D	105	0F	121
D5	10	BA	26	A5	42	7A	58	65	74	49	90	2C	106	08	122
D4	11	B9	27	A3	43	79	59	63	75	47	91	2B	107	04	123
D3	12	B6	28	9F	44	76	60	5C	76	46	92	2A	108	02	124
D2	13	B5	29	9E	45	75	61	5A	77	45	93	29	109	01	125
D1	14	B4	30	9D	46	74	62	59	78	43	94	27	110		
CE	15	B3	31	9B	47	73	63	56	79	3C	95	26	111		

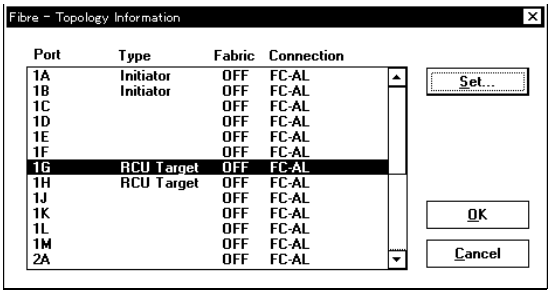
- [OK] : Address is updated, which is displayed on ‘Fibre - Port Address Information’ window.
  * This button comes to be available just after input of valid address value.
- [Cancel] : Go back to ‘Fibre - Port Address Information’ window with nothing done.

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2-5-2 Topology

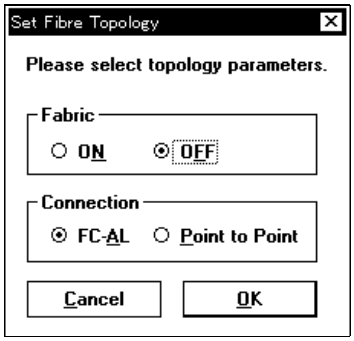
(1) Select (CL) port of which Topology information is changed, and select (CL) [Set...] in 'Fibre - Topology Information' window.

'Set Fibre Topology' window is displayed.
* [Set...] button comes to be available just after selections of port.



(2) Select (CL) Fabric (On/Off) and FC-AL/Point to Point in 'Set Fibre Topology' window.

- [OK] : Topology is updated, which is displayed on 'Fibre - Topology Information' window.
- [Cancel] : Go back to 'Fibre - Topology Information' window with nothing done.



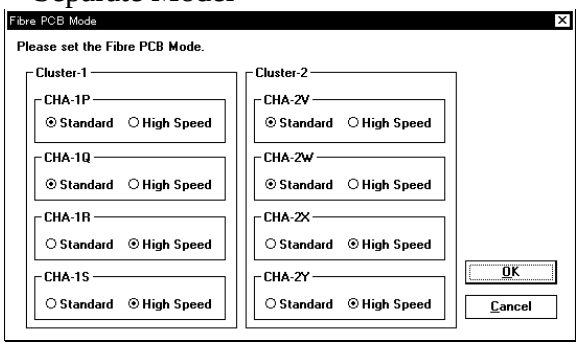
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2-6 Fibre PCB Mode

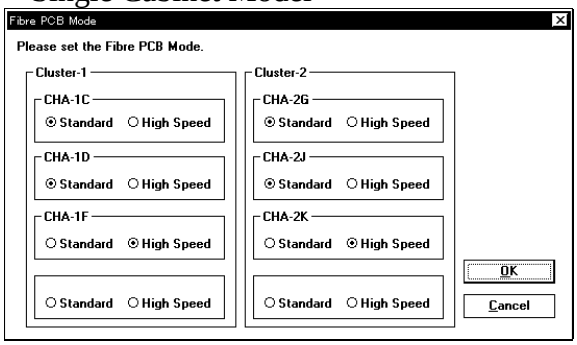
(1) In the [SCSI Path-LDEV Configuration] window, select (CL) [Fibre PCB Mode].

(2) Installed operate mode of Fibre channel are displayed.

* Separate Model



* Single Cabinet Model



(3) Select (CL) operate mode of channel which you want to change.

- [OK] : Transferred operate mode of channel to DKC, and then go back to [SCSI Path-LDEV Configuration] window.
- [Cancel] : Non operate, go back to [SCSI Path-LDEV Configuration] window.

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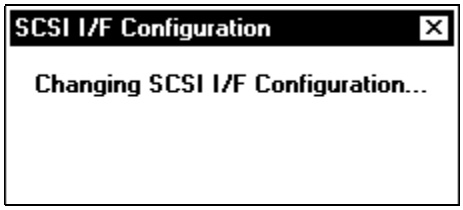
2-7 End of “SCSI Path-LDEV Configuration” window

(1) ‘Define Configuration & Install’
(2) ‘Refer Configuration’
(3) ‘Change Configuration’

(1) In case of ‘Define Configuration & Install’
[OK]: Go back to INST05-240 step 13. Or, go to INST05-970.
[Cancel]: Go back to INST05-100 step 4.

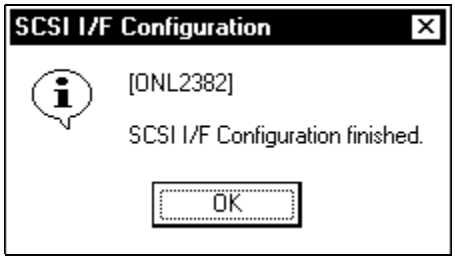
(2) In case of ‘Refer Configuration’
[OK]: Go back to INST05-340 step 2. Or, go to INST05-970.
[Cancel]: Go back to INST05-340 step 2.

(3) In case of ‘Change Configuration’
[OK]: ‘SCSI I/F Configuration’ windows is displayed.
Or, go to INST05-970.



After “Wait...” message, select (CL) [OK] in response to “SCSI I/F Configuration finished”.
Go back to INST05-410 step 2.

[Cancel]: Go back to INST05-410 step 2.

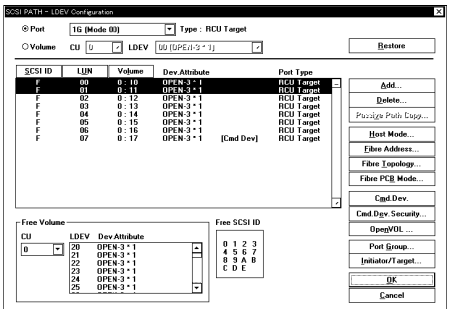


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2-8 Command Device

(1) Set or Reset

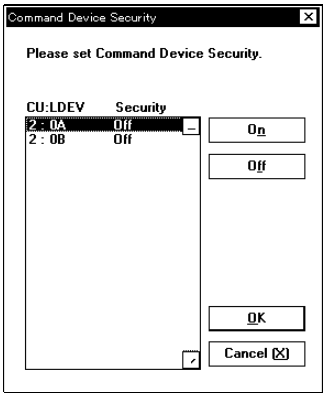
(1-1) In case display pattern button is PORT
Select (CL) SCSI path(s) in SCSI path list and select (CL) [Cmd.Dev.] button in 'SCSI Path-LDEV Configuration' window.



(1-2) In case display pattern button is Volume
Select (CL) [Cmd.Dev.] button.

(2) Confirm
The string "[Cmd]" in SCSI path list denotes 'Command Device'.

(3) Setting/canceling Command Device conforming to the LUN Security
Select (CL) [Cmd.Dev.Security…] button from the SCSI path list in the 'SCSI Path-LDEV Configuration' window.



The 'Command Device Security' windows is displayed.
Select (CL) a Command Device from the list and select (CL) the [On] button when you want to make it conform to the LUN Security or the [Off] button when you want to make it not conform to the LUN Security.

- The list displays only the Command Devices newly added.
- 'On' is displayed for the command device which conforms to the LUN Security and 'Off' for that which does not conform to the LUN Security.

[OK]: Reflects the setting in the 'SCSI Path-LDEV Configuration' window and then closes the window.
The Command Device which conforms to the LUN Security is displayed as [Cmd_Sec].

[Cancel]: Closes the 'SCSI Path-LDEV Configuration' window without reflecting the setting in the window.

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2-9 Backup/Restore

SCSI path configuration will be restored from the backup configuration files.
This can be operated in SCSI I/F Configuration and Define Configuration & Install.

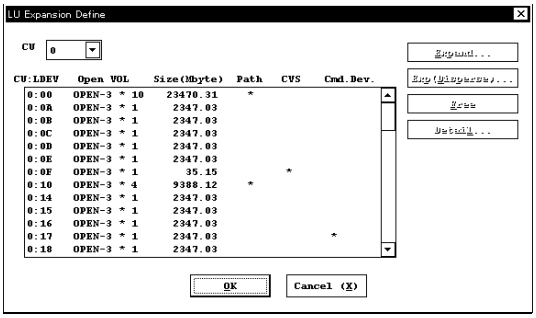
SCSI path configuration cannot be restored under the following conditions.

(1) The CHA PCB configuration of the backup is different from the current configuration.
(2) The logical device configuration of the backup is different from the current configuration.
(3) The CVS configuration of the backup is different from the current configuration.
(4) The Command Device configuration of the backup is different from the current configuration.
(5) HIHSM reserve volume configuration of the backup is different form the current configuration.
(6) HORC is being used.
(7) HOMRCF is being used.

2-10 LU Expansion

Select (CL) [Open VOL...] button in 'SCSI path-LDEV' Configuration' window.

'LU Expansion Define' window is displayed.



Detail of the list

- The list is displayed line by line in CU (The selection can be done on CU list).
- The number of LDEVs connected sequentially together which formalize LU Expansion (Open VOL)
  ex.) The first line on the right figure indicates that 10 LDEVs whose emulation type is OPEN-3 are connected together sequentially.
- The existence of SCSI path definition to the Open VOL.
  ex.) In the first line, '*' shows that CU:LDEV=0:00 and 0:10 have a SCSI path definition.
- The existence of CVS definition to the Open VOL.
  ex.) In the seventh line, '*' shows that CU:LDEV=0:0F has a CVS definition.
- The existence of Command Device (Cmd.Dev.) definition to the Open VOL.
  ex.) In the twelfth line, '*' shows that CU:LDEV=0:17 has a Command Device definition.

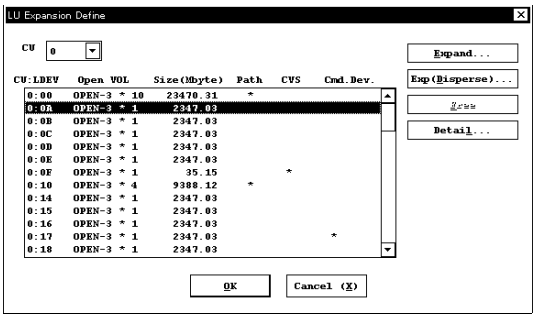
Detail of the buttons

- [OK] button : To register the setting information
- [Cancel] button : Not to register the setting information
- [Expand...] button : To display 'LU Expansion' window (go to (1))
- [Exp(Disperse)...] button : To display 'LU Expansion (Disperse)' window (go to (2))
- [Free] button : To dissolve LU Expansion consisted of two or more LDEVs (go to (3))
- [Detail...] button : To display 'Open VOL Detail' window (go to (4))

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(1) The setting of LU Expansion ('LU Expansion' window)

Select (CL) [Expand...] button in 'LU Expansion Define' window. [Expand...] button comes to be available at the time of selecting connectable CU:LDEV from the list.

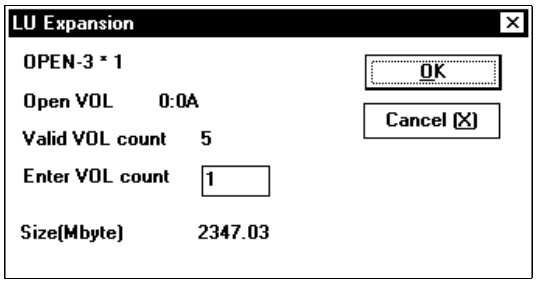


Connectable CU:LDEV denotes the following LDEVs.

- Unconnected CU:LDEVs
- CU:LDEV without SCSI path definition
- CU:LDEV without Command Device definition
- CU:LDEV with same emulation type
- CU:LDEV with same capacity
- CU:LDEV with has no CVS definition, if you select CU:LDEV which has no CVS definition.
- CU:LDEV with has CVS definition, if you select CU:LDEV which has CVS definition.

The selected CU:LDEV comes to be the head of Open VOL and also CU:LDEV# comes to be Open VOL#.

'LU Expansion' window is displayed.

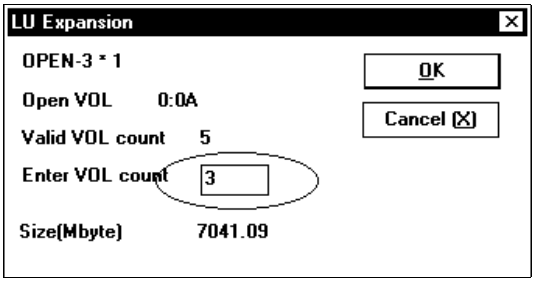


Detail of displayed information

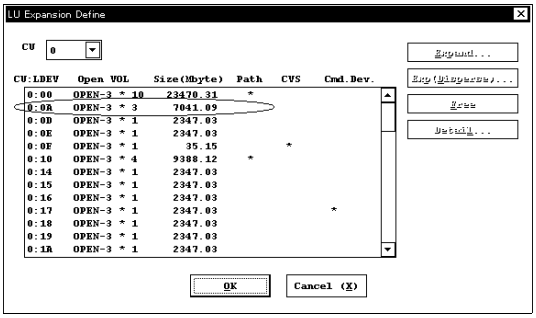
OPEN-XXX : Emulation type
OPEN VOL : Open VOL# (Selected CU:LDEV#)
Valid VOL count : Total number of LDEVs connectable together (maximum: 36)
Enter VOL count : The input field of connection number
Size [Mbyte] : The capacity of Open VOL

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After the input of connection number, select (CL) [OK] button.

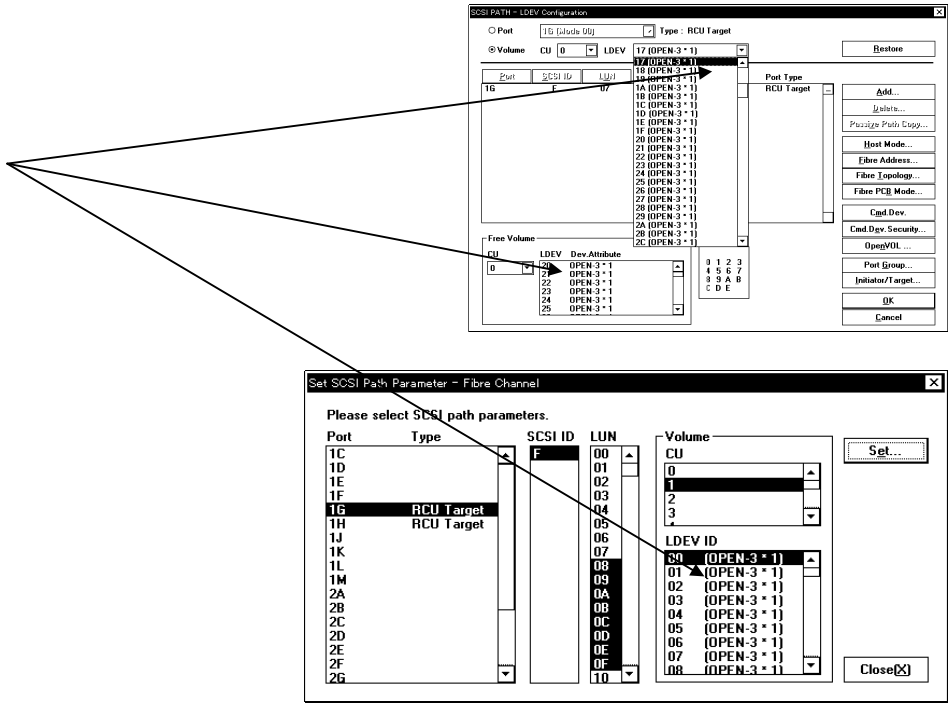


Update the list of 'LU Expansion Define' window.
(The right figure shows the case that 3 LDEVs starting at CU:LDEV=0:0A are connected together.)



Selecting (CL) [OK] button brings you back to 'SCSI Path-LDEV Configuration' window, and the contents of the window automatically updated. At the same time, the contents of 'Set SCSI Path Parameter' window is also updated (in the case that [Add...] button is selected (CL)).

Updated parts

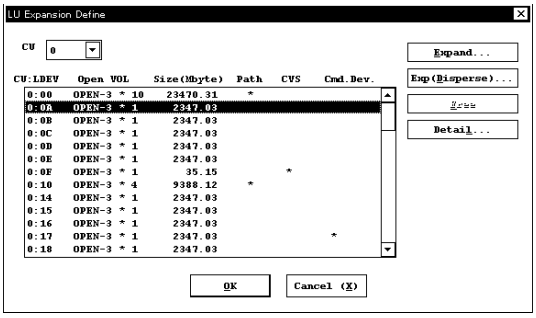


The target of the SCSI path definition after Open VOL formalization is the CU:LDEV# of the head of Open VOL (Open VOL#).

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(2) The setting of LU Expansion by dispersive LDEV (‘LU Expansion (Disperse)’ window)

Select (CL) [Exp(Disperse)...] button in ‘LU Expansion Define’ window. [Exp(Disperse)...] button comes to be available at the time of selecting connectable CU:LDEV from the list.

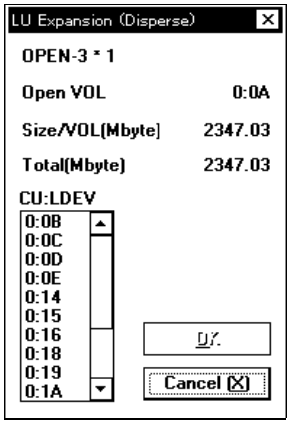


Connectable CU:LDEV denotes the following LDEVs.

- Unconnected CU:LDEVs
- CU:LDEV without SCSI path definition
- CU:LDEV without Command Device definition
- CU:LDEV with same emulation type
- CU:LDEV with same capacity
- CU:LDEV with has no CVS definition, if you select CU:LDEV which has no CVS definition.
- CU:LDEV with has CVS definition, if you select CU:LDEV which has CVS definition.

The selected CU:LDEV comes to be the head of Open VOL and also CU:LDEV# comes to be Open VOL#.

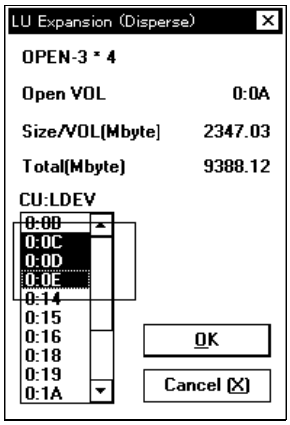
‘LU Expansion (Disperse)’ window is displayed.



Detail of displayed information

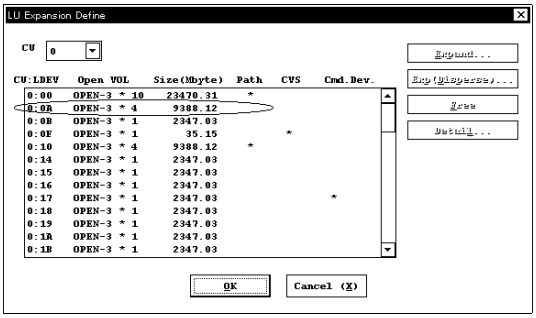
OPEN-XXX : Emulation type
Open VOL : Open VOL# (Selected CU:LDEV#)
Size/VOL(Mbyte) : The capacity per one CU:LDEV
Total(Mbyte) : The capacity of Open VOL
CU:LDEV list : Connectable CU:LDEV#

After the selection (CL) of connection CU:LDEV from the list, select (CL) [OK] button. (You can connect 36 CU:LDEVs include the head at a maximum.)



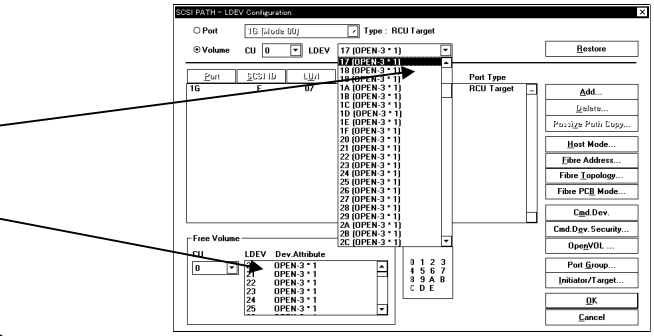
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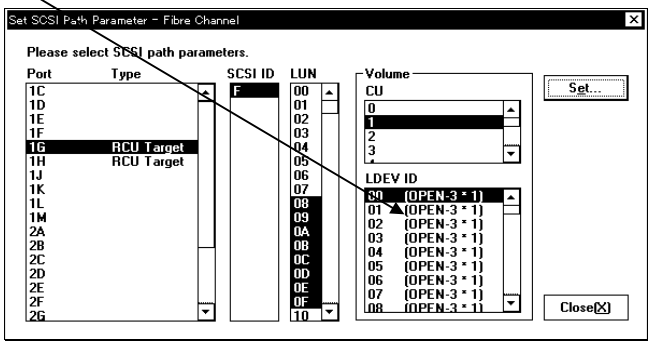
Update the list of 'LU Expansion Define' window. (The right figure shows the case that CU:LDEV=0:0A, 0:0C, 0:0D, 0:0E are connected together.)



Selecting (CL) [OK] button brings you back to 'SCSI Path-LDEV Configuration' window, and the contents of the window automatically updated. At the same time, the contents of 'Set SCSI Path Parameter' window is also updated (in the case that [Add...] button is selected (CL)).

Updated parts



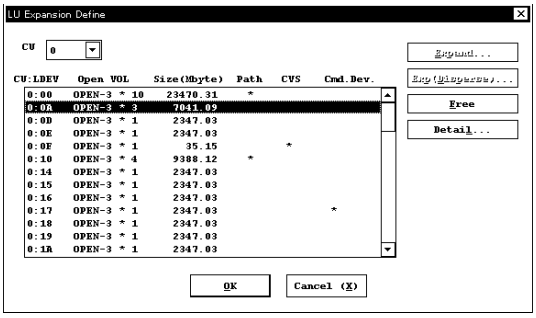


The target of the SCSI path definition after Open VOL formalization is the CU:LDEV# of the head of Open VOL (Open VOL#).

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(3) Dissolution of Open VOL ('LU Expansion Define' window)

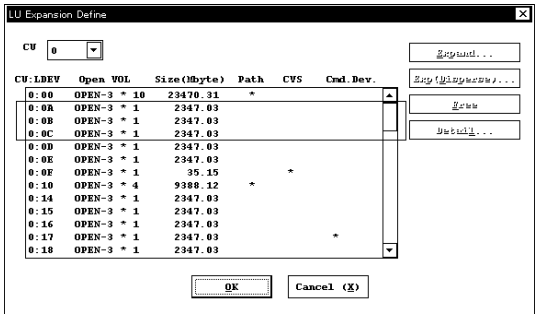
Select (CL) [Free] button on 'LU Expansion Define' window.
[Free] button comes to be available at the time that the "Dissolvable" Open VOL is selected in the list.



"Dissolvable" Open VOL denotes the Open VOL which satisfies the following conditions:

- Open VOL which has two or more LDEVs connected
- Open VOL which has no SCSI path definition
- Open VOL which has no Command Device definition

Update the list in 'LU Expansion Define' window. (The right figure shows the case that Open VOL#=0:0A which consisted of 3 LDEVs has been dissolved.)



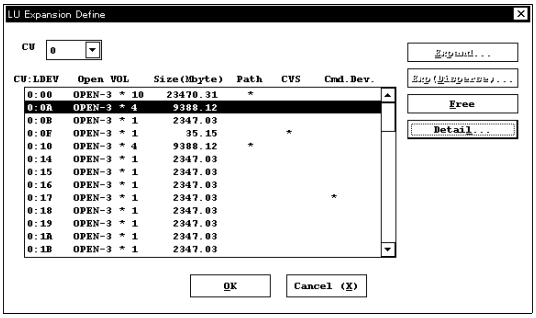
Selecting (CL) [OK] button brings you back to 'SCSI Path-LDEV Configuration' window, and the contents of the window automatically updated. At the same time, the contents of 'Set SCSI Path Parameter' window is also updated (In the case that [Add...] button is selected).

After the Open VOL dissolution, the target of the SCSI path definition operation comes to the LDEV# after the dissolution.

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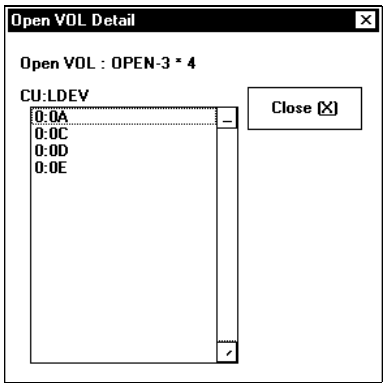
(4) Display detail information of Open VOL (‘Open VOL Detail’ window)

After the selection (CL) of LDEV at ‘LU Expansion Define’ window, select (CL) [Detail...] button.



‘Open VOL Detail’ window is displayed.

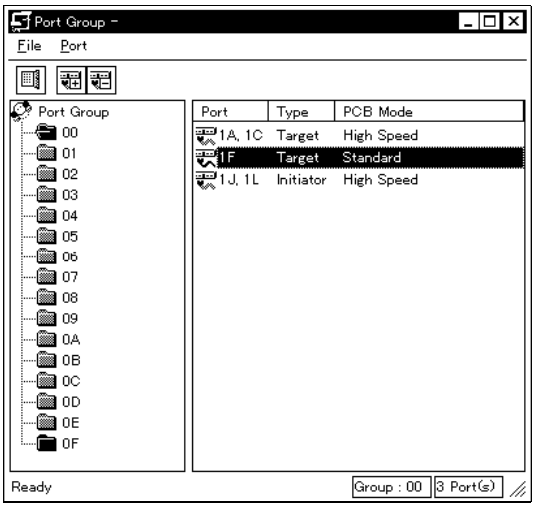
Detail of displayed information
CU:LDEV : CU:LDEV# of LDEV compose Open VOL



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2-11 Port Group

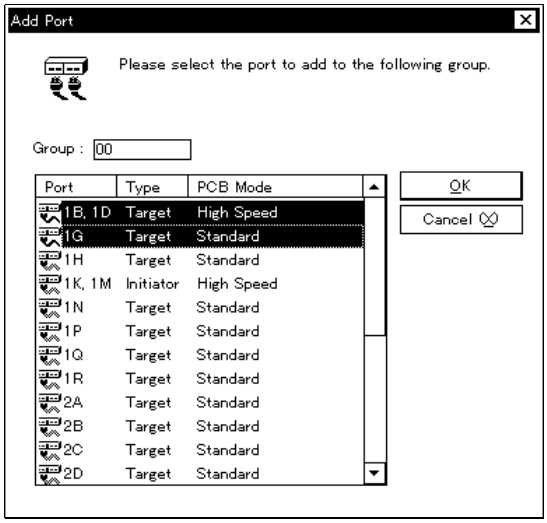
(1) The Name and the explanation of each part
(1-1) Port Group window (Main window)



Item			Explanation
Menu	File	Exit	Quits the application.
	Port	Add Port…	The Add Port window is displayed.
		Delete Port	The Delete Port window is displayed.
Tool Bar		(Door icon)	・ Quits the application. ・ The string “Quit the application.” is displayed on the status bar.
		(Port icon with ‘+’)	・ The Add Port window is displayed. ・ The string “Add the port to the selected group.” is displayed on the status bar.
		(Port icon with ‘-‘)	・ The Delete Port window is displayed. ・ The string “Delete the port from the selected group.” is displayed on the status bar.
Tree		(Blue folder icon)	・ Some of the ports are in this group. ・ The selected group# and the number of port in it are displayed on the status bar.
		(Yellow folder icon)	・ There is no port in this group. ・ The selected group# and the number of port in it (=0) are displayed on the status bar.
List		(Port icon)	・ The ports in the selected group are displayed.

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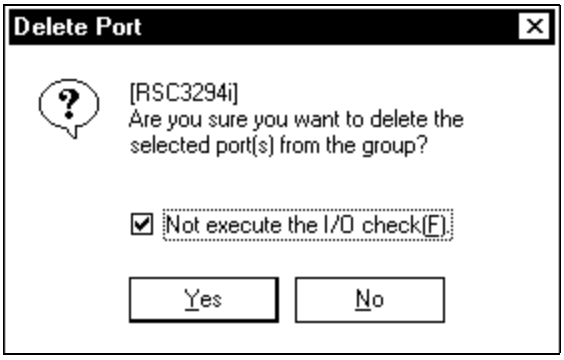
(1-2) Add Port Window



Item	Explanation
Group	The Group ID selected in the main window is displayed (Hexadecimal number).
List	The ports which is not in the any group are displayed.
[OK] button	The selected ports are added to the group.
[Cancel] button	Returns to the main window with nothing done.

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(1-3) Delete Port Window



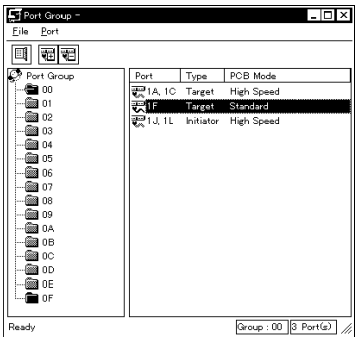
Item	Explanation
Check box	If you check this box, the I/O check of the selected ports is not executed.
[Yes] button	The ports selected in the list is deleted from the group.
[No] button	Returns to the main window with nothing done.

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(2) Detail of the operation

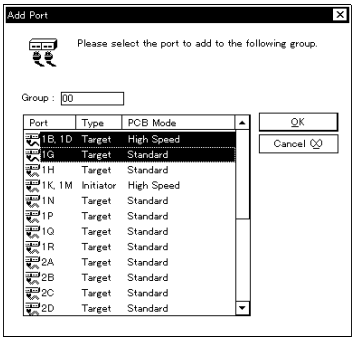
(2-1) Add the port to the group

(2-1-1) Select (CL) the group in the tree.

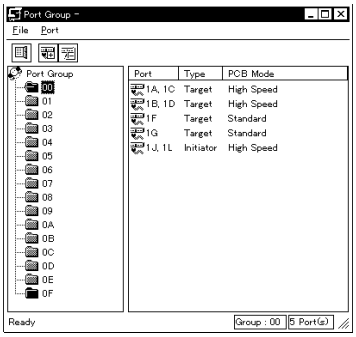


(2-1-2) Select (CL) the [Port]-[Add Port] in the menu or in the tool bar.

Add Port window is displayed.
Select the port to be added to the group and select (CL) [OK].



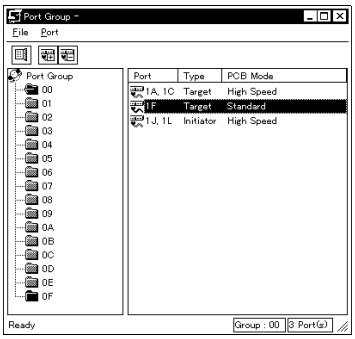
(2-1-3) The selected ports are added to the selected group.



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(2-2) Delete the port from the group

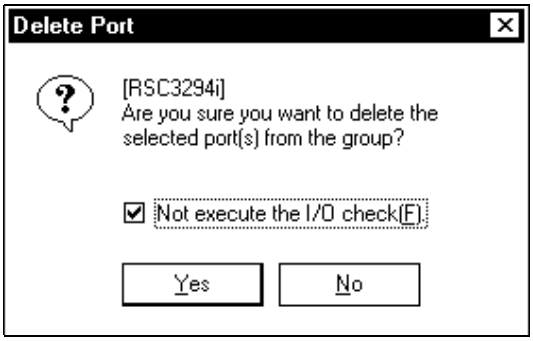
(2-2-1) Select (CL) the ports in the list.



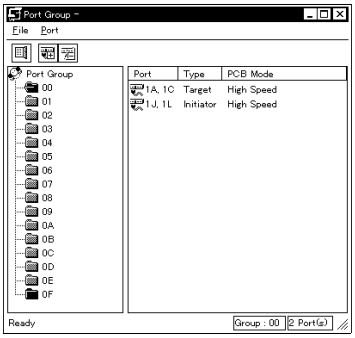
(2-2-2) Select (CL) the [Port]-[Delete Port] in the menu or in the tool bar.

Delete Port window is displayed.
If you do not want to execute I/O check of the selected port, you should check the check box.

Select (CL) [Yes].



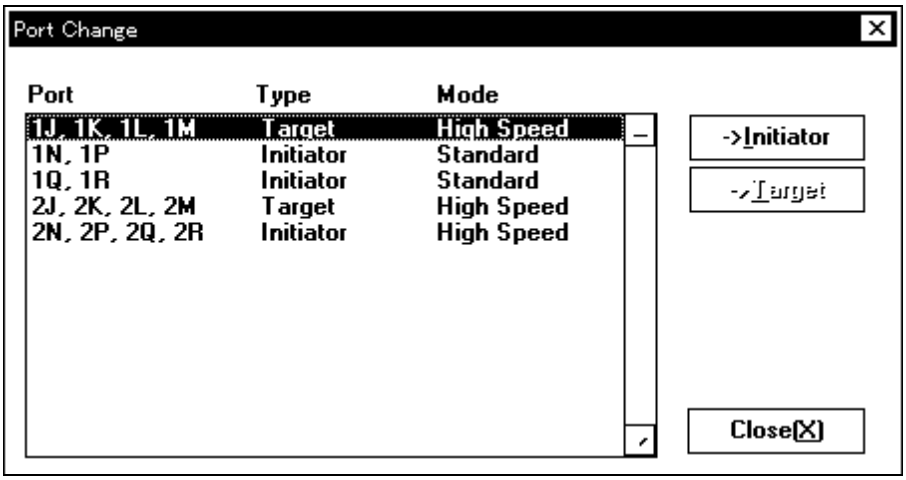
(2-2-3) The selected ports are deleted from the selected group.



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2-12 Port Change

(1) The Name and the explanation of each part



Item	Explanation
List	・ The ports are displayed which are on the CHA PCB for the Fibre HORC function. ・ The ports are displayed which are not in the any group.
[->Initiator] button	Changes the selected ports to the initiator.
[->Target] button	Changes the selected ports to the target.
[Close(X)] button	Returns to the main window.

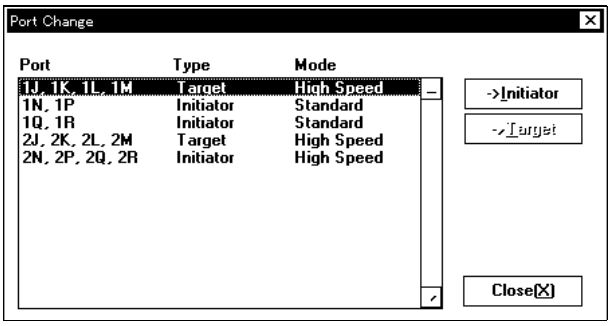
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(2) Change to Initiator/Target

(2-1) Select (CL) [Initiator/Target...] button in the 'SCSI PATH-LDEV Configuration' window.

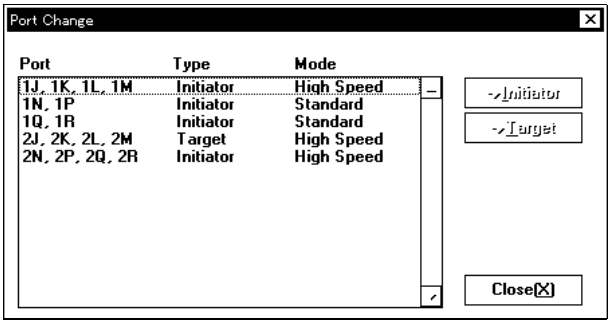
Port Change window is displayed.

Select (CL) ports in the list, and select (CL) [->Initiator] or [->Target].



(2-2) The result of the change is displayed.

Select (CL) [Close] and return to the 'SCSI PATH-LDEV Configuration' window.



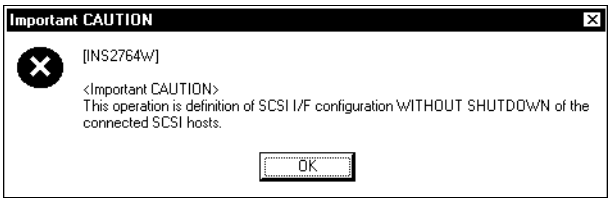
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5.3.2.7 Online LUN Definition

NOTICE
Please confirm the OS of the connected SCSI hosts, before this operation.
If your connected OS is wrong, a system down or data lost (The operation may do unrecoverable serious damage to your file system.) may occur.

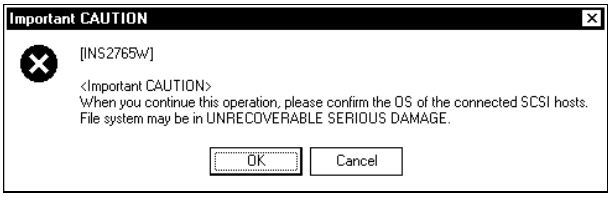
1.

Select (CL) [OK] in response to the confirmation message.
"<Important CAUTION>
This operation is definition of SCSI I/F configuration WITHOUT SHUTDOWN of the connected SCSI hosts."



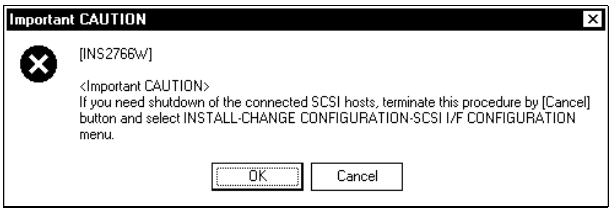
2.

Select (CL) [OK] in response to the confirmation message.
"<Important CAUTION>
When you continue this operation, please confirm the OS of the connected SCSI hosts. File system may be in UNRECOVERABLE SERIOUS DAMAGE."



3.

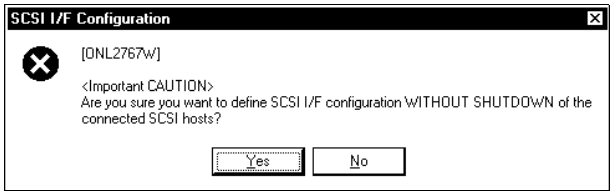
Select (CL) [OK] in response to the confirmation message.
"<Important CAUTION>
If you need shutdown of the connected SCSI hosts, terminate this procedure by [Cancel] button and select INSTALL-CHANGE CONFIGURATION-SCSI I/F CONFIGURATION menu."



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4.

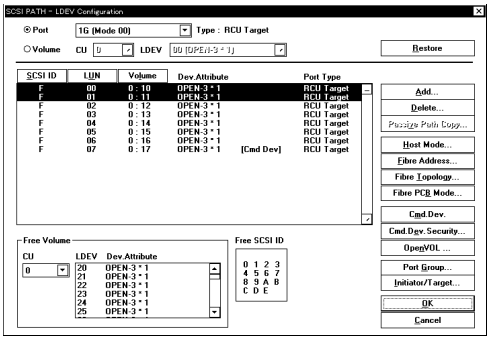
Select (CL) [YES] in response to the confirmation message.
"<Important CAUTION>
Are you sure you want to define SCSI I/F configuration WITHOUT SHUTDOWN of the connected SCSI hosts?"



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5.

"SCSI Path LDEV Configuration" window is displayed.



(1) Add

Refer to INST05-750.
After this operation, [Delete...] button can't be selected.

(2) Delete

Refer to INST05-770.
After this operation, [Add...] button can't be selected.

(3) Open VOL

Refer to INST05-860.

(4) Command Device

Refer to INST05-850.
If you add path(s) to a volume with no path, Command Device can be set to the volume.
If you delete all path(s) to a Command Device volume, Command Device can be reset to the volume.

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6.

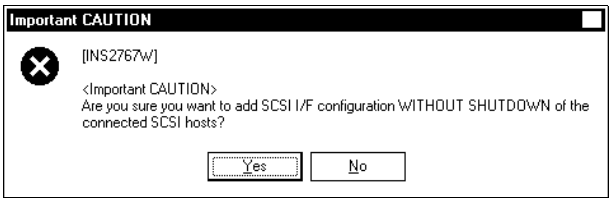
"Checking Subsystem..." is displayed.

NOTICE

Before the above message is displayed, "LUN Security Initializing..." may be displayed. But the online definition of LUN Security is not supported. So when you want to define LUN Security, please use "Define Configuration and Install" or "Change Configuration".

7.

Select (CL) [YES] in response to the confirmation message.
"<Important CAUTION>
Are you sure you want to add SCSI I/F configuration WITHOUT SHUTDOWN of the connected SCSI hosts?"

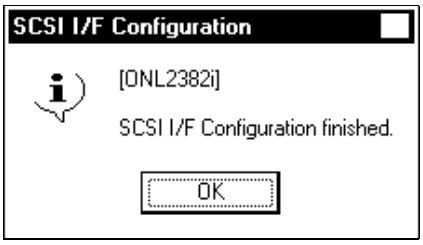


8.

"Changing SCSI I/F Configuration..." is displayed.
"Waiting for changing configuration data..." is displayed.

9.

Select (CL) [OK] in response to the confirmation message.
"SCSI I/F Configuration finished."



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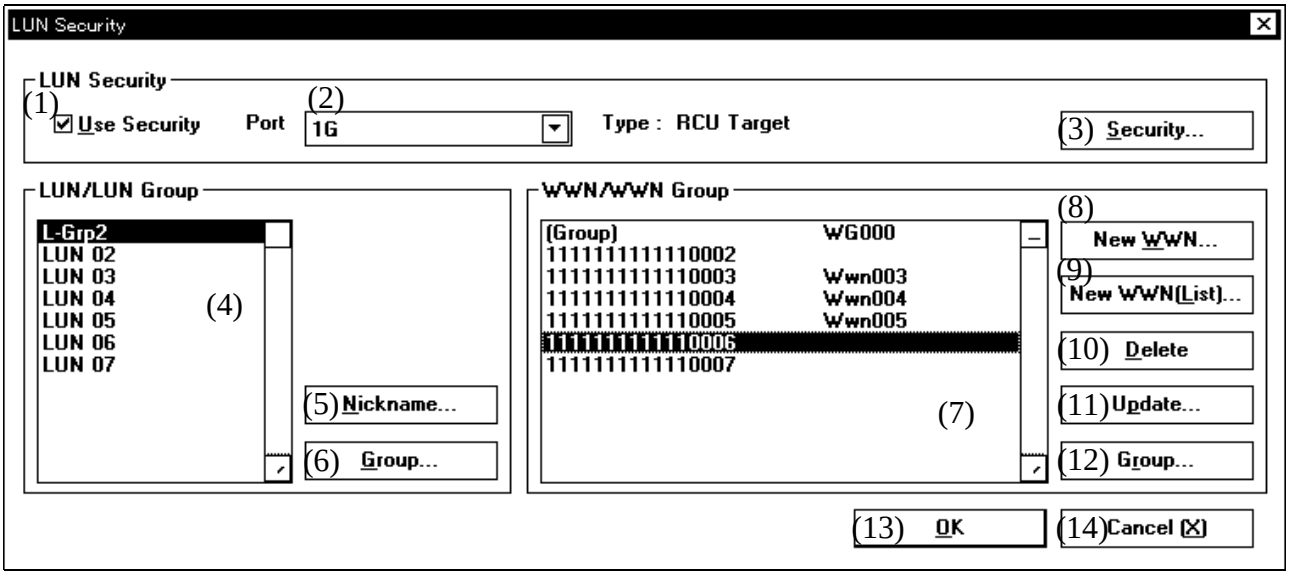
5.3.2.8 LUN Security

⚠ CAUTION

Please do not use this function with CESTPATH and CDELPATH commands (for Fibre-HRC) at the same time.

* In case of reference of LUN Security, some buttons cannot be selected.

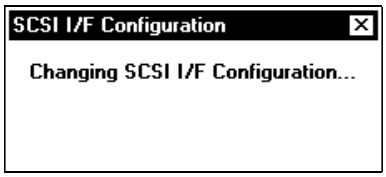
1. The Name of Part

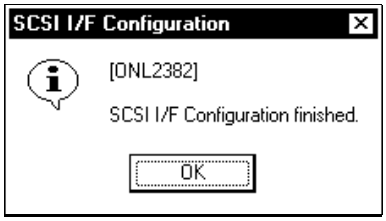


(1) [Use Security] check box
To determine the usage of LUN security function for each port.
(2) Port list
List of installed Fibre ports.
(3) [Security] button
To display security information setting screen.
(4) LUN/LUN Group list
List of LUN groups which are set of the selected port in (2).
(5) [Nickname] button
To display LUN Group Nickname screen to set the LUN group name.
(6) [Group] button (for LUN)
To display LUN group screen.
(7) WWN/WWN Group list
List of WWN/WWN groups which are set of the selected port in (2).
(8) [New WWN...] button
To display WWN entry screen.
(9) [New WWN(List)...] button
To display WWN entry screen (list type).

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(10) [Delete] button
To delete WWN.
(11) [Update...] button (In case of reference, this is a [WWN...] button)
To display Update WWN/WWN Group screen to change WWN/WWN groups.
(12) [Group] button (for WWN)
To display WWN Group screen.
(13) [OK] button
Define Configuration & Install : Go back to INST05-240 (13).
Refer Configuration : Go back to INST05-340 (2).
Change Configuration : To display 'SCSI I/F Configuration' screen.
After displaying "Wait..." message, please select [OK] in the 'SCSI I/F Configuration finished." and go back to INST05-410 (2).
(14) [Cancel] button
Define Configuration & Install : Go back to INST05-100 (4).
Refer Configuration : Go back to INST05-340 (2).
Change Configuration : Go back to INST05-410 (2).





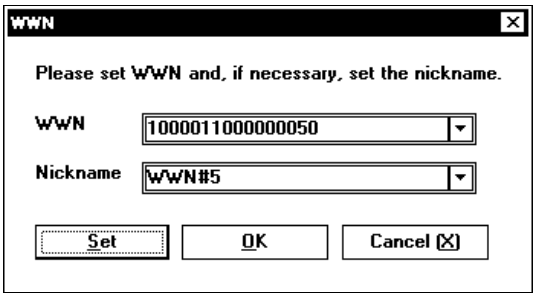
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2. Detail

2.1 WWN Screen

This screen is to enter a new WWN. (Max : 255 WWNs/port)

(1) Input WWN in the 'WWN' as hexadecimal number (16 figures). If necessary, you can define a nickname to the WWN into 'Nickname'.



* You cannot use the following characters in the Nickname.
\ / : , ; * ? ” < > |

(2) Select (CL) [Set] button. SVP will display a confirmation message.

(3) Next, SVP will display blank in "WWN" and "Nickname" area. Therefore, you can continue entering a next new WWN by repeating the (1) - (2) steps

(4) If you select (CL) [OK] button, SVP will close this screen with entering the defined data in this screen.
If you select (CL) [Cancel] button, SVP will close this screen without entering the data.

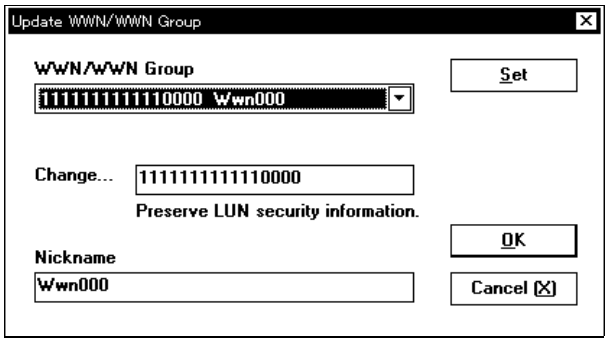
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2.2 Update WWN/WWN Group Screen

This screen is to change WWN of WWN/WWN group and its group name.

(1) Select WWN or WWN group in WWN/WWN Group list which you want to change.

* In case of WWN, the string “16 hexadecimal numbers + nickname” is displayed in the list.
* In case of WWN group, the string “(Group) + the name of the group” is displayed in the list.



(2) In the case of changing WWN, input a new WWN in the ‘Change...’. In the case of changing a WWN nickname or WWN group name, input a new nickname or group name in the ‘Nickname’.

* You cannot use the following characters as a Nickname or a group name.
  \ / : , ; * ? ” < > |
* Security information defined to the operated WWN is preserved.

(3) Select (CL) [Set] button. SVP will display a confirmation message.

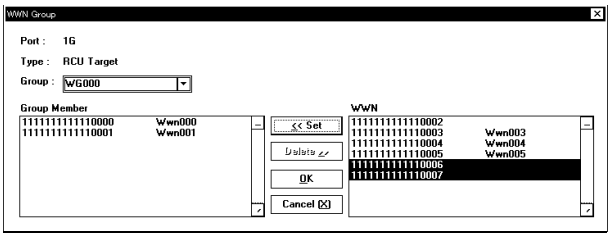
(4) If you select (CL) [OK] button, SVP will close this screen with entering the defined data in this screen.
If you select (CL) [Cancel] button, SVP will close this screen without entering the data.

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2.3 WWN Screen

This screen is to make WWN groups or change the member of the group. (Max: 128 groups)

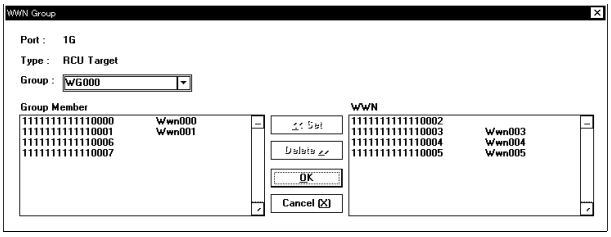
(1) Select a group from the Group list. If you enter a new group, input a new group name.



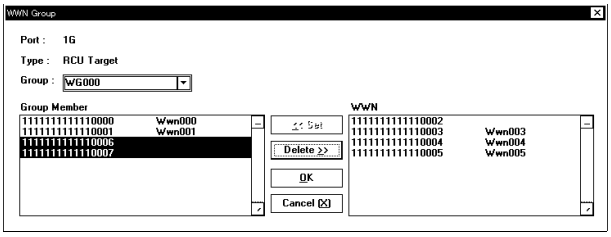
* You cannot use the following characters as a Nickname or a group name.
  \ / : , ; * ? ” < > |
* WWN is displayed by the string “16 hexadecimal numbers + nickname”.

(2) Select several WWNs in the WWN list which you want to enter the member of the group.
* WWNs which will be the group member have a same security information.
* WWN which has no security information can be the member of any group. After grouping, the WWN has a security information which the group has.

(3) Select (CL) [<<Set] button. SVP will move WWNs from the WWN list to Group Member list which you select.

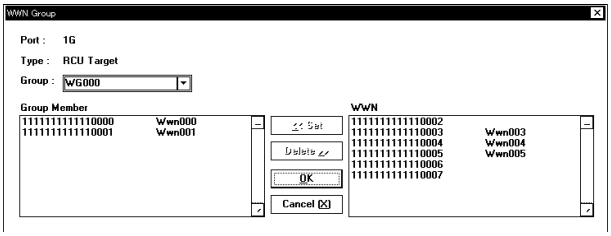


(4) If you want to delete members from the group, select WWNs in the Group Member list.



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(5) Select (CL) [Delete>>] button. SVP will move the selected WWNs from Group Member list to WWN list.



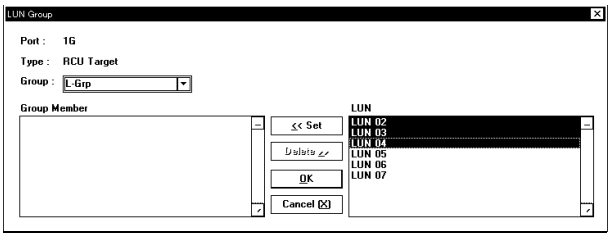
(6) If you select (CL) [OK] button, SVP will close this screen with entering the defined data in this screen.
If you select (CL) [Cancel] button, SVP will close this screen without entering the data.

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2.4 LUN Group Screen

This screen is to make LUN group or change the member of LUN group. (Max: 64 groups)

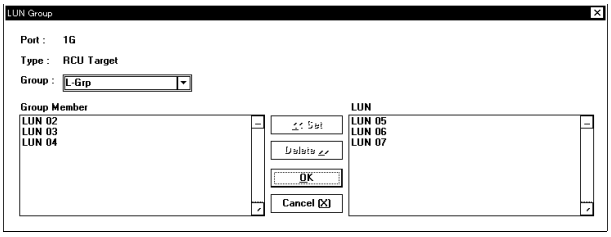
(1) Select a group form the Group list. If you make a new group, input a new group name.



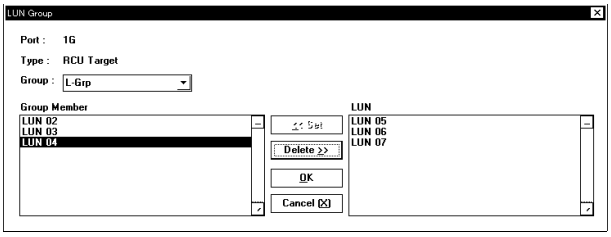
* You cannot use the following characters as a Nickname or a group name.
\ / : , ; * ? ” < > |

(2) Select several LUNs from the LUN list which you want to make group.
* LUNs which will be the group member have a same security information.
* LUN which has no security information can be the member of any group. After grouping, the LUN has a security information which the group has.

(3) Select (CL) [<<Set] button. SVP will move selected LUN from LUN list to Group Member list.

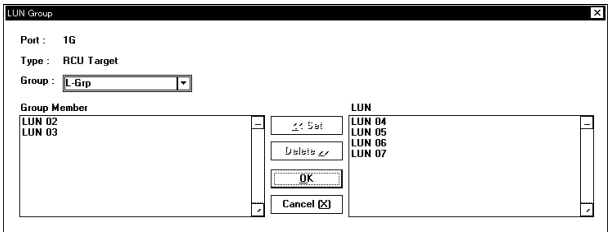


(4) If you want to delete member from the group, select the LUNs from the Group Member list.



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(5) Select (CL) [Delete>>] button. SVP will move the selected LUNs from the Group Member list to LUN list.



(6) If you select (CL) [OK] button, SVP will close this screen with entering the defined data in this screen.
If you select (CL) [Cancel] button, SVP will close this screen without entering the data.

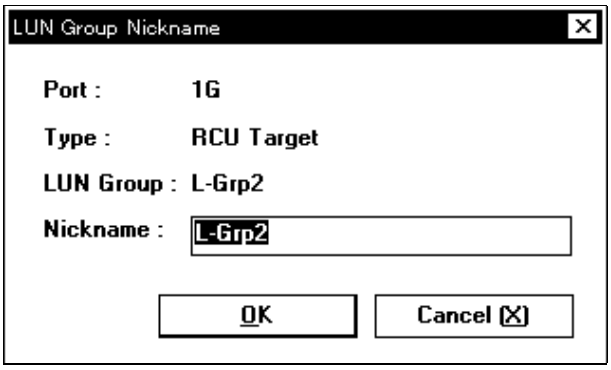
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2.5 Nickname Screen

This screen is to change LUN group name.

(1) Input a nickname in the 'Nickname'.

* You cannot use the following characters as a Nickname or a group name.
\ / : , ; * ? ” < > |



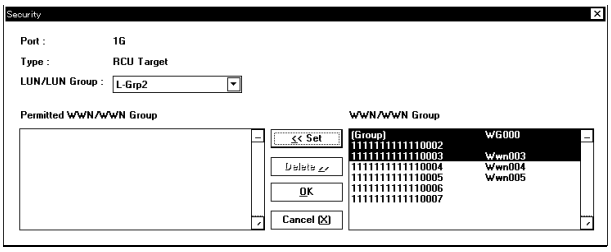
(2) If you select (CL) [OK] button, SVP will close this screen with entering the defined data in this screen.
If you select (CL) [Cancel] button, SVP will close this screen without entering the data.

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2.6 Security Screen

This screen is to set/reset the security information.

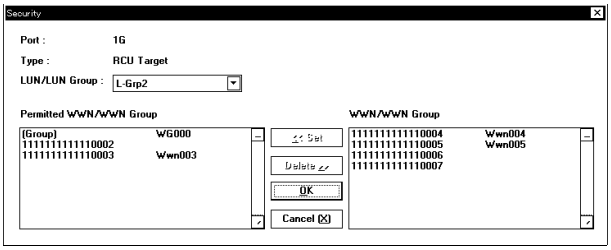
(1) Select LUN or LUN group in the LUN/LUN Group list which you want to set/reset.



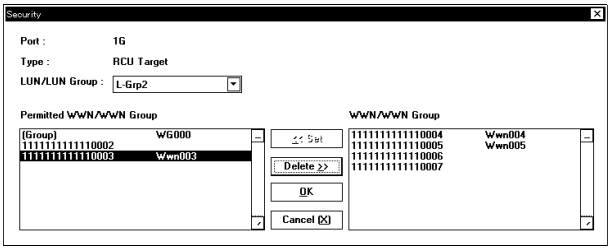
* In case of WWN, the string "16 hexadecimal numbers + nickname" is displayed in the list.
* In case of WWN group, the string "(Group) + the name of the group" is displayed in the list.

(2) Select WWN or WWN group from the WWN/WWN Group list which you want to permit the access to the selected LUN or LUN group.

(3) Select (CL) [<<Set] button. SVP will move the selected WWN or WWN groups from WWN/WWN Group list to the permitted WWN/WWN Group list.

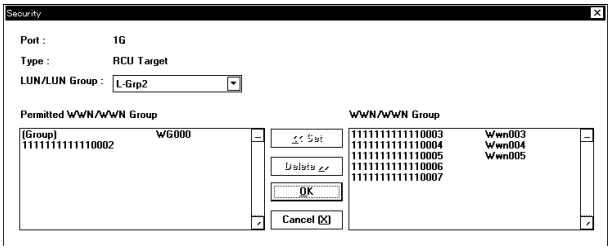


(4) If you want to delete the permitted list, select WWN or WWN groups from the WWN/WWN Group list.



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(5) Select (CL) [Delete>>] button. SVP will move the selected WWN or WWN group from the permitted WWN/WWN Group list to WWN/WWN Group list



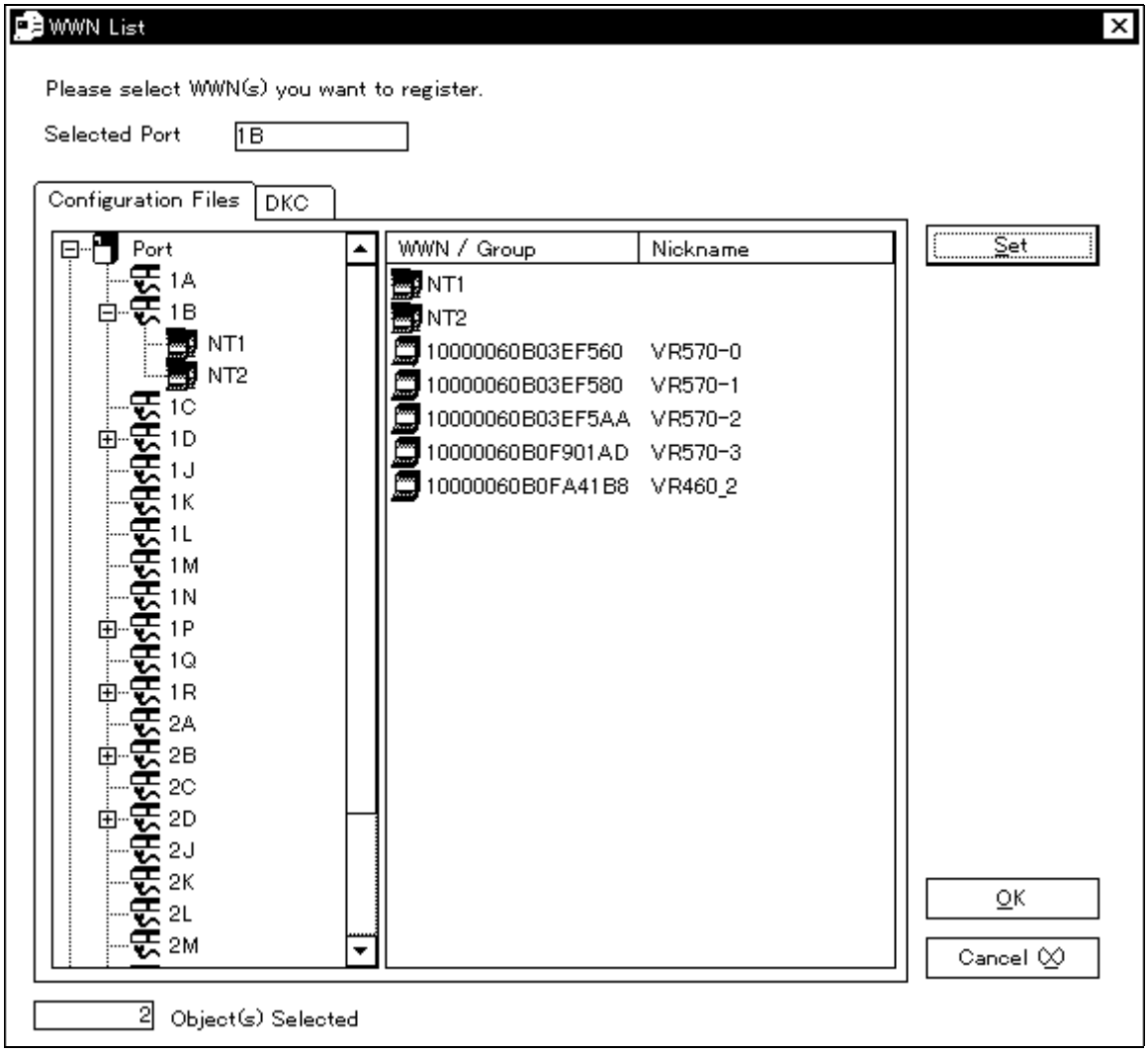
(6) If you select (CL) [OK] button, SVP will close this scrren with entering the defined data in this screen.
If you select (CL) [Cancel] button, SVP will close this scrren without entering the data.

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2.7 WWN List Window

Registers the WWNs by selecting them in the WWN list.

2.7.1 Name and explanation of each parts



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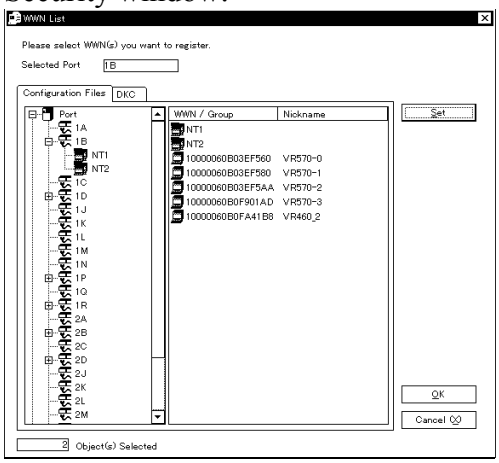
WWN List Window		
Selected Port		The port being edited in the LUN Security main window is displayed. The WWN for the port is enabled to be registered.
Tab	DKC	Displays a list of the WWNs recognized by the DKC. If an acquisition of the list is failed, it displays the list by referring to the HDD.
		Can be selected: In the case of the Change Conf
		Cannot be selected: In the case of the Define Conf
	Configuration Files	Displays the WWN list in the configuration information in an HDD of the SVP/RMC.
		Can be selected: Always
Tree	Port	Displays the ports equipped.
		Specification of a port: Displays a WWN of the specified port in the list. When a WWN group exists, WWNs are displayed as leaves of the specified port.
	All Port	Displays WWNs of all the ports equipped.
WWN List		• Displays a WWN or WWN group corresponding to the item selected for the "Tree." • The list has a sorting function. (Transition of sorting type is repeated as follows: ① Initial state → ② Sorting in the ascending order → ③ Sorting in the descending order → ②→ ③.) • Selection of the two or more WWNs is allowed.
[Set] button		Registers a WWN selected in the WWN list for the specified port (selected port).
		Can be selected: When the selection has been made in the WWN list
		Cannot be selected: When no selection has been made in the WWN list
[OK] button		Returns the window to the LUN Security main window after reflecting the registration on the configuration information.
[Cancel] button		Returns the window to the LUN Security main window without reflecting the registration on the configuration information.
Display of number of WWNs		Displays the number of the selected WWN(s) when a selection of the WWN(s) has been made in the WWN list. Displays the number of the WWN(s) displayed when no selection has been made in the WWN list.
Port/All Port icon		
Each port icon		
WWN group icon		 (Three hosts are displayed in blue.)
WWN icon		 (One host is displayed in yellow.)

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2.7.2 Detail of the operation

(1) Registration

(1-1) Select (CL) the [New WWN(List)...] button in the LUN Security window.
WWN List window is displayed.



(1-2) Select the WWNs in the WWN list.

(1-3) Select (CL) the [Set] button.

(1-4) The registration of WWNs is completed.

- When a WWN group is selected, the registration is made including group information.
- If the selected WWNs have been registered, a message is displayed. And the registration is canceled.
- If the selected WWNs have had the same nickname or the same name of WWN group which have been registered, a message is displayed. And the registration is canceled.

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(2) Creating the WWN list

(2-1) In the case of selecting the [DKC] tab, WWN list recognized in DKC is displayed. If the WWN list could not be acquired, the WWN list acquired form configuration files in HDD is displayed.

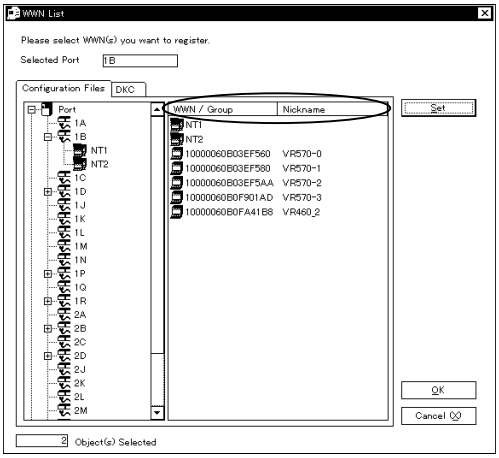
(2-2) In the case of selecting the [Configuration Files] tab, the WWN list acquired form configuration files in HDD is displayed.

(3) Sorting

Selection (CL) of one of the items (shown as being surrounded with an oval in the figure) in the WWN list starts the sorting.

A type of the sorting is changed as follows.

① Initial state → ② Sorting in the ascending order → ③ Sorting in the descending order → Repetition of alternation of ② and ③



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(4) Terminating the window

(4-1) Select (CL) [OK] to reflect the operation to the LUN Security window.

(4-2) Select (CL) [Cancel] not to reflect the operation to the LUN Security window.

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5.3.2.9 LDEV Security

⚠ CAUTION

There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

1. Explanation of screen

* When activated by Refer Configuration Maintenance, you can not select some buttons.

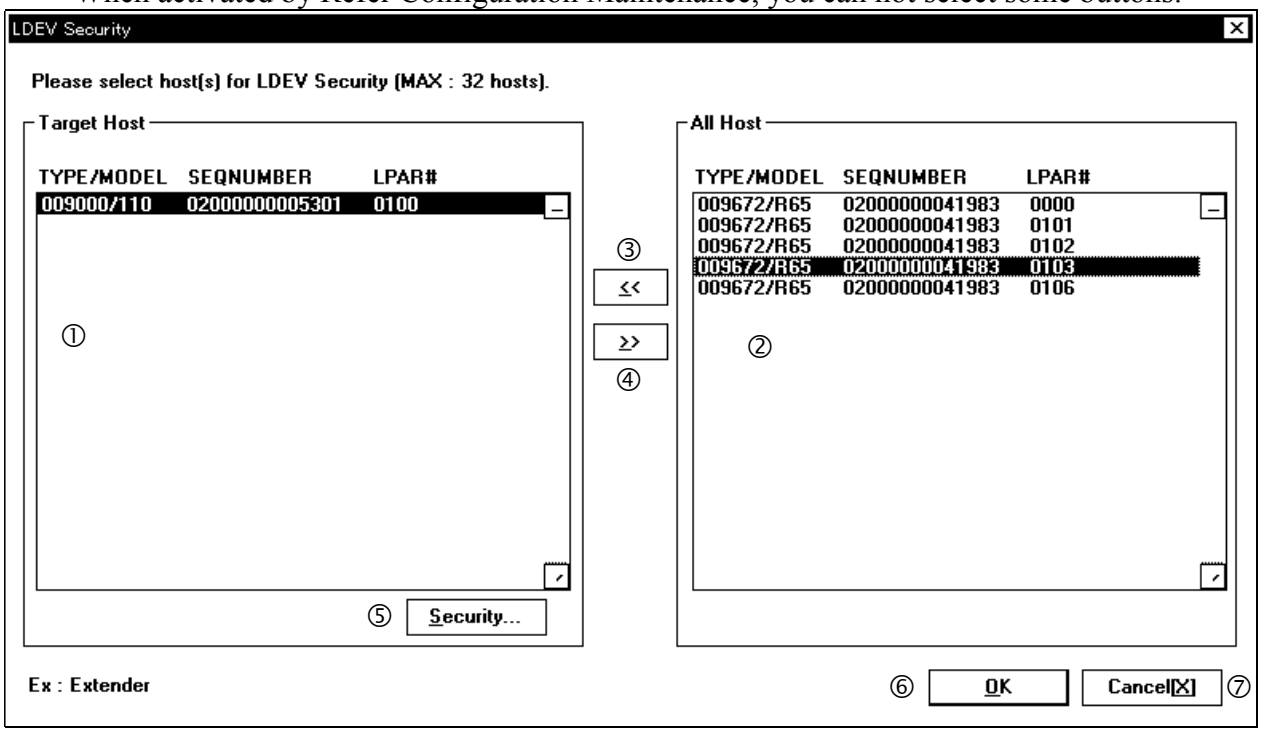


Figure 1 Screen for Selecting Target Host of LDEV Security

<Explanation>

①	Target Host list box:	Displays a list of hosts for which LDEV Security is to be set.
②	All Host list box:	Displays a list of all hosts recognized by the DKC.
③	[<<] button:	Specifies the host(s) for which LDEV Security is to be set from the All Host list box. This button cannot be selected when the All Host list box has not been selected.
④	[>>] button:	Deletes the host(s) for which LDEV Security has been set by selecting it from the Target Host list box. (Information on LDEV Security which has been set is entirely deleted.) This button cannot be selected when the Target Host list box has not been selected.
⑤	[Security...] button:	Activates a screen for setting the Security for the selected target host of LDEV Security. This button cannot be selected when the two or more hosts have been selected.
⑥	[OK] button:	Saves the set information and closes the screen.
⑦	[Cancel] button:	Invalidates all the setting operations and closes the screen without doing anything.

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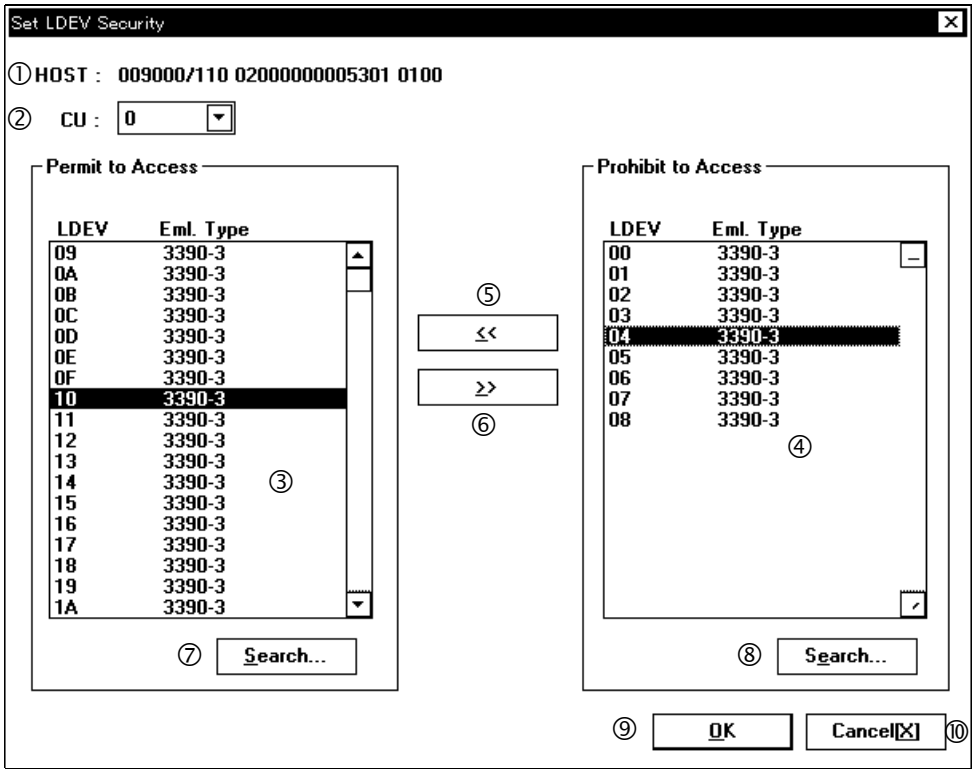


Figure 2 LDEV Security Setting Screen

<Explanation>

① Host: Displays a host which has been selected on the screen for selecting target host of LDEV Security.

② CU combo box: Used for storing and selecting the CU# of the logical device for which a decision whether to permit or prohibit accesses to it by the selected host is to be made. It does not display uninstalled CU.

③ Permit to Access list box: Displays a list of logical devices which the selected host can access. However, only the LDEVs under the specified CU# are displayed.
• LDEV: LDEV ID (00 to FF)
• Eml. Type: A name of an LDEV emulation type. In the case of an extended LU, it is displayed including a number of the connected LUs as shown in the following example, “OPEN-3 *5”.

④ Prohibit to Access list box: Displays a list of logical devices which the selected host cannot access. However, only the LDEVs under the specified CU# are displayed.
• LDEV: LDEV ID (00 to FF)
• Eml. Type: A name of an LDEV emulation type. In the case of an extended LU, it is displayed including a number of the connected LUs as shown in the following example, “OPEN-3 *5”.

(To be continued)

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(Continued from the preceding page)

⑤ [<<] button:	Enables the LDEV selected from the Prohibit to Access list box to be accessed. The selected LDEV is deleted from the Prohibit to Access list box and added to the Permit to Access list box.
⑥ [>>] button:	Disables the LDEV selected from the Permit to Access list box to be accessed. The selected LDEV is deleted from the Permit to Access list box and added to the Prohibit to Access list box.
⑦ Permit to Access [Search...] button:	Displays a list of all the hosts which can access the LDEV selected from the Permit to Access list box (activates the sub-screen). This button cannot be selected when the two or more LDEVs are selected.
⑧ Prohibit to Access [Search...] button:	Displays a list of all the hosts which cannot access the LDEV selected from the Prohibit to Access list box (activates the sub-screen). This button cannot be selected when the two or more LDEVs are selected.
⑨ [OK] button:	Reflects the setting for the host concerned on the data, and closes the screen. (Returns the screen to the one for selecting target host of LDEV Security.)
⑩ [Cancel] button:	Invalidates setting operations for the host concerned, and closes the screen without doing anything. (Returns the screen to the one for selecting target host of LDEV Security.)

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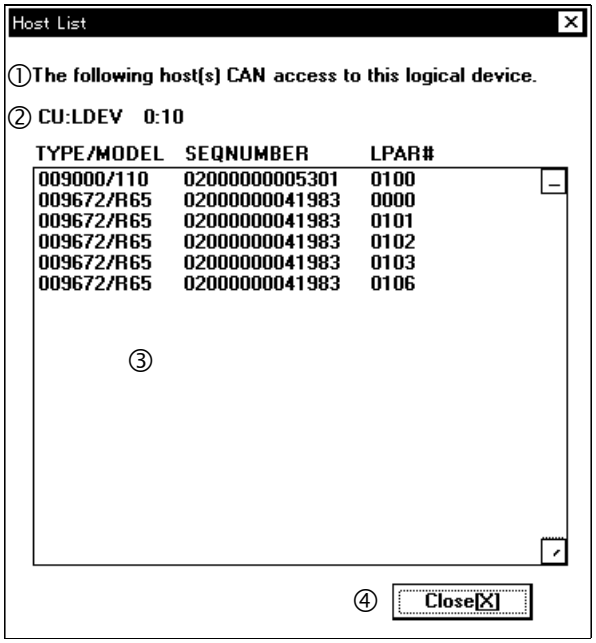


Figure 3 Host List Screen

<Explanation>

① Explanatory description:	When the screen is activated by an operation in the Permit to Access list box, a message, “The following host(s) can access to this logical device.” is displayed. When the screen is activated by an operation in the Prohibit to Access list box, a message, “The following host(s) cannot access to this logical device.” is displayed.
② CU:LDEV:	Displays the CU:LDEV# selected on the LDEV Security setting screen.
③ Host list box:	When the screen is activated by an operation in the Permit to Access list box, displays a list of hosts which can access the selected CU:LDEV. When the screen is activated by an operation in the Prohibit to Access list box, displays a list of hosts which cannot access the selected CU:LDEV.
④ [Close] button:	Closes the screen.

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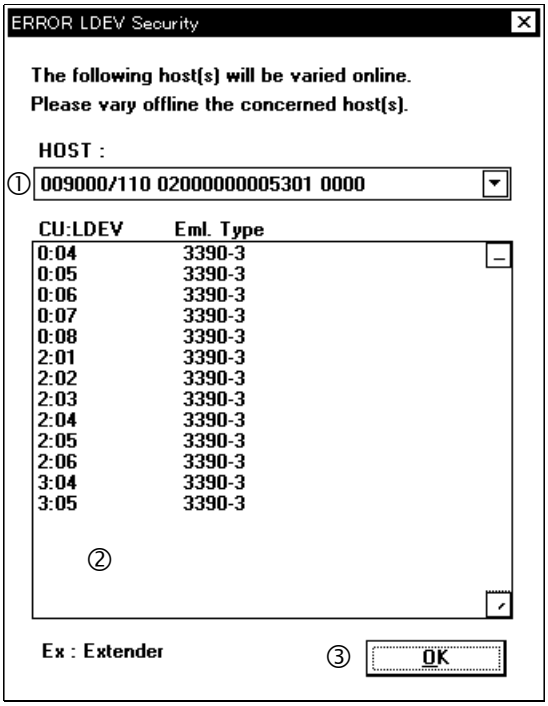


Figure 4 Error LDEV Security Screen

<Explanation>

① Host list combo box:	Used for storing and selecting a list of hosts the setting of LDEV Security for which failed.
② CU:LDEV list box:	Displays a list of logical devices the setting of LDEV Security for which failed.
③ [OK] button:	Closes the screen.

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2. Procedure for registering LDEV Security

(1) Registering target host
Select a host to be a target of LDEV Security from the hosts displayed in the list box of the All Host area on the screen for selecting target host of LDEV Security (Figure 1) and press the [<<] button. The selected host appears in the list box in the Target Host area.

(2) Specifying target host to be set
Select a host for which LDEV Security is to be set from the list box in the Target Host area on the screen for selecting target host of LDEV Security (Figure 1) and double-click it or press the [Security...] button.

(3) Specifying CU accesses to which is to be restricted
The LDEV Security setting screen (Figure 2) is displayed. First, select a CU for which the Security is to be set from the combo box.

(4) Setting LDEV accesses to which is to be restricted
Next, select an LDEV for which LDEV Security is to be set from the list box in the Permit to Access area and press the [>>] button. The selection is reflected on the list box in the Prohibit to Access area.

(5) Terminating LDEV Security setting
When the [OK] button is pressed on the LDEV Security setting screen (Figure 2), the set information is saved and the screen is returned to the screen for selecting target host of LDEV Security (Figure 1). When the [Cancel] button is pressed, the set information is canceled and the screen is returned to the screen for selecting target host of LDEV Security (Figure 1).

(6) Terminating registration
When the [OK] button is pressed on the screen for selecting target host of LDEV Security (Figure 1) after the entry is completed, the set information is saved and the screen is returned to the LDEV Security activation screen. When the [Cancel] button is pressed, the set information is canceled and the screen is returned to the LDEV Security activation screen.

When you pressed the [OK] button
Define Configuration & Install : Return to INST05-240 12
Refer Configuration : Return to INST05-390 16

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3. Procedure for Canceling Setting of LDEV Security -1

(1) Removing host from target
When a host to be removed from the target of LDEV Security is selected from the list box in the Target Host area on the screen for selecting target host of LDEV Security (Figure 1) and the [>>] button is pressed, a name of the host which has been removed from the target appears in the All Host list.
(When the host is removed from the target, the set information of LDEV Security is entirely deleted.)

(2) Verifying setting cancellation
Press the [OK] button after removing the host from the target. The information on the setting cancellation is saved and the LDEV Security screen is closed.

4. Procedure for Canceling Setting of LDEV Security -2

(1) Specifying target host
Select a host to be removed from the target of LDEV Security from the list box in the Target Host area on the screen for selecting target host of LDEV Security (Figure 1) and double-click it or press the [Security...] button.

(2) Specifying CU setting for which is to be canceled
The LDEV Security setting screen (Figure 2) is displayed. First, select a CU the Security setting for which is to be canceled from the combo box.

(3) Specifying LDEV setting for which is to be canceled
Next, select an LDEV the Security setting for which is to be canceled from the list box in the Prohibit to Access area and press the [<<] button. The selection is reflected on the Permit to Access list.

(4) Terminating LDEV Security setting cancellation
Press the [OK] button on the LDEV Security setting screen (Figure 2). The setting/cancellation information is saved and the screen is returned to the screen for selecting target host of LDEV Security (Figure 1).

(5) Verifying setting cancellation
Press the [OK] button on the screen for selecting target host of LDEV Security (Figure 1). The information on the setting cancellation is saved and the LDEV Security screen is closed.

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5. List of hosts which can access

Select a CU from the combo box on the LDEV Security setting screen (Figure 2). Then, specify an LDEV by selecting it from the Permit to Access area and double-click it or press the [Search...] button. The screen (Figure 3) showing a list of hosts which can access the selected CU:LDEV is displayed.

6. List of host which cannot access

Select a CU from the combo box on the LDEV Security setting screen (Figure 2). Then, specify an LDEV by selecting it from the Prohibit to Access area and double-click it or press the [Search...] button. The screen (Figure 3) showing a list of the hosts which cannot access the selected CU:LDEV is displayed.

7. Displaying Error LDEV Security screen

When the setting of LDEV Security fails, the Error LDEV Security screen (Figure 4) is displayed. Since the displayed CU:LDEV (logical device) is online to the host, a reflection on the DKC cannot be completed. Change the status to offline and perform the LDEV Security setting operation once again.

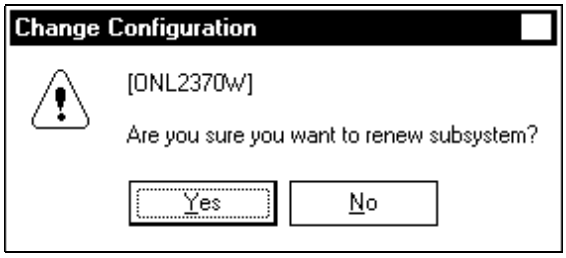
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5.3.3 System Update Processing (SVP Procedure)

5.3.3.1 Installation system update processing

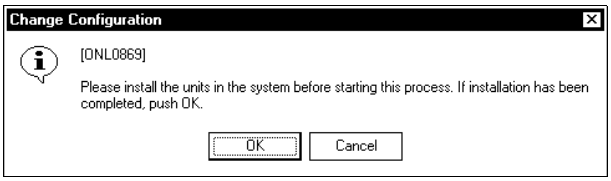
(a) Power supply installation

1. <Start installation>
Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.



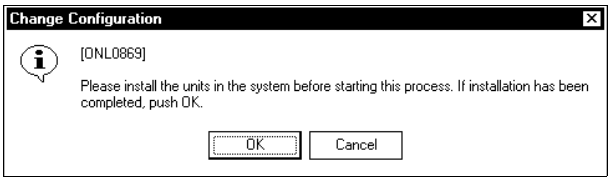
2. <Check that hardware components are installed>

2-1.
The message shown in the right figure is displayed.
Go to INST02-80 step (2)-4.



2-2.
Select (CL) [OK] after making sure that all hardware components are installed correctly in response to “Please install the units in the system before starting this process.

If installation has been completed, push OK.”.



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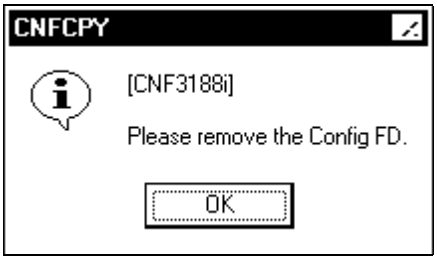
3. <End of system update processing>
"Renewal process has completed. Please check subsystem status." is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



4.
"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



5.
When this procedure is completed, message "Please remove the Config FD." is displayed.
Remove the FD, select (CL) [OK].



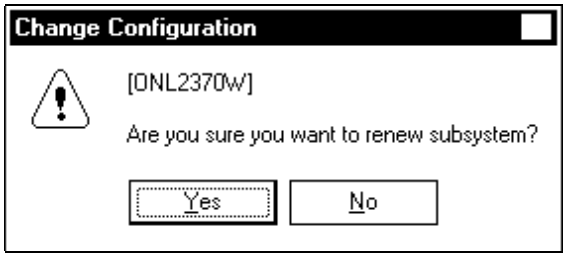
6. <Return to General flow page>
[In case of DKC additional power supplies and CL redundant power supplies (DKC-F410I-81/82) Installation]
Non-Disruptive Installation : Go to INST02-80 step (2)-6.
Disruptive Installation : Go to INST02-230 step (13)-3.

[In case of CL redundant power supplies (DKC-F410I-80) Installation]
Non-Disruptive Installation : Go to INST02-80 step (2)-6.
Disruptive Installation : Go to INST02-230 step (13)-3.

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(b) CHA (DKA) installation

1. <Start installation>
Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.



2. <Downloading microprogram>
Microprograms are automatically downloaded for each processor.

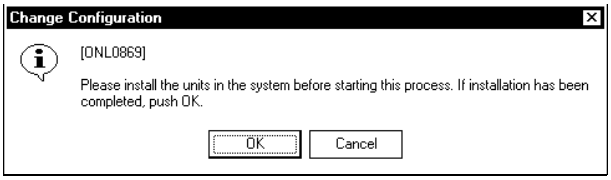
When CHA was installed, LCP (MCP), LCDG, MAIN, RAM BOOT Micro Programs are downloaded.

3. <CHA/DKA is install>
*For CHA
“Upgrading of the CHA...”
*For DKA
“Upgrading of the DKA...”

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4. <Check that hardware components are installed>

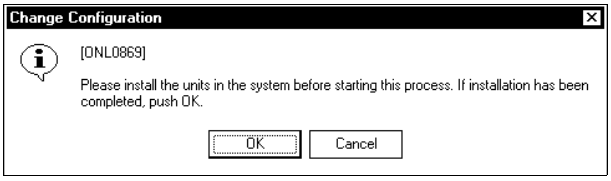
4-1. The message shown in the right figure is displayed.



*For CHA
[Non-Disruptive Installation]
• Go to INST02-90 step (3)-4.
[Disruptive Installation]
• Go to step 4-2.

Separate Model
*For DKA
[Non-Disruptive Installation]
• Go to INST02-100 step (7)-4.
[Disruptive Installation]
• Go to step 4-2.

4-2. <Check that hardware components are installed>
Select (CL) [OK] after making sure that all hardware components are installed correctly in response to “Please install the units in the system before starting this process. If installation has been completed, push OK.”.



5.
“Waiting for Power Event... Usually, several minutes (maximum 10 minutes)” is displayed.

6. <DKU PATH INLINE>
When DKA is installed, “DKU PATH INLINE is now running...” is displayed.

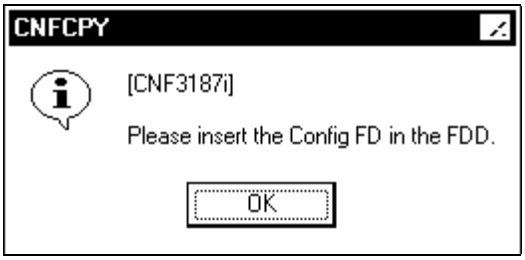
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7. <Check the DKA recovery processing>
The following message is displayed.
“SCSI BUS initialization process is running...”
“Restoring the DKA...”

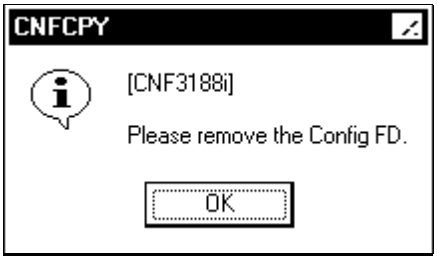
8. <End of system update processing>
“Renewal process has completed. Please check subsystem status.” is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



9.
“Reading subsystem configuration data...” is displayed.
“Please insert the Config FD in the FDD.” is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



10.
When this procedure is completed, message “Please remove the Config FD.” is displayed.
Remove the FD, select (CL) [OK].



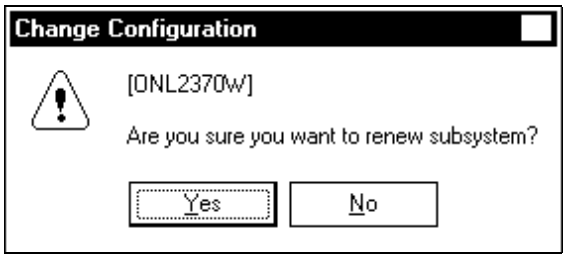
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11. <Return to General flow page>
    [In case of CHAs Installation]
        Non-Disruptive Installation : Go to INST02-90 step (3)-6.
        Disruptive Installation : Go to INST02-230 step (16)-3.
    [In case of DKAs Installation]
        Non-Disruptive Installation : Go to INST02-100 step (7)-8.
        Disruptive Installation : Go to INST02-230 step (16)-3.

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(c) Cache installation

1. <Start installation>
   Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.



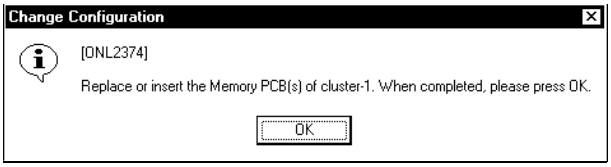
2.
   “The Shared Memory PCB is being blocked...” is displayed.

3. <Include Cache Memory>
   “The Cache Memory PCB is being blocked...” is displayed.

4.
   “Lighting LED of the PCB...” is displayed.

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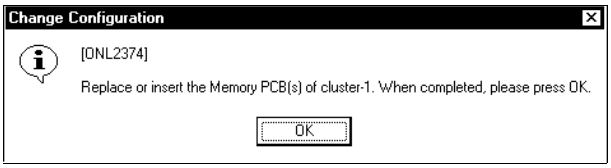
5. <Perform cache hardware installation>
When “Replace or insert the Memory PCBs of cluster-x. When completed, select [OK]” is displayed, install hardware components according to the cache hardware installation procedure.



Go to the pages listed in the table below.

Cluster No.	Flowchart Page
Cluster 1	INST02-380 step ③
Cluster 2	INST02-380 step ⑤

6.
After installation of cache memory on one side is completed, select (CL) [OK] in response to “Replace or insert the Memory PCBs of cluster-x. When completed, select [OK].”.



7. <Cache CUDG executes>
“INLINE CUDG is now running...” is displayed.

8.
“Changing the configuration date, for equipment of shared/cache memory...” is displayed

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9.

"Restoring the Cache Memory PCB..." is displayed.

10.

"Restoring the Shared Memory PCB..." is displayed.

11. <Recover one side of cache>
When recovery processing is completed,
"The Cache Memory PCB is being blocked..." message appears.
Processing proceeds to blocking of the other side of CACHE Memory.

Subsequently, repeat steps 2 to 10 for the other side of cache.

12. <End of system update processing>
"Renewal process has completed. Please check subsystem status." is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



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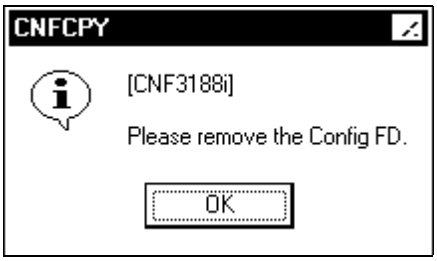
13.

"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



14.

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

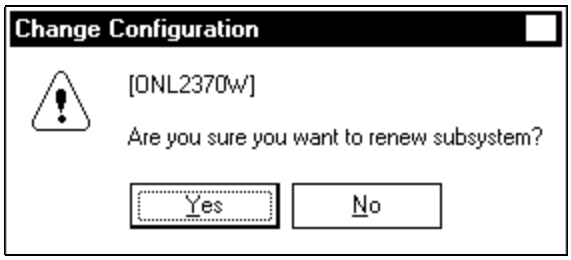


15. <Return to General flow page>
[In case of Cache Memory and Shared Memory Installation]
Go to INST02-380 step ⑦.

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(c) SM installation

1. <Start installation>
   Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.

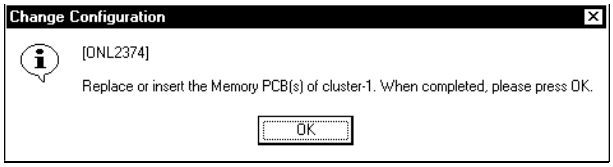


2.
   “The Shared Memory PCB is being blocked...” is displayed.

3.
   “Lighting LED of the PCB...” is displayed.

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4. <Perform cache hardware installation>
When “Replace or insert the Memory PCBs of cluster-x. When completed, select [OK]” is displayed, install hardware components according to the cache hardware installation procedure.

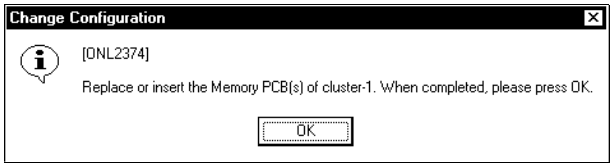


Go to the pages listed in the table below.

Cluster No.	Flowchart Page
Cluster 1	INST02-390 step ⑩
Cluster 2	INST02-390 step ⑫

5.

After installation of shared memory on one side is completed, select (CL) [OK] in response to “Replace or insert the Memory PCBs of cluster-x. When completed, select [OK].”.



6.

“Changing the configuration date, for equipment of shared/cache memory...” is displayed.

7.

“INLINE CUDG is now running...” is displayed.

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8.

"Restoring the Cache Memory PCB..." is displayed.

9.

"Restoring the Shared Memory PCB..." is displayed.

10. <Recover one side of cache>
When recovery processing is completed,
"The Shared Memory PCB is being blocked." message appears.
Processing proceeds to blocking of the other side of Shared Memory.

Subsequently, repeat steps 2 to 9 for the other side of cache.

11. <End of system update processing>
"Renewal process has completed. Please check subsystem status." is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



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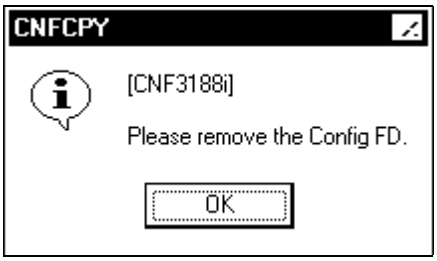
12.

"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



13.

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

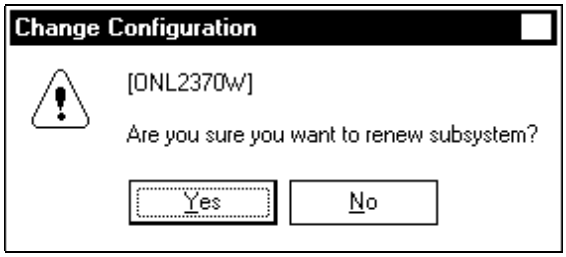


14. <Return to General flow page>
[In case of Cache Memory and Shared Memory Installation]
Go to INST02-390 step ⑭.

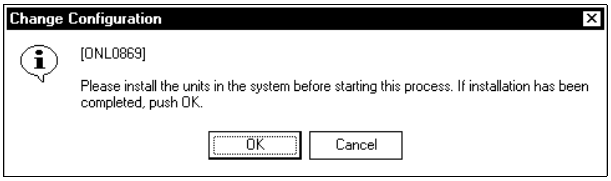
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(d) HDD installation

1. <Start installation>
Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.



2-1.
The message shown in the right figure is displayed.



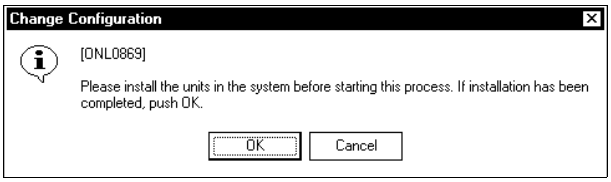
Separate Model
[Non-Disruptive Installation]
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is installed, go to INST02-110 step (8)-7.
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is not installed, go to INST02-110 step (8)-16.

[Disruptive Installation]
- Go to step 2-2.

Single Cabinet Model
- Go to INST02-110 step (8)-5.

2-2. <Check that hardware components are installed>
Select (CL) [OK] after making sure that all hardware components are installed correctly in response to “Please install the units in the system before starting this process.

If installation has been completed, push OK.”.



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3. <Include physical drives>
   “Upgrading the physical device...”
   “The physical device is being blocked...”
   “Changing the subsystem configuration data...”
   “Upgrading the logical device...”
   “Changing the subsystem configuration data...” are displayed.

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4.

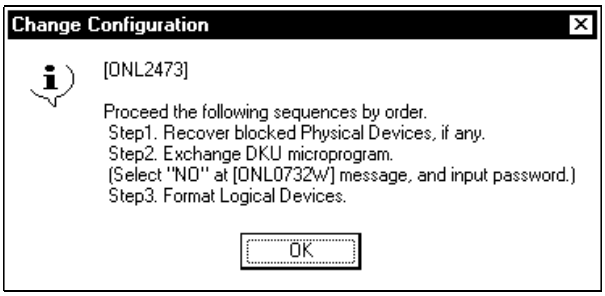
"DKU PATH INLINE is now running..." and
"Spinning up the physical devices..." are displayed.

5. <Execute DKU INLINE test>
"DKU INLINE is now running..." repeat the process for each installed Physical device.

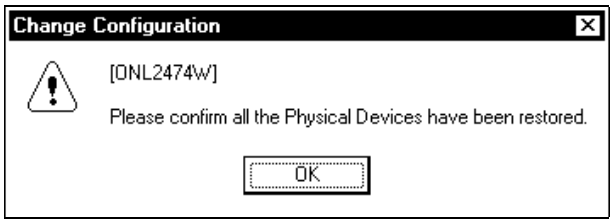
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6-1.

Select (CL) [OK] in response to "Proceed the following sequences by order. Step1. Recover blocked Physical device, if any. Step2. Exchange DKU Microprogram. (Select "NO" at [ONL0732W] message, and input the password.) Step3. Format Logical devices."



If the following message is displayed, go to INST05-1260.6-7.



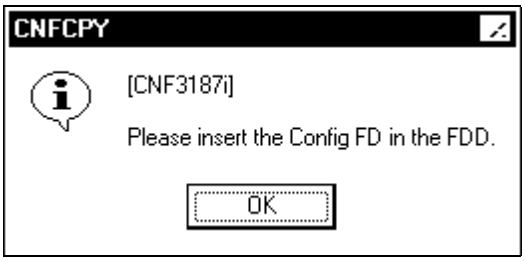
6-2. <Check the end of installation procedure>

Select (CL) [OK] in response to "Renewal process has completed. Please check subsystem status."
And check subsystem status.



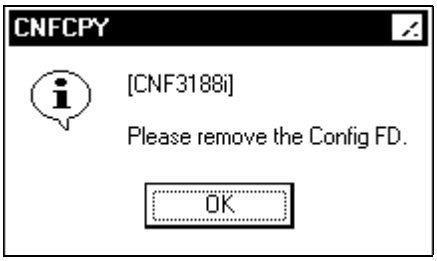
6-3. <FD back up>

Insert the configuration FD into FDD, select (CL) [OK].



6-4.

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



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6-5. <Exchange Microprogram>

Please perform DKU microprogram exchange.
See MICRO FC section (MICR-FC00-00)
After exchange DKU microprogram, go to 6-6.

6-6. <Logical Device format>

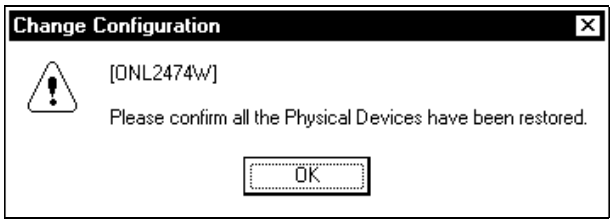
Please perform Logical Device format.
See SVP section (SVP02-630)

Go to INST05-1280.

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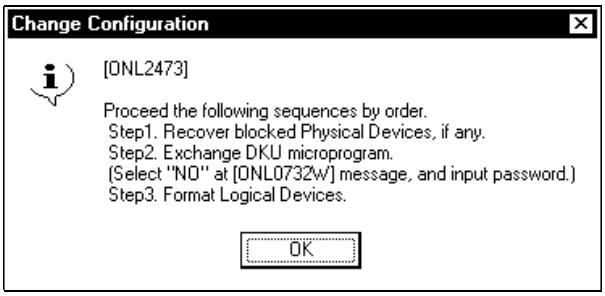
6-7. <Check of restoring physical device>

Select (CL) [OK] in response to "Please confirm all the Physical Devise has been restored."



6-8.

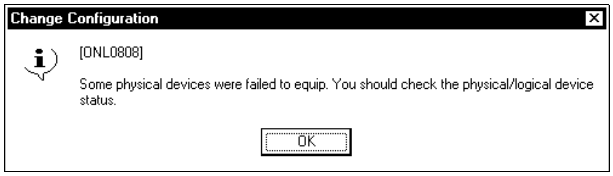
Select (CL) [OK] in response to "Proceed the following sequences by order. Step1. Recover blocked Physical device, if any. Step2. Exchange DKU Microprogram. (Select "NO" at [ONL0732W] message, and input password.) Step3. Format Logical Devices".



6-9. <Check the physical/logical device status>

Select (CL) [OK] in response to "Some physical devices were failed to equip. You should check the physical/logical device status."

And please check the physical device and logical device status.



6-10. <FD back up>

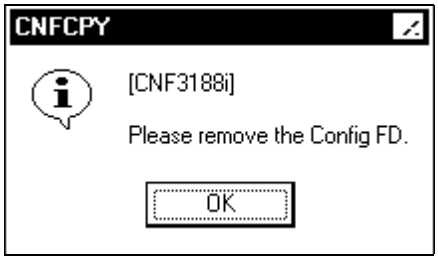
Insert the configuration FD into FDD, select (CL) [OK].



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6-11.

When this procedure is completed, message “Please remove the Config FD.” is displayed. Remove the FD, select (CL) [OK].



6-12. <Replace Physical Device>

Please replace the blockade Physical device.

See Replace section 1.PRE-PROCEDURE B (REP02-30)
2.HARDWARE A (REP03-10)
3.POST-PROCEDURE C (From REP04-90 to REP04-120 .7)

After replacement, go to 6-13.

6-13. <Exchange Microprogram>

Please perform exchange DKU microprogram.
See MICRO FC section (MICR-FC00-00)

After exchange DKU microprogram, go to 6-14.

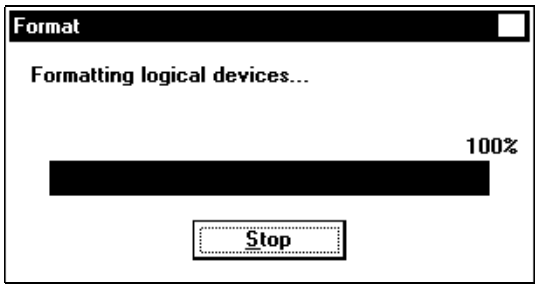
6-14. <Logical Device format>

Please perform Logical Device format.
See SVP section (SVP02-630)

Go to INST05-1280.

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7. <LDEV FORMAT>
"Formatting the logical device..." is displayed.



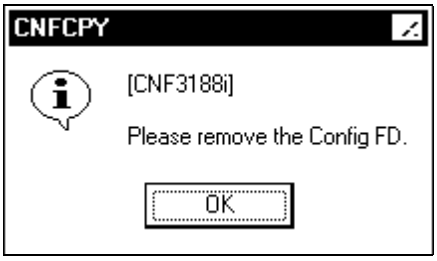
8. <End of system update processing>
"Renewal process has completed. Please check subsystem status." is displayed when recovery processing on all installed components is completed. Select (CL) [OK] in response to this message.



9.
"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



10.
When this procedure is completed, message "Please remove the Config FD." is displayed.
Remove the FD, select (CL) [OK].



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11. <Return to General flow page>

Separate Model

[Non-Disruptive Installation]

- When the DEV I/F Cable 2 (DKU-F405I-EXC) is installed, go to INST02-110 step (8)-9.
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is not installed, go to INST02-110 step (8)-18.

[Disruptive Installation]

- Go to INST02-240 step (17)-6.

Single Cabinet Model

[Non-Disruptive Installation]

- Go to INST02-110 step (8)-7.

[Disruptive Installation]

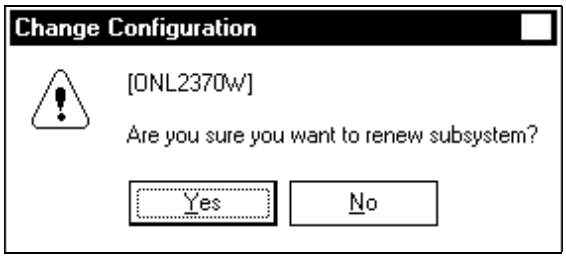
- Go to INST02-240 step (17)-6.

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5.3.3.2 De-installation system update processing

(a) HDD de-installation

1. <Start de-installation>
   Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.



2. <Maintenance-block of PCBs other than cache or shared memory>
   At this moment, maintenance blocking is performed on PCBs other than memory systems with message “Checking the physical device status...”.

3. <Update device structure information about PCBs other than cache or shared memory>
   “De-installation of the logical device...” and “Lighting LED of the PCB...” are displayed and the device structure information update processing is performed on the current component. When the update processing is completed, the device structure information on the current component is set to [EMPTY] and the shut down LED on the PCB is lit.

   When the update of device structure information on all PCBs other than those on the memory systems is completed, automatically one of the two following message is displayed.
   Then proceed with the related procedure for each message.

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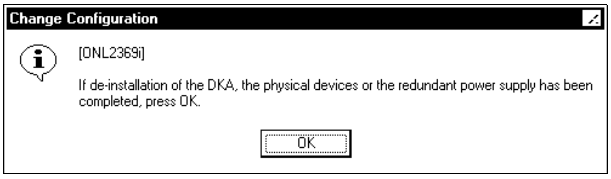
4. <Physical Drive blocking>
"The physical device is being blocked..."
"Spinning down the physical devices..."
"Cache control table is reconstructed…
Usually, several minutes (maximum 20 minutes)" (*1)
"De-installation of the physical devices..."
"Changing the subsystem configuration data..."
"Blocking the logical device..."
"De-installation of the logical device..."
"Changing the logical device configuration data..."
are displayed.

(*1) A time to be necessary for this process is Cache capacity (G Byte) × 40 seconds.

---

5. <Check the hardware components are de-installed>

5-1. The message shown in the right figure is displayed.

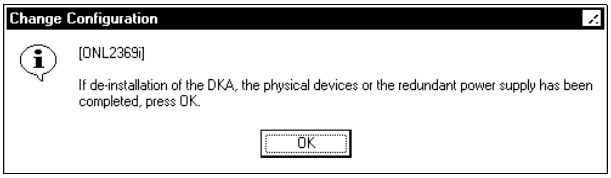


Separate Model
[Non-Disruptive De-Installation]
Note: Don't touch a part except Physical Device and DEV Interface Cable.
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is removed, go to INST02-150 step (1)-9.
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is not removed, go to INST02-150 step (1)-2B.

[Disruptive De-Installation]
- Go to step 5-2.

Single Cabinet Model
- Go to INST02-150 step (1)-4.

5-2. Select (CL) [OK] in response to "If de-installation of the DKA, the physical devices or the redundant power supply has been completed, press OK." shown in the right figure.



Selecting [OK] causes the next message to be displayed.

"Processing to enable the environment check..." is displayed.

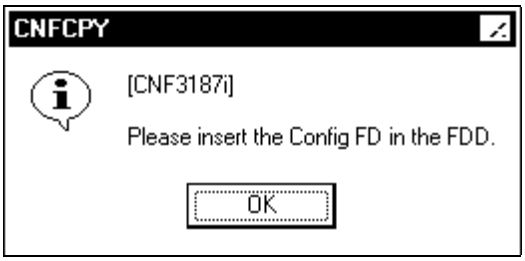
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6. <Check the end of de-installation procedure>
"Renewal process has completed. Please check subsystem status." shown in the right figure displayed. Select (CL) [OK] in response to this message.



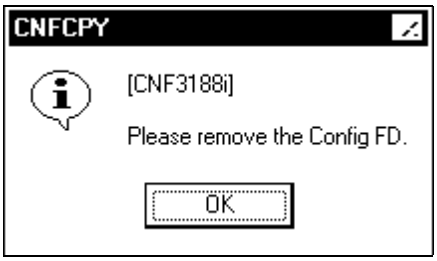
7.

"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



8.

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



9. <Return to General flow page>

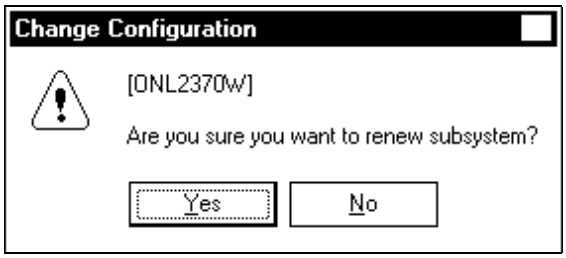
[Non-Disruptive De-Installation]
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is removed, go to INST02-150 step (1)-13.
- When the DEV I/F Cable 2 (DKU-F405I-EXC) is not removed, go to INST02-150 step (1)-4.

[Disruptive De-Installation]
- Go to INST02-250 step (2)-3.

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(b) CHA (DKA) de-installation

1. <Start de-installation>
Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.



2. <Maintenance-block of PCBs other than cache or shared memory>
At this moment, maintenance blocking is performed on PCBs other than memory systems with message “The CHA (DKA) is being blocked...” is displayed.
This processing is carried out on each component that is subject to de-installation.

3. <Update device structure information about PCBs other than cache or shared memory>
“The CHA (DKA) is being blocked...” and “Lighting LED of the PCB...” are displayed and the device structure information update processing is performed on the current component. When the update processing is completed, the device structure information on the current component is set to [EMPTY] and the shut down LED on the PCB is lit.

When the update of device structure information on all PCBs other than those on the memory systems is completed, automatically one of the two following message is displayed.

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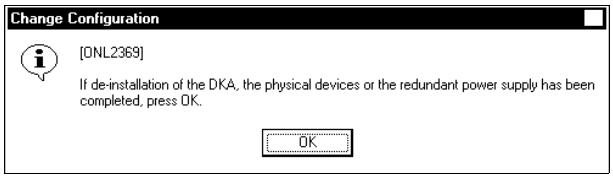
4. <Check the hardware components are de-installed>

4-1.

[In case of DKAs De-installation]

The message shown in the right figure is displayed.

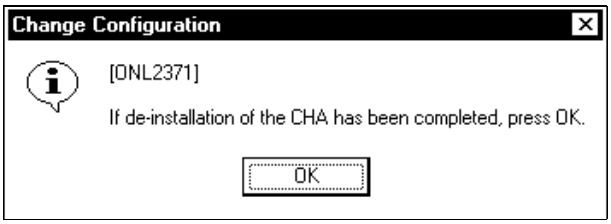
Go to INST02-150 step (2)-4.



[In case of CHAs De-installation]

The message shown in the right figure is displayed.

Go to INST02-180 step (6)-5.



4-2.

[In case of DKAs De-installation]

Select (CL) [OK] in response to “If de-installation of the DKA, the physical devices or the redundant power supply has been completed, press OK.”.

[In case of CHAs De-installation]

Select (CL) [OK] in response to “If de-installation of the CHA has been completed, press OK.”.

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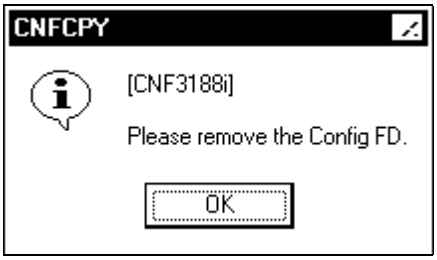
5. <Check the end of de-installation procedure>
"Renewal process has completed. Please check subsystem status." shown in the right figure displayed. Select (CL) [OK] in response to this message.



6.
"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



7.
When this procedure is completed, message "Please remove the Config FD." is displayed.
Remove the FD, select (CL) [OK].

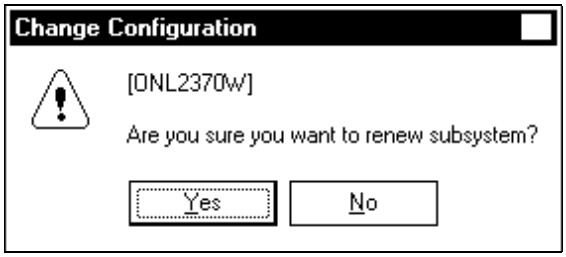


8. <Return to General flow page>
[In case of DKAs De-Installation]
Non-Disruptive De-Installation : Go to INST02-150 step (2)-6.
Disruptive De-Installation : Go to INST02-260 step (3)-3.
[In case of CHAs De-Installation]
Non-Disruptive De-Installation : Go to INST02-180 step (6)-6.
Disruptive De-Installation : Go to INST02-260 step (5)-3.

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(c) Cache de-installation

1. <Start de-installation>
   Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.

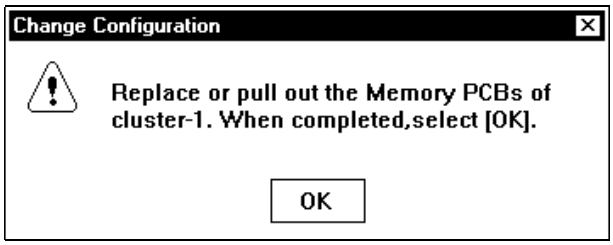


2. <Memory blocking on one side>
   When blocking of one side of shared memory and Cache memory is completed, “The Cache Memory PCB is being blocked...” “The Shared Memory PCB is being blocked...” are displayed.

3.
   “Lighting LED of the PCB...” is displayed.

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4. <Perform cache hardware de-installation>
When “Replace or pull out the Memory PCBs of cluster-x. When completed, select [OK].” is displayed, perform hardware de-installation steps according to the cache hardware de-installation procedure.

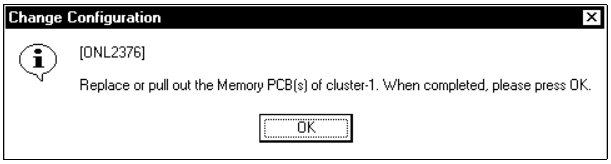


Go to the pages listed in the table below.

Cluster No.	Flowchart Page
Cluster 1	INST02-400 step ②
Cluster 2	INST02-400 step ④

5.

After the hardware procedure for one side of cache memory is completed, select (CL) [OK] in response to “Replace or pull out the Memory PCBs of cluster-x. When completed, select [OK].”.



6. <Cache CUDG executes>
“INLINE CUDG is running...” is displayed.

7.

When CUDG is completed, recovery processing is automatically started with message.

“Restoring the Cache Memory PCB...”

“Shared memory renewal is in progress...”

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8.

When the recovery processing is complete, processing proceeds to blocking of the other side of shared memory.

Subsequently, repeat steps 2 to 7 for the other side of cache.

9.

When all cache recovery operations are completed, “Renewal process has completed. Please check subsystem status.” message appears.

10. <Check the end of de-installation procedure>
“Renewal process has completed. Please check subsystem status.” shown in the right figure displayed. Select (CL) [OK] in response to this message.



11.

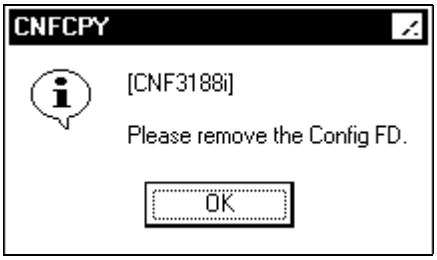
“Reading subsystem configuration data...” is displayed.
“Please insert the Config FD in the FDD.” is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



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12.

When this procedure is completed, message “Please remove the Config FD.” is displayed.
Remove the FD, select (CL) [OK].



13. <Return to General flow page>

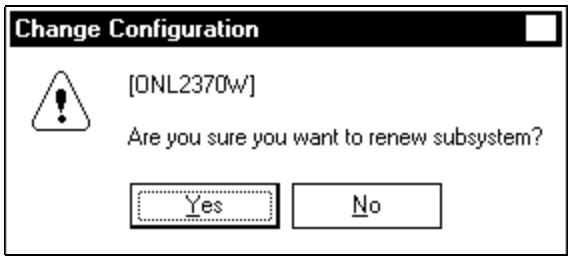
[In case of Cache Memory and Shared Memory De-Installation]

Go to INST02-400 step ⑥.

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(d) SM de-installation

1. <Start de-installation>
   Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.

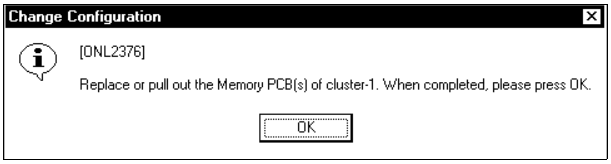


2. <Memory blocking on one side>
   When blocking of one side of shared memory is completed, “The Shared Memory PCB is being blocked...” are displayed.

3.
   “Lighting LED of the PCB...” is displayed.

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4. <Perform cache hardware de-installation>
When "Replace or pull out the Memory PCBs of cluster-x. When completed, select [OK]." is displayed, perform hardware de-installation steps according to the cache hardware de-installation procedure.

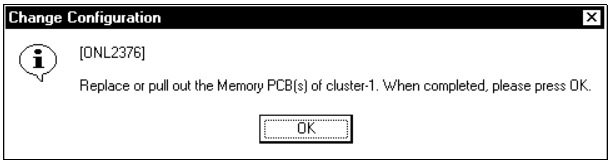


Go to the pages listed in the table below.

Cluster No.	Flowchart Page
Cluster 1	INST02-410 step ⑩
Cluster 2	INST02-410 step ⑫

5.

After the hardware procedure for one side of cache memory is completed, select (CL) [OK] in response to "Replace or pull out the Memory PCBs of cluster-x. When completed, select [OK].".



"INLINE CUDG is running..." is displayed.

6.

When CUDG is completed, recovery processing is automatically started with message.

"Restoring the Cache Memory PCB..."

"Restoring the Shared Memory PCB..."

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7.

When the recovery processing is complete, processing proceeds to blocking of the other side of shared memory.

Subsequently, repeat steps 2 to 6 for the other side of cache.

8.

When all shared memory recovery operations are completed, “Renewal process has completed. Please check subsystem status.” message appears.

9. <Check the end of de-installation procedure>
“Renewal process has completed. Please check subsystem status.” shown in the right figure displayed. Select (CL) [OK] in response to this message.



10.

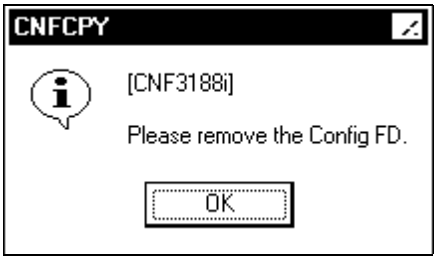
“Reading subsystem configuration data...” is displayed.
“Please insert the Config FD in the FDD.” is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



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11.

When this procedure is completed, message “Please remove the Config FD.” is displayed.
Remove the FD, select (CL) [OK].



12. <Return to General flow page>

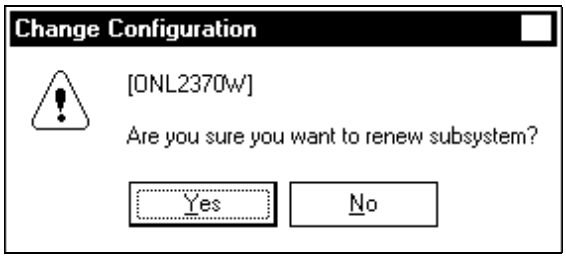
[In case of Cache Memory and Shared Memory De-Installation]

Go to INST02-410 step ⑭.

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(e) Power supply de-installation

1. <Start de-installation>
Select (CL) [Yes] in response to “Are you sure you want to renew subsystem?”.

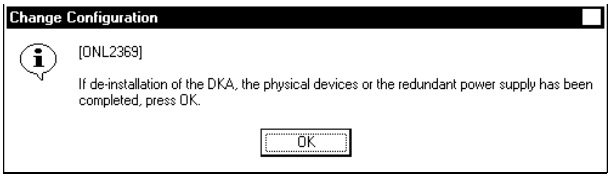


---

2. <Check the hardware components are de-installed>

2-1.

“If de-installation of the CHA/DKA, the physical devices or the redundant power supply has been completed, press OK.” is displayed.
Go to INST02-180 step (7)-4.



2-2.

Selecting [OK] causes the next message to be displayed.

“Processing to enable the environment check...” is displayed.

---

3. <Check the end of de-installation procedure>
“Renewal process has completed. Please check subsystem status.” shown in the right figure displayed. Select (CL) [OK] in response to this message.



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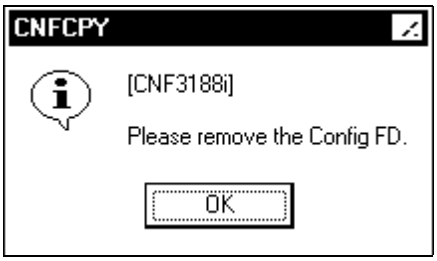
4.

"Reading subsystem configuration data..." is displayed.
"Please insert the Config FD in the FDD." is displayed.
Insert the configuration FD into FDD, select (CL) [OK].



5.

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



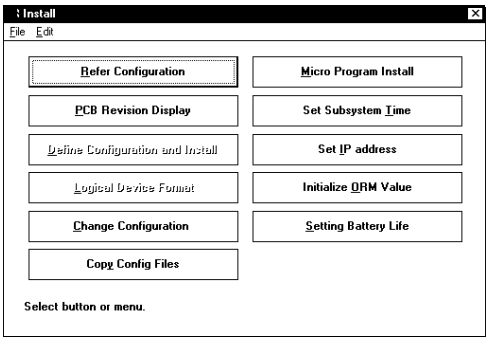
6. <Return to General flow page>
[In case of DKC additional power supplies and CL redundant power supplies De-Installation]
Non-Disruptive De-Installation : Go to INST02-180 step (7)-6.
Disruptive De-Installation : Go to INST02-260 step (6)-3.

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5.3.3.3 SVP screen ends

1.

After the procedure is completed, return to “Menu Dialog”.
Select (CL) [File]-[Exit].



2. <Mode Change>
Change the mode to View Mode.

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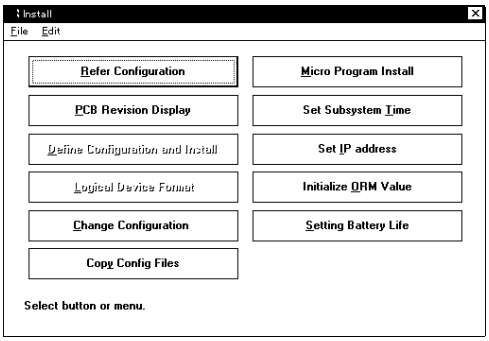
5.3.4 Emulation Type Change

⚠ CAUTION

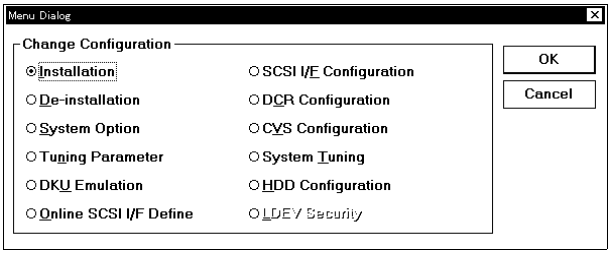
There is some possibility that "Syserr's Clues" occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with "Syserr's Clues" caused have no effects on the system.

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

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



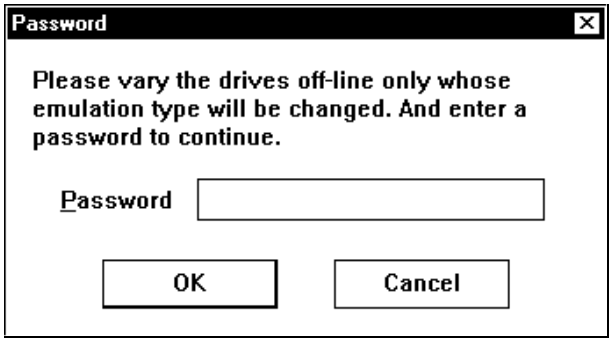
3. <Start Device Structure Setup screen>
   Select (CL) [DKU Emulation] in the 'Menu Dialog' dialog box and select (CL) [OK].



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

NOTICE

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

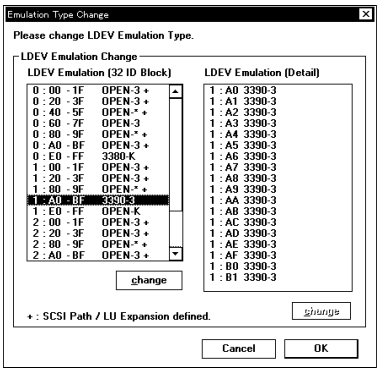


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5. Emulation Change Procedure

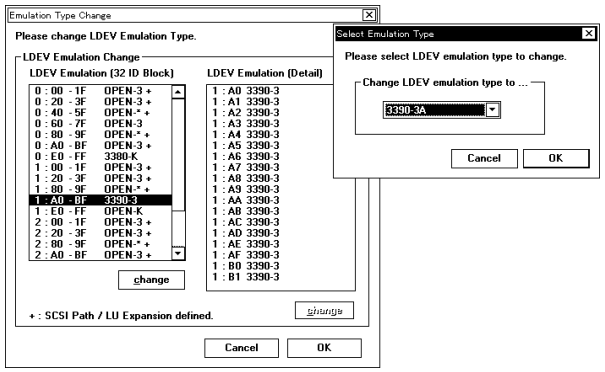
5.1 Emulation Type Change for Single Block

(1) Select (CL) a block including an LDEV for which you want to change an emulation type in the LDEV Emulation (32 ID Block) list box.



---

(2) Select (CL) the [Change] beneath the LDEV Emulation (32 ID Block) list box to open the dialog box for choosing an emulation type to be changed, and select (CL) the changed emulation type.



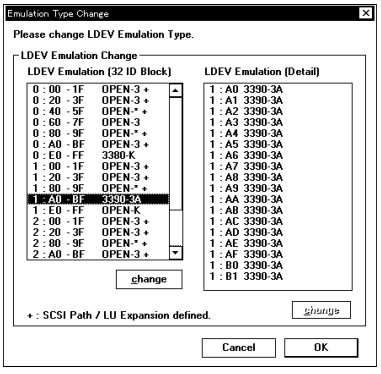
In the following case, [Change] button is not available. (It's concerned with "+" indicated LDEV.)

a) Block including volumes with SCSI path is selected.

b) Block including LU Expanded volumes is selected.

---

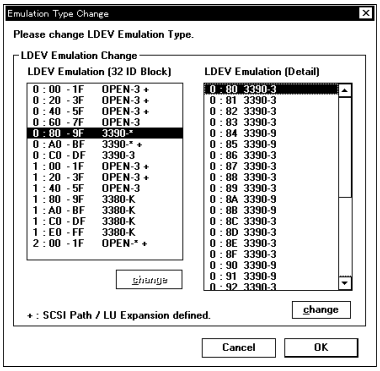
(3) Select (CL) the [OK] to set the changed emulation type. Then, the type of LDEV (selected in step (1)) having the emulation type to be changed varies to the one specified in step (2). When selecting the same LDEV block after setting the change, you can check details of the changes in the LDEV Emulation (Detail) list box.



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5.2 Emulation Type Change for Single LDEV

(1) Select (CL) a block including an LDEV for which you want to change an emulation type in the LDEV Emulation (32 ID Block) list box.

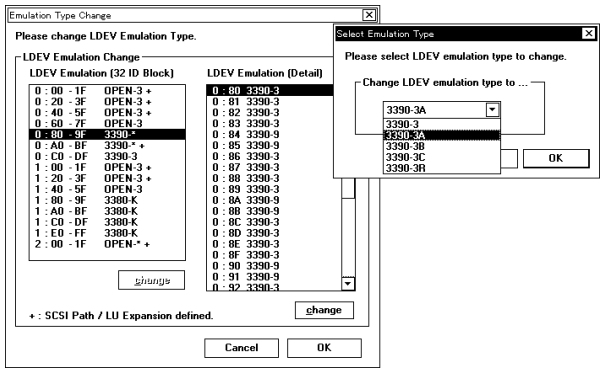


(2) In the LDEV Emulation (Detail) list box, select (CL) an LDEV of which emulation type is to be changed.

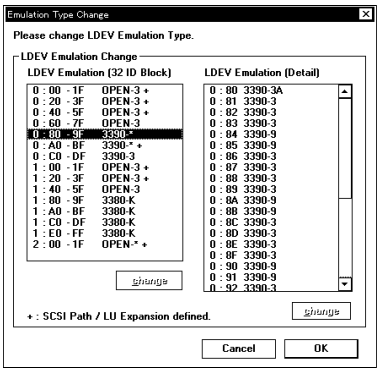
(3) Select (CL) the [Change] beneath the LDEV Emulation (Detail) list box to open the dialog box for choosing an emulation type to be changed, and select (CL) the changed emulation type.

In the following case, [Change] button is not available. (It's concerned with "+" indicated LDEV.)

a) Volume with SCSI path is selected.
b) LU expanded volume is selected.



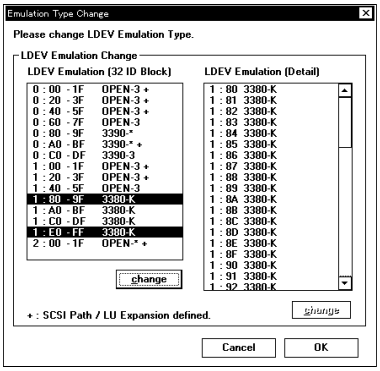
(4) Select (CL) the [OK] to set the changed emulation type.
Then, the type of LDEV (selected in step (2)) varies to the one specified in step (3).



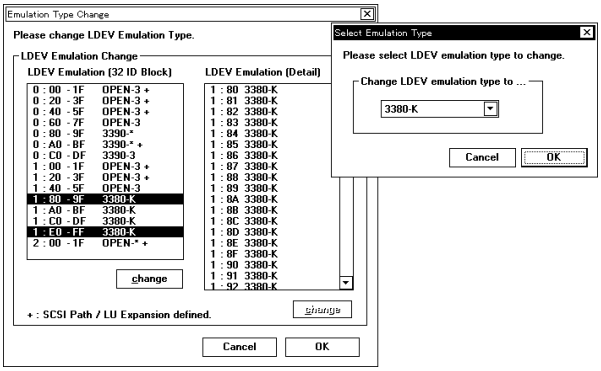
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5.3 Emulation Type Change for Multiple Blocks

(1) Select (CL) blocks including an LDEV for which you want to change an emulation type in the LDEV Emulation (32 ID Block) list box.



(2) Select (CL) the [Change] beneath the LDEV Emulation (32 ID Block) list box to open the dialog box for choosing an emulation type to be changed, and select (CL) the changed emulation type.

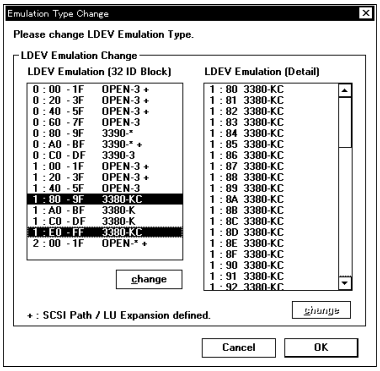


In the following case, [Change] button is not available. (It's concerned with "+" indicated LDEV.)

a) Blocks including volumes with SCSI path are selected.

b) Blocks including LU expanded volumes are selected.

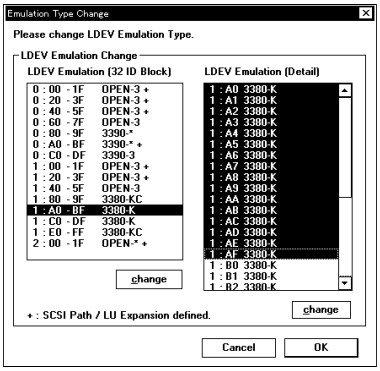
(3) Select (CL) the [OK] to set the changed emulation type. Then, the type of LDEV (selected in step (1)) having the emulation type to be changed varies to the one specified in step (2). When selecting the same LDEV block after setting the change, you can check details of the changes in the emulation LDEV Emulation (Detail) list box.



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5.4 Individual Emulation Type Change for Multiple LDEVs

(1) Select (CL) a block including LDEVs for which you want to change an emulation type in the LDEV Emulation (32 ID Block) list box.

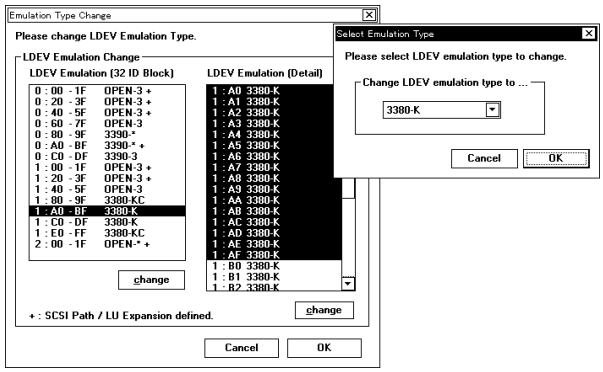


(2) In the LDEV Emulation (Detail) list box, select (CL) LDEVs of which emulation types are to be changed.

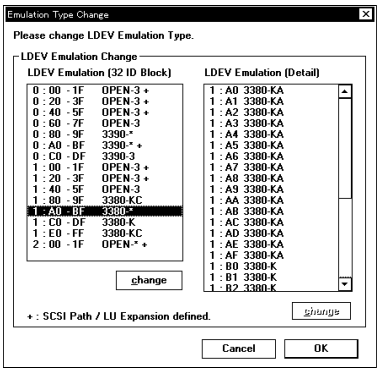
(3) Select (CL) the [Change] beneath the LDEV Emulation (Detail) list box to open the dialog box for choosing an emulation type to be changed, and select (CL) the changed emulation type.

In the following case, [Change] button is not available. (It's concerned with "+" indicated LDEV.)

a) Volumes with SCSI path are selected.
b) LU expanded volumes are selected.



(4) Select (CL) the [OK] to set the changed emulation type.
Then, the type of LDEV (selected in step (2)) varies to the one specified in step (3).



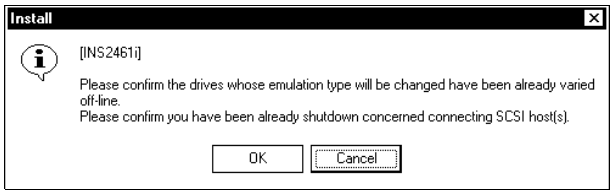
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6.

Select (CL) [OK] to decide the emulation type change.
Select (CL) [Cancel] to cancel the operation.

7.

Before changing the emulation type, confirm that the drive has already been set to Vary Off-line and that the SCSI host concerned has been shut down, and then select (CL) [OK].



When [Cancel] is selected (CL), the processing is aborted.

8.

"Changing DKU Emulation" is displayed.

9. <Drive Vary On-line>

When the emulation type change processing terminates normally, the message "Changing emulation type is normal end. Please vary the drives on-line." is displayed.
Vary the drive on-line and select (CL) [OK].



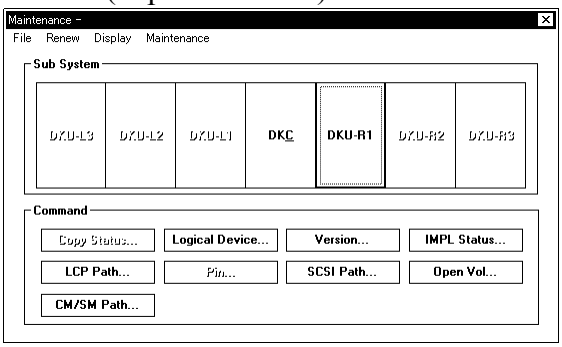
Copyright ©2000, Hitachi, Ltd.

5.3.5 Movement of the file on Flash Memory Card to HD

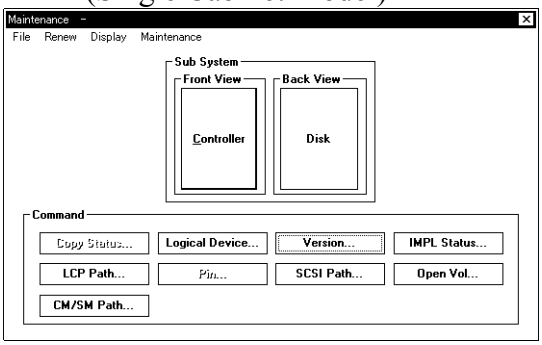
1. <Operation mode change>
   Select (CL) [View Mode] from “SVP”.
   Select (CL) [Maintenance].

2. <Maintenance window>
   ‘Maintenance’ window is displayed.

(Separate Model)



(Single Cabinet Model)



NOTICE
Complete SIM before operation.

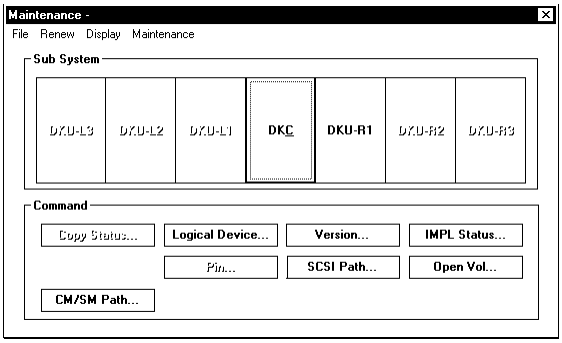
Copyright ©2000, Hitachi, Ltd.

3. <Maintenance window>
'Maintenance' window is displayed.

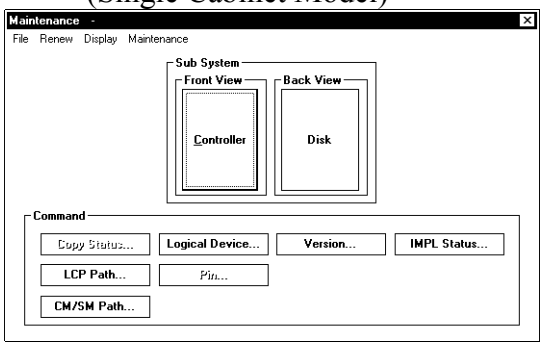
(Separate Model)
In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

(Single Cabinet Model)
In the "Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)

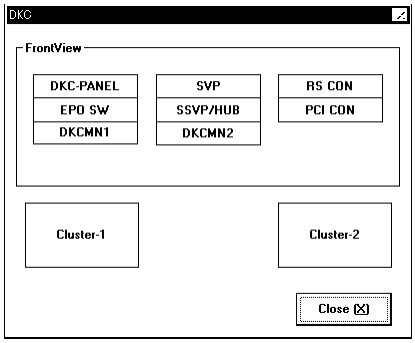


4. <Specify special part>

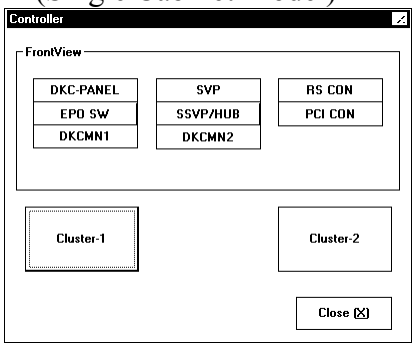
(Separate Model)
Select (CL) part [SVP] to be replaced from 'DKC'.

(Single Cabinet Model)
Select (CL) part [SVP] to be replaced from 'Controller'.

(Separate Model)

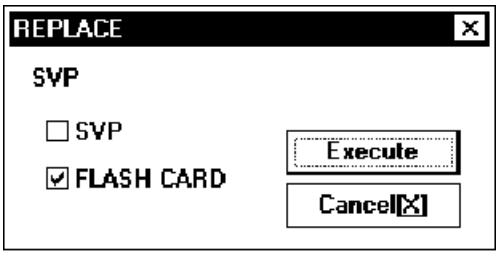


(Single Cabinet Model)

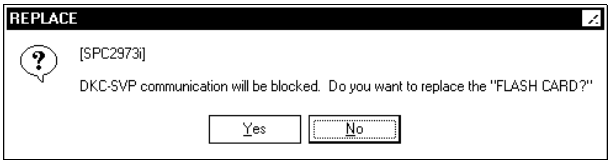


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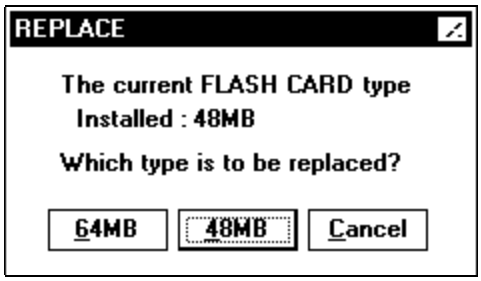
5. <Execute>
   a) Select (CL) replacement parts “FLASH CARD”. (with a check mark)
   b) Check box on the left of “SVP” is ☐. (without a check mark)
   c) Select (CL) [Execute].



6. <Check beginning of special part Replacement>
   Select (CL) [Yes] in response to “Do you want to replace the "FLASH CARD?"”.

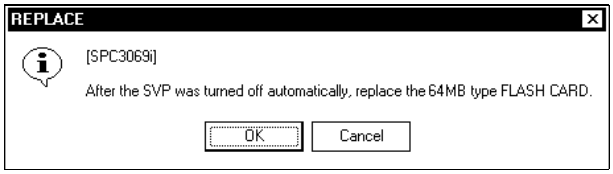


7. <Select the type of maintenance part>
   Select (CL) the FLASH CARD type in response to “The current FLASH CARD type Installed : xxxx
   Which type is to be replaced?”.
   Disruptive Installation: Select (CL) [64MB].
   Disruptive De-Installation: Select (CL) [48MB].
   xxxx : The installed FLASH CARD type
   48MB : 48MB type
   64MB : 64MB type
   UNKNOWN : The FLASH CARD type cannot be gotten.



(ex. 48MB type is installed)

8. <Check beginning of FLASH CARD Replacement>
   The message “After the SVP was turned off automatically, replace the XXXX type FLASH CARD.” is displayed.
   XXXX
   Disruptive Installation: 64MB
   Disruptive De-Installation: 48MB



(ex. Disruptive Installation)

   Select (CL) [OK], so it will reboot the SVP, and the files on FLASH CARD are moved to HD. Then SVP is turned off automatically.

9. <Return to General flow page>
   Disruptive Installation : Go to INST02-200 step (2).
   Disruptive De-Installation : Go to INST02-260 step (7).

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5.4 System Tuning SVP Procedure

⚠ CAUTION

There is some possibility that “Syserr’s Clues” occurs during this operation. In this case, retry the same setting operations after SVP (PC) is rebooted. (The settings operations with “Syserr’s Clues” caused have no effects on the system.

5.4.1 System Tuning

NOTICE

Powering off/on is required owing to the performance of this operation.

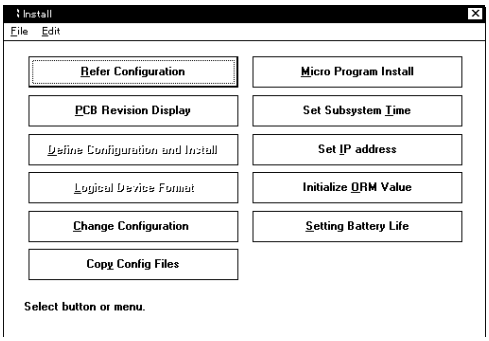
Overview

This function modify the part of established subsystem configuration data.
The data to be modified is control data closely related to a host device, so the data can not be modified on on-line.
After modification of the data, power DKC off and on.
The data to be modified is listed below.

‘DKC Configuration’ ---------- DKC Serial Number/Sub System ID/DKC Emulation Type
‘Channel Configuration’ -------- Channel Speed/Device Address/LDEV Control Drives
‘System Option Setup’ ---------- Spare Disk Recovering/Dynamic Sparing

1. <Start [Install]>
   Select [Install] from ‘SVP’ (CL).

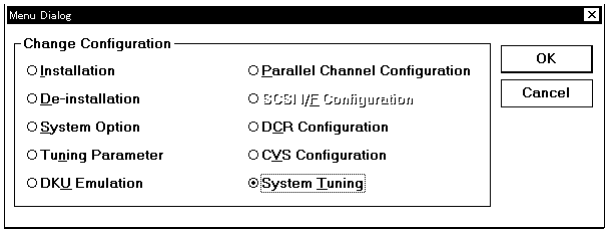
2.
   Select [Change Configuration] (CL) from ‘Install’.



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3. <Specify beginning of installation>
Select [System Tuning] from 'Menu Dialog' (CL), and select [OK] (CL).

Message "You need agreement of Technical Support Center, and entering the password.".

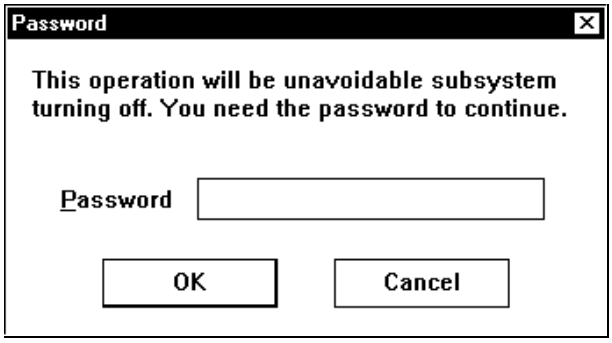


NOTICE
Powering off/on is required owing to the performance of this operation.
Ask the technical support center about the appropriateness of the operation, and input a password after getting an approval of executing the operation.

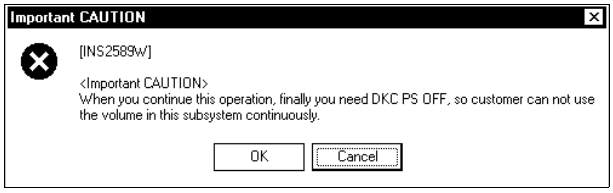
4.

(1) Enter the password and select [OK] (CL).
Password is needed for this operation.
Please call Technical Support Center to obtain password and authorization.

If [Cancel] is selected (CL), terminate the installation procedure.
'DKC Configuration' is automatically displayed next.

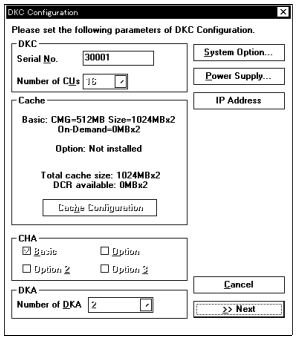


(2) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, finally you need DKC PS OFF, so customer can not use the volume in this subsystem continuously.".



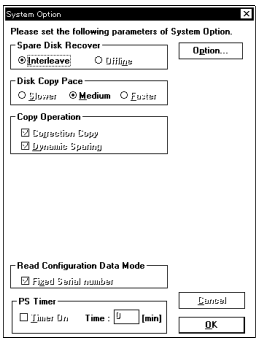
5. <Define configuration information>
Define the device configuration information from 'DKC Configuration' according to the device configuration worksheet.
When you select [>>Next] (CL), 'DKC Emulation Configuration' is automatically displayed.
This procedure finishes when you select [Cancel] (CL).

If [System Options...] is selected (CL), 'System Option' is automatically displayed.
If [Power Supply...] is selected (CL), 'Redundant Power Supply' is displayed. (Separate Model only)
If [IP Address...] is selected (CL), 'Set IP Address' is displayed.



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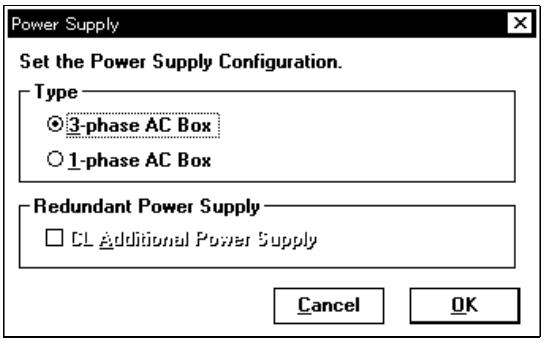
6. <System option setup>
Define the device configuration information from 'System Option' according to the device configuration worksheet.
After setting up all items, select [OK] (CL).
The next message screen is displayed.
When you select [Cancel] (CL), 'System Option' is closed and 'DKC Configuration' appears again.
Return to step 5.



7. <Set Power Supply>
Set the power supply information in the 'Redundant Power Supply' dialog box, and select (CL) [OK].

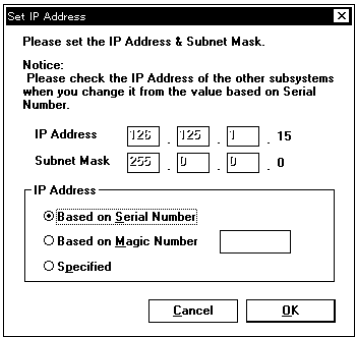
Return to step 5.

Note: In case of Single Cabinet Model, 'Power Supply' dialog box is not displayed.

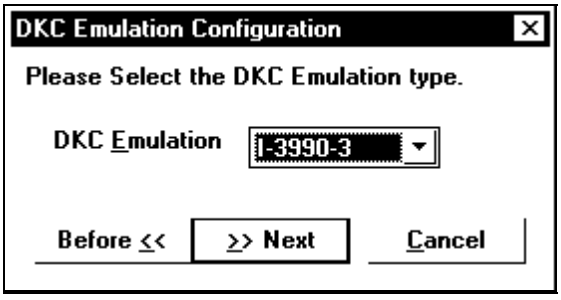


8. <Set IP Address>
Set the IP Address and Subnet Mask in the 'Set IP Address' dialog box, and select (CL) [OK].

Return to step 5.



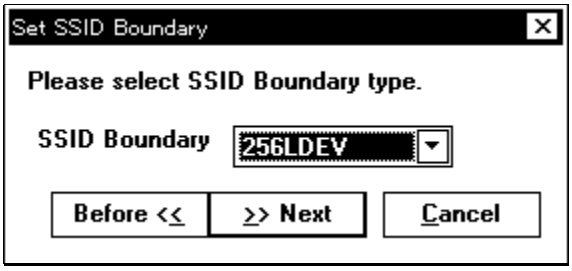
9. <Set DKC emulation type>
Define the device configuration information from 'DKC Emulation' according to the device configuration worksheet.
Selecting (CL) [>>Next] or [Before<<] returns the screen to step 5.



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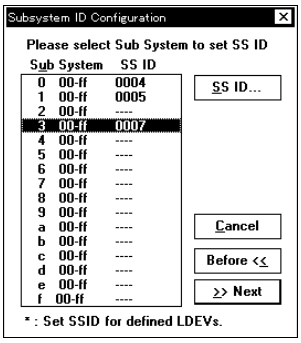
9-1. <Define Subsystem ID Boundary>

Set the Subsystem ID Boundary in the “Set SSID Boundary” dialog box.
Select (CL) [>>Next].



10. <Define Subsystem ID>

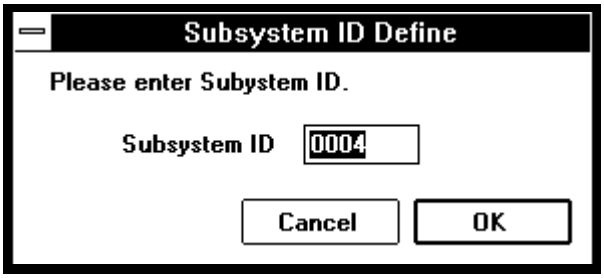
To define Subsystem ID, select (CL) [SSID].
After setting, select (CL) [>>Next].
This procedure is terminated by selecting (CL) [Cancel].



11.

Define Subsystem ID and select (CL) [OK].
Return to step 10.

“Checking subsystem configuration...” is displayed.



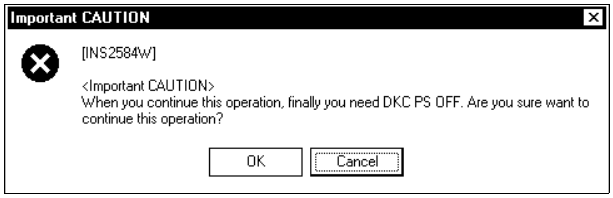
12. <Include configuration information>

(1) Select (CL) [Yes] in response to the confirmation message “Are you sure you want to install the defined configuration?”.
“Wait...” is displayed, then “Turn off the subsystem” is displayed.
Selecting (CL) [No] suppresses the configuration inclusion processing and terminates the installation procedure.

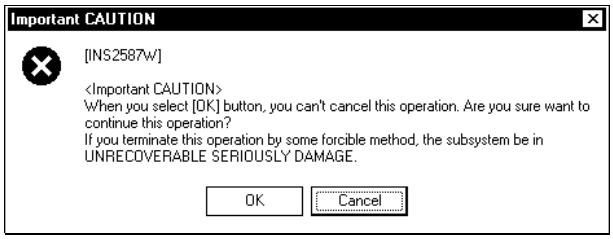


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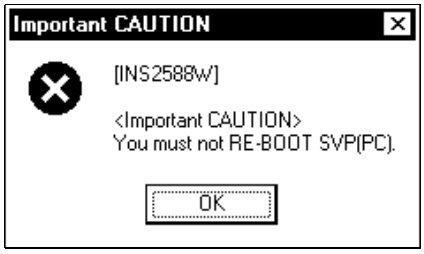
(2) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, finally you need DKC PS OFF. Are you sure want to continue this operation?".



(3) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you select [OK] button, you can't cancel this operation. Are you sure want to continue this operation?
If you terminate this operation by some forcible method, the subsystem be in UNRECOVERABLE SERIOUSLY DAMAGE.".



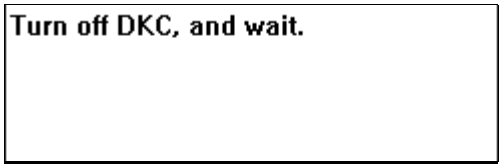
(4) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
You must not RE-BOOT SVP(PC).".



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13.

Make sure that “Turn off DKC, and wait.” is displayed and perform the power-off procedure from the DKC maintenance panel.
After a while “Wait...” is displayed.



14.

This step causes the contents of the SVP HD to be loaded into SM and FM.
When this procedure is completed, message “Please insert config FD in FDD.” is displayed.

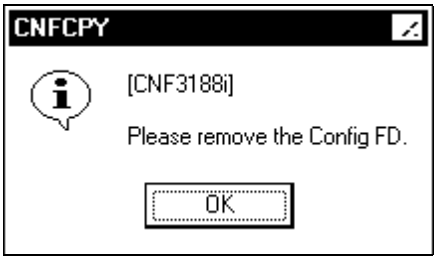
15.

Insert the configuration FD into FDD, select [OK].



16.

When this procedure is completed, message “Please remove the Config FD.” is displayed.
Remove the FD, select [OK].

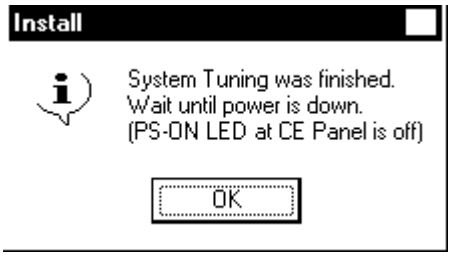


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17.

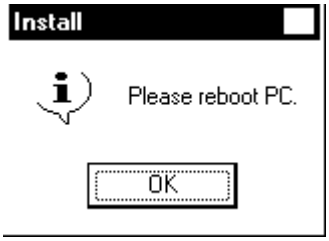
After making sure that DKC power is turned off, select [OK] (CL) in response to “System Tuning was finished.”. The initial INSTALL screen is restored.

Note : SVP power will not turn off even when DKC is powered off.



18.

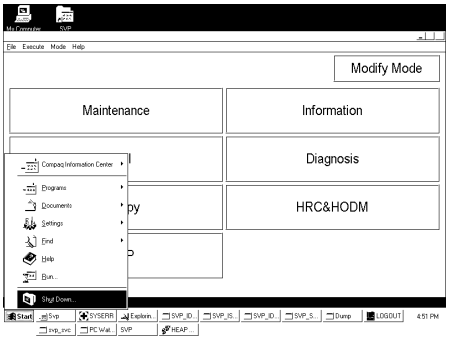
“Please reboot PC” is displayed.
Select [OK] (CL).



19.

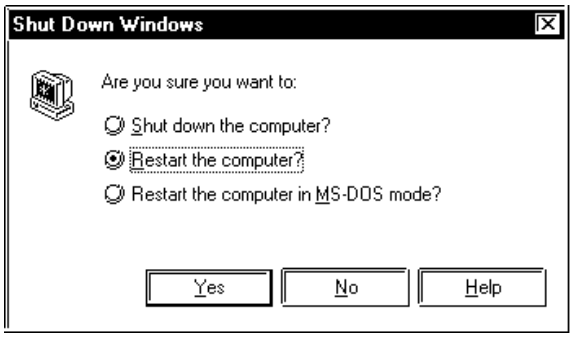
Close ‘Install’.

(1) <Shut Down Windows>
Select (CL) [Start].
Select (CL) [Shut Down].



(2) <Reboot the PC>
Select (CL) “Restart the computer” from Shut Down Windows, and select (CL) [Yes] in response to “Are you sure you want to:”.

Turn the “POWER ON/OFF” switch on the CE panel PCB to “ON”.



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5.5 Installing the SNMP Agent

5.5.1 Sequence of installation

1. Install USB-LAN Card in SVP.
2. Register SNMP Agent at Service by Control Panel of Windows.
3. Install PP of SNMP.
4. Set evaluation of SNMP.

5.5.2 Operation of SNMP install

1. Hardware Install (USB-LAN Card)
   Install LAN Card
   Install LAN Adapter Driver
   Set IP Address of USB-LAN Card.
   Install SNMP Agent

   Please refer to 3.15 Installation of SNMP Support Kit

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2. The Sequence of Install for SNMP PP

(1) Change SVP mode.
Change mode View → Modify

(2) Start Install
Start Install from SVP MAIN window.

(3) Start “Change Configuration”
Select [Change Configuration] button.

(4) Start System Option setting.
Select [System Option] from “install window”, and press [OK].

(5) Start Option window.
Press [Option...] button from System Option window.

(6) SNMP Agent Install
Option Product windows is displayed, So Select “SNMP Agent” from “List box” and press [Install...] button.

(7) Input Key-code.
On “Key Code input window” input the appoint Key Code, and press [OK].

(8) Check windows
Confirmation window is displayed, check contents and press [Install] button.

(9) Close Option Product window
Select [Close] on Option Product window.

(10) Close System Option window
Press [OK] on System Option window.

(11) Start Download “Configuration”
Display message “Loading Configuration”

(12) Normal End
Display “Change Configuration was completed”, so press [OK] button.

(13) FD Backup
Display the message “Please insert Config FD in FDD”.
Press [OK]
Display “Backup is failed. Please insert correct FD.”
Press [Cancel]

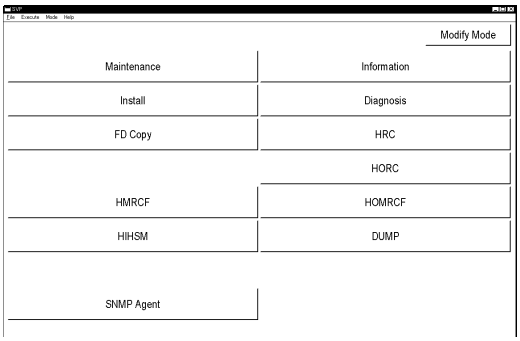
(14) Close Install window

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3. Setting the SNMP Agent

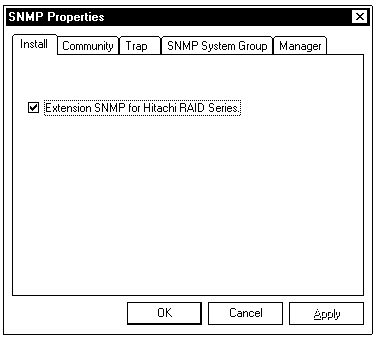
(1) Starting the SNMP Setting

When you start the SVP. After entering the user name, click the SNMP Agent button on the SVP screen. SNMP Properties screen is displayed.



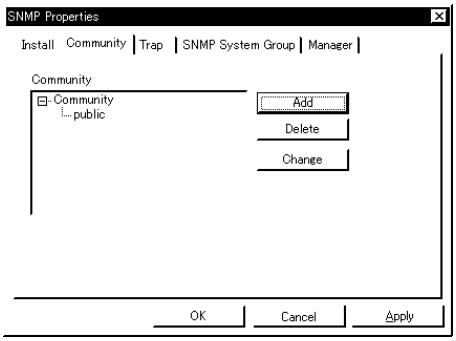
(2) Setting and canceling SNMP

Check “Extension SNMP for HP RAID Series” check box on the SNMP Properties screen. This registers a registry to use SNMP. If you delete a check mark in the box, the registry information to use will be deleted.



(3) Registering, changing, and deleting the Community

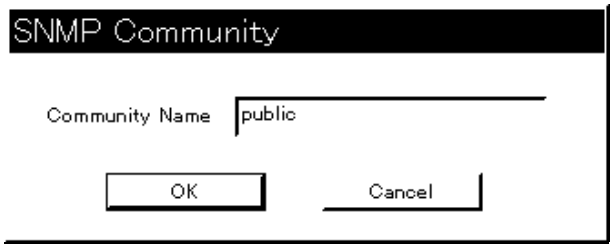
This subsection describes how to register, change and delete a SNMP’s Community name. To register the Community name, click the [Add] button. To change it, click the [Change] button. If the screen appears as shown in Subsection (4), register and change the Community. To delete the Community, choose a Community name to delete, then click the [Delete] button.



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(4) Registering and changing the Community

This subsection describes how to register and change the input Community name. To register the input Community name, click the [OK] button. The screen goes back to the screen shown in (3) and the specified Community name is added and changed. If you do not register and change the Community name, click the [Cancel] button. The screen changes back to the one shown in (3).

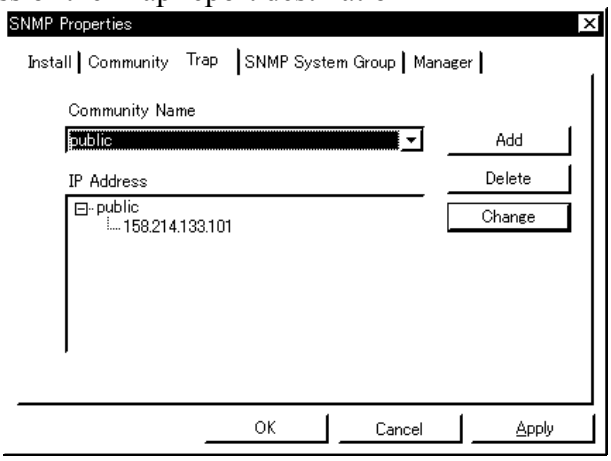


⚠ CAUTION

- You can enter only alphanumeric characters in the Community name.
- You can enter up to 180 characters.

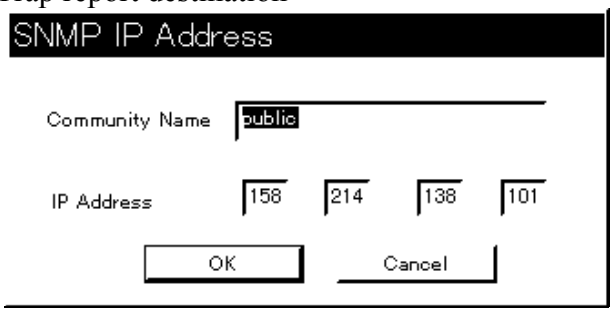
(5) Registering, changing, and deleting the IP address of the Trap report destination

This subsection describes how to register, change, and delete the IP address of the Trap report destination using SNMP. To register the IP address, click the [Add] button. To change it, click the [Change] button. You can register and change the IP address of the Trap report destination on the screen shown in (6). To delete the IP address of the Trap report destination, choose the IP address, then click the [Delete] button.



(6) Registering and Changing the IP address of the Trap report destination

This subsection describes how to register and change the IP address of the Trap report destination. To register the IP address, click the [OK] button. The screen goes back to the one shown in (5) and the specified IP address are added and changed. If you do not register and change it, click the [Cancel] button. The screen returns to the screen shown in (5).

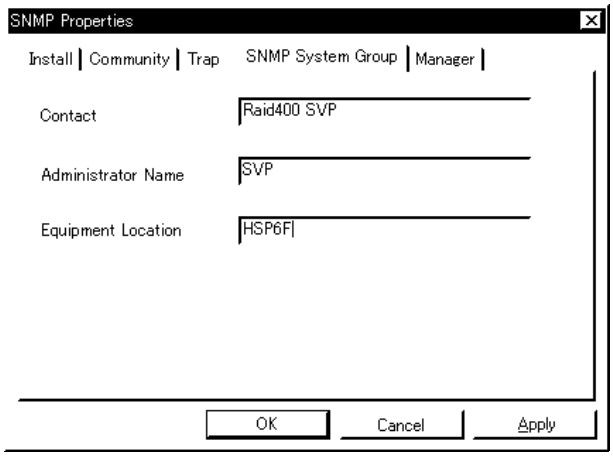


⚠ CAUTION

- You can enter only numeric characters in the IP address.
- Up to three numeric characters can be entered.
- The user cannot enter a Community name.

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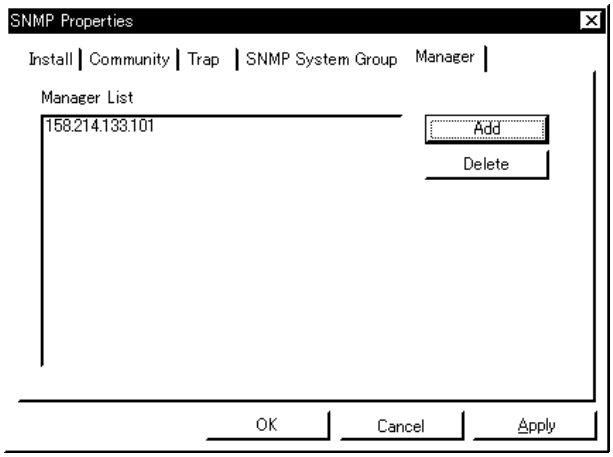
(7) Registering a system group
Enter the following items:
Contact:
Administrator Name:
Equipment Location:



⚠ CAUTION

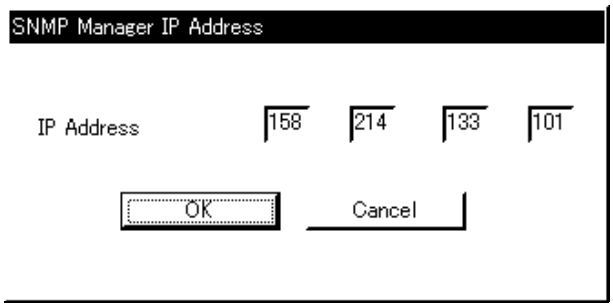
- You can enter where to make contact, the administrator name, and the equipment place only with the alphanumeric characters.
- Up to 255 alphanumeric characters can be entered.

(8) Setting IP Address of SNMP Manager
This subsection describes how to register the IP address of SNMP Manager.
If you add IP Address, press [Add] button. So, Display the window that it is for registering IP Address. (9)



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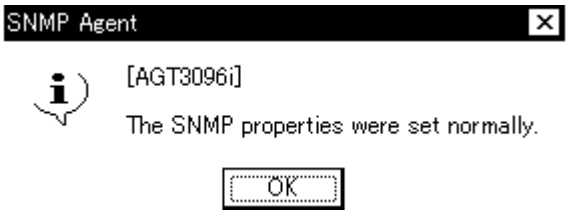
(9) Register the IP address of SNMP Manager.
This subsection describes how to register the IP address of SNMP Manager. To register the IP address, click the [OK] button. The screen goes back to the one shown in (8) and the specified IP address are added. If you do not register it, click the [Cancel] button. The screen returns to the screen shown in (8).



⚠ CAUTION

- Up to three numeric characters can be entered.
- Up to 32 Managers can be entered.
- The registered Managers can access to the SNMP Agent.
- If there is no Manager registration, all Managers can access to the SNMP Agent.

(10) Registering the SNMP properties
If you have completed the settings described in Subsections (1) through (9) and registered the contents in the registry, click the [OK] button. When registration completes normally, the following screen appears. If you complete the setting screen without registration, click the [Cancel] button.





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Message

(1)



Description: SNMP is not installed.

Action: Start SNMP after installation of the agent.

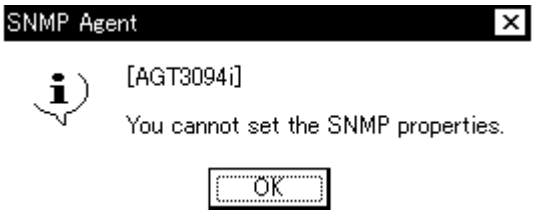
(2)



Description: An application is being started.

Action: Set the properties to reflect that the application has been already started.

(3)



Description: The properties cannot be set.

Action: Log in using an administrator name or a valid user name.

(4)



Description: The characters other than the alphanumeric characters are entered.

Action: Make an entry with alphanumeric characters.

(5)



Description: No Community name is selected.

Action: Select the Community name, and then operate.

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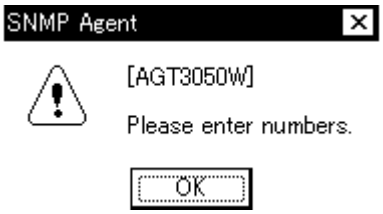
(6)



Description: The IP address of the Trap report destination is not selected.

Action: Operate after selecting the IP address of the Trap report destination.

(7)



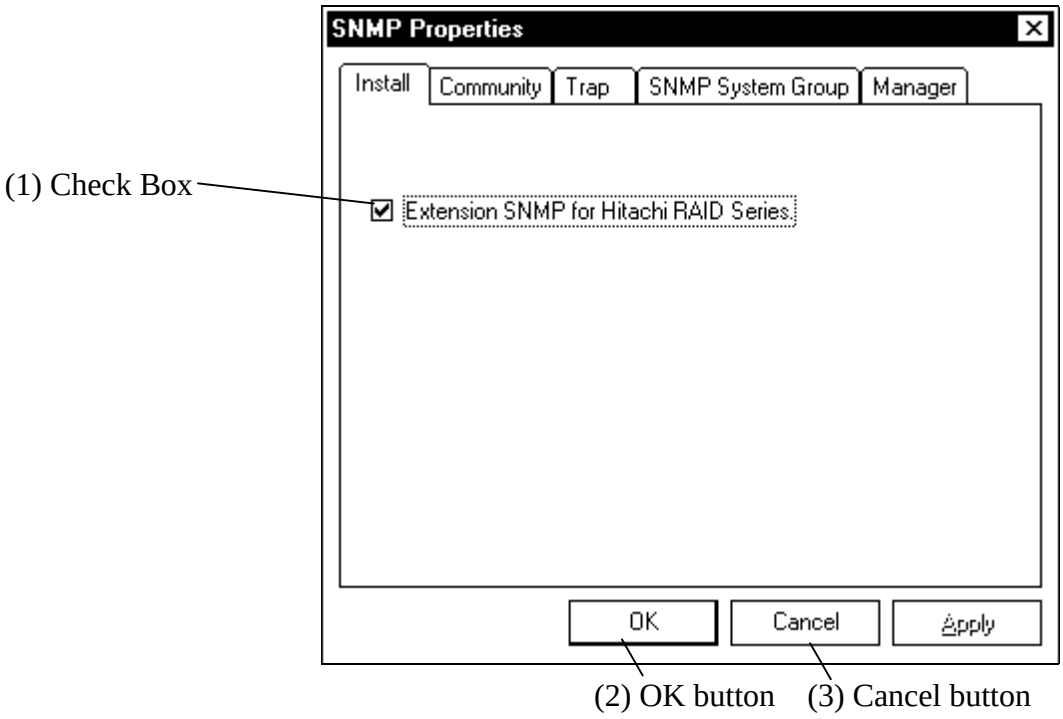
Description: The characters other than numeric characters are entered.

Action: Make an entry with numeric characters.

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5.5.3 Operating the SNMP screen

■ Installation tab sheets



<Description>

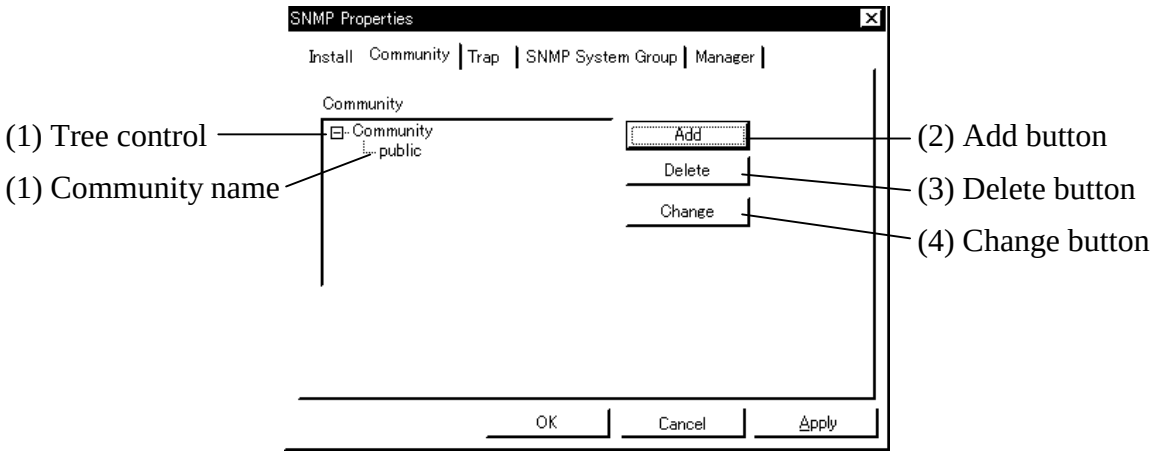
(1) Check box
Displays a check mark in the box if it was set in the past. Without checking a box, the check mark is not displayed.

(2) OK button
Terminates the screen after having registered all the information set in Install, Community, Trap and System Group. If the login name entered during the startup of the remote console is a user or reference only, the screen terminates without registering the information.

(3) Cancel button
Terminates the screen without registering the information.

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■ Community tab sheets



<Description>

(1) Tree list control
Displays a set Community name.

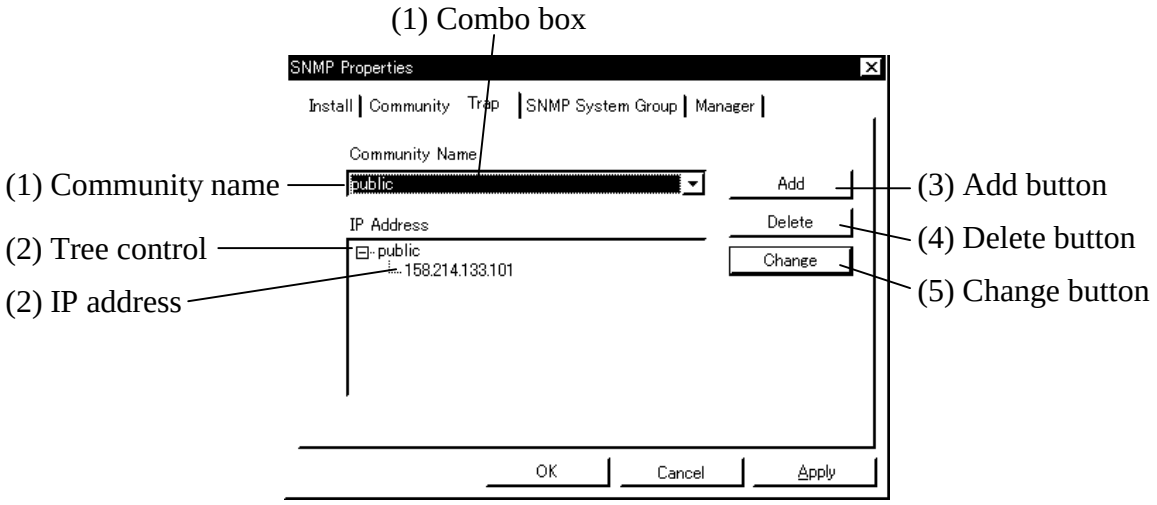
(2) Add button
Displays a dialog box to add a Community name.

(3) Delete button
Deletes the selected Community name. If deleted normally, the list control will reflect this action. If the Community name is not selected, an error message will be displayed.

(4) Change button
Displays a dialog box to change the selected Community name. If changed normally, this action is reflected to the list control. If the Community name is not selected, an error message will be displayed.

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■ Trap tab sheets



<Description>

(1) Combination box
Displays the set Community name. This box can choose only the Community name in the list box. Direct entry in the edit box is impossible.

(2) Tree control
Displays the IP address of the set Trap report destination.

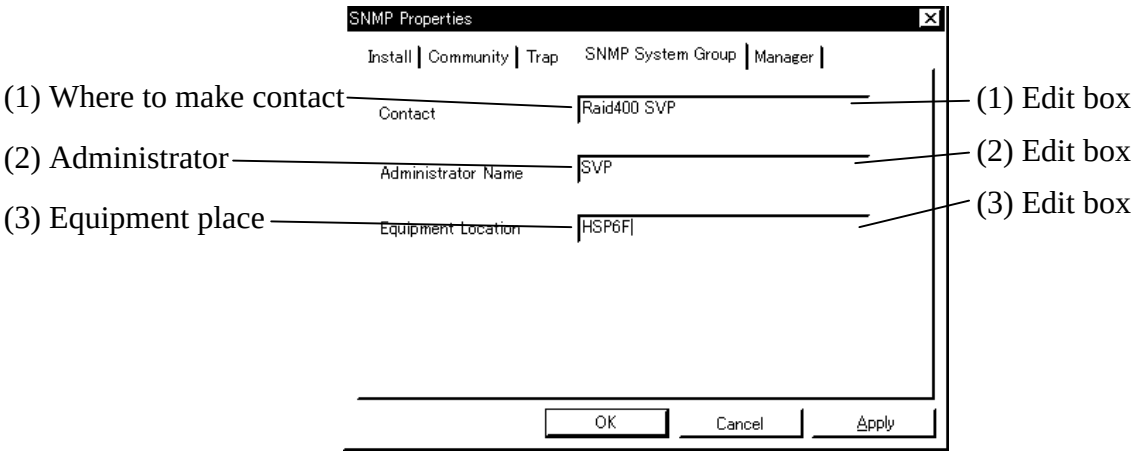
(3) Add button
Displays a dialog box to add an IP address of the Trap report destination.

(4) Delete button
Deletes the selected IP address of the Trap report destination. If deleted normally, this action is reflected to the list control. If an IP address is not selected, an error message appears.

(5) Change button
Displays a dialog box to change the selected IP address of the Trap report destination. If changed normally, this action is reflected to the list control. If the Community name is not selected, an error message appears.

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■ System Group tab sheets



<Description>

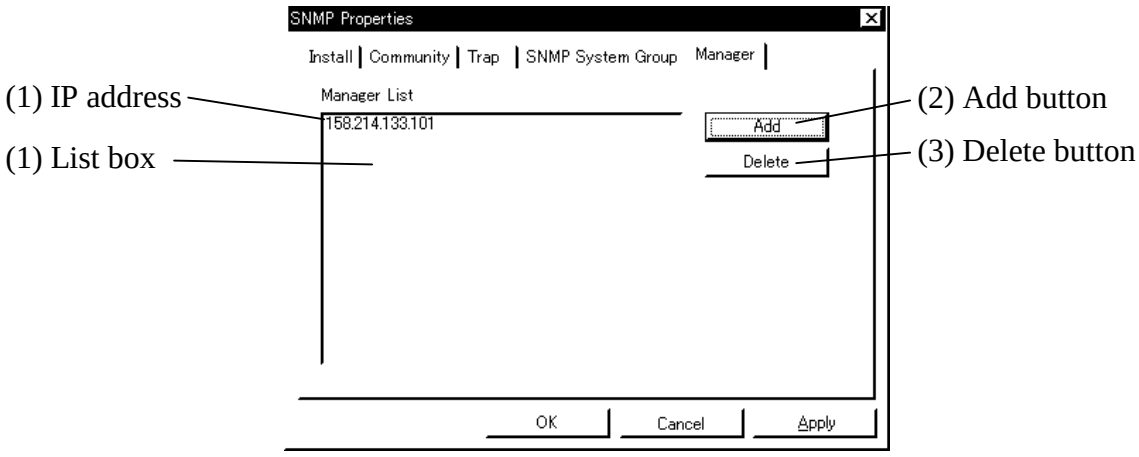
(1) Edit box
Displays where to make contact if set already. To set it, directly enter.

(2) Edit box
Displays the administrator if set already. To set this, directly enter.

(3) Edit box
Display the equipment place if set already. To set this, directly enter.

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■ Manager tab sheets



<Description>

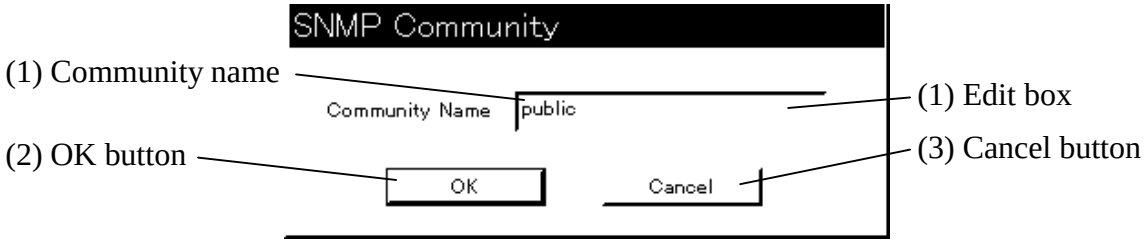
(1) List box
Displays the set Manager IP address. This box can choose only the IP address in the list box. Direct entry in the edit box is impossible.

(2) Add button
Displays a dialog box to add an IP address of the manager.

(3) Delete button
Deletes the selected IP address of the manager. If deleted normally, this action is reflected to the list control. If an IP address is not selected, an error message appears.

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■ Registering a Community name and changing screen



<Description>

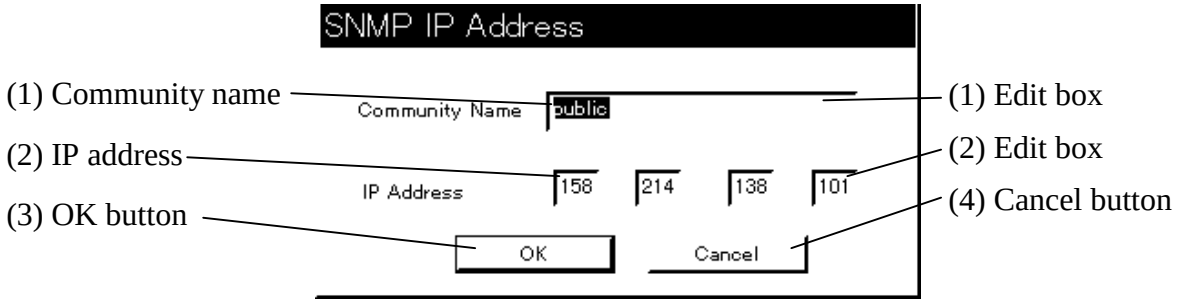
(1) Edit box
Displays the Community name selected by a Community tab sheet. If you click the Add button without selecting in the tab sheet, a blank is provided. To set the name, directly enter it.

(2) OK button
Goes back to the Community tab sheet by determining the changed setting.

(3) Cancel button
Goes back to the Community tab sheet without determining the changed setting.

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■ Registering IP address and changing screen



<Description>

(1) Edit box
Displays a Community name selected in a Trap tab sheet. The user cannot enter it.

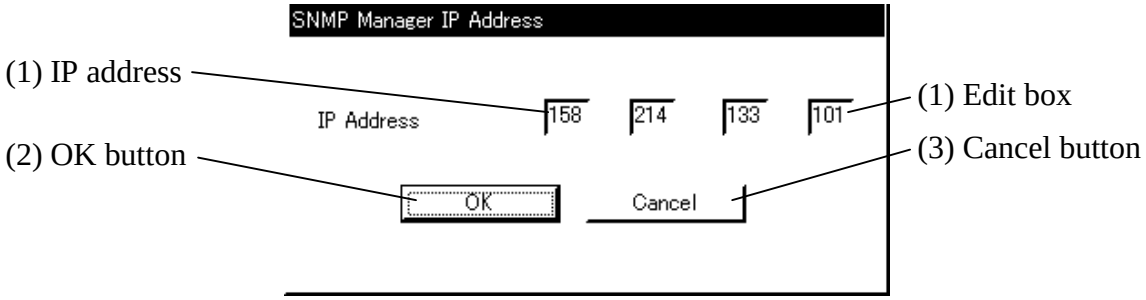
(2) Edit box
Displays an IP address selected in a Trap tab sheet. Clicking the Add button without selecting the address in the Trap tab sheet will insert a blank. To set the address, directly enter it.

(3) OK button
Goes back to the Trap tab sheet by determining the changed setting.

(4) Cancel button
Goes back to the Trap tab sheet without determining the changed setting.

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■ Registering IP address



<Description>

(1) Edit box
Clicking the Add button without selecting the address in the Manager tab sheet will insert a blank. To set the address, directly enter it.

(2) OK button
Goes back to the Manager tab sheet by determining the changed setting.

(3) Cancel button
Goes back to the Manager tab sheet without determining the changed setting.

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■ Checking the setting

(1) Checking the startup of the SNMP agent
Check that the a node is added of the SVP to the SNMP manager. If not added, check that the Microsoft SNMP agent is correctly installed.

(2) Checking extension MIB support
Perform the GET/GETNEXT operation of SVP Extension MIB to the SVP node from the SNMP manager. If the operation fails, reexecute.

(3) Checking the extension Trap report destination
The SVP PC has the two LAN boards. Check if the agent address is reported correctly while issuing the trap with the following ways.

(a) Enter “SNMP -CLOSE” at the DOS prompt to terminate the SNMP service.
(b) Enter “SNMP” at the DOS prompt to restart the SNMP service.
(c) Check the trap logs of ColdStart(0) at the SVP of the SNMP manager to verify that the agent address becomes an IP address of the customer LAN.

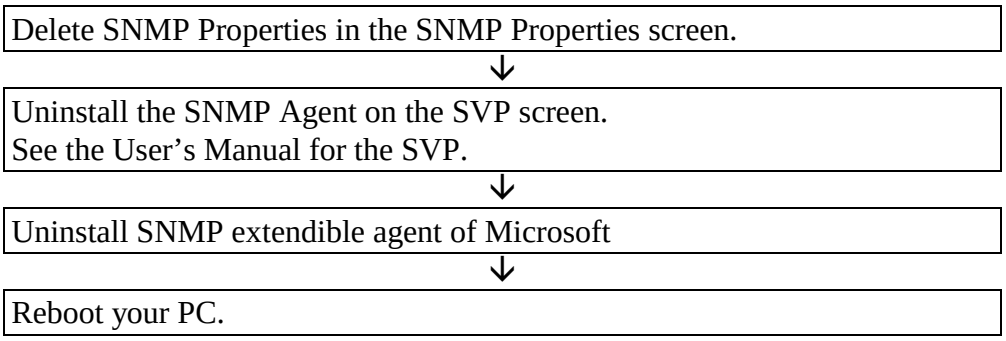
⚠ CAUTION

If the IP address is the LAN address only for DKC, change the IP address setting on the LAN board.
(Customer LAN address to LAN IP address only for DKC;
LAN IP address only for DKC to Customer LAN address)

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■ Uninstalling SNMP Agent

The following shows an flowchart of uninstalling the SNMP Agent.



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6 HRC

6.1 HRC Components

(1) HRC Components

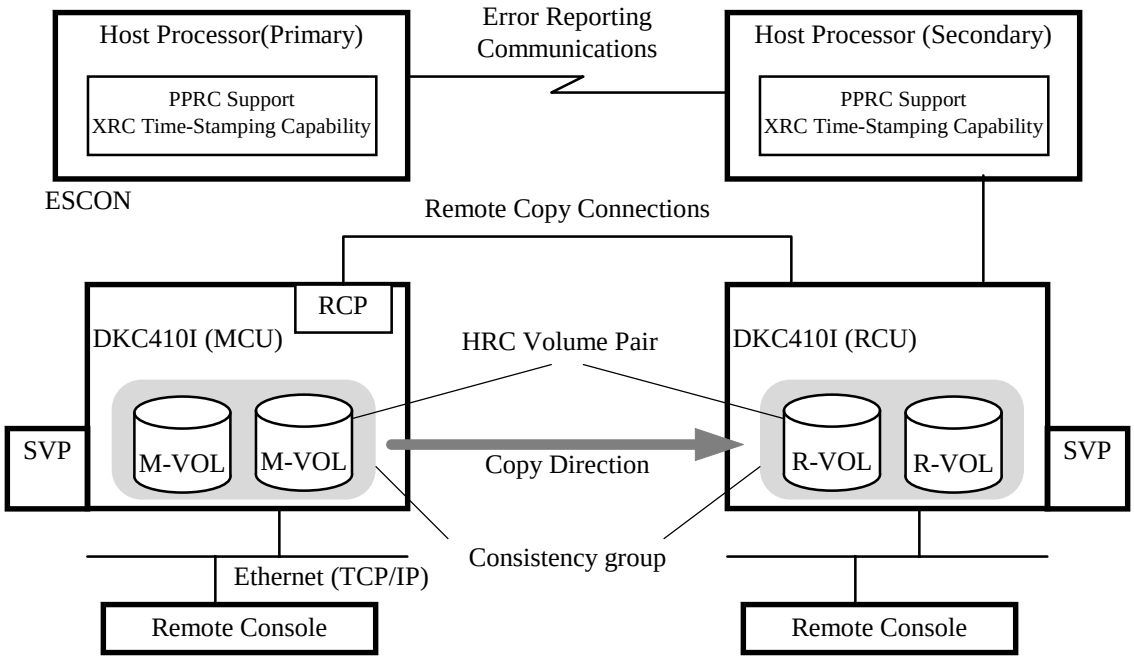


Fig. 6-1 HRC Components

(a) HRC Volume Pair

An **HRC volume pair** consists of two logical volumes, an M-VOL and an R-VOL, in different DKC410I subsystems.

An **M-VOL** (main volume) is a primary volume. It can be read or written by I/O operations from host processors.

An **R-VOL** (remote volume) is a secondary or a mirrored volume. Under control of the DKC410I subsystems, contents of an M-VOL and updates from host processors are copied to an R-VOL. Read or write I/O operations from host processors to R-VOLs are rejected.

The M-VOLs of the HRC volume pairs and the R-VOLs of other HRC volume pairs can be intermixed in one DKC410I subsystem.

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(b) MCU and RCU

An **MCU** (main disk control unit) and an **RCU** (remote disk control unit) are disk control units in the DKC410I subsystems to which the M-VOLs and the R-VOLs are connected respectively.

An MCU controls I/O operations from host processors to the M-VOLs and copy activities between the M-VOLs and the R-VOLs. An MCU also provides functions to manage HRC status and configuration.

An RCU executes write operations directed by the MCU. The manner to execute write operations is almost same as that of I/O operations from host processors. An RCU also provides a part of functions to manage HRC status and configuration.

Note that an MCU/RCU is defined on each HRC volume pair basis. One disk control unit can operate as an MCU to control the M-VOLs and an RCU to control the R-VOLs.

(c) Remote Copy Connections

There are two kinds of Serial interface (ESCON/ACONARC) and Fibre channel interface of connection form.
Refer to “THEORY OF OPERATION section 3.13.7 Fibre Channel connection” for Fibre channel interface connection.

An MCU and an RCU must be connected with serial interface (ESCON) cables. Only multi mode ESCON cables whose length is up to 3km can be connected to the DKC410I subsystems. In order to locate the DKC410I subsystems more than 3km apart, IBM 9032/9033 ESCON directors or 9036 ESCON repeaters are required. Furthermore, the distance between an MCU and an RCU becomes unrestricted by connecting a Channel Extender (CX5000 manufactured by CNT).

At least two independent remote copy connections should be established between an MCU and an RCU.

(d) RCP

An **RCP** (remote control port) is a serial interface port to which an RCU is connected. Any serial interface port of the DKC410I subsystems can be configured as an RCP.

When an MCU communicates with an RCU through ESCON interface protocol, the RCP plays the role of a host processor channel. The RCP supports ESCON dynamic connection. A serial interface port of the RCU to which the MCU is connected can be connected to host processor channels by using dynamic switching capability provided by ESCON directors.

However an RCP can not communicate with host processor channel. Channel interface paths must be connected to other serial interface ports.

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(e) SVP and Remote Console

An **SVP** provides functions to set up, modify and display HRC configuration and status.

A **remote console** is a personal computer compatible with the PC/AT. It should be connected to DKC410I subsystems with an Ethernet network(TCP/IP). A remote console provides same managing HRC functions as an SVP. Several DKC410I subsystems can be connected with one Ethernet network.

For remote console, Hitachi provides only two software components, an HRC application program and dynamic link library. Both of them require Microsoft Windows operating system. A personal computer, Ethernet materials and other software products are not provided by Hitachi.

(f) Error Reporting Communications

Error reporting communication is a communication means between host processors. An MCU generates the sense information when it fails in keeping synchronization of HRC volume pair. The sense information causes the corresponding message to be displayed on the host processor console. For the reference during disaster recovery at the secondary (recovery) site, this console message should be transferred to the secondary site through the error reporting communication.

The error reporting communications may be configured by using channel-to-channel communications, Netview technology or other interconnect technologies, depending on installation. Hitachi does not provide any product for error reporting communications.

(g) PPRC Support

HRC provides a host processor interface compatible with IBM PPRC. TSO commands, DSF commands and disaster recovery PTFs provided for PPRC can be used for HRC.

Note. Although HRC asynchronous is not fully compatible to PPRC, it can be controlled and monitored with PPRC host facilities, PPRC TSO commands, ICKDSF PPRC commands and some console messages. For this purpose, MVS/DFP 3.2.0 or higher level and ICKDSF release 16 or upper are available.

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(h) XRC Time-Stamping Capability (For HRC Asynchronous)

In case of N-to-1 configuration, the XRC time-stamping capability requires to be installed in the primary host system. MVS/DFP 3.2.0 or higher level is required.

In order to get benefit of time-stamping capability during copy-back process (pair establishment from the secondary to the primary subsystem), the XRC time-stamping capability recommends to be installed in the secondary system.

If the primary system (and the secondary system) consists of several CPU complexes, SYSPLEX timer must be installed for common time reference.

(i) Consistency group

HRC asynchronous ensures update-sequence-consistency across several volume pairs. It also provides some group-based operations. A set of volume pairs treated by such group-based functions is called a consistency group.
HRC asynchronous supports 16 consistency groups at maximum. Every HRC asynchronous volume pair belongs to one consistency group.

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HRC operations from an SVP or a remote console and the corresponding TSO commands are shown in Table 6.1-1. Before using TSO commands or DSF commands for PPRC, the serial interface ports to which the RCU(s) will be connected must be set to the RCP mode. Refer to page INST06-220 for this operation. Table 6.1-2 shows the value of the SAID (system adapter ID) parameters required for CESTPATH command. For full description on TSO commands or DSF commands for PPRC, refer to the appropriate manuals published by IBM corporation.

Table 6.1-1 HRC operations and corresponding TSO commands for PPRC

Function	HRC operations	TSO commands
Registering an RCU and establishing remote copy connections	Add RCU	CESTPATH (note)
Adding or removing remote copy connection(s)	Edit Path	CESTPATH
Deleting an RCU registration	Delete RCU	CDELPATH
Registering consistency groups	Add Group	—
Deleting consistency group registration	Delete Group	—
Establishing an HRC volume pair	Add Pair	CESTPAIR MODE (COPY)
Suspending an HRC volume pair	Suspend Pair	CSUSPEND
Disestablishing an HRC volume pair	Delete Pair	CDELPAIR
Recovering an HRC volume pair from suspended condition	Resume Pair	CESTPAIR MODE (RESYNC)
Controlling HRC volume groups	—	CGROUP

note; Required Parameters
(How to set up LINK PARAMETER for CESTPATH command)

LINK PARAMETER

a	a	a	a	b	b	c	c

aaaa : SAID (refer to Table 6.1-2)
bb : destination address
cc : CUI# of RCU

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Table 6.1-2 SAID (system adapter ID) required for CESTPATH command

Port in RCP mode		SAID value	Port in RCP mode		SAID value
cluster	port		cluster	port	
1	CH ‘A’	X’0000’	2	CH ‘A’	X’0010’
	CH ‘B’	X’0001’		CH ‘B’	X’0011’
	CH ‘C’	X’0002’		CH ‘C’	X’0012’
	CH ‘D’	X’0003’		CH ‘D’	X’0013’
	CH ‘E’	X’0004’		CH ‘E’	X’0014’
	CH ‘F’	X’0005’		CH ‘F’	X’0015’
	CH ‘G’	X’0006’		CH ‘G’	X’0016’
	CH ‘H’	X’0007’		CH ‘H’	X’0017’
	CH ‘J’	X’0008’		CH ‘J’	X’0018’
	CH ‘K’	X’0009’		CH ‘K’	X’0019’
	CH ‘L’	X’000A’		CH ‘L’	X’001A’
	CH ‘M’	X’000B’		CH ‘M’	X’001B’
	CH ‘N’	X’000C’		CH ‘N’	X’001C’
	CH ‘P’	X’000D’		CH ‘P’	X’001D’
	CH ‘Q’	X’000E’		CH ‘Q’	X’001E’
	CH ‘R’	X’000F’		CH ‘R’	X’001F’

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6.2 HRC Software Requirements

Minimum level for HRC is MVS/DFP 3.2.0 + PTF or VM/ESA 2.1.0 + PTF.

- Optional error recovery procedure (ERP) functions - MVS/DFP 3.2.0 or above.
- ICKDSF R16 + PTF functions - VM/ESA 2.1.0 or above.

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6.3 HRC Hardware Requirements

(1) HRC Supported Models

Table 6.3-1 HRC Supported Models

HA Models					HRC Support
MCU & RCU		M-VOL & R-VOL			
Emulation	Port Adapter	DKU	RAID Level	Emulation	
DKC410I (3990-6E) (3990-6) (3990-3) (2105-E20) (2105-F20)	WP412	DKU-F405I-18J4 DKU-F405I-18K4 DKU-F405I-36K4	RAID5	3390-9	Y
				3390-3	Y
				3390-3R	Y
				3390-2	Y
				3390-1	Y
				3380-K	Y
				3380-E	Y
				3380-J	Y
			RAID1	3390-9	Y
				3390-3	Y
				3390-3R	Y
				3390-2	Y
				3390-1	Y
				3380-K	Y
				3380-E	Y
				3380-J	Y
		DKU-F405I-47J4 DKU-F405I-72J4 DKU-F405I-72K4 DKU-F405I-146J4 DKU-F405I-180H4	RAID5	3390-L *	Y
				3390-9	Y
				3390-3	Y
				3390-3R	Y
				3390-2 *	Y
				3380-K	Y
			RAID1	3390-L *	Y
				3390-9	Y
				3390-3	Y
				3390-3R	Y
				3390-2 *	Y
				3380-K	Y

Y: Supported
N: Not supported
* : It hasn't been supported with DKS1A-H180FC.

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- Emulation type of an MCU and RCU can be different.
- Emulation type of an M-VOL and R-VOL must be same.
- CVS/DCR is able to define on the M-VOL and R-VOL.
- The 3990-6E/3105-E20/2105-F20 DKC emulation supports only 3390 DKU emulation.
- The R-VOL must have the same track sizes, and the same or larger volume capacities, as the M-VOL. (note (1))
- When T-VOL of HMRCF is established as M-VOL of HRC, the T-VOL must be “Split” state. If not so, an equipment check error will occur in establishing HRC pain.
- In case that M-VOL or R-VOL is 3390-L DKU emulation and the number of user cylinders is more than 10017, it is required the same capacity of M-VOL and R-VOL.

Note;
(1) When executing an HRC between volumes with different capacities, take notice of the following.

① State of the subsystem when executing the HRC
All M-VOL data including the VTOC is physically copied by executing the HRC. Accordingly, the R-VOL is recognized as having the same capacity as that of the M-VOL in the HRC execution.

② Expansion of the VTOC
It is needed to expand the VTOC to make the R-VOL simplex and be accessed as having the normal capacity by the host. The VTOC is expanded by issuing the ICKDSF REFORMAT (REFVTOC) command.

* The system environment is required to support the REFVTOC parameter. This parameter can be executed only by the ICKDSF which supports the PPRC function.

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(2) Remote Console Requirements

An HRC application software and dynamic link library require Microsoft Windows 95.

(3) Distance between MCU and RCU

An MCU and an RCU must be connected with serial interface (ESCON) cables. Only multi mode ESCON cables whose length is up to 3km can be connected to the DKC410I subsystems. In order to locate disk subsystems more than 3km apart, IBM 9032/9033 ESCON directors (ESCDs) or 9036 ESCON repeaters are required.

IBM 9032/9033 ESCON director supports an extended distance facility (XDF). The XDF uses single mode ESCON cables of which length is up to 20km. IBM 9036 ESCON repeater supports single mode - to - single mode connection or single mode - to - multi mode connection. In order to locate disk control units more than 9km apart, the XDF connections provided by the ESCON directors or ESCON repeaters are required.

Maximum distance between disk subsystems is 43km.

Furthermore, the distance between an MCU and an RCU becomes unrestricted by connecting a Channel Extender (CX5000 or ULTRANET manufactured by CNT). (refer to INST06-120 Appendix B)

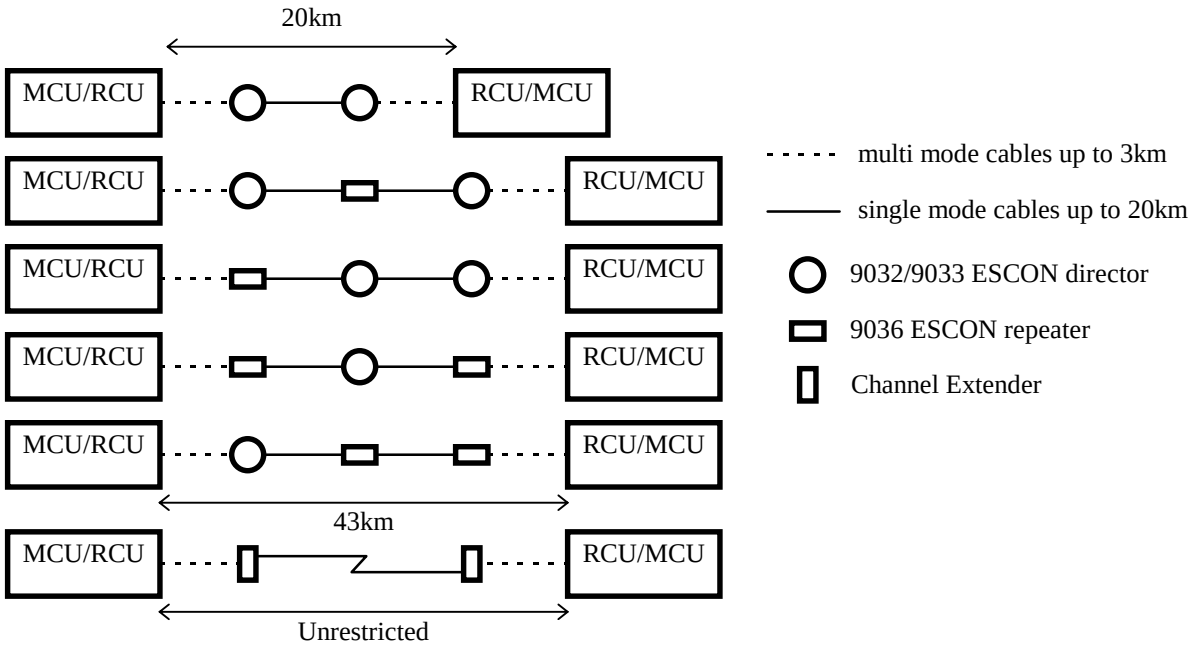


Fig 6.3-1 Distance between Disk subsystems

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(4) Recommendation of MIH time and HRC configuration

Recommendation of MIH time is 60 sec. for HRC. In addition that, MIH time had better be set in consideration of the following factor.

- The number of pair volumes
- Cable length between MCU and RCU
- Volume status (Initial copy status)
- Under maintenance operation

When HRC configuration is instructed, take notice of as follows.

- The logical paths between MCU and RCU had better be established independent of the logical paths between Host and RCU.
- The logical paths between MCU and RCU had better be established maximum paths.
- RCP port had better be set in consideration of the host I/O rate and remote copy procedure.
- The Only important volumes had better be established HRC pair.
- Under the situation where the number of paths between MCU and RCU is decreased due to path failure, the traffic of the remaining paths is raised. It may cause some time-out I/O operation to RCU, and a lot of the time-out might cause suspension of HRC pair.

When HRC asynchronous configuration is instructed, take notice of as follows in addition to above.

- The cache amount of MCU had better be set two times of the RCU's

When HRC asynchronous N-to-1 configuration is instructed, take notice of as follows.
If not take, it may cause suspension of HRC pair.

- The host I/O rate had better be same in all MCUs.
- The cache amount of all MCUs had better be set same.
- The cache amount of RCU had better be set more than total of all MCUs.
- The logical number of paths between MCU and RCU had better be same in all MCUs.

On the use of HRC Async, HORC Async and HXRC, take notice of as follows.
If not take, it may cause suspension of pairs.

- HRC Async, HORC Async and HXRC had not better use in together.

Note; HRC with FICON
If you use FICON path between CHL and MCU, you should do according the below.

Table 6.3-2

		CHL-MCU	
		FICON	ESCON
MCU-RCU	ESCON	Not supported (*1)	Supported
	Open Fiber	Supported	Supported

*1: The link bandwidth of FICON is greater than that of ESCON. Then, in consideration of performance balance of ESCON path and FICON path, if FICON path is used between Channel and MCU, the path between MCU and RCU should be OPEN-FC link, not ESCON link.

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(5) Requirements for Track format, Cache, NVS, DASD Fast Write

Track format Cache, NVS, DASD Fast Write must satisfy following conditions for both of M-VOL and R-VOL of Remote Copy.

		HRC	
		M-VOL	R-VOL
Track format	Track format of record zero	Standard format	
	Key length of record zero	Zero	
	Data length of record zero	Eight	
	CCHH of record zero	Identical to physical cylinder address and physical head address of a track	
	CCHH of each user records	Unique in a track	
Cache		Depends on HRC pair option*	Depends on HRC pair option*
NVS		Depends on HRC pair option*	Depends on HRC pair option*
DASD Fast Write		Depends on HRC pair option*	Depends on HRC pair option*

* : Required if "DFW to R-VOL" option is set.

(6) HRC available CU image

CU#0 ~ CU#15 (In hexa decimal, CU#F)

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AppendixA: HRC Installation check list

Table 6.3-4 HRC Installation Check List

No.	Item	Check
1	MCU/RCU emulation type must be correct. (See Table 6.3-1)	
2	M_VOL/R_VOL emulation type must be correct. (See Table 6.3-1)	
3	OS version must be as followed. • Optional error recovery procedure (ERP) functions - MVS/DFP 3.2.0 or above. • ICKDSF R16 + PTF functions - VM/ESA 2.1.0 or above.	
4	RCP port must be set. (See INST06-220 SECTION)	
5	ESCON cable between MCU and RCU must be connected.	
6	ESCON cable test between MCU and RCU must be executed.	

AppendixB: Guide for HRC via EXTENDER(CHANNELink(CX5000), ULTRANET)

0. Preliminary remarks

This is the guide for HRC operation via Computer Network Technology's (CNT's) CHANNELink and UltraNet Storage Director products. These two CNT products provide channel extension (store and forward functionality) between a Hitachi MCU and RCU used in an HRC configuration. The channel extension provided by the CNT products allows the ESCON connection between the MCU(s) and the RCU(s) to be greater than the ESCON standard 43 km apart but still provide near native data transfer between the MCU and RCU.

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1. Summary of Specification

Table 6.3-5 Summary of Specification

		CHANNELink(CX5000)		ULTRANET	
Copy Mode		Synchronous	Asynchronous	Synchronous	Asynchronous
u-code Version	Extender	CHANNELink Release 4.3 with SSDX at version 4.B or later		UltraNet Release 2.2 with SSDX at version 4.B or later	
Link Types(between local and remote Extenders)		T3		ATM T3	
Maximum Number of physical ESCON paths(between DKC410I and EXTENDER)		3 or 4 ESCON Interfaces (*1)		8 ESCON Interfaces(*2)	
Combination of MCU and RCU		The following combination are available. (for example, refer to Fig 6.3-2, 6.3-3, 6.3-4) MCU:CU#n <=> RCU:CU#m (0<=n<=15, 0<=m<=15) [restriction] A CU image of the RCU can not be shared by more than one CU images of the MCU(s) that are connected to the same ESCON port(s) of the local extender.(Fig 6.3-5) If the CU image of the RCU requires to be shared, the CU images of the MCU(s) must be connected to the different ESCON port(s) as shown in Fig 6.3-6.			

*1: if the CHANNELink has 11 slots, the maximum number of ESCON interfaces is 3. If the CHANNELink has 13 slots, then the maximum is 4 ESCON interfaces.

*2: The stated maximum number of ESCON interfaces in an UltraNet Storage Director is 8.

Notes;

- One ESCON port of Extender supports up to 254 volumes. For HRC installations with requirements for greater than 254 pairs, additional ESCON interfaces are required in both the local and remote channel extenders.
- HRC via Extender does not support P/DAS function.

Figures 6.3-2 to 6.3-6 on the following pages describe various valid and invalid HRC with channel extension configurations.

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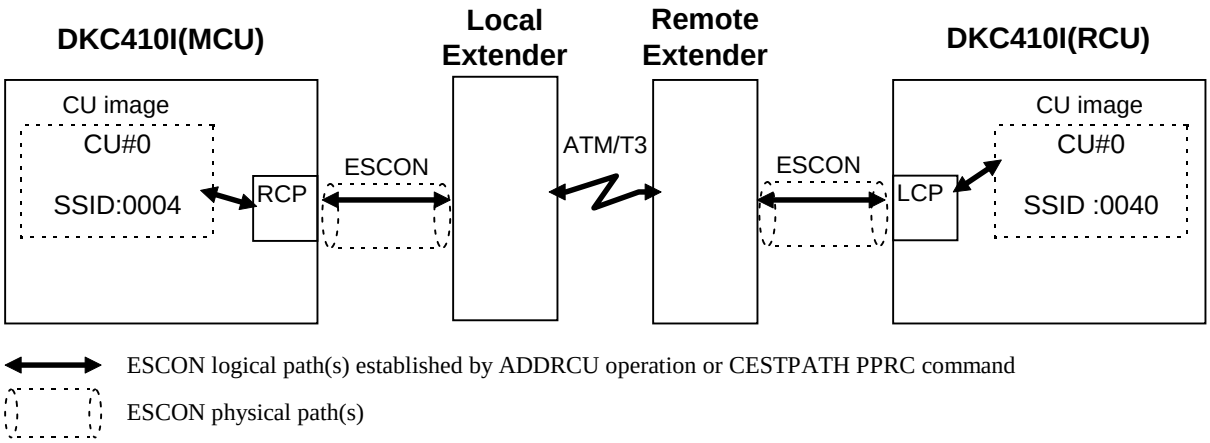


Fig 6.3-2 MCU:CU#0 <--> RCU:CU#0 (valid configuration)

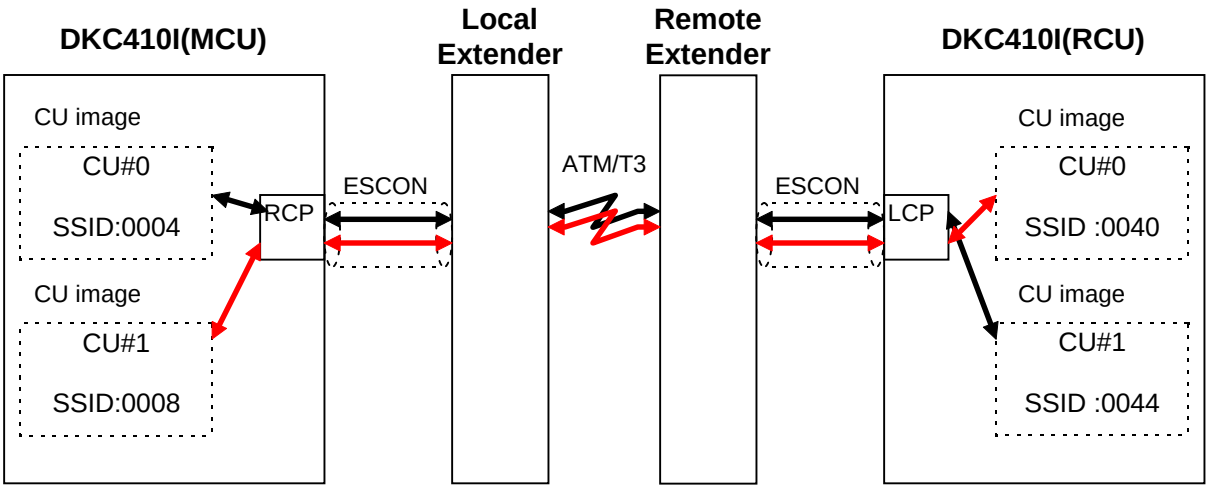


Fig 6.3-3 MCU:CU #0 <--> RCU:CU #1, MCU:CU #1 <--> RCU:CU #0 (valid configuration)

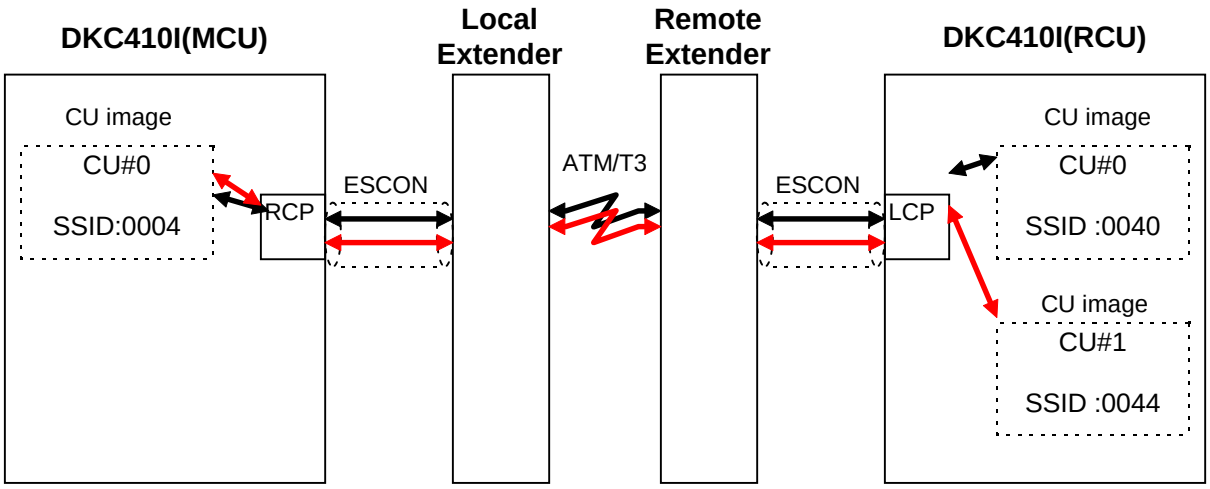


Fig 6.3.-4 MCU:CU #0 <--> RCU:CU #0, MCU:CU #0 <--> RCU:CU #1 (valid configuration)

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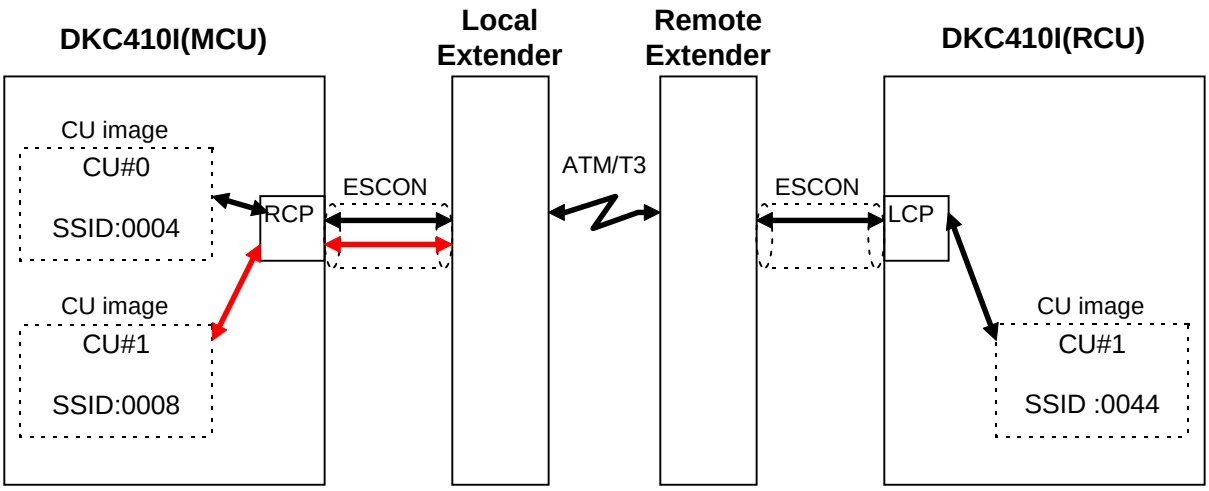


Fig 6.3-5 MCU:CU #0 <--> RCU:CU #1, MCU:CU #1 <--> RCU:CU #1 (invalid configuration)
(2 CU Images of MCU and 1 CU Image of RCU using same ESCON port)

The above diagram is an invalid configuration as 2 CU Images of an MCU are configured to utilize 1 RCU CU Image via the same ESCON port. Unique remote ESCON ports are required to enable concurrent access to a RCU Image.

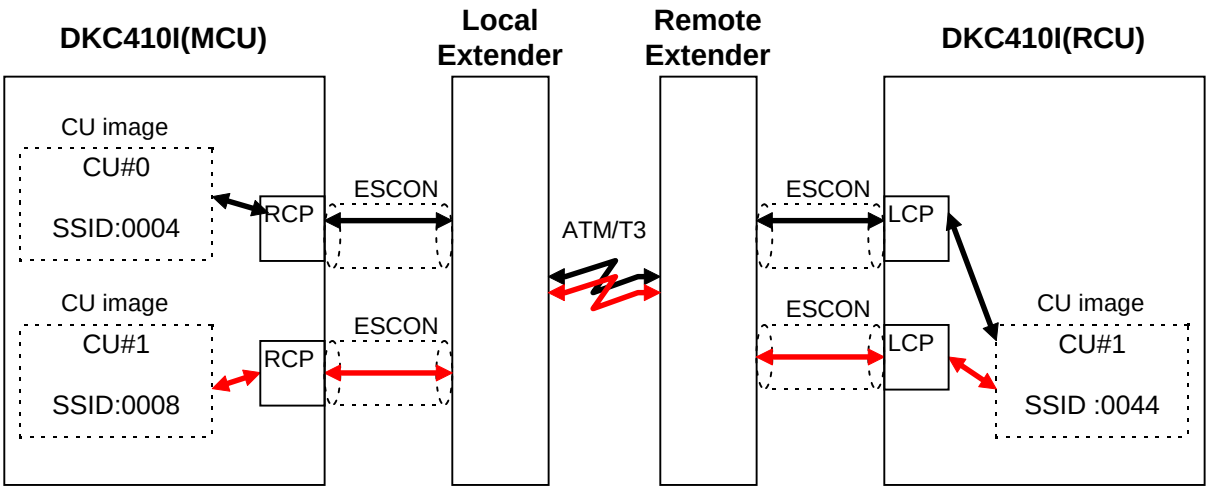


Fig 6.3-6 MCU:CU #0 <--> RCU:CU #1 , MCU:CU #1 <--> RCU:CU #1 (valid configuration)
(2 CU Images of MCU and 1 CU Image of RCU using different ESCON ports)

The above diagram is a valid configuration as 2 CU Images of an MCU are configured to utilize 1 RCU CU Image via different remote Extender ESCON ports.

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2. Operation for HRC via Extender

2.0 Planning the configuration of HRC via Extender

Please determine the number of Extenders and the number of ESCON paths from the configuration of HRC.
There are some restrictions in planning the configuration of HRC via Extender.
[restriction]
- One ESCON port of an Extender supports up to 254 volumes. For HRC connections between more than 254 pairs, add the additional physical ports as required.
- Some combination of MCU and RCU are not available. Please refer to page INST06-110 ~ INST06-150.

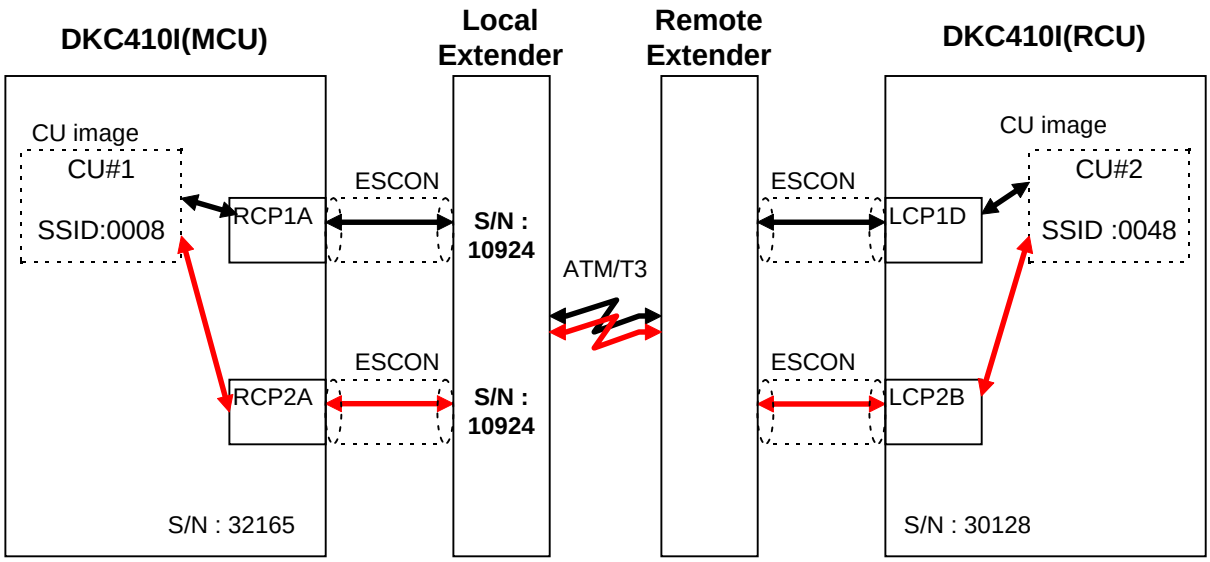
2.1 Preliminary arrangement on Extender.

(1) Change the configuration information in Extender.
There is a necessity that configuration information is set according to the configuration of HRC. Before setting HRC via Extender, please request the modification of configuration information of Extender from CNT. The information that should be given to CNT prior to installation is listed below.
- CU# of RCU
- R-VOL#
- Indication whether or not an ESCD (ESCON director) will be included in the configuration. (*3)
- ESCON link address (if using ESCD)
- A request to set serial number(s) of Local Extender (*4)

Notes:
*3: If an ESCD (ESCON director) is put between an MCU & local Extender, or between an RCU & remote Extender, there occurs a necessity to have Extender configuration information set by CNT specially. (According to CNT's specification, it is allowed to locate one ESCD in master and remote site, respectively, and define all link ports as ‘Dynamic Connection’.)

*4: The Extender can be set any serial numbers to every ESCON ports independently. At ADDRCU (/CESTPATH) operation, the serial number of Local Extender should be set as the serial number of RCU. So, in advance, the same serial number should be set to ESCON physical paths that make the logical paths to same RCU. For an example, refer to Figure 6.3-7. When 2 RCUs are connected via Extender, different serial numbers should be set. But such configurations have not certified yet. Please use a MCU and a RCU.

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These parameters are required in ADD RCU operation of DKC410I from SVP.
(cf. DKC410I/DKU405I Maintenance Manual THEORY03-430)

RCU		Path		
Serial number	SSID	PORT#	Link Address	Logical Address
10924	0040	1A	00	02
10924	0040	2A	00	02

Without connecting CNT, this parameter is 30128.

Fig 6.3-7 reference for notice *4

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2.2 Operation of DKC410I

(1) Setting of Special mode (Mode 21=ON)
There is a necessity that Mode21 is set, which is a special mode for HRC via Extender. In detail, when the MCU restarts the WRFBA (HRC special command) CCW chain, it will be in incomplete domain pattern from the beginning.

(2) ADD RCU
At ADDRCU (/CESTPATH) operation, input the serial number (S#) of Local Extender as the serial number of RCU. The procedure to seek the Local Extender's serial number is as follows.

<Procedure to seek Extender's S#>
To begin with, please connect MCU to RCU via CX5000 directly with no ESCD (ESCON director).

a) Please open the icon "MAINTENANCE" of SVP (MCU).
b) Please click the button "LCP/MCP Path" in General Status Display.
c) Please select "Physical Path Status".
d) Please notice the information of RCP port to connect to local CNT. The last five digits of "SEQNUMBER" correspond to the target manufacturing number to input.

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3. Configuration Setup Example

(1) MCU/RCU Example Pair Configuration
Table 6.3-6 Example M-VOL and R-VOL Pair Configuration Matrix

Table 6.3-6 Pair configuration matrix

MCU/ CU Image	M-VOL#	SSID		RCU/ CU Image	R-VOL#	SSID
CU#0	0x00-0x3F	0x0004	------>	CU#0	0x00-0x3F	0x0040
CU#1	0x00-0x3F	0x0008	------>	CU#2	0x00-0x3F	0x0048
	0x40-0x7F	0x0009	------>	CU#3	0x00-0x3F	0x004C
CU#3	0x00-0x3D	0x0010	------>		0x40-0x7D	0x004D

The table above includes the MCU to RCU pairs as included below in Figure 6.3-8.

(2) Configuration of HRC via Extender

The following figure (Figure 6.3-8) includes a configuration that matches the configuration that is described in Table 6.3-6.

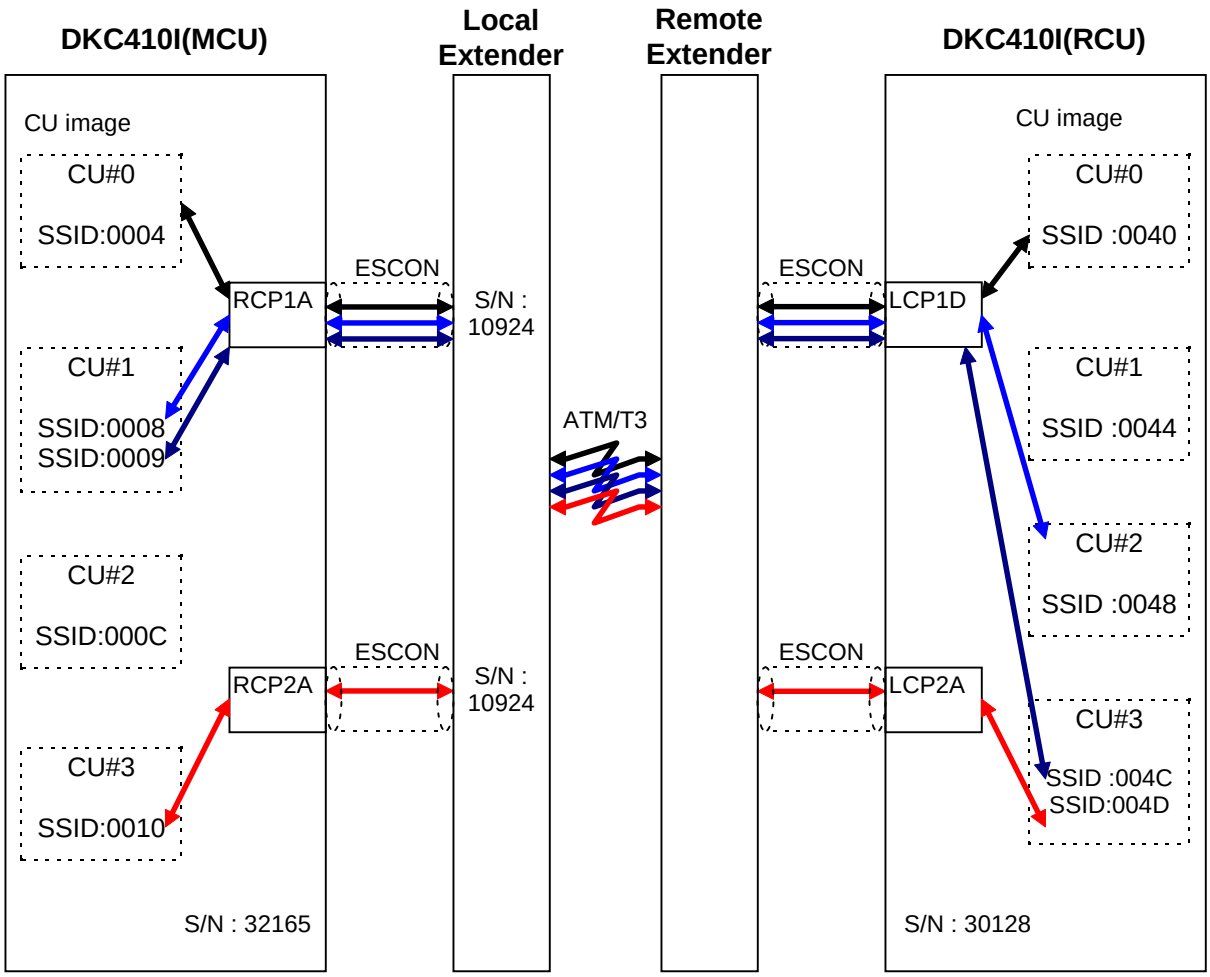


Fig 6.3-8 configuration of HRC via Extender

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(3) ADD RCU parameter

These parameters are required in ADD RCU operation of DKC410I from SVP in case of example in this section. (for additional MCU information, please refer to: DKC410I/DKU405I Maintenance Manual THEORY03-430---for additional ADD RCU information, please refer to SVP 04-110 and later about ADD RCU operation).

Table 6.3-7 ADD RCU parameter

RCU		Path		
Serial number	SSID	PORT#	Link Address	Logical Address
10924	0040	1A	00	00
10924	0048	1A	00	02
10924	004C	1A	00	03
10924	004D	2A	00	03

Without connecting EXTENDER, this parameter is 30128.

4. Notes

(1) When one of HRC paths between the remote EXTENDER and the RCU is blocked, the blocked path will not be recovered voluntarily. And then, "PATH STATUS" of this path may be abnormal(-) status, otherwise the HRC will suspend due to any failure of paths(SSB F/M=8F, EC=C8Ax). If C8Ax status is indicated, then the failure path is determined by the information as follows.
- CL1/2 : (it is known by MP# detecting SSB)
- LPN in CL1/2 : (SSB log byte42 means LPN in CL1/2)

In these cases, please confirm the connection of the physical path and do the following procedure to recover the path.

[Recover procedure]

a) Please delete the failed HRC path by way of "EDIT PATH" menu.

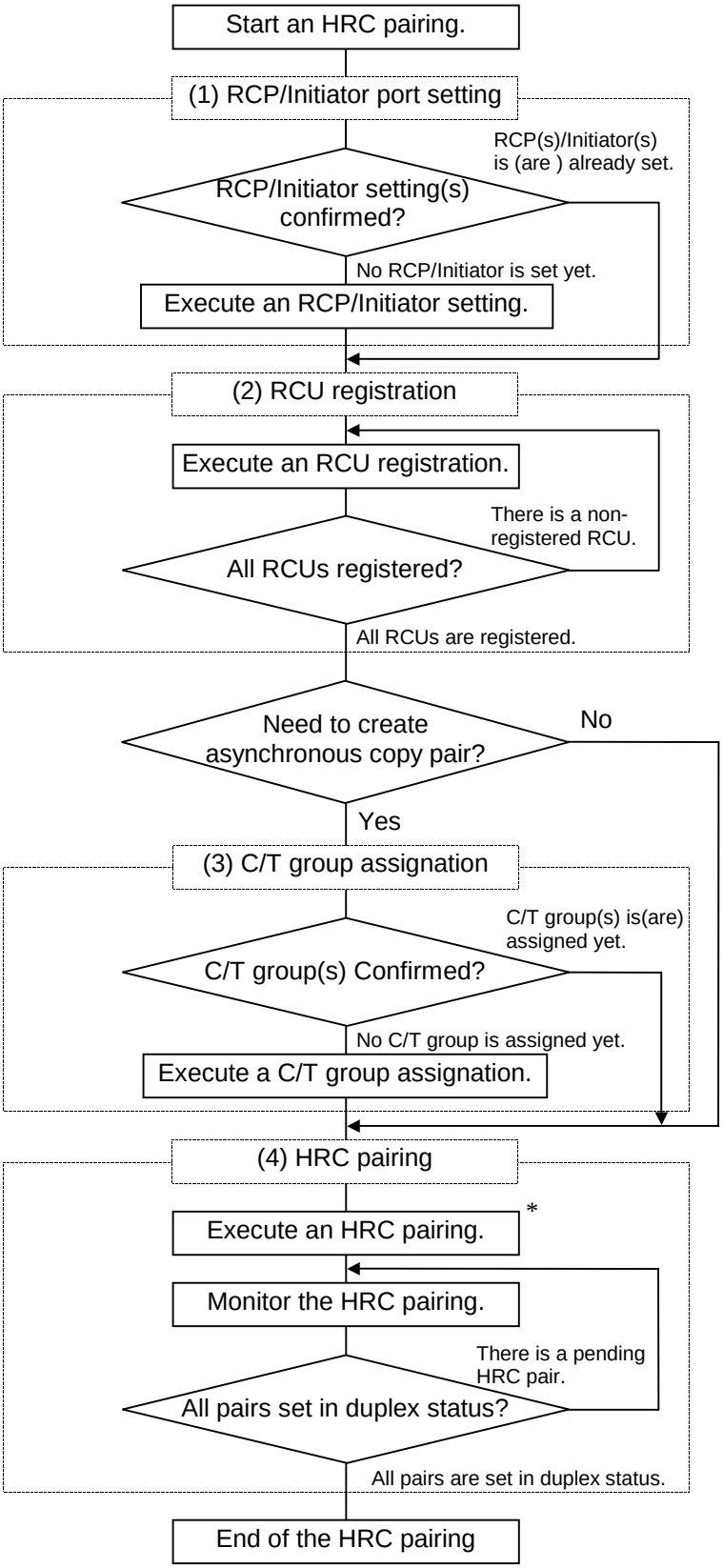
b) Please edit the path again to select "EDIT PATH" menu.

(2) When using the procedure of switching the M-VOL and the R-VOL for disaster recovery of HRC via Extender, the configuration of Local/Remote Extender should be set again because the Local Extender and Remote Extender are reversed each other. And, when a CU image of the original MCU and plural CU image of the original RCU are connecting through the same physical path, the above mentioned disaster recover procedure is inapplicable. In this case, please recover the combination of 1 CU Image of the new MCU and 1 CU Image of the new RCU according to the procedure of switching the M-VOL and the R-VOL. After that, please try to recover the remaining CU Images one by one.

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6.4 Creating New HRC Pair(s)

HRC Pairing Flow

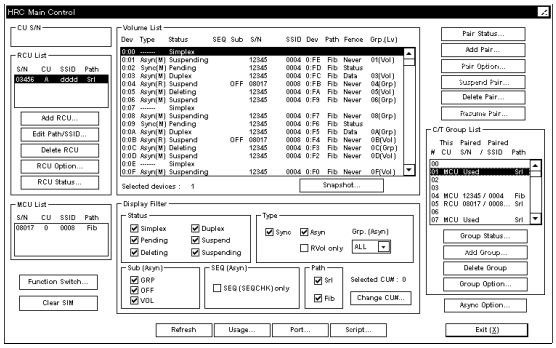


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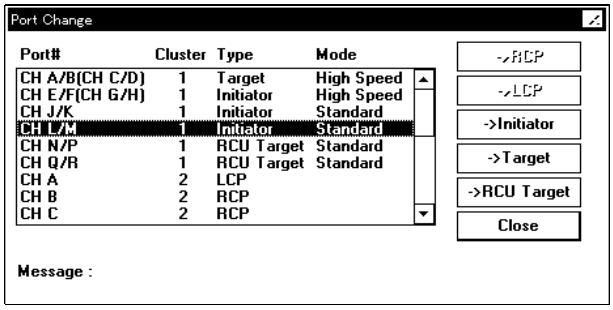
(1) RCP/Initiator Port Setting

1. Display the HRC screen.
   Select (CL) [HRC] in the 'SVP' window.

2. Open the Port Setting window on the HRC screen. Press (CL) the [Port...] button (see the figure) on the HRC screen.



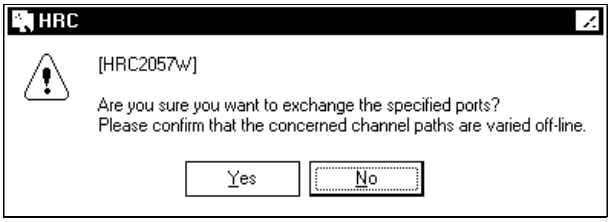
3. Confirming the port type(s)
   Compare the port setting(s) displayed on the screen with that(those) described on the work sheet. If the port setting(s) is(are) confirmed to be the same as that(those) on the work sheet, press (CL) the [Close] button (see the figure) and go to Item (2) "Registering the RCU(s)".



4. Changing the port type(s)
   Select all the ports desired to be changed to the RCP type or Initiator type, then press (CL) the [-> RCP] or [-> Initiator] button (see the figure).
   - The port(s) to be changed to the RCP type or Initiator type must be disconnected from the host beforehand.
   - When a cable connection change instruction is displayed, connect the cable(s) to the object RCU(s). If the connection is(are) to be made via the ESCD(s), connect the cable to the ESCD(s).

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5. Confirm the channel path
   Confirm the changed path(s) is(are) varied off-line, and press (CL) [Yes] button.

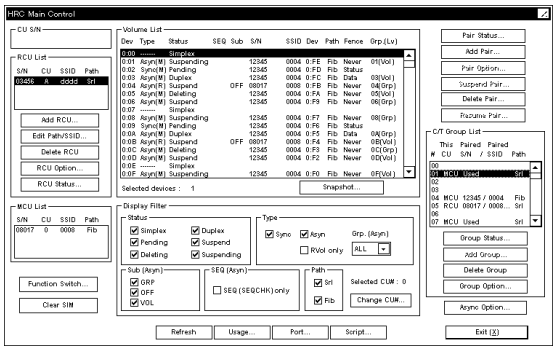


6. Terminating the RCP/Initiator port setting
   Compare again the port setting(s) displayed on the screen with that(those) described on the work sheet.
   Make sure that the port setting(s) has(have) been done as described on the work sheet, press (CL) the [Close] button (see the figure) and go to Item (2) "Registering the RCU(s)".

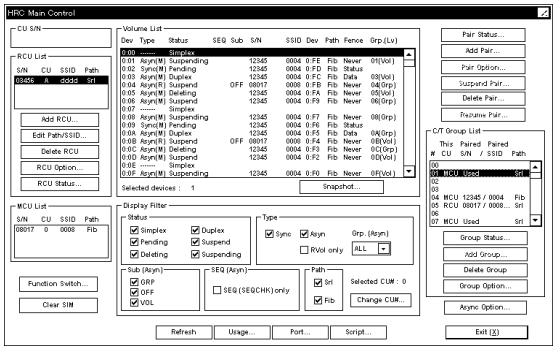
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(2) RCU Registration

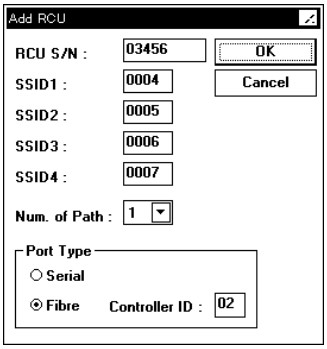
1. Confirming the registration of the existing RCU(s)
In the display filter, set the CU# corresponding to the CU image address of the subsystem (To change the CU#, press (CL) the [Change CU#...] button.). Compare the RCU(s) currently registered with the RCU(s) described on the work sheet referring to the RCU list (see the figure) on the HRC screen. When there is no need to register new RCU(s), go to Item (3) "C/T group assignation".



2. RCU registering screen
Press (CL) the [Add RCU...] button (see the figure) on the HRC screen.

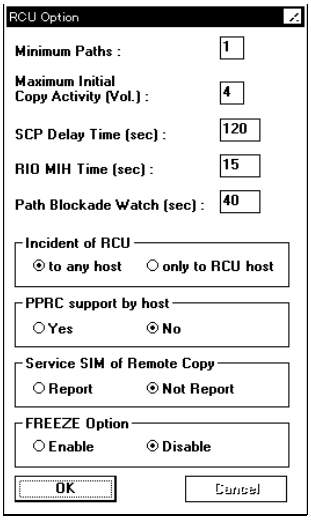


3. Inputting RCU parameters
On the Add RCU screen (see the figure), perform the following.
Input a 5- character RCU serial number in RCU S/N.
Input a 4- digit hexadecimal RCU SSID number in SSID 1 ~ 4.
Input SSID specified at the Define Configration and Install of RCU.
Select a number of the MCU-RCU logical paths from the combo-box at Num. of Path. The number can be either of 1 to 8.
Select one of the port type indicated at Port Type.
Specify numerical values for Controller ID if “Fibre” is specified for the port type.
When all the above operations are finished, press (CL) the [OK] button (see the figure).



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4. Setting the RCU option



On the RCU Option Setting screen (see the figure), perform the following.
Input the minimum number of paths to be used in succession in Minimum Paths.
Input Maximum Initial Copy Activity (1 to 4, or 8).
Set one of the following in Incident of RCU as the incident of the RCU.
- To any host
- Only to RCU host

Set one of the following in PPRC support by host.
- Yes
- No

Set one of the following in Service SIM of Remote Copy as handling the Service SIM of Remote Copy.
- Report
- Not Report

Set one of the following in FREEZE option.
- Enable
- Disable

Input SCP Delay Time (0 through 600). SCP Delay Time is available for HRC only.
When all the above operations are finished, press (CL) the [OK] button (see the figure).

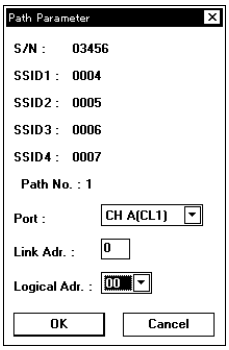
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5. Inputting logical path parameters

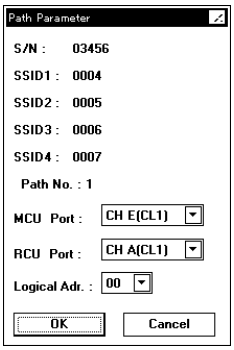
This screen appears for each logical path inputted in step 3.
On each Logic Path Parameter Input screen, perform the following.

(In the case of Serial Path)
Select the RCP port to be connected to the object RCU from the combo-box in Port.
Input a 2-digit hexadecimal number of the link destination address in Link Adr. for the object RCU. When no ESCD is to be used, input '00' in Link Adr.

(In the case of Fibre Path)
Select the initiator port to be connected to the object RCU from the combo-box in MCU Port.
Select the RCU target port of the RCU from the combo-box in RCU port.
Select the logical address of the object RCU from the combo-box at Logical Adr.
Please select a logical address which are defined as CU images in the RCU.
(Notes) DKC210I : It has only #00 as CU image.
DKC80I-3 : When the RCU is MPSD, select “00”. When the RCU is SPSD, select “00” or “01” according to the device position.
Other DKC : There are some DKCs that have plural CU images. In this case, please select corresponding logical address according to the device position.
After all the above operations are finished, press (CL) the [OK] button (see the figure).



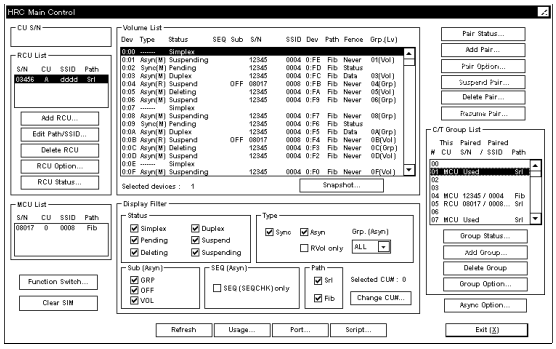
(Serial)



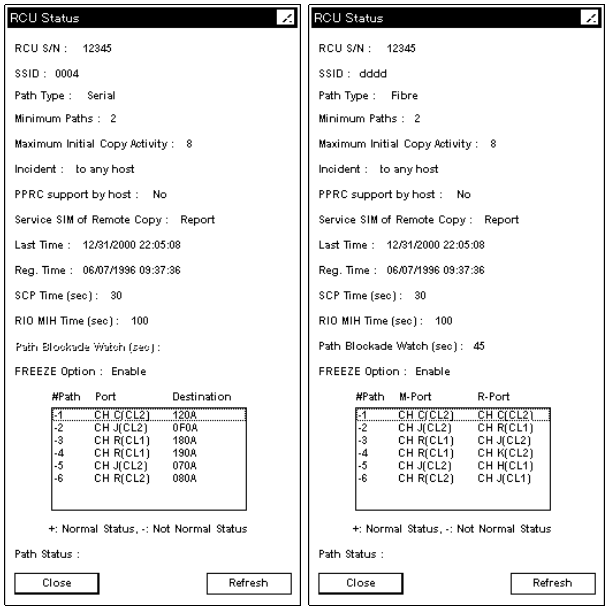
(Fibre)

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6. Select the RCU(s) currently registered from the RCU list displayed on the HRC screen, then select (CL) the [RCU Status...] screen.



7. Verifying the logical path(s)
Select one of the logical paths from the path list (see the figure) on the RCU Status screen.
Make sure "Normal" is displayed in the “Status" field (see the figure).
After verifying the status of all the paths, press (CL) the [Close] button (see the figure).



(Serial) (Fibre)

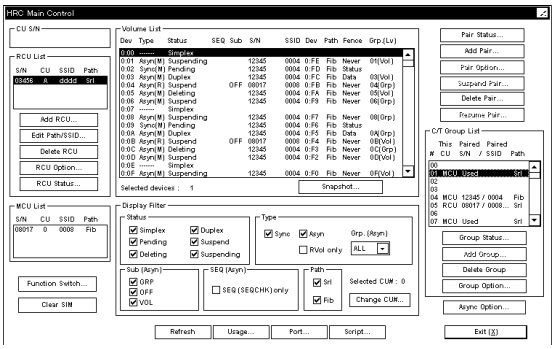
8. Registering the next RCU(s)
After registering the RCU(s), go to Item (3) “C/T group assignation”. If there is(are) other RCU(s) to register, go back to step 2 to register it(them).

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(3) C/T group assignation

1. Selecting a C/T group

C/T group assignation is necessary before HRC asynchronous pairing.
So, if there is no need to create HRC asynchronous copy pair(s), go to Item (4).
If there is no need to assign more C/T group(s), go to Item (4) “HRC Pairing”.
Select the C/T group that never used (shown as blank) from C/T Group List on the HRC screen.
Press (CL) the [Add Group...] button on the HRC screen.

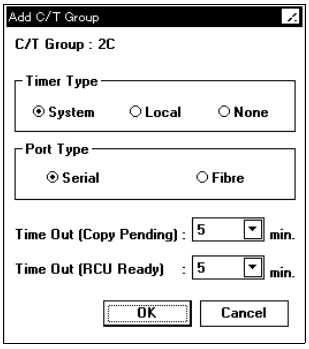


2. Inputting C/T group parameters

On the Add C/T Group screen (see the figure), perform the following.
Set one of the following in Timer Type as the timer type of the C/T.

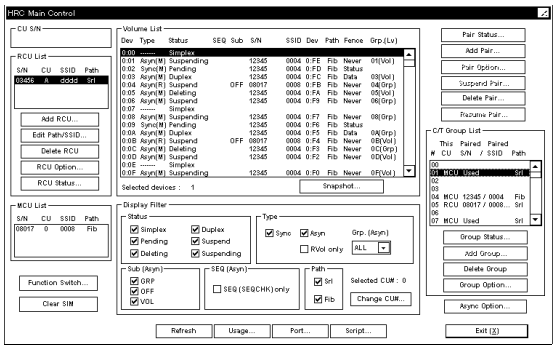
- System
- Local
- None

Select one of the port type indicated at Port Type.
Select maximum delay time of update data from combo-box at Time Out (Copy Pending).
Select maximum waiting time for the RCU gets ready from combo-box at Time Out (RCU Ready).
When all the above operations are finished, press (CL) the [OK] button.



3. Confirming a C/T group assigned

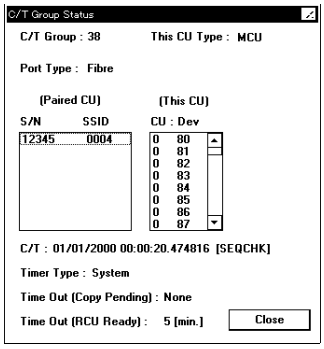
Confirm a C/T group currently assigned is displayed as “Used” in the C/T Group List on the HRC screen.
Select the C/T group from the C/T Group List, then press (CL) [Group Status...] button.



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4. Confirm the C/T group parameters

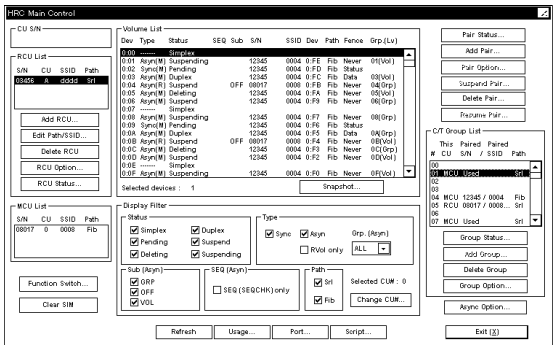
Confirm the C/T group parameters are correctly displayed.
After confirming the parameters, press (CL) [Close] button.
If there is(are) other C/T group(s) to assign, go back to step 1 to assign it(them).
If not, go to Item (4) “HRC Pairing”.



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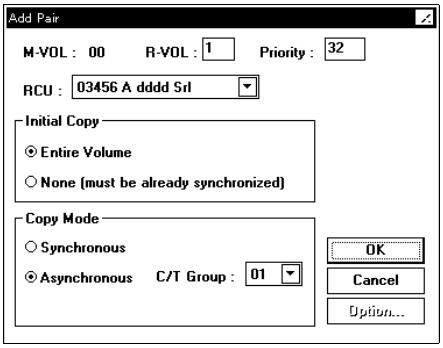
(4) HRC Pairing

1. Confirming the volume status
   Set the CU# corresponding to the CU image address of the subsystem (To change the CU#, press (CL) the [Change CU#...] button). Make sure all the volumes to be paired are in the simplex status referring to the volume list (see the figure) on the HRC screen.



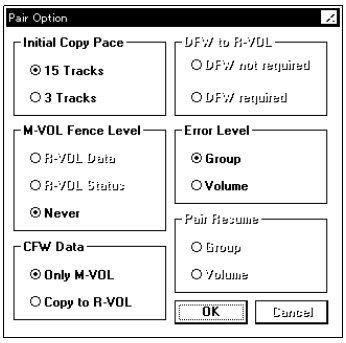
2. Selecting the volume(s) (M-VOL(s))
   Select all the volumes to be paired from the volume list (see the figure) on the HRC screen and press (CL) the [Add pair...] button (see the figure) in “HRC Operation”.

3. Inputting the HRC pairing parameters
   On the HRC Pairing Parameter Input screen, perform the following.
   Input the volume number of the R-VOL in R-VOL corresponding to the M-VOL.
   Input the Initial Copy Priority to the Priority.
   Select the RCU from the combo-box at RCU.
   Select one of the copy types indicated at Initial Copy.
   Select one of the copy mode indicated at Copy Mode.
   When all the above operations are finished, press (CL) the [OK] button (see the figure).



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4. Setting HRC pair option



On the Pair Option screen, perform the following.
Set one of the following in Initial Copy Pace.
- 15 Tracks
- 3 Tracks

Set one of the following in DFW to R-VOL.
(Ineffective when asynchronous copy pairing)
- DFW not required
- DFW required

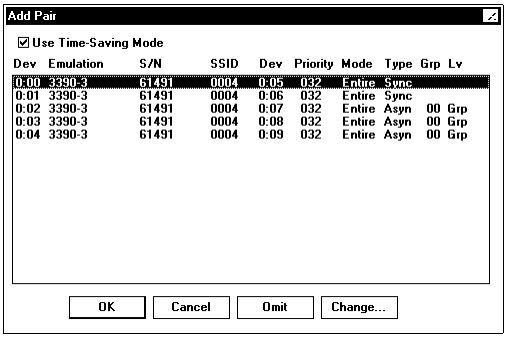
Set one of the following in CFW data
- Copy to R-VOL
- Only M-VOL

Set one of the following in M-VOL Fence Level.
(Fixed "Never" when asynchronous copy pairing)
- R-VOL Data
- R-VOL Status
- Never

Set one of the following in Error Level.
(Effective only asynchronous copy pairing)
- Group
- Volume

When all above operations are finished, press (CL) [OK] button.

5. Confirm the parameter of an HRC paired



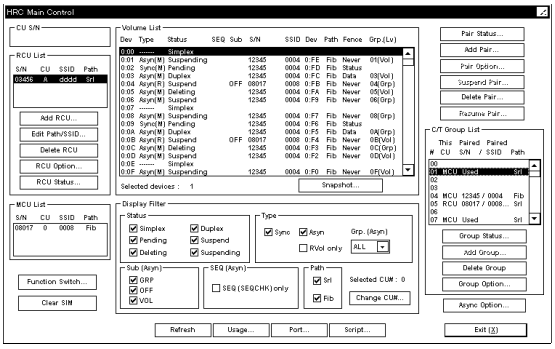
Confirm the volumes to be paired from the volume list (see the figure) on the Add Pair screen and select (CL) [OK] button.
- If you want to change an HRC paired parameters of volumes, select the volumes from Add Pair screen and select (CL) [Change...] button.
- If you want to omit an HRC pair create, select the volumes from Add Pair screen and select (CL) [Omit] button.

Please specify "Use Time-Saving Mode" to execute making the pair quickly.
WARNING :
Please confirm the volumes which fails in the pair creating on the HRC Main Control screen when the time-out is generated specifying "Use Time-Saving Mode".
Please remove the specification of "Use Time-Saving Mode" to them if there are volumes which fails in pair creating, and do the Add Pair operation again.

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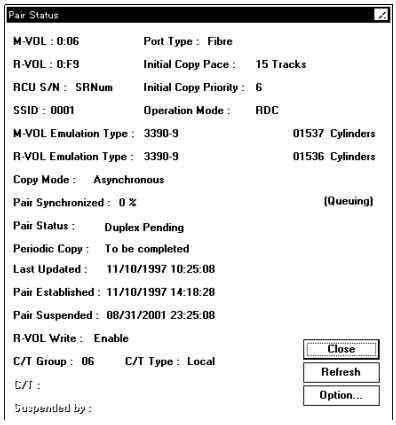
6. Verifying the status of an HRC paired

Select one of the volumes to be paired from the volume list (see the figure) on the HRC screen and press (CL) the [Pair Status...] button (see the figure).



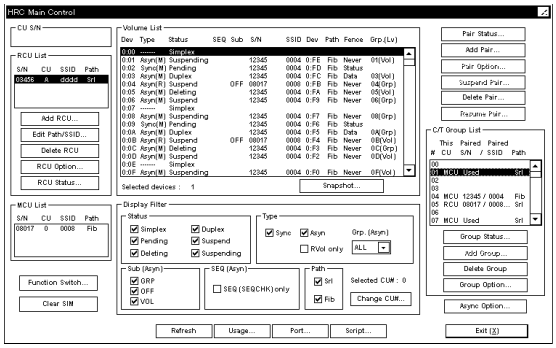
7. Checking the pairing matching rate check

Make sure “100%” is displayed for “Pair Synchronized” on the Pair Status screen. If not, wait for a while and press (CL) the [Refresh] button (see the figure) to update the display. After this, check the matching rate again. To refer to another VOL, press (CL) the [Close] button (see the figure) to go back to step 5. Repeat steps 5 and 6 until the matching rate of every volume to be paired reaches “100%”.



8. Final verification

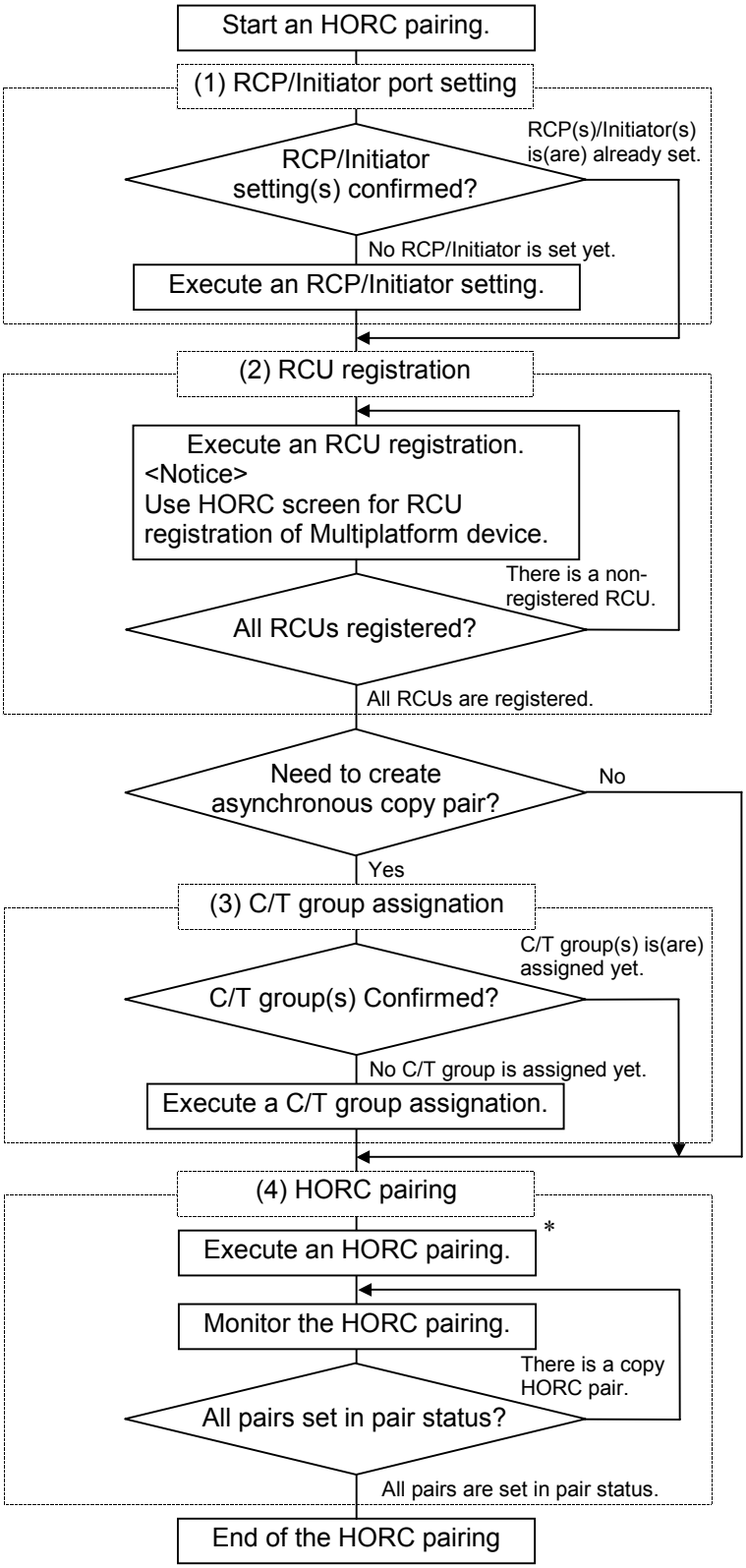
Press (CL) the [Refresh] button (see the figure) on the HRC screen to update the screen display and make sure all the volumes to be paired and displayed in the volume list (see the figure) are in the duplex status.



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6.5 Creating New HORC Pair(s) (for OPEN VOL)

HORC Pairing Flow

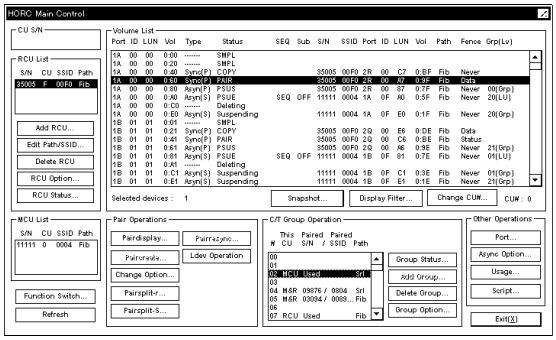


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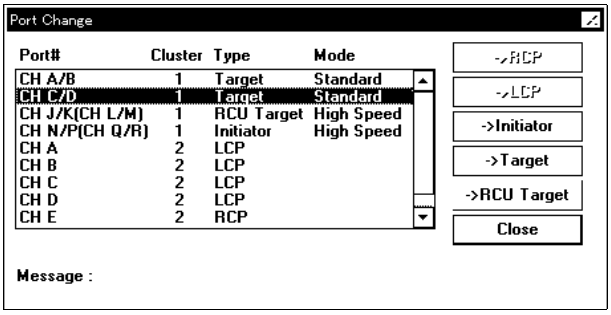
(1) RCP Port Setting

1. Display the HORC screen.
   Select (CL) [HORC] in the 'SVP' window.

2. Open the Port Setting window on the HORC screen.
   Press (CL) the [Port...] button (see the figure) on the HORC screen.



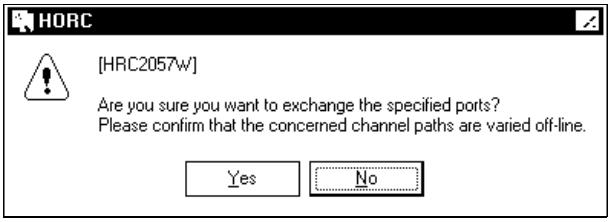
3. Confirming the port type(s)
   Compare the port setting(s) displayed on the screen with that(those) described on the work sheet. If the port setting(s) is(are) confirmed to be the same as that(those) on the work sheet, press (CL) the [Close] button (see the figure) and go to Item (2) "Registering the RCU(s)".



4. Changing the port type(s)
   Select all the ports desired to be changed to the RCP type or Initiator type, then press (CL) the [-> RCP] or [-> Initiator] button (see the figure).
   - The port(s) to be changed to the RCP type or Initiator type must be disconnected from the host beforehand.
   - When a cable connection change instruction is displayed, connect the cable(s) to the object RCU(s). If the connection is(are) to be made via the ESCD(s), connect the cable to the ESCD(s).

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5. Confirm the channel path
   Confirm the changed path(s) is(are) varied off-line, and press (CL) [Yes] button.

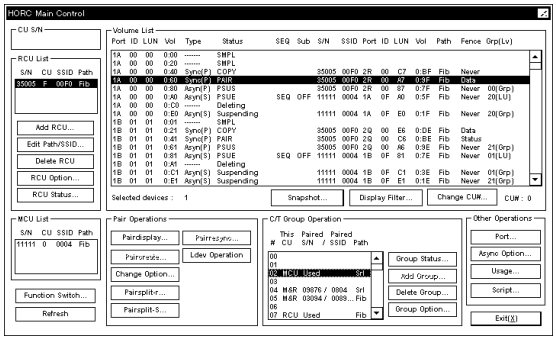


6. Terminating the RCP/Initiator port setting
   Compare again the port setting(s) displayed on the screen with that(those) described on the work sheet.
   Make sure that the port setting(s) has(have) been done as described on the work sheet, press (CL) the [Close] button (see the figure) and go to Item (2) "Registering the RCU(s)".

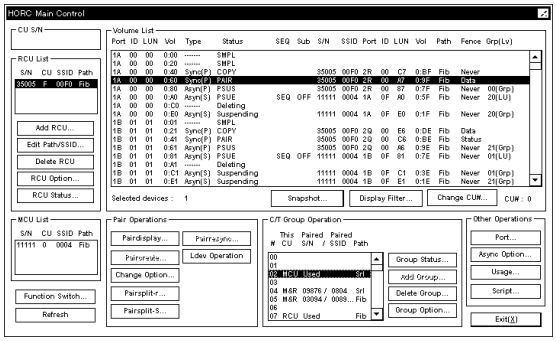
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(2) RCU Registration

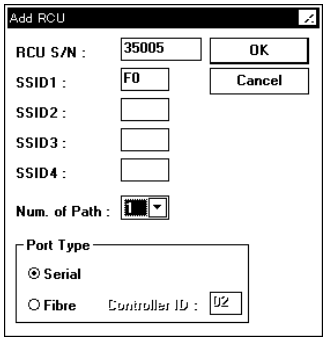
1. Confirming the registration of the existing RCU(s)
In the display filter, set the CU# corresponding to the CU image address of the subsystem (To change the CU#, press (CL) the [Change CU#...] button.). Compare the RCU(s) currently registered with the RCU(s) described on the work sheet referring to the RCU list (see the figure) on the HORC screen. When there is no need to register new RCU(s), go to Item (3) “C/T group assignation”.



2. RCU registering screen
Press (CL) the [Add RCU...] button (see the figure) on the HORC screen.

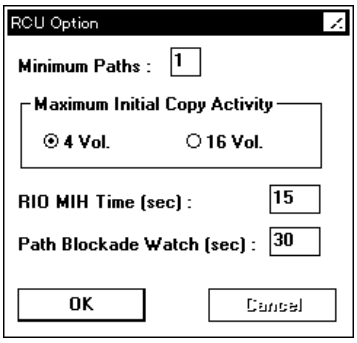


3. Inputting RCU parameters
On the Add RCU screen (see the figure), perform the following.
Input a 5- character RCU serial number in RCU S/N.
Input a 4- digit hexadecimal RCU SSID number in SSID 1 ~ 4.
Input SSID specified at the Define Configuration and Install of RCU.
Select a number of the MCU-RCU logical paths from the combo-box at Num. of Path. The number can be either of 1 to 8.
Select one of the port type indicated at Port Type.
Specify numerical values for Controller ID if “Fibre” is specified for the port type.
When all the above operations are finished, press (CL) the [OK] button (see the figure).



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4. Setting the RCU option

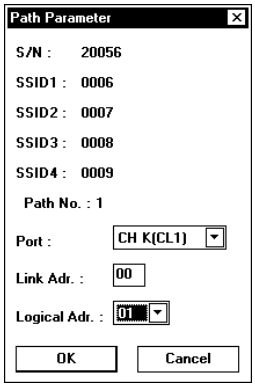


On the RCU Option Setting screen (see the figure), perform the following.
Input the minimum number of paths to be used in succession in Minimum Paths.
Specifies the maximum number of Initial Copy execution.
Defined 4 or 16.
Input the RIO MIH time in RIO MIH Time (10 through 100).
If "Fibre" is specified in step 3, perform the following.
Input the path blockade watching time in Path Blockade Watch (0 through 45).
When all the above operations are finished, press (CL) the [OK] button (see the figure).

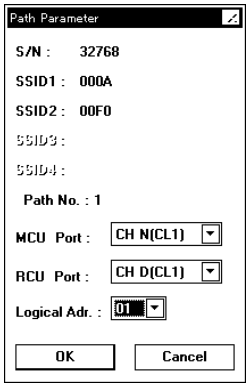
5. Inputting logical path parameters

This screen appears for each logical path inputted in step 3.
On each Logic Path Parameter Input screen, perform the following.
(In the case of Serial path):
Select the RCP port to be connected to the object RCU from the combo-box in Port.
Input a 2-digit hexadecimal number of the link destination address in Link Adr. for the object RCU. When no ESCD is to be used, input '00' in Link Adr.
(In the case of Fibre path):
Select the initiator port to be connected to the object RCU from the combo-box in MCU Port.
Select the RCU target port of the RCU from the combo-box in RCU Port.

Select the logical address of the object RCU from the combo-box at Logical Adr.
Please select a logical address which are defined as CU images in the RCU.
After all the above operations are finished, press (CL) the [OK] button (see the figure).



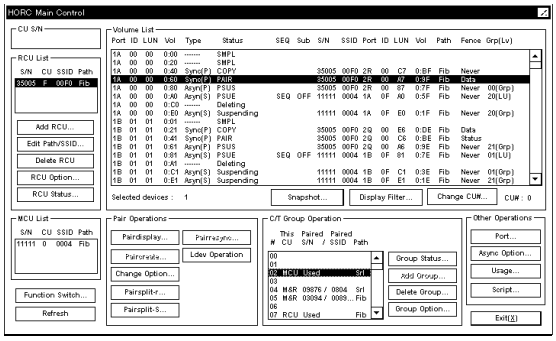
(Serial)



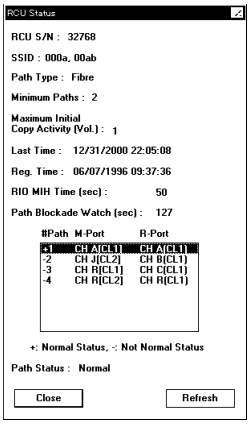
(Fibre)

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6. Select the RCU(s) currently registered from the RCU list displayed on the HORC screen, then select (CL) the [RCU Status...] screen.



7. Verifying the logical path(s)
   Select one of the logical paths from the path list (see the figure) on the RCU Status screen. Make sure “Normal” is displayed in the “Status” field (see the figure).
   After verifying the status of all the paths, press (CL) the [Close] button (see the figure).

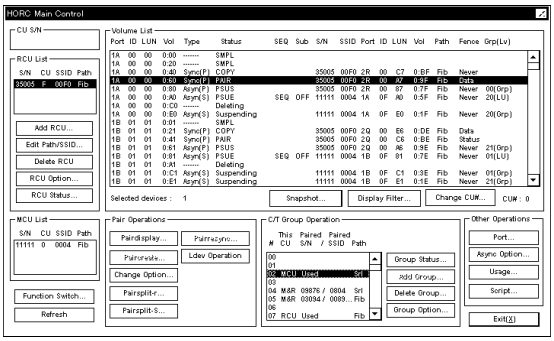


8. Registering the next RCU(s)
   After registering the RCU(s), go to Item (3) “C/T group assignation”. If there is(are) other RCU(s) to register, go back to step 2 to register it(them).

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(3) C/T group assignation

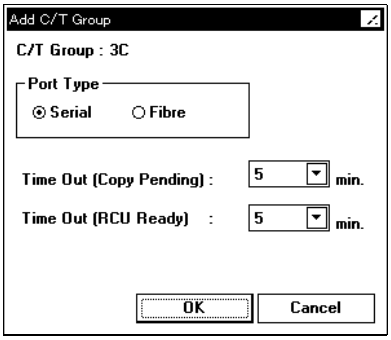
1. Selecting a C/T group



C/T group assignation is necessary before HORC asynchronous pairing.
So, if there is no need to create HORC asynchronous copy pair(s), go to Item (4).
If there is no need to assign more C/T group(s), go to Item (4) “HORC Pairing”.
Select the C/T group that never used (shown as blank) from C/T Group List on the HORC screen. (Note: C/T groups which are assigned by HRC are not displayed on the list.)
Press (CL) the [Add Group...] button on the HORC screen.

---

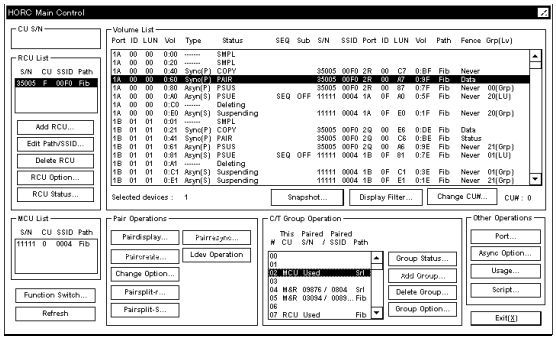
2. Inputting C/T group parameters



On the Add C/T Group screen (see the figure), perform the following.
Select one of the port type indicated at Port Type.
Select maximum delay time of update data from combo-box at Time Out (Copy Pending).
Select maximum waiting time for the RCU gets ready from combo-box at Time Out (RCU Ready).
When all the above operations are finished, press (CL) the [OK] button.

---

3. Confirming a C/T group assigned

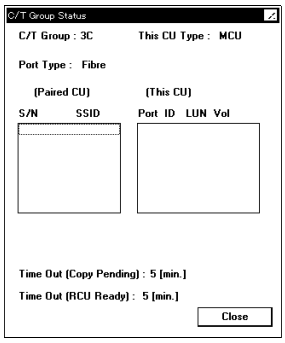


Confirm a C/T group currently assigned is displayed as “Used” in the C/T Group List on the HORC screen.
Select the C/T group from the C/T Group List, then press (CL) [Group Status...] button.

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4. Confirm the C/T group parameters

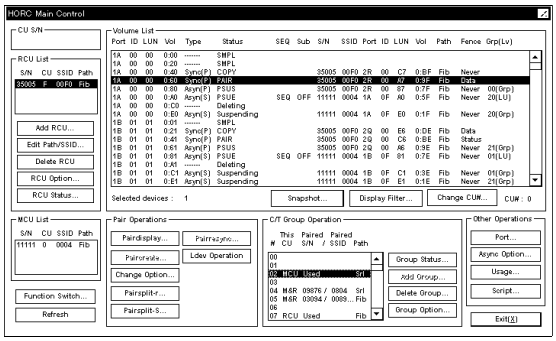
Confirm the C/T group parameters are correctly displayed.
After confirming the parameters, press (CL) [Close] button.
If there is(are) other C/T group(s) to assign, go back to step 1 to assign it (them).
If not, go to Item (4) “HORC Pairing”.



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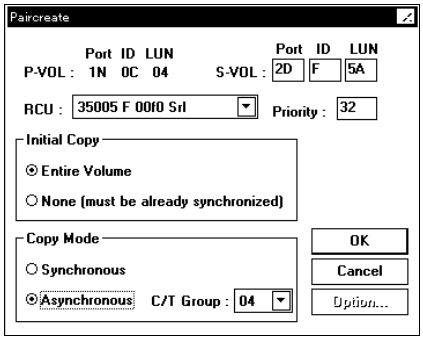
(4) HORC Pairing

1. Confirming the volume status
   Make sure all the volumes to be paired are in the SMPL (Simplex Volume) status referring to the volume list (see the figure) on the HORC screen.



2. Selecting the volume(s) (P-VOL(s))
   Select all the volumes to be paired from the volume list (see the figure) on the HORC screen and press (CL) the [Paircreate...] button (see the figure) in “HORC Operation”.

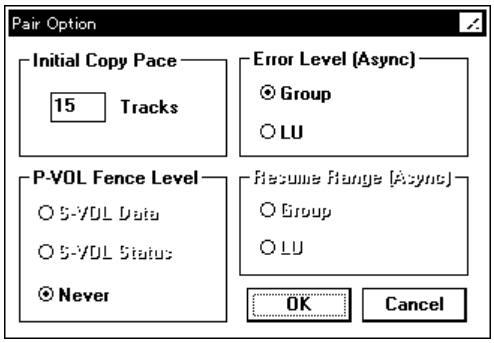
3. Inputting the HORC pairing parameters
   On the Paircreate screen, perform the following.
   Input the PORT Number, SCSI ID Number and LUN Number of OPEN VOL in S-VOL corresponding to the P-VOL.
   Input the Initial Copy Priority to the Priority.
   Select the RCU from the combo-box at RCU.
   Select one of the copy types indicated at Initial Copy.
   Select one of the copy mode indicated at Copy Mode.
   Select a C/T group number from the combo-box at C/T Group if the copy mode is “Asynchronous”.
   When all the above operations are finished, press (CL) the [OK] button (see the figure).



   Note: If destination Controller is DKC460I, input the Group Number to S-Vol’s ID.

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4. Setting HORC pair option



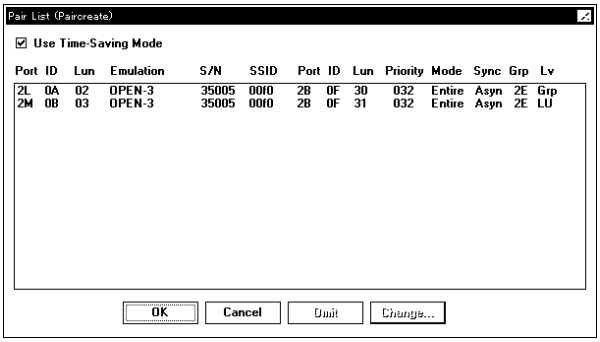
On the Pair Option screen, perform the following.
Set one of the following in Initial Copy Pace.
- 1 ~ 15 Tracks

Set one of the following in P-VOL Fence Level.
(Fixed "Never" when asynchronous copy pairing)
- S-VOL Data
- S-VOL Status
- Never

Set one of the following in Error Level.
(Effective only asynchronous copy pairing)
- Group
- LU

When all above operations are finished, press (CL) [OK] button.

5. Confirm the parameter of an HORC paired



Confirm the volumes to be paired from the volume list (see the figure) on the Paircreate screen and select (CL) [OK] button.
- If you want to change an HORC paired parameters of volumes, select the volumes from Paircreate screen and select (CL) [Change...] button.
- If you want to omit an HORC pair create, select the volumes from Paircreate screen and select (CL) [Omit] button.

Please specify "Use Time-Saving Mode" to execute making the pair quickly.
WARNING :

Please confirm the volumes which fails in the pair creating on the HORC Main Control screen when the time-out is generated specifying "Use Time-Saving Mode".
Please remove the specification of "Use Time-Saving Mode" to them if there are volumes which fails in pair creating, and do the Paircreate operation again.

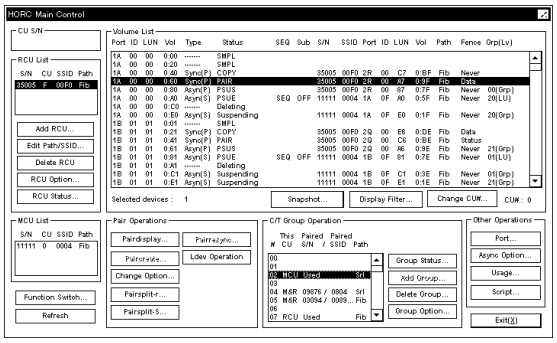
WARNING :

If you select several pairs, the ports of S-VOL, SCSI ID (or Group Number) and LUNs will be assigned automatically, but the assignment may be wrong if different models of devices are connected. Select (CL) [Change…], please correct the ports, SCSI ID (or Group Number) and LUNs.

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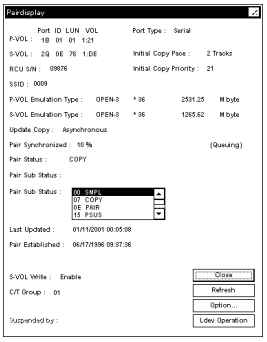
6. Verifying the status of an HORC paired

Select one of the volumes to be paired from the volume list (see the figure) on the HORC screen and press (CL) the [Pairdisplay...] button (see the figure).



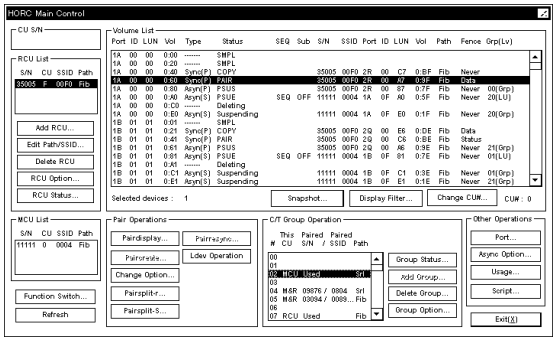
7. Checking the pairing matching rate check

Make sure "100%" is displayed for "Pair Synchronized" on the Pairdisplay screen. If not, wait for a while and press (CL) the [Refresh] button (see the figure) to update the display. After this, check the matching rate again. To refer to another VOL, press (CL) the [Close] button (see the figure) to go back to step 6. Repeat steps 6 and 7 until the matching rate of every volume to be paired reaches "100%".



8. Final verification

Press (CL) the [Refresh] button (see the figure) on the HORC screen to update the screen display and make sure all the volumes to be paired and displayed in the volume list (see the figure) are in the Pairdisplay.

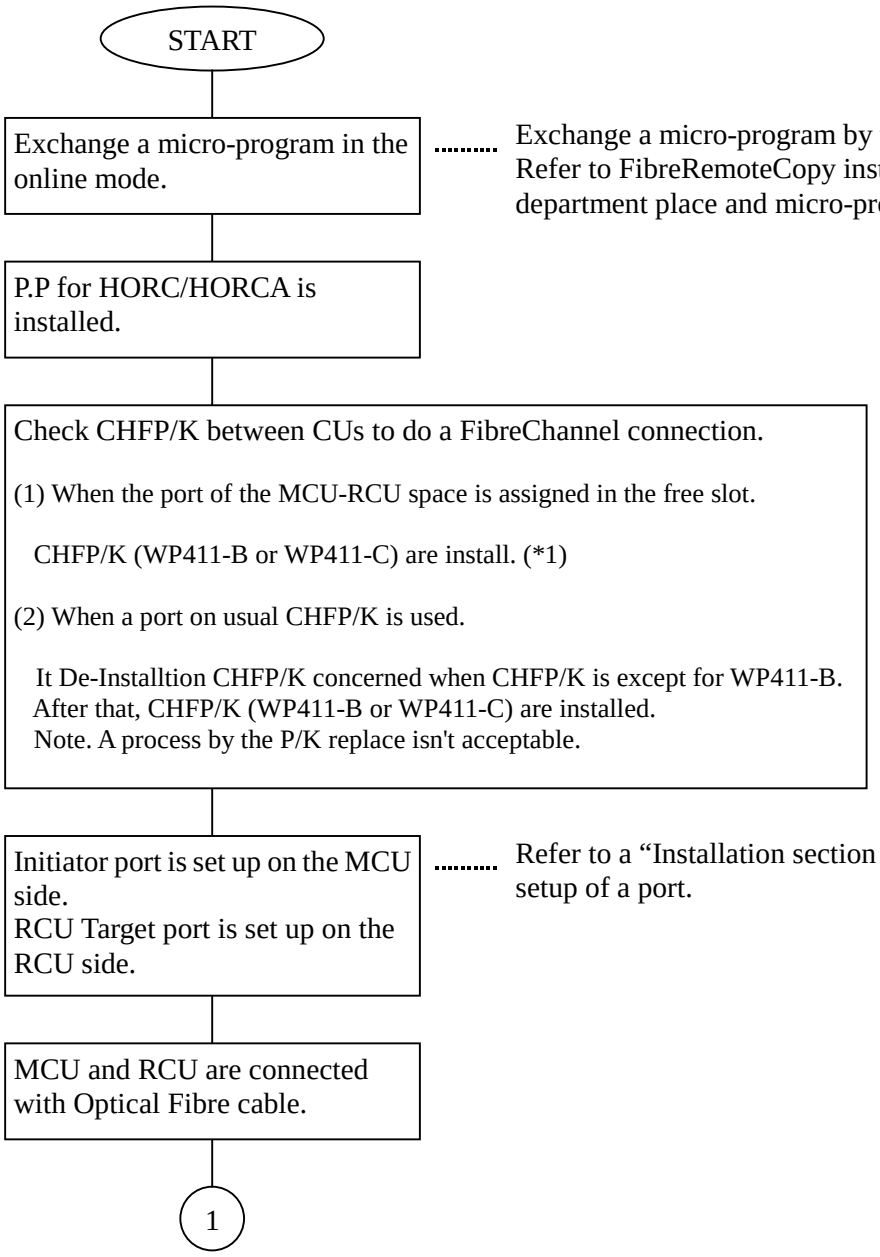


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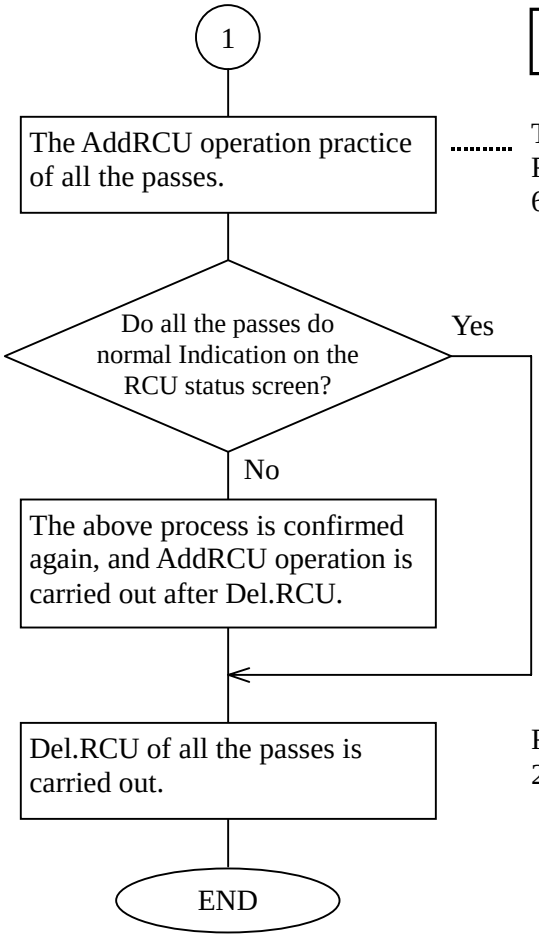
6.6 Installation process of the Fibre Remote Copy function

A process to connect space between MCU and RCU with Fibre channel interface is shown in the following in HORC/HORCA.

When Fibre Remote Copy is used, the following thing is necessary.
- CHF P/K(PCB Name: WP411-B or WP411-C)
- Fibre Remote Copy support micro programs
  (Refer to Appendix.Fibre Remote Copy installation check list.)



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It is the test process of the connection pass after this.

This process is an examination only for the logic pass.
Refer to even the RCU registration of the “Installation section 6.5 Creating New HORC pair(s) (for OPEN VOL)”.

Refer to even the RCU registration of the "SVP section 2.23.6 Deleting an RCU Registerd".

*1) Change P/K to “WP411-B” or “WP411-C” in the ONLINE mode.
Fibre Remote Copy can’t be composed of usual WP411-A P/K.
But, the attention of the bottom table is necessary in the connection of MCU and RCU.

	P/K which it can be applied to.
When MCU and RCU are connected with Short Wave	[WP411-B SH212-E] or [WP411-C SH261-A]
When MCU and RCU are connected with Long Wave	[WP411-B SH212-G]

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Appendix: Fibre Remote Copy installation check list

No.	Item	Check
1	MCU, RCU should be the following micro program revision or later. • DKCMAIN : 01-13-xx • SVP : 01-13-xx • FOP : 01-53-xx • CONFIG : xx-13-00/xx	
2	P.P for HORC/HORCA is installed.	
3	P/K revision of CHF should be WP411-B or WP411-C.	
4	Set up Initiator port and a RCU target port. (Refer to a “Installation section 6.5 (1) Port setting” for a setup of a port.)	
5	MCU and RCU are connected with Optical Fibre cable.	

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7 TPF installation procedures

7.1 Preparations

(a) To get additional SM parts (SH184-B (Only type of 128MB)) by number of necessary according to INST01-70.
(b) To get “Configuration” floppy disk which support MPLF/RC (or TPF) function from T.S.C.

7.2 Operations

(a) To exchange Micro-programs of latest version.
- Exchange all Micro-programs which are different from current installed version. (Refer to MICRO-FC SECTION.)

(b) To execute Config Version Up.
- Set “Configuration” floppy disk.
- Execute Config Version Up. (Refer to MICRO-FC08-10 (Config Exchange Procedure ((3-1) ‘Config Version UP’)).)

(c) To switch “TPF-mode” on.
- Execute “Define Configuration and install”. (Refer to INST05-80 (Configuration information Definition).)

(d) To attach additional SM parts.
- Turn off DKC power switch.
- With reference to INST01-70, attach required number of additional SM parts.
- Remove Jumper connectors (BTJP) from BAT CTR. And wait 5 minutes. (volatile CACHE, SM)
- Reconnect Jumper connectors.

(e) To start TPF Micro-program.
- Turn on DKC power switch.

(f) Confirm the TPF MODE.
- Select (CL) [DUMP] in the “SVP” window.
- Confirm that “TPF” is shown in the “DUMP” dialog box.

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8 Storage Capacity and Cache Capacity Upgrade Table (Separate Model)

8.1 Separate Model, Standard Configuration for RAID5

(1) 18GB HDD, RAID5, for Mainframe INST08-20
(2) 18GB HDD, RAID5, for Open System INST08-40
(3) 47GB HDD, RAID5, for Mainframe INST08-60
(4) 47GB HDD, RAID5, for Open System INST08-80
(5) 73GB HDD, RAID5, for Mainframe INST08-100
(6) 73GB HDD, RAID5, for Open System INST08-120
(7) High Speed 18GB HDD, RAID5, for Mainframe INST08-140
(8) High Speed 18GB HDD, RAID5, for Open System INST08-160
(9) 180GB HDD, RAID5, for Mainframe INST08-171
(10) 180GB HDD, RAID5, for Open System INST08-173
(11) High Speed 36GB HDD, RAID5, for Mainframe INST08-175
(12) High Speed 36GB HDD, RAID5, for Open System INST08-177
(13) 146GB HDD, RAID5, for Mainframe INST08-179
(14) 146GB HDD, RAID5, for Open System INST08-179B

8.2 Separate Model, Standard Configuration for RAID1

(1) 18GB HDD, RAID1, for Mainframe INST08-180
(2) 18GB HDD, RAID1, for Open System INST08-200
(3) 47GB HDD, RAID1, for Mainframe INST08-220
(4) 47GB HDD, RAID1, for Open System INST08-240
(5) 73GB HDD, RAID1, for Mainframe INST08-260
(6) 73GB HDD, RAID1, for Open System INST08-280
(7) High Speed 18GB HDD, RAID1, for Mainframe INST08-300
(8) High Speed 18GB HDD, RAID1, for Open System INST08-320
(9) 180GB HDD, RAID1, for Mainframe INST08-340
(10) 180GB HDD, RAID1, for Open System INST08-360
(11) High Speed 36GB HDD, RAID1, for Mainframe INST08-380
(12) High Speed 36GB HDD, RAID1, for Open System INST08-400
(13) 146GB HDD, RAID1, for Mainframe INST08-420
(14) 146GB HDD, RAID1, for Open System INST08-440

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8.1 Separate Model, Standard Configuration for RAID5

(1) 18GB HDD, RAID5, for Mainframe

Cache (MB)	Storage Capacity (GB)														Number of necessary options												
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	18J4	18J1	EXC
512	84	53	42	53	28	53	55	53	27	51	18	51	6	51	1			*1				1		1		
512	168	106	84	106	56	106	110	106	54	102	36	102	12	102	1							1		2		
512	252	159	126	159	84	159	165	159	81	153	54	153	18	153	1							1		3		
512	336	212	168	212	112	212	220	212	108	204	72	204	24	204	1							1		4		
1024	420	265	210	265	140	265	275	265	135	255	90	255	30	255	2							1		5		
1024	504	318	252	318	168	318	330	318	162	307	108	307	36	306	2							1		6		
1024	588	370	294	370	196	370	385	371	189	358	126	358	42	357	2							1		7		
1536	672	423	336	423	224	423	440	424	216	409	144	409	48	408	3							1		8		
2048	756	476	378	476	252	476	495	477	243	460	162	460	54	460	4							1		9		
2048	840	529	420	529	280	529	550	530	270	511	180	511	60	511	4							1		10		
2048	924	582	462	582	308	582	605	583	297	562	198	562	66	562	4							1		11		
3072	1,008	635	504	635	336	635	660	636	324	613	216	613	72	613	6				1	1		1	1	12		
3072	1,092	688	546	688	364	688	715	689	351	664	234	664	78	664	6				1	1		1	1	13		
3072	1,176	741	588	741	392	741	770	742	378	715	252	715	84	715	6				1	1		1	1	14		
4096	1,260	794	630	794	420	794	825	795	405	766	270	766	90	766	8				1	1		1	1	15		
4096	1,344	847	672	847	448	847	880	848	432	817	288	817	96	817	8				1	1		1	1	16		
4096	1,428	900	714	900	476	900	935	901	459	868	306	868	102	868	8				1	1		1	1	17		
5120	1,512	953	756	953	504	953	990	954	486	920	324	920	108	919	10				1	1		1	1	18		
5120	1,596	1,005	798	1,005	532	1,005	1,045	1,007	513	971	342	971	114	970	10				1	1		1	1	19		
5120	1,680	1,058	840	1,058	560	1,058	1,100	1,060	540	1,022	360	1,022	120	1,021	10				1	1		1	1	20		
5120	1,764	1,111	882	1,111	588	1,111	1,155	1,113	567	1,073	378	1,073	126	1,072	10				1	1		1	1	21		
5120	1,848	1,164	924	1,164	616	1,164	1,210	1,166	594	1,124	396	1,124	132	1,123	10				1	1		1	1	22		
6144	1,932	1,217	966	1,217	644	1,217	1,265	1,219	621	1,175	414	1,175	138	1,174	12				1	1		1	1	23		
6144	2,016	1,270	1,008	1,270	672	1,270	1,320	1,272	648	1,226	432	1,226	144	1,225	12				1	1		2	1	24		1
6144	2,100	1,323	1,050	1,323	700	1,323	1,375	1,326	675	1,277	450	1,277	150	1,277	12				1	1		2	1	25		1
7168	2,184	1,376	1,092	1,376	728	1,376	1,430	1,379	702	1,328	468	1,328	156	1,328	14				1	1		2	1	26		1
7168	2,268	1,429	1,134	1,429	756	1,429	1,485	1,432	729	1,379	486	1,379	162	1,379	14				1	1		2	1	27		1
7168	2,352	1,482	1,176	1,482	784	1,482	1,540	1,485	756	1,430	504	1,430	168	1,430	14				1	1		2	1	28		1
7168	2,436	1,535	1,218	1,535	812	1,535	1,595	1,538	783	1,481	522	1,481	174	1,481	14				1	1		2	1	29		1
7168	2,520	1,588	1,260	1,588	840	1,588	1,650	1,591	810	1,533	540	1,533	180	1,532	14				1	1		2	1	30		1
7168	2,604	1,641	1,302	1,641	868	1,641	1,705	1,644	837	1,584	558	1,584	186	1,583	14				1	1		2	1	31		1
7168	2,688	1,693	1,344	1,693	896	1,693	1,760	1,697	864	1,635	576	1,635	192	1,634	14				1	1		2	1	32		1
7168	2,772	1,746	1,386	1,746	924	1,746	1,815	1,750	891	1,686	594	1,686	198	1,685	14				1	1		2	1	33		1
7168	2,856	1,799	1,428	1,799	952	1,799	1,870	1,803	918	1,737	612	1,737	204	1,736	14				1	1		2	1	34		1
7168	2,940	1,852	1,470	1,852	980	1,852	1,925	1,856	945	1,788	630	1,788	210	1,787	14				1	1		2	1	35		1
7168	3,024	1,905	1,512	1,905	1,008	1,905	1,980	1,909	972	1,839	648	1,839	216	1,838	14				1	1		2	2	36		1
7168	3,108	1,958	1,554	1,958	1,036	1,958	2,035	1,962	999	1,890	666	1,890	222	1,889	14				1	1		2	2	37		1
7168	3,192	2,011	1,596	2,011	1,064	2,011	2,090	2,015	1,026	1,941	684	1,941	228	1,940	14				1	1		2	2	38		1
7168	3,276	2,064	1,638	2,064	1,092	2,064	2,145	2,068	1,053	1,992	702	1,992	234	1,991	14				1	1		2	2	39		1
7168	3,360	2,117	1,680	2,117	1,120	2,117	2,200	2,121	1,080	2,043	720	2,043	240	2,042	14				1	1		2	2	40		1
7168	3,444	2,170	1,722	2,170	1,148	2,170	2,255	2,174	1,107	2,094	738	2,094	246	2,093	14				1	1		2	2	41		1
7168	3,528	2,223	1,764	2,223	1,176	2,223	2,310	2,227	1,134	2,146	756	2,146	252	2,145	14				1	1		2	2	42		1
7168	3,612	2,276	1,806	2,276	1,204	2,276	2,365	2,280	1,161	2,197	774	2,197	258	2,196	14				1	1		2	2	43		1
7168	3,696	2,328	1,848	2,328	1,232	2,328	2,420	2,333	1,188	2,248	792	2,248	264	2,247	14				1	1		2	2	44		1
7168	3,780	2,381	1,890	2,381	1,260	2,381	2,475	2,386	1,215	2,299	810	2,299	270	2,298	14				1	1		2	2	45		1
7168	3,864	2,434	1,932	2,434	1,288	2,434	2,530	2,439	1,242	2,350	828	2,350	276	2,349	14				1	1		2	2	46		1
7168	3,948	2,487	1,974	2,487	1,316	2,487	2,585	2,492	1,269	2,401	846	2,401	282	2,400	14				1	1		2	2	47		1
7168	4,032	2,540	2,016	2,540	1,344	2,540	2,640	2,545	1,296	2,452	864	2,452	288	2,451	14				2	1	1	3	2	48		1
7168			2,058	2,593	1,372	2,593	2,695	2,598	1,323	2,503	882	2,503	294	2,502	14				2	1	1	3	2	49		1
7168			2,100	2,646	1,400	2,646	2,750	2,651	1,350	2,554	900	2,554	300	2,553	14				2	1	1	3	2	50		1
7168			2,142	2,699	1,428	2,699	2,805	2,704	1,377	2,605	918	2,605	306	2,604	14				2	1	1	3	2	51		1
7168			2,184	2,752	1,456	2,752	2,860	2,757	1,404	2,656	936	2,656	312	2,655	14				2	1	1	3	2	52		1
7168			2,226	2,805	1,484	2,805	2,915	2,810	1,431	2,707	954	2,707	318	2,706	14				2	1	1	3	2	53		1
7168			2,268	2,858	1,512	2,858	2,970	2,863	1,458	2,759	972	2,759	324	2,757	14				2	1	1	3	2	54		1
7168			2,310	2,911	1,540	2,911	3,025	2,916	1,485	2,810	990	2,810	330	2,808	14				2	1	1	3	2	55		1
7168			2,352	2,964	1,568	2,964	3,080	2,969	1,512	2,861	1,008	2,861	336	2,859	14				2	1	1	3	2	56		1
8192			2,394	3,016	1,596	3,016	3,135	3,022	1,539	2,912	1,026	2,912	342	2,910	16				2	1	1	3	2	57		1
8192			2,436	3,069	1,624	3,069	3,190	3,075	1,566	2,963	1,044	2,963	348	2,961	16				2	1	1	3	2	58		1
8192			2,478	3,122	1,652	3,122	3,245	3,128	1,593	3,014	1,062	3,014	354	3,013	16				3	1	1	3	3	59		1
8192			2,520	3,175	1,680	3,175	3,300	3,181	1,620	3,065	1,080	3,065	360	3,064	16				3	1	1	3	3	60		1
8192			2,562	3,228	1,708	3,228	3,355	3,234	1,647	3,116	1,098	3,116	366	3,115	16				3	1	1	3	3	61		1
8192			2,604	3,281	1,736	3,281	3,410	3,287	1,674	3,167	1,116	3,167	372	3,166	16				3	1	1	3	3	62		1
8192			2,646	3,334	1,764	3,334	3,465	3,340	1,701	3,218	1,134	3,218	378	3,217	16				3	1	1	3	3	63		1
8192			2,688	3,387	1,792	3,387	3,520	3,393	1,728	3,269	1,152	3,269	384	3,268	16			*1	3	1	1	3	3	64		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)														Number of necessary options											
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I-14	B4	18J4	18J1	EXC
8192			2,730	3,440	1,820	3,440	3,575	3,446	1,755	3,320	1,170	3,320	390	3,319	16			*1	3	1	1	3	3	65		1
8192			2,772	3,493	1,848	3,493	3,630	3,499	1,782	3,372	1,188	3,372	396	3,370	16			▲	3	1	1	3	3	66		1
8192			2,814	3,546	1,876	3,546	3,685	3,552	1,809	3,423	1,206	3,423	402	3,421	16				3	1	1	3	3	67		1
8192			2,856	3,599	1,904	3,599	3,740	3,605	1,836	3,474	1,224	3,474	408	3,472	16				3	1	1	3	3	68		1
8192			2,898	3,651	1,932	3,651	3,795	3,658	1,863	3,525	1,242	3,525	414	3,523	16				3	1	1	3	3	69		1
8192			2,940	3,704	1,960	3,704	3,850	3,711	1,890	3,576	1,260	3,576	420	3,574	16				3	1	1	3	3	70		1
8192			2,982	3,757	1,988	3,757	3,905	3,764	1,917	3,627	1,278	3,627	426	3,625	16				3	1	1	4	3	71		2
8192			3,024	3,810	2,016	3,810	3,960	3,817	1,944	3,678	1,296	3,678	432	3,676	16				3	1	1	4	3	72		2
8192			3,066	3,863	2,044	3,863	4,015	3,870	1,971	3,729	1,314	3,729	438	3,727	16				3	1	1	4	3	73		2
8192			3,108	3,916	2,072	3,916	4,070	3,923	1,998	3,780	1,332	3,780	444	3,778	16				3	1	1	4	3	74		2
8192			3,150	3,969	2,100	3,969			2,025	3,831	1,350	3,831	450	3,830	16				3	1	1	4	3	75		2
8192			3,192	4,022	2,128	4,022			2,052	3,882	1,368	3,882	456	3,881	16				3	1	1	4	3	76		2
8192			3,234	4,075	2,156	4,075			2,079	3,933	1,386	3,933	462	3,932	16				3	1	1	4	3	77		2
8192			3,276	4,128	2,184	4,128			2,106	3,985	1,404	3,985	468	3,983	16				3	1	1	4	3	78		2
8192			3,318	4,181	2,212	4,181			2,133	4,036	1,422	4,036	474	4,034	16				3	1	1	4	3	79		2
8192			3,360	4,234	2,240	4,234			2,160	4,087	1,440	4,087	480	4,085	16				3	1	1	4	3	80		2
8192			3,402	4,287	2,268	4,287			2,187	4,138	1,458	4,138	486	4,136	16				3	1	1	4	3	81		2
8192			3,444	4,339	2,296	4,339			2,214	4,189	1,476	4,189	492	4,187	16				3	1	1	4	3	82		2
8192			3,486	4,392	2,324	4,392			2,241	4,240	1,494	4,240	498	4,238	16				3	1	1	4	4	83		2
8192			3,528	4,445	2,352	4,445			2,268	4,291	1,512	4,291	504	4,289	16				3	1	1	4	4	84		2
8192			3,570	4,498	2,380	4,498			2,295	4,342	1,530	4,342	510	4,340	16				3	1	1	4	4	85		2
8192			3,612	4,551	2,408	4,551			2,322	4,393	1,548	4,393	516	4,391	16				3	1	1	4	4	86		2
8192			3,654	4,604	2,436	4,604			2,349	4,444	1,566	4,444	522	4,442	16				3	1	1	4	4	87		2
8192			3,696	4,657	2,464	4,657			2,376	4,495	1,584	4,495	528	4,493	16				3	1	1	4	4	88		2
8192			3,738	4,710	2,492	4,710			2,403	4,546	1,602	4,546	534	4,544	16				3	1	1	4	4	89		2
8192			3,780	4,763	2,520	4,763			2,430	4,598	1,620	4,598	540	4,595	16				3	1	1	4	4	90		2
8192			3,822	4,816	2,548	4,816			2,457	4,649	1,638	4,649	546	4,646	16				3	1	1	4	4	91		2
8192			3,864	4,869	2,576	4,869			2,484	4,700	1,656	4,700	552	4,698	16				3	1	1	4	4	92		2
8192			3,906	4,922	2,604	4,922			2,511	4,751	1,674	4,751	558	4,749	16				3	1	1	4	4	93		2
8192			3,948	4,974	2,632	4,974			2,538	4,802	1,692	4,802	564	4,800	16				3	1	1	4	4	94		2
8192			3,990	5,027	2,660	5,027			2,565	4,853	1,710	4,853	570	4,851	16				3	1	1	5	4	95		3
8192			4,032	5,080	2,688	5,080			2,592	4,904	1,728	4,904	576	4,902	16				3	1	1	5	4	96		3
8192			4,074	5,133	2,716	5,133			2,619	4,955	1,746	4,955	582	4,953	16				3	1	1	5	4	97		3
8192					2,744	5,186			2,646	5,006	1,764	5,006	588	5,004	16				3	1	1	5	4	98		3
8192					2,772	5,239			2,673	5,057	1,782	5,057	594	5,055	16				3	1	1	5	4	99		3
8192					2,800	5,292			2,700	5,108	1,800	5,108	600	5,106	16				3	1	1	5	4	100		3
8192					2,828	5,345			2,727	5,159	1,818	5,159	606	5,157	16				3	1	1	5	4	101		3
8192					2,856	5,398			2,754	5,211	1,836	5,211	612	5,208	16				3	1	1	5	4	102		3
8192					2,884	5,451			2,781	5,262	1,854	5,262	618	5,259	16				3	1	1	5	5	103		3
8192					2,912	5,504			2,808	5,313	1,872	5,313	624	5,310	16				3	1	1	5	5	104		3
8192					2,940	5,557			2,835	5,364	1,890	5,364	630	5,361	16				3	1	1	5	5	105		3
8192					2,968	5,610			2,862	5,415	1,908	5,415	636	5,412	16				3	1	1	5	5	106		3
8192					2,996	5,662			2,889	5,466	1,926	5,466	642	5,463	16				3	1	1	5	5	107		3
8192					3,024	5,715			2,916	5,517	1,944	5,517	648	5,514	16				3	1	1	5	5	108		3
8192					3,052	5,768			2,943	5,568	1,962	5,568	654	5,566	16				3	1	1	5	5	109		3
8192					3,080	5,821			2,970	5,619	1,980	5,619	660	5,617	16				3	1	1	5	5	110		3
8192					3,108	5,874			2,997	5,670	1,998	5,670	666	5,668	16				3	1	1	6	5	111		4
8192					3,136	5,927			3,024	5,721	2,016	5,721	672	5,719	16				3	1	1	6	5	112		4
8192					3,164	5,980			3,051	5,772	2,034	5,772	678	5,770	16				3	1	1	6	5	113		4
8192					3,192	6,033			3,078	5,824	2,052	5,824	684	5,821	16				3	1	1	6	5	114		4
8192					3,220	6,086			3,105	5,875	2,070	5,875	690	5,872	16				3	1	1	6	5	115		4
8192					3,248	6,139			3,132	5,926	2,088	5,926	696	5,923	16				3	1	1	6	5	116		4
8192					3,276	6,192			3,159	5,977	2,106	5,977	702	5,974	16				3	1	1	6	5	117		4
8192					3,304	6,245			3,186	6,028	2,124	6,028	708	6,025	16				3	1	1	6	5	118		4
8192					3,332	6,297			3,213	6,079	2,142	6,079	714	6,076	16				3	1	1	6	6	119		4
8192					3,360	6,350			3,240	6,130	2,160	6,130	720	6,127	16				3	1	1	6	6	120		4
8192					3,388	6,403			3,267	6,181	2,178	6,181	726	6,178	16				3	1	1	6	6	121		4
8192					3,416	6,456			3,294	6,232	2,196	6,232	732	6,229	16				3	1	1	6	6	122		4
8192					3,444	6,509			3,321	6,283	2,214	6,283	738	6,280	16				3	1	1	6	6	123		4
8192					3,472	6,562			3,348	6,334	2,232	6,334	744	6,331	16				3	1	1	6	6	124		4
8192					3,500	6,615			3,375	6,386	2,250	6,386	750	6,383	16			▼	3	1	1	6	6	125		4
8192					3,528	6,668			3,402	6,437	2,268	6,437	756	6,434	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(2) 18GB HDD, RAID5, for Open System

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
											512	1024	20	S256	100	R1C	L1C		B4	18J4	18J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	29	55	22	54	7	51	7	52	3	44	1			*1				1		1		
512	58	109	44	108	14	103	14	103	6	87	1			▲				1		2		
512	87	164	66	162	21	154	21	155	9	131	1							1		3		
512	116	218	88	217	28	206	28	207	12	175	1							1		4		
1024	145	273	110	271	35	257	35	258	15	219	2							1		5		
1024	174	327	132	325	42	309	42	310	18	262	2							1		6		
1024	203	382	154	379	49	360	49	362	21	306	2							1		7		
1536	232	436	176	433	56	411	56	414	24	350	3							1		8		
2048	261	491	198	487	63	463	63	465	27	393	4							1		9		
2048	290	545	220	541	70	514	70	517	30	437	4							1		10		
2048	319	600	242	596	77	566	77	569	33	481	4							1		11		
3072	348	655	264	650	84	617	84	620	36	524	6				1	1		1	1	12		
3072	377	709	286	704	91	669	91	672	39	568	6				1	1		1	1	13		
3072	406	764	308	758	98	720	98	724	42	612	6				1	1		1	1	14		
4096	435	818	330	812	105	771	105	775	45	656	8				1	1		1	1	15		
4096	464	873	352	866	112	823	112	827	48	699	8				1	1		1	1	16		
4096	493	927	374	920	119	874	119	879	51	743	8				1	1		1	1	17		
5120	522	982	396	975	126	926	126	930	54	787	10				1	1		1	1	18		
5120	551	1,036	418	1,029	133	977	133	982	57	830	10				1	1		1	1	19		
5120	580	1,091	440	1,083	140	1,029	140	1,034	60	874	10				1	1		1	1	20		
5120	609	1,146	462	1,137	147	1,080	147	1,085	63	918	10				1	1		1	1	21		
5120	638	1,200	484	1,191	154	1,131	154	1,137	66	961	10				1	1		1	1	22		
5120	667	1,255	506	1,245	161	1,183	161	1,189	69	1,005	12				1	1		1	1	23		
6144	696	1,309	528	1,299	168	1,234	168	1,241	72	1,049	12				1	1		2	1	24		1
6144	725	1,364	550	1,354	175	1,286	175	1,292	75	1,093	12				1	1		2	1	25		1
7168	754	1,418	572	1,408	182	1,337	182	1,344	78	1,136	14				1	1		2	1	26		1
7168	783	1,473	594	1,462	189	1,389	189	1,396	81	1,180	14				1	1		2	1	27		1
7168	812	1,527	616	1,516	196	1,440	196	1,447	84	1,224	14				1	1		2	1	28		1
7168	841	1,582	638	1,570	203	1,491	203	1,499	87	1,267	14				1	1		2	1	29		1
7168	870	1,636	660	1,624	210	1,543	210	1,551	90	1,311	14				1	1		2	1	30		1
7168	899	1,691	682	1,678	217	1,594	217	1,602	93	1,355	14				1	1		2	1	31		1
7168	928	1,746	704	1,733	224	1,646	224	1,654	96	1,399	14				1	1		2	1	32		1
7168	957	1,800	726	1,787	231	1,697	231	1,706	99	1,442	14				1	1		2	1	33		1
7168	986	1,855	748	1,841	238	1,749	238	1,757	102	1,486	14				1	1		2	1	34		1
7168	1,015	1,909	770	1,895	245	1,800	245	1,809	105	1,530	14				1	1		2	1	35		1
7168	1,044	1,964	792	1,949	252	1,851	252	1,861	108	1,573	14		1		1	1		2	2	36		1
7168	1,073	2,018	814	2,003	259	1,903	259	1,912	111	1,617	14		1		1	1		2	2	37		1
7168	1,102	2,073	836	2,057	266	1,954	266	1,964	114	1,661	14		1		1	1		2	2	38		1
7168	1,131	2,127	858	2,112	273	2,006	273	2,016	117	1,704	14		1		1	1		2	2	39		1
7168	1,160	2,182	880	2,166	280	2,057	280	2,068	120	1,748	14		1		1	1		2	2	40		1
7168	1,189	2,237	902	2,220	287	2,109	287	2,119	123	1,792	14		1		1	1		2	2	41		1
7168	1,218	2,291	924	2,274	294	2,160	294	2,171	126	1,836	14		1		1	1		2	2	42		1
7168	1,247	2,346	946	2,328	301	2,211	301	2,223	129	1,879	14		1		1	1		2	2	43		1
7168	1,276	2,400	968	2,382	308	2,263	308	2,274	132	1,923	14		1		1	1		2	2	44		1
7168	1,305	2,455	990	2,436	315	2,314	315	2,326	135	1,967	14		1		1	1		2	2	45		1
7168	1,334	2,509	1,012	2,491	322	2,366	322	2,378	138	2,010	14		1		1	1		2	2	46		1
7168	1,363	2,564	1,034	2,545	329	2,417	329	2,429	141	2,054	14		1		1	1		2	2	47		1
7168	1,392	2,618	1,056	2,599	336	2,469	336	2,481	144	2,098	14		1		2	1	1	3	2	48		1
7168	1,421	2,673	1,078	2,653	343	2,520	343	2,533	147	2,141	14		1		2	1	1	3	2	49		1
7168	1,450	2,727	1,100	2,707	350	2,571	350	2,584	150	2,185	14		1		2	1	1	3	2	50		1
7168	1,479	2,782	1,122	2,761	357	2,623	357	2,636	153	2,229	14		1		2	1	1	3	2	51		1
7168	1,508	2,837	1,144	2,815	364	2,674	364	2,688	156	2,273	14		1		2	1	1	3	2	52		1
7168	1,537	2,891	1,166	2,870	371	2,726	371	2,739	159	2,316	14		1		2	1	1	3	2	53		1
7168	1,566	2,946	1,188	2,924	378	2,777	378	2,791	162	2,360	14		1		2	1	1	3	2	54		1
7168	1,595	3,000	1,210	2,978	385	2,829	385	2,843	165	2,404	14		1		2	1	1	3	2	55		1
7168	1,624	3,055	1,232	3,032	392	2,880	392	2,895	168	2,447	14		1		2	1	1	3	2	56		1
8192	1,653	3,109	1,254	3,086	399	2,931	399	2,946	171	2,491	16		1		2	1	1	3	2	57		1
8192	1,682	3,164	1,276	3,140	406	2,983	406	2,998	174	2,535	16		1		2	1	1	3	2	58		1
8192	1,711	3,218	1,298	3,194	413	3,034	413	3,050	177	2,579	16		1		3	1	1	3	3	59		1
8192	1,740	3,273	1,320	3,249	420	3,086	420	3,101	180	2,622	16		1		3	1	1	3	3	60		1
8192	1,769	3,327	1,342	3,303	427	3,137	427	3,153	183	2,666	16		1		3	1	1	3	3	61		1
8192	1,798	3,382	1,364	3,357	434	3,189	434	3,205	186	2,710	16		1		3	1	1	3	3	62		1
8192	1,827	3,437	1,386	3,411	441	3,240	441	3,256	189	2,753	16		1		3	1	1	3	3	63		1
8192	1,856	3,491	1,408	3,465	448	3,291	448	3,308	192	2,797	16		1		3	1	1	3	3	64		1
8192	1,885	3,546	1,430	3,519	455	3,343	455	3,360	195	2,841	16		1	▼	3	1	1	3	3	65		1
8192	1,914	3,600	1,452	3,573	462	3,394	462	3,411	198	2,884	16		1	*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	18J4	18J1	EXC
8192	1,943	3,655	1,474	3,628	469	3,446	469	3,463	201	2,928	16		1	*1	3	1	1	3	3	67		1
8192	1,972	3,709	1,496	3,682	476	3,497	476	3,515	204	2,972	16		1	▲	3	1	1	3	3	68		1
8192	2,001	3,764	1,518	3,736	483	3,549	483	3,566	207	3,016	16		1		3	1	1	3	3	69		1
8192	2,030	3,818	1,540	3,790	490	3,600	490	3,618	210	3,059	16		1		3	1	1	3	3	70		1
8192	2,059	3,873	1,562	3,844	497	3,651	497	3,670	213	3,103	16		1		3	1	1	4	3	71		2
8192	2,088	3,928	1,584	3,898	504	3,703	504	3,722	216	3,147	16		1		3	1	1	4	3	72		2
8192	2,117	3,982	1,606	3,952	511	3,754	511	3,773	219	3,190	16		1		3	1	1	4	3	73		2
8192	2,146	4,037	1,628	4,007	518	3,806	518	3,825	222	3,234	16		1		3	1	1	4	3	74		2
8192	2,175	4,091	1,650	4,061	525	3,857	525	3,877	225	3,278	16		1		3	1	1	4	3	75		2
8192	2,204	4,146	1,672	4,115	532	3,909	532	3,928	228	3,322	16		1		3	1	1	4	3	76		2
8192	2,233	4,200	1,694	4,169	539	3,960	539	3,980	231	3,365	16		1		3	1	1	4	3	77		2
8192	2,262	4,255	1,716	4,223	546	4,011	546	4,032	234	3,409	16		1		3	1	1	4	3	78		2
8192	2,291	4,309	1,738	4,277	553	4,063	553	4,083	237	3,453	16		1		3	1	1	4	3	79		2
8192	2,320	4,364	1,760	4,331	560	4,114	560	4,135	240	3,496	16		1		3	1	1	4	3	80		2
8192	2,349	4,418	1,782	4,386	567	4,166	567	4,187	243	3,540	16		1		3	1	1	4	3	81		2
8192	2,378	4,473	1,804	4,440	574	4,217	574	4,238	246	3,584	16		1		3	1	1	4	3	82		2
8192	2,407	4,528	1,826	4,494	581	4,269	581	4,290	249	3,627	16		1		3	1	1	4	4	83		2
8192	2,436	4,582	1,848	4,548	588	4,320	588	4,342	252	3,671	16		1		3	1	1	4	4	84		2
8192	2,465	4,637	1,870	4,602	595	4,371	595	4,393	255	3,715	16		1		3	1	1	4	4	85		2
8192	2,494	4,691	1,892	4,656	602	4,423	602	4,445	258	3,759	16		1		3	1	1	4	4	86		2
8192	2,523	4,746	1,914	4,710	609	4,474	609	4,497	261	3,802	16		1		3	1	1	4	4	87		2
8192	2,552	4,800	1,936	4,764	616	4,526	616	4,549	264	3,846	16		1		3	1	1	4	4	88		2
8192	2,581	4,855	1,958	4,819	623	4,577	623	4,600	267	3,890	16		1		3	1	1	4	4	89		2
8192	2,610	4,909	1,980	4,873	630	4,629	630	4,652	270	3,933	16		1		3	1	1	4	4	90		2
8192	2,639	4,964	2,002	4,927	637	4,680	637	4,704	273	3,977	16		1		3	1	1	4	4	91		2
8192	2,668	5,019	2,024	4,981	644	4,731	644	4,755	276	4,021	16		1		3	1	1	4	4	92		2
8192	2,697	5,073	2,046	5,035	651	4,783	651	4,807	279	4,064	16		1		3	1	1	4	4	93		2
8192	2,726	5,128	2,068	5,089	658	4,834	658	4,859	282	4,108	16		1		3	1	1	4	4	94		2
8192	2,755	5,182	2,090	5,143	665	4,886	665	4,910	285	4,152	16		1		3	1	1	5	4	95		3
8192	2,784	5,237	2,112	5,198	672	4,937	672	4,962	288	4,196	16		1		3	1	1	5	4	96		3
8192	2,813	5,291	2,134	5,252	679	4,989	679	5,014	291	4,239	16		1		3	1	1	5	4	97		3
8192	2,842	5,346	2,156	5,306	686	5,040	686	5,065	294	4,283	16		1		3	1	1	5	4	98		3
8192	2,871	5,400	2,178	5,360	693	5,091	693	5,117	297	4,327	16		1		3	1	1	5	4	99		3
8192	2,900	5,455	2,200	5,414	700	5,143	700	5,169	300	4,370	16		1		3	1	1	5	4	100		3
8192	2,929	5,509	2,222	5,468	707	5,194	707	5,220	303	4,414	16		1		3	1	1	5	4	101		3
8192	2,958	5,564	2,244	5,522	714	5,246	714	5,272	306	4,458	16		1		3	1	1	5	4	102		3
8192	2,987	5,619	2,266	5,577	721	5,297	721	5,324	309	4,502	16		1		3	1	1	5	5	103		3
8192	3,016	5,673	2,288	5,631	728	5,349	728	5,376	312	4,545	16		1		3	1	1	5	5	104		3
8192	3,045	5,728	2,310	5,685	735	5,400	735	5,427	315	4,589	16		1		3	1	1	5	5	105		3
8192	3,074	5,782	2,332	5,739	742	5,451	742	5,479	318	4,633	16		1		3	1	1	5	5	106		3
8192	3,103	5,837	2,354	5,793	749	5,503	749	5,531	321	4,676	16		1		3	1	1	5	5	107		3
8192	3,132	5,891	2,376	5,847	756	5,554	756	5,582	324	4,720	16		1		3	1	1	5	5	108		3
8192	3,161	5,946	2,398	5,901	763	5,606	763	5,634	327	4,764	16		1		3	1	1	5	5	109		3
8192	3,190	6,000	2,420	5,956	770	5,657	770	5,686	330	4,807	16		1		3	1	1	5	5	110		3
8192	3,219	6,055	2,442	6,010	777	5,709	777	5,737	333	4,851	16		1		3	1	1	6	5	111		4
8192	3,248	6,109	2,464	6,064	784	5,760	784	5,789	336	4,895	16		1		3	1	1	6	5	112		4
8192	3,277	6,164	2,486	6,118	791	5,811	791	5,841	339	4,939	16		1		3	1	1	6	5	113		4
8192	3,306	6,219	2,508	6,172	798	5,863	798	5,892	342	4,982	16		1		3	1	1	6	5	114		4
8192	3,335	6,273	2,530	6,226	805	5,914	805	5,944	345	5,026	16		1		3	1	1	6	5	115		4
8192	3,364	6,328	2,552	6,280	812	5,966	812	5,996	348	5,070	16		1		3	1	1	6	5	116		4
8192	3,393	6,382	2,574	6,335	819	6,017	819	6,047	351	5,113	16		1		3	1	1	6	5	117		4
8192	3,422	6,437	2,596	6,389	826	6,069	826	6,099	354	5,157	16		1		3	1	1	6	5	118		4
8192	3,451	6,491	2,618	6,443	833	6,120	833	6,151	357	5,201	16		1		3	1	1	6	6	119		4
8192	3,480	6,546	2,640	6,497	840	6,171	840	6,203	360	5,244	16		1		3	1	1	6	6	120		4
8192	3,509	6,600	2,662	6,551	847	6,223	847	6,254	363	5,288	16		1		3	1	1	6	6	121		4
8192	3,538	6,655	2,684	6,605	854	6,274	854	6,306	366	5,332	16		1		3	1	1	6	6	122		4
8192	3,567	6,710	2,706	6,659	861	6,326	861	6,358	369	5,376	16		1		3	1	1	6	6	123		4
8192	3,596	6,764	2,728	6,714	868	6,377	868	6,409	372	5,419	16		1		3	1	1	6	6	124		4
8192	3,625	6,819	2,750	6,768	875	6,429	875	6,461	375	5,463	16		1	▼	3	1	1	6	6	125		4
8192	3,654	6,873	2,772	6,822	882	6,480	882	6,513	378	5,507	16		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(3) 47GB HDD, RAID5, for Mainframe

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
									512	1024	20	S256	100	R1C	L1C	405I -14	B4	47J4	47J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	72	136	71	134	47	133	15	128	1			*1				1		1		
1024	144	272	142	269	94	267	30	255	2			▲				1		2		
1536	216	408	213	403	141	400	45	383	3							1		3		
2048	288	544	284	537	188	534	60	511	4							1		4		
3072	360	680	355	672	235	667	75	638	6							1		5		
4096	432	816	426	806	282	800	90	766	8							1		6		
5120	504	953	497	940	329	934	105	894	10							1		7		
5120	576	1,089	568	1,075	376	1,067	120	1,021	10							1		8		
6144	648	1,225	639	1,209	423	1,200	135	1,149	12							1		9		
7168	720	1,361	710	1,343	470	1,334	150	1,277	14							1		10		
7168	792	1,497	781	1,478	517	1,467	165	1,404	14							1		11		
7168	864	1,633	852	1,612	564	1,601	180	1,532	14				1	1		1	1	12		
7168	936	1,769	923	1,746	611	1,734	195	1,659	14				1	1		1	1	13		
7168	1,008	1,905	994	1,881	658	1,867	210	1,787	14				1	1		1	1	14		
7168	1,080	2,041	1,065	2,015	705	2,001	225	1,915	14				1	1		1	1	15		
7168	1,152	2,177	1,136	2,149	752	2,134	240	2,042	14				1	1		1	1	16		
7168	1,224	2,313	1,207	2,284	799	2,268	255	2,170	14				1	1		1	1	17		
7168	1,296	2,449	1,278	2,418	846	2,401	270	2,298	14				1	1		1	1	18		
7168	1,368	2,586	1,349	2,552	893	2,534	285	2,425	14				1	1		1	1	19		
7168	1,440	2,722	1,420	2,687	940	2,668	300	2,553	14				1	1		1	1	20		
7168	1,512	2,858	1,491	2,821	987	2,801	315	2,681	14				1	1		1	1	21		
8192	1,584	2,994	1,562	2,955	1,034	2,934	330	2,808	16				1	1		1	1	22		
8192	1,656	3,130	1,633	3,090	1,081	3,068	345	2,936	16				1	1		1	1	23		
8192	1,728	3,266	1,704	3,224	1,128	3,201	360	3,064	16				1	1		2	1	24		1
8192	1,800	3,402	1,775	3,358	1,175	3,335	375	3,191	16				1	1		2	1	25		1
8192	1,872	3,538	1,846	3,493	1,222	3,468	390	3,319	16				1	1		2	1	26		1
8192	1,944	3,674	1,917	3,627	1,269	3,601	405	3,447	16				1	1		2	1	27		1
8192	2,016	3,810	1,988	3,761	1,316	3,735	420	3,574	16				1	1		2	1	28		1
8192	2,088	3,946	2,059	3,896	1,363	3,868	435	3,702	16				1	1		2	1	29		1
8192	2,160	4,082	2,130	4,030	1,410	4,002	450	3,830	16				1	1		2	1	30		1
8192	2,232	4,218	2,201	4,164	1,457	4,135	465	3,957	16				1	1		2	1	31		1
8192	2,304	4,355	2,272	4,299	1,504	4,268	480	4,085	16				1	1		2	1	32		1
8192	2,376	4,491	2,343	4,433	1,551	4,402	495	4,212	16				1	1		2	1	33		1
8192	2,448	4,627	2,414	4,567	1,598	4,535	510	4,340	16				1	1		2	1	34		1
8192	2,520	4,763	2,485	4,702	1,645	4,669	525	4,468	16				1	1		2	1	35		1
8192	2,592	4,899	2,556	4,836	1,692	4,802	540	4,595	16				1	1		2	2	36		1
8192	2,664	5,035	2,627	4,970	1,739	4,935	555	4,723	16				1	1		2	2	37		1
8192	2,736	5,171	2,698	5,105	1,786	5,069	570	4,851	16				1	1		2	2	38		1
8192	2,808	5,307	2,769	5,239	1,833	5,202	585	4,978	16				1	1		2	2	39		1
8192	2,880	5,443	2,840	5,373	1,880	5,335	600	5,106	16				1	1		2	2	40		1
8192	2,952	5,579	2,911	5,508	1,927	5,469	615	5,234	16				1	1		2	2	41		1
8192	3,024	5,715	2,982	5,642	1,974	5,602	630	5,361	16				1	1		2	2	42		1
8192	3,096	5,851	3,053	5,776	2,021	5,736	645	5,489	16				1	1		2	2	43		1
8192	3,168	5,988	3,124	5,911	2,068	5,869	660	5,617	16				1	1		2	2	44		1
8192	3,240	6,124	3,195	6,045	2,115	6,002	675	5,744	16				1	1		2	2	45		1
8192	3,312	6,260	3,266	6,179	2,162	6,136	690	5,872	16				1	1		2	2	46		1
8192	3,384	6,396	3,337	6,314	2,209	6,269	705	6,000	16				1	1		2	2	47		1
8192	3,456	6,532	3,408	6,448	2,256	6,403	720	6,127	16				2	1	1	3	2	48		1
8192	3,528	6,668	3,479	6,582	2,303	6,536	735	6,255	16				2	1	1	3	2	49		1
8192	3,600	6,804	3,550	6,717	2,350	6,669	750	6,383	16				2	1	1	3	2	50		1
8192	3,672	6,940	3,621	6,851	2,397	6,803	765	6,510	16				2	1	1	3	2	51		1
8192	3,744	7,076	3,692	6,985	2,444	6,936	780	6,638	16				2	1	1	3	2	52		1
8192	3,816	7,212	3,763	7,120	2,491	7,069	795	6,765	16				2	1	1	3	2	53		1
8192	3,888	7,348	3,834	7,254	2,538	7,203	810	6,893	16				2	1	1	3	2	54		1
9216	3,960	7,484	3,905	7,388	2,585	7,336	825	7,021	18		1		2	1	1	3	2	55		1
9216	4,032	7,620	3,976	7,523	2,632	7,470	840	7,148	18		1		2	1	1	3	2	56		1
9216			4,047	7,657	2,679	7,603	855	7,276	18		1		2	1	1	3	2	57		1
9216					2,726	7,736	870	7,404	18		1		2	1	1	3	2	58		1
9216					2,773	7,870	885	7,531	18		1		3	1	1	3	3	59		1
9216					2,820	8,003	900	7,659	18		1		3	1	1	3	3	60		1
9216					2,867	8,137	915	7,787	18		1		3	1	1	3	3	61		1
9216					2,914	8,270	930	7,914	18		1		3	1	1	3	3	62		1
9216					2,961	8,403	945	8,042	18		1		3	1	1	3	3	63		1
9216					3,008	8,537	960	8,170	18		1		3	1	1	3	3	64		1
9216					3,055	8,670	975	8,297	18		1	▼	3	1	1	3	3	65		1
9216					3,102	8,803	990	8,425	18		1	*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	47J4	47J1	EXC
9216					3,149	8,937	1,005	8,553	18		1	*1	3	1	1	3	3	67		1
9216					3,196	9,070	1,020	8,680	18		1	▲	3	1	1	3	3	68		1
9216					3,243	9,204	1,035	8,808	18		1		3	1	1	3	3	69		1
9216					3,290	9,337	1,050	8,936	18		1		3	1	1	3	3	70		1
9216					3,337	9,470	1,065	9,063	18		1		3	1	1	4	3	71		2
9216					3,384	9,604	1,080	9,191	18		1		3	1	1	4	3	72		2
9216					3,431	9,737	1,095	9,318	18		1		3	1	1	4	3	73		2
9216					3,478	9,871	1,110	9,446	18		1		3	1	1	4	3	74		2
9216					3,525	10,004	1,125	9,574	18		1		3	1	1	4	3	75		2
9216					3,572	10,137	1,140	9,701	18		1		3	1	1	4	3	76		2
9216					3,619	10,271	1,155	9,829	18		1		3	1	1	4	3	77		2
9216					3,666	10,404	1,170	9,957	18		1		3	1	1	4	3	78		2
9216					3,713	10,537	1,185	10,084	18		1		3	1	1	4	3	79		2
9216					3,760	10,671	1,200	10,212	18		1		3	1	1	4	3	80		2
9216					3,807	10,804	1,215	10,340	18		1		3	1	1	4	3	81		2
9216					3,854	10,938	1,230	10,467	18		1		3	1	1	4	3	82		2
9216					3,901	11,071	1,245	10,595	18		1		3	1	1	4	4	83		2
9216					3,948	11,204	1,260	10,723	18		1		3	1	1	4	4	84		2
9216					3,995	11,338	1,275	10,850	18		1		3	1	1	4	4	85		2
9216					4,042	11,471	1,290	10,978	18		1		3	1	1	4	4	86		2
9216					4,089	11,605	1,305	11,106	18		1		3	1	1	4	4	87		2
10240							1,320	11,233	20		1		3	1	1	4	4	88		2
10240							1,335	11,361	20		1		3	1	1	4	4	89		2
10240							1,350	11,489	20		1		3	1	1	4	4	90		2
10240							1,365	11,616	20		1		3	1	1	4	4	91		2
10240							1,380	11,744	20		1		3	1	1	4	4	92		2
10240							1,395	11,871	20		1		3	1	1	4	4	93		2
10240							1,410	11,999	20		1		3	1	1	4	4	94		2
10240							1,425	12,127	20		1		3	1	1	5	4	95		3
10240							1,440	12,254	20		1		3	1	1	5	4	96		3
10240							1,455	12,382	20		1		3	1	1	5	4	97		3
10240							1,470	12,510	20		1		3	1	1	5	4	98		3
10240							1,485	12,637	20		1		3	1	1	5	4	99		3
10240							1,500	12,765	20		1		3	1	1	5	4	100		3
10240							1,515	12,893	20		1		3	1	1	5	4	101		3
10240							1,530	13,020	20		1		3	1	1	5	4	102		3
10240							1,545	13,148	20		1		3	1	1	5	5	103		3
10240							1,560	13,276	20		1		3	1	1	5	5	104		3
10240							1,575	13,403	20		1		3	1	1	5	5	105		3
10240							1,590	13,531	20		1		3	1	1	5	5	106		3
10240							1,605	13,659	20		1		3	1	1	5	5	107		3
10240							1,620	13,786	20		1		3	1	1	5	5	108		3
10240							1,635	13,914	20		1		3	1	1	5	5	109		3
10240							1,650	14,042	20		1		3	1	1	5	5	110		3
10240							1,665	14,169	20		1		3	1	1	6	5	111		4
10240							1,680	14,297	20		1		3	1	1	6	5	112		4
10240							1,695	14,424	20		1		3	1	1	6	5	113		4
10240							1,710	14,552	20		1		3	1	1	6	5	114		4
10240							1,725	14,680	20		1		3	1	1	6	5	115		4
10240							1,740	14,807	20		1		3	1	1	6	5	116		4
10240							1,755	14,935	20		1		3	1	1	6	5	117		4
10240							1,770	15,063	20		1		3	1	1	6	5	118		4
10240							1,785	15,190	20		1		3	1	1	6	6	119		4
10240							1,800	15,318	20		1		3	1	1	6	6	120		4
10240							1,815	15,446	20		1		3	1	1	6	6	121		4
10240							1,830	15,573	20		1		3	1	1	6	6	122		4
10240							1,845	15,701	20		1		3	1	1	6	6	123		4
10240							1,860	15,829	20		1		3	1	1	6	6	124		4
10240							1,875	15,956	20		1	▼	3	1	1	6	6	125		4
10240							1,890	16,084	20		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(4) 47GB HDD, RAID5, for Open System

Cache (MB)	Storage Capacity (GB)												Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-M (47.185GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
													512	1024	20	S256	100	R1C	L1C		B4	47J4	47J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	75	141	57	140	19	140	19	140	9	131	3	141	1			*1				1		1		
1024	150	282	114	281	38	279	38	281	18	262	6	283	2			▲				1		2		
1536	225	423	171	421	57	419	57	421	27	393	9	424	3							1		3		
2048	300	564	228	561	76	558	76	561	36	524	12	566	4							1		4		
3072	375	705	285	701	95	698	95	701	45	656	15	707	6							1		5		
4096	450	846	342	842	114	838	114	842	54	787	18	849	8							1		6		
5120	525	988	399	982	133	977	133	982	63	918	21	990	10							1		7		
5120	600	1,129	456	1,122	152	1,117	152	1,122	72	1,049	24	1,132	10							1		8		
6144	675	1,270	513	1,262	171	1,256	171	1,263	81	1,180	27	1,273	12							1		9		
7168	750	1,411	570	1,403	190	1,396	190	1,403	90	1,311	30	1,415	14							1		10		
7168	825	1,552	627	1,543	209	1,536	209	1,543	99	1,442	33	1,557	14							1		11		
7168	900	1,693	684	1,683	228	1,675	228	1,684	108	1,573	36	1,698	14					1	1	1	1	12		
7168	975	1,834	741	1,824	247	1,815	247	1,824	117	1,704	39	1,840	14					1	1	1	1	13		
7168	1,050	1,975	798	1,964	266	1,954	266	1,964	126	1,836	42	1,981	14					1	1	1	1	14		
7168	1,125	2,116	855	2,104	285	2,094	285	2,104	135	1,967	45	2,123	14					1	1	1	1	15		
7168	1,200	2,257	912	2,244	304	2,233	304	2,245	144	2,098	48	2,264	14					1	1	1	1	16		
7168	1,275	2,398	969	2,385	323	2,373	323	2,385	153	2,229	51	2,406	14					1	1	1	1	17		
7168	1,350	2,539	1,026	2,525	342	2,513	342	2,525	162	2,360	54	2,547	14					1	1	1	1	18		
7168	1,425	2,680	1,083	2,665	361	2,652	361	2,666	171	2,491	57	2,689	14					1	1	1	1	19		
7168	1,500	2,822	1,140	2,806	380	2,792	380	2,806	180	2,622	60	2,831	14					1	1	1	1	20		
7168	1,575	2,963	1,197	2,946	399	2,931	399	2,946	189	2,753	63	2,972	14					1	1	1	1	21		
8192	1,650	3,104	1,254	3,086	418	3,071	418	3,087	198	2,884	66	3,114	16					1	1	1	1	22		
8192	1,725	3,245	1,311	3,226	437	3,211	437	3,227	207	3,016	69	3,255	16					1	1	1	1	23		
8192	1,800	3,386	1,368	3,367	456	3,350	456	3,367	216	3,147	72	3,397	16					1	1	2	1	24		1
8192	1,875	3,527	1,425	3,507	475	3,490	475	3,507	225	3,278	75	3,538	16					1	1	2	1	25		1
8192	1,950	3,668	1,482	3,647	494	3,629	494	3,648	234	3,409	78	3,680	16					1	1	2	1	26		1
8192	2,025	3,809	1,539	3,787	513	3,769	513	3,788	243	3,540	81	3,821	16					1	1	2	1	27		1
8192	2,100	3,950	1,596	3,928	532	3,909	532	3,928	252	3,671	84	3,963	16					1	1	2	1	28		1
8192	2,175	4,091	1,653	4,068	551	4,048	551	4,069	261	3,802	87	4,105	16					1	1	2	1	29		1
8192	2,250	4,232	1,710	4,208	570	4,188	570	4,209	270	3,933	90	4,246	16					1	1	2	1	30		1
8192	2,325	4,373	1,767	4,349	589	4,327	589	4,349	279	4,064	93	4,388	16					1	1	2	1	31		1
8192	2,400	4,514	1,824	4,489	608	4,467	608	4,489	288	4,196	96	4,529	16					1	1	2	1	32		1
8192	2,475	4,655	1,881	4,629	627	4,607	627	4,630	297	4,327	99	4,671	16					1	1	2	1	33		1
8192	2,550	4,797	1,938	4,769	646	4,746	646	4,770	306	4,458	102	4,812	16					1	1	2	1	34		1
8192	2,625	4,938	1,995	4,910	665	4,886	665	4,910	315	4,589	105	4,954	16					1	1	2	1	35		1
8192	2,700	5,079	2,052	5,050	684	5,025	684	5,051	324	4,720	108	5,095	16		1			1	1	2	2	36		1
8192	2,775	5,220	2,109	5,190	703	5,165	703	5,191	333	4,851	111	5,237	16		1			1	1	2	2	37		1
8192	2,850	5,361	2,166	5,331	722	5,305	722	5,331	342	4,982	114	5,379	16		1			1	1	2	2	38		1
8192	2,925	5,502	2,223	5,471	741	5,444	741	5,472	351	5,113	117	5,520	16		1			1	1	2	2	39		1
8192	3,000	5,643	2,280	5,611	760	5,584	760	5,612	360	5,244	120	5,662	16		1			1	1	2	2	40		1
8192	3,075	5,784	2,337	5,751	779	5,723	779	5,752	369	5,376	123	5,803	16		1			1	1	2	2	41		1
8192	3,150	5,925	2,394	5,892	798	5,863	798	5,892	378	5,507	126	5,945	16		1			1	1	2	2	42		1
8192	3,225	6,066	2,451	6,032	817	6,002	817	6,033	387	5,638	129	6,086	16		1			1	1	2	2	43		1
8192	3,300	6,207	2,508	6,172	836	6,142	836	6,173	396	5,769	132	6,228	16		1			1	1	2	2	44		1
8192	3,375	6,348	2,565	6,312	855	6,282	855	6,313	405	5,900	135	6,369	16		1			1	1	2	2	45		1
8192	3,450	6,489	2,622	6,453	874	6,421	874	6,454	414	6,031	138	6,511	16		1			1	1	2	2	46		1
8192	3,525	6,631	2,679	6,593	893	6,561	893	6,594	423	6,162	141	6,653	16		1			1	1	2	2	47		1
8192	3,600	6,772	2,736	6,733	912	6,700	912	6,734	432	6,293	144	6,794	16		1			2	1	1	3	2	48		1
8192	3,675	6,913	2,793	6,874	931	6,840	931	6,875	441	6,424	147	6,936	16		1			2	1	1	3	2	49		1
8192	3,750	7,054	2,850	7,014	950	6,980	950	7,015	450	6,556	150	7,077	16		1			2	1	1	3	2	50		1
8192	3,825	7,195	2,907	7,154	969	7,119	969	7,155	459	6,687	153	7,219	16		1			2	1	1	3	2	51		1
8192	3,900	7,336	2,964	7,294	988	7,259	988	7,295	468	6,818	156	7,360	16		1			2	1	1	3	2	52		1
8192	3,975	7,477	3,021	7,435	1,007	7,398	1,007	7,436	477	6,949	159	7,502	16		1			2	1	1	3	2	53		1
8192	4,050	7,618	3,078	7,575	1,026	7,538	1,026	7,576	486	7,080	162	7,643	16		1			2	1	1	3	2	54		1
9216			3,135	7,715	1,045	7,678	1,045	7,716	495	7,211	165	7,785	18		1			2	1	1	3	2	55		1
9216			3,192	7,856	1,064	7,817	1,064	7,857	504	7,342	168	7,927	18		1			2	1	1	3	2	56		1
9216			3,249	7,996	1,083	7,957	1,083	7,997	513	7,473	171	8,068	18		1			2	1	1	3	2	57		1
9216			3,306	8,136	1,102	8,096	1,102	8,137	522	7,604	174	8,210	18		1			2	1	1	3	2	58		1
9216			3,363	8,276	1,121	8,236	1,121	8,277	531	7,736	177	8,351	18		1			3	1	1	3	3	59		1
9216			3,420	8,417	1,140	8,376	1,140	8,418	540	7,867	180	8,493	18		1			3	1	1	3	3	60		1
9216			3,477	8,557	1,159	8,515	1,159	8,558	549	7,998	183	8,634	18		1			3	1	1	3	3	61		1
9216			3,534	8,697	1,178	8,655	1,178	8,698	558	8,129	186	8,776	18		1			3	1	1	3	3	62		1
9216			3,591	8,837	1,197	8,794	1,197	8,839	567	8,260	189	8,917	18		1			3	1	1	3	3	63		1
9216			3,648	8,978	1,216	8,934	1,216	8,979	576	8,391	192	9,059	18		1			3	1	1	3	3	64		1
9216			3,705	9,118	1,235	9,074	1,235	9,119	585	8,522	195	9,201	18		1	▼		3	1	1	3	3	65		1
9216			3,762	9,258	1,254	9,213	1,254	9,260	594	8,653	198	9,342	18		1	*1		3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)												Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-M (47.185GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	47J4	47J1	EXC
9216			3,819	9,399	1,273	9,353	1,273	9,400	603	8,785	201	9,484	18		1	*1	3	1	1	3	3	67		1
9216			3,876	9,539	1,292	9,492	1,292	9,540	612	8,916	204	9,625	18		1	▲	3	1	1	3	3	68		1
9216			3,933	9,679	1,311	9,632	1,311	9,680	621	9,047	207	9,767	18		1		3	1	1	3	3	69		1
9216			3,990	9,819	1,330	9,772	1,330	9,821	630	9,178	210	9,908	18		1		3	1	1	3	3	70		1
9216			4,047	9,960	1,349	9,911	1,349	9,961	639	9,309	213	10,050	18		1		3	1	1	4	3	71		2
9216					1,368	10,051	1,368	10,101	648	9,440	216	10,191	18		1		3	1	1	4	3	72		2
9216					1,387	10,190	1,387	10,242	657	9,571	219	10,333	18		1		3	1	1	4	3	73		2
9216					1,406	10,330	1,406	10,382	666	9,702	222	10,475	18		1		3	1	1	4	3	74		2
9216					1,425	10,469	1,425	10,522	675	9,833	225	10,616	18		1		3	1	1	4	3	75		2
9216					1,444	10,609	1,444	10,662	684	9,965	228	10,758	18		1		3	1	1	4	3	76		2
9216					1,463	10,749	1,463	10,803	693	10,096	231	10,899	18		1		3	1	1	4	3	77		2
9216					1,482	10,888	1,482	10,943	702	10,227	234	11,041	18		1		3	1	1	4	3	78		2
9216					1,501	11,028	1,501	11,083	711	10,358	237	11,182	18		1		3	1	1	4	3	79		2
9216					1,520	11,167	1,520	11,224	720	10,489	240	11,324	18		1		3	1	1	4	3	80		2
9216					1,539	11,307	1,539	11,364	729	10,620	243	11,465	18		1		3	1	1	4	3	81		2
9216					1,558	11,447	1,558	11,504	738	10,751	246	11,607	18		1		3	1	1	4	3	82		2
9216					1,577	11,586	1,577	11,645	747	10,882	249	11,749	18		1		3	1	1	4	4	83		2
9216					1,596	11,726	1,596	11,785	756	11,013	252	11,890	18		1		3	1	1	4	4	84		2
9216					1,615	11,865	1,615	11,925	765	11,145	255	12,032	18		1		3	1	1	4	4	85		2
9216					1,634	12,005	1,634	12,065	774	11,276	258	12,173	18		1		3	1	1	4	4	86		2
9216					1,653	12,145	1,653	12,206	783	11,407	261	12,315	18		1		3	1	1	4	4	87		2
10240					1,672	12,284	1,672	12,346	792	11,538	264	12,456	20		1		3	1	1	4	4	88		2
10240					1,691	12,424	1,691	12,486	801	11,669	267	12,598	20		1		3	1	1	4	4	89		2
10240					1,710	12,563	1,710	12,627	810	11,800	270	12,739	20		1		3	1	1	4	4	90		2
10240					1,729	12,703	1,729	12,767	819	11,931	273	12,881	20		1		3	1	1	4	4	91		2
10240					1,748	12,843	1,748	12,907	828	12,062	276	13,023	20		1		3	1	1	4	4	92		2
10240					1,767	12,982	1,767	13,048	837	12,193	279	13,164	20		1		3	1	1	4	4	93		2
10240					1,786	13,122	1,786	13,188	846	12,325	282	13,306	20		1		3	1	1	4	4	94		2
10240					1,805	13,261	1,805	13,328	855	12,456	285	13,447	20		1		3	1	1	5	4	95		3
10240					1,824	13,401	1,824	13,468	864	12,587	288	13,589	20		1		3	1	1	5	4	96		3
10240					1,843	13,541	1,843	13,609	873	12,718	291	13,730	20		1		3	1	1	5	4	97		3
10240					1,862	13,680	1,862	13,749	882	12,849	294	13,872	20		1		3	1	1	5	4	98		3
10240					1,881	13,820	1,881	13,889	891	12,980	297	14,013	20		1		3	1	1	5	4	99		3
10240					1,900	13,959	1,900	14,030	900	13,111	300	14,155	20		1		3	1	1	5	4	100		3
10240					1,919	14,099	1,919	14,170	909	13,242	303	14,297	20		1		3	1	1	5	4	101		3
10240					1,938	14,238	1,938	14,310	918	13,373	306	14,438	20		1		3	1	1	5	4	102		3
10240					1,957	14,378	1,957	14,450	927	13,505	309	14,580	20		1		3	1	1	5	5	103		3
10240					1,976	14,518	1,976	14,591	936	13,636	312	14,721	20		1		3	1	1	5	5	104		3
10240					1,995	14,657	1,995	14,731	945	13,767	315	14,863	20		1		3	1	1	5	5	105		3
10240					2,014	14,797	2,014	14,871	954	13,898	318	15,004	20		1		3	1	1	5	5	106		3
10240					2,033	14,936	2,033	15,012	963	14,029	321	15,146	20		1		3	1	1	5	5	107		3
10240					2,052	15,076	2,052	15,152	972	14,160	324	15,287	20		1		3	1	1	5	5	108		3
10240					2,071	15,216	2,071	15,292	981	14,291	327	15,429	20		1		3	1	1	5	5	109		3
10240					2,090	15,355	2,090	15,433	990	14,422	330	15,571	20		1		3	1	1	5	5	110		3
10240					2,109	15,495	2,109	15,573	999	14,553	333	15,712	20		1		3	1	1	6	5	111		4
10240					2,128	15,634	2,128	15,713	1,008	14,685	336	15,854	20		1		3	1	1	6	5	112		4
10240					2,147	15,774	2,147	15,853	1,017	14,816	339	15,995	20		1		3	1	1	6	5	113		4
10240					2,166	15,914	2,166	15,994	1,026	14,947	342	16,137	20		1		3	1	1	6	5	114		4
10240					2,185	16,053	2,185	16,134	1,035	15,078	345	16,278	20		1		3	1	1	6	5	115		4
10240					2,204	16,193	2,204	16,274	1,044	15,209	348	16,420	20		1		3	1	1	6	5	116		4
10240					2,223	16,332	2,223	16,415	1,053	15,340	351	16,561	20		1		3	1	1	6	5	117		4
10240					2,242	16,472	2,242	16,555	1,062	15,471	354	16,703	20		1		3	1	1	6	5	118		4
10240					2,261	16,612	2,261	16,695	1,071	15,602	357	16,845	20		1		3	1	1	6	6	119		4
10240					2,280	16,751	2,280	16,836	1,080	15,733	360	16,986	20		1		3	1	1	6	6	120		4
10240					2,299	16,891	2,299	16,976	1,089	15,865	363	17,128	20		1		3	1	1	6	6	121		4
10240					2,318	17,030	2,318	17,116	1,098	15,996	366	17,269	20		1		3	1	1	6	6	122		4
10240					2,337	17,170	2,337	17,256	1,107	16,127	369	17,411	20		1		3	1	1	6	6	123		4
10240					2,356	17,310	2,356	17,397	1,116	16,258	372	17,552	20		1		3	1	1	6	6	124		4
10240					2,375	17,449	2,375	17,537	1,125	16,389	375	17,694	20		1	▼	3	1	1	6	6	125		4
10240					2,394	17,589	2,394	17,677	1,134	16,520	378	17,835	20		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note1: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

Note2: OPEN-M is applicable for Windows 2000 only.

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(5) 73GB HDD, RAID5, for Mainframe

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
									512	1024	20	S256	100	R1C	L1C	405I -14	B4	72J4	72J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	111	210	109	206	73	207	24	204	1			*1				1		1		
1536	222	420	218	412	146	414	48	408	3			▲				1		2		
2048	333	629	327	619	219	622	72	613	4							1		3		
4096	444	839	436	825	292	829	96	817	8							1		4		
5120	555	1,049	545	1,031	365	1,036	120	1,021	10							1		5		
6144	666	1,259	654	1,237	438	1,243	144	1,225	12							1		6		
7168	777	1,469	763	1,444	511	1,450	168	1,430	14							1		7		
7168	888	1,678	872	1,650	584	1,657	192	1,634	14							1		8		
7168	999	1,888	981	1,856	657	1,865	216	1,838	14							1		9		
7168	1,110	2,098	1,090	2,062	730	2,072	240	2,042	14							1		10		
7168	1,221	2,308	1,199	2,269	803	2,279	264	2,247	14							1		11		
7168	1,332	2,517	1,308	2,475	876	2,486	288	2,451	14				1	1		1	1	12		
7168	1,443	2,727	1,417	2,681	949	2,693	312	2,655	14				1	1		1	1	13		
7168	1,554	2,937	1,526	2,887	1,022	2,900	336	2,859	14				1	1		1	1	14		
8192	1,665	3,147	1,635	3,093	1,095	3,108	360	3,064	16				1	1		1	1	15		
8192	1,776	3,357	1,744	3,300	1,168	3,315	384	3,268	16				1	1		1	1	16		
8192	1,887	3,566	1,853	3,506	1,241	3,522	408	3,472	16				1	1		1	1	17		
8192	1,998	3,776	1,962	3,712	1,314	3,729	432	3,676	16				1	1		1	1	18		
8192	2,109	3,986	2,071	3,918	1,387	3,936	456	3,881	16				1	1		1	1	19		
8192	2,220	4,196	2,180	4,125	1,460	4,143	480	4,085	16				1	1		1	1	20		
8192	2,331	4,406	2,289	4,331	1,533	4,351	504	4,289	16				1	1		1	1	21		
8192	2,442	4,615	2,398	4,537	1,606	4,558	528	4,493	16				1	1		1	1	22		
8192	2,553	4,825	2,507	4,743	1,679	4,765	552	4,698	16				1	1		1	1	23		
8192	2,664	5,035	2,616	4,949	1,752	4,972	576	4,902	16				1	1		2	1	24		1
8192	2,775	5,245	2,725	5,156	1,825	5,179	600	5,106	16				1	1		2	1	25		1
8192	2,886	5,455	2,834	5,362	1,898	5,387	624	5,310	16				1	1		2	1	26		1
8192	2,997	5,664	2,943	5,568	1,971	5,594	648	5,514	16				1	1		2	1	27		1
8192	3,108	5,874	3,052	5,774	2,044	5,801	672	5,719	16				1	1		2	1	28		1
8192	3,219	6,084	3,161	5,981	2,117	6,008	696	5,923	16				1	1		2	1	29		1
8192	3,330	6,294	3,270	6,187	2,190	6,215	720	6,127	16				1	1		2	1	30		1
8192	3,441	6,503	3,379	6,393	2,263	6,422	744	6,331	16				1	1		2	1	31		1
8192	3,552	6,713	3,488	6,599	2,336	6,630	768	6,536	16				1	1		2	1	32		1
8192	3,663	6,923	3,597	6,806	2,409	6,837	792	6,740	16				1	1		2	1	33		1
8192	3,774	7,133	3,706	7,012	2,482	7,044	816	6,944	16				1	1		2	1	34		1
8192	3,885	7,343	3,815	7,218	2,555	7,251	840	7,148	16				1	1		2	1	35		1
9216	3,996	7,552	3,924	7,424	2,628	7,458	864	7,353	18		1		1	1		2	2	36		1
9216			4,033	7,630	2,701	7,665	888	7,557	18		1		1	1		2	2	37		1
9216					2,774	7,873	912	7,761	18		1		1	1		2	2	38		1
9216					2,847	8,080	936	7,965	18		1		1	1		2	2	39		1
9216					2,920	8,287	960	8,170	18		1		1	1		2	2	40		1
9216					2,993	8,494	984	8,374	18		1		1	1		2	2	41		1
9216					3,066	8,701	1,008	8,578	18		1		1	1		2	2	42		1
9216					3,139	8,908	1,032	8,782	18		1		1	1		2	2	43		1
9216					3,212	9,116	1,056	8,987	18		1		1	1		2	2	44		1
9216					3,285	9,323	1,080	9,191	18		1		1	1		2	2	45		1
9216					3,358	9,530	1,104	9,395	18		1		1	1		2	2	46		1
9216					3,431	9,737	1,128	9,599	18		1		1	1		2	2	47		1
9216					3,504	9,944	1,152	9,804	18		1		2	1	1	3	2	48		1
9216					3,577	10,152	1,176	10,008	18		1		2	1	1	3	2	49		1
9216					3,650	10,359	1,200	10,212	18		1		2	1	1	3	2	50		1
9216					3,723	10,566	1,224	10,416	18		1		2	1	1	3	2	51		1
9216					3,796	10,773	1,248	10,620	18		1		2	1	1	3	2	52		1
9216					3,869	10,980	1,272	10,825	18		1		2	1	1	3	2	53		1
9216					3,942	11,187	1,296	11,029	18		1		2	1	1	3	2	54		1
9216					4,015	11,395	1,320	11,233	18		1		2	1	1	3	2	55		1
9216					4,088	11,602	1,344	11,437	18		1		2	1	1	3	2	56		1
10240							1,368	11,642	20		1		2	1	1	3	2	57		1
10240							1,392	11,846	20		1		2	1	1	3	2	58		1
10240							1,416	12,050	20		1		3	1	1	3	3	59		1
10240							1,440	12,254	20		1		3	1	1	3	3	60		1
10240							1,464	12,459	20		1		3	1	1	3	3	61		1
10240							1,488	12,663	20		1		3	1	1	3	3	62		1
10240							1,512	12,867	20		1		3	1	1	3	3	63		1
10240							1,536	13,071	20		1		3	1	1	3	3	64		1
10240							1,560	13,276	20		1	▼	3	1	1	3	3	65		1
10240							1,584	13,480	20		1	*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	72J4	72J1	EXC
10240							1,608	13,684	20		1	*1	3	1	1	3	3	67		1
10240							1,632	13,888	20		1	▲	3	1	1	3	3	68		1
10240							1,656	14,093	20		1		3	1	1	3	3	69		1
10240							1,680	14,297	20		1		3	1	1	3	3	70		1
10240							1,704	14,501	20		1		3	1	1	4	3	71		2
10240							1,728	14,705	20		1		3	1	1	4	3	72		2
10240							1,752	14,910	20		1		3	1	1	4	3	73		2
10240							1,776	15,114	20		1		3	1	1	4	3	74		2
10240							1,800	15,318	20		1		3	1	1	4	3	75		2
10240							1,824	15,522	20		1		3	1	1	4	3	76		2
10240							1,848	15,726	20		1		3	1	1	4	3	77		2
10240							1,872	15,931	20		1		3	1	1	4	3	78		2
10240							1,896	16,135	20		1		3	1	1	4	3	79		2
10240							1,920	16,339	20		1		3	1	1	4	3	80		2
10240							1,944	16,543	20		1		3	1	1	4	3	81		2
10240							1,968	16,748	20		1		3	1	1	4	3	82		2
10240							1,992	16,952	20		1		3	1	1	4	4	83		2
10240							2,016	17,156	20		1		3	1	1	4	4	84		2
10240							2,040	17,360	20		1		3	1	1	4	4	85		2
10240							2,064	17,565	20		1		3	1	1	4	4	86		2
10240							2,088	17,769	20		1		3	1	1	4	4	87		2
10240							2,112	17,973	20		1		3	1	1	4	4	88		2
10240							2,136	18,177	20		1		3	1	1	4	4	89		2
10240							2,160	18,382	20		1		3	1	1	4	4	90		2
10240							2,184	18,586	20		1		3	1	1	4	4	91		2
10240							2,208	18,790	20		1		3	1	1	4	4	92		2
10240							2,232	18,994	20		1		3	1	1	4	4	93		2
10240							2,256	19,199	20		1		3	1	1	4	4	94		2
10240							2,280	19,403	20		1		3	1	1	5	4	95		3
10240							2,304	19,607	20		1		3	1	1	5	4	96		3
10240							2,328	19,811	20		1		3	1	1	5	4	97		3
10240							2,352	20,016	20		1		3	1	1	5	4	98		3
10240							2,376	20,220	20		1		3	1	1	5	4	99		3
10240							2,400	20,424	20		1		3	1	1	5	4	100		3
10240							2,424	20,628	20		1		3	1	1	5	4	101		3
10240							2,448	20,832	20		1		3	1	1	5	4	102		3
10240							2,472	21,037	20		1		3	1	1	5	5	103		3
10240							2,496	21,241	20		1		3	1	1	5	5	104		3
10240							2,520	21,445	20		1		3	1	1	5	5	105		3
10240							2,544	21,649	20		1		3	1	1	5	5	106		3
10240							2,568	21,854	20		1		3	1	1	5	5	107		3
10240							2,592	22,058	20		1		3	1	1	5	5	108		3
10240							2,616	22,262	20		1		3	1	1	5	5	109		3
10240							2,640	22,466	20		1		3	1	1	5	5	110		3
10240							2,664	22,671	20		1		3	1	1	6	5	111		4
10240							2,688	22,875	20		1		3	1	1	6	5	112		4
10240							2,712	23,079	20		1		3	1	1	6	5	113		4
10240							2,736	23,283	20		1		3	1	1	6	5	114		4
10240							2,760	23,488	20		1		3	1	1	6	5	115		4
10240							2,784	23,692	20		1		3	1	1	6	5	116		4
10240							2,808	23,896	20		1		3	1	1	6	5	117		4
10240							2,832	24,100	20		1		3	1	1	6	5	118		4
10240							2,856	24,305	20		1		3	1	1	6	6	119		4
10240							2,880	24,509	20		1		3	1	1	6	6	120		4
10240							2,904	24,713	20		1		3	1	1	6	6	121		4
10240							2,928	24,917	20		1		3	1	1	6	6	122		4
10240							2,952	25,122	20		1		3	1	1	6	6	123		4
10240							2,976	25,326	20		1		3	1	1	6	6	124		4
10240							3,000	25,530	20		1	▼	3	1	1	6	6	125		4
10240							3,024	25,734	20		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(6) 73GB HDD, RAID5, for Open System

Cache (MB)	Storage Capacity (GB)												Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
													512	1024	20	S256	100	R1C	L1C		B4	72J4	72J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	116	218	88	217	29	213	29	214	15	219	6	218	1			*1				1		1		
1536	232	436	176	433	58	426	58	428	30	437	12	437	3			▲				1		2		
2048	348	655	264	650	87	639	87	642	45	656	18	656	4							1		3		
4096	464	873	352	866	116	852	116	857	60	874	24	874	8							1		4		
5120	580	1,091	440	1,083	145	1,065	145	1,071	75	1,093	30	1,093	10							1		5		
6144	696	1,309	528	1,299	174	1,278	174	1,285	90	1,311	36	1,312	12							1		6		
7168	812	1,527	616	1,516	203	1,491	203	1,499	105	1,530	42	1,530	14							1		7		
7168	928	1,746	704	1,733	232	1,705	232	1,713	120	1,748	48	1,749	14							1		8		
7168	1,044	1,964	792	1,949	261	1,918	261	1,927	135	1,967	54	1,968	14							1		9		
7168	1,160	2,182	880	2,166	290	2,131	290	2,141	150	2,185	60	2,187	14							1		10		
7168	1,276	2,400	968	2,382	319	2,344	319	2,355	165	2,404	66	2,405	14							1		11		
7168	1,392	2,618	1,056	2,599	348	2,557	348	2,570	180	2,622	72	2,624	14					1	1	1	1	12		
7168	1,508	2,837	1,144	2,815	377	2,770	377	2,784	195	2,841	78	2,843	14					1	1	1	1	13		
7168	1,624	3,055	1,232	3,032	406	2,983	406	2,998	210	3,059	84	3,061	14					1	1	1	1	14		
8192	1,740	3,273	1,320	3,249	435	3,196	435	3,212	225	3,278	90	3,280	16					1	1	1	1	15		
8192	1,856	3,491	1,408	3,465	464	3,409	464	3,426	240	3,496	96	3,499	16					1	1	1	1	16		
8192	1,972	3,709	1,496	3,682	493	3,622	493	3,640	255	3,715	102	3,717	16					1	1	1	1	17		
8192	2,088	3,928	1,584	3,898	522	3,835	522	3,854	270	3,933	108	3,936	16					1	1	1	1	18		
8192	2,204	4,146	1,672	4,115	551	4,048	551	4,069	285	4,152	114	4,155	16					1	1	1	1	19		
8192	2,320	4,364	1,760	4,331	580	4,261	580	4,283	300	4,370	120	4,374	16					1	1	1	1	20		
8192	2,436	4,582	1,848	4,548	609	4,474	609	4,497	315	4,589	126	4,592	16					1	1	1	1	21		
8192	2,552	4,800	1,936	4,764	638	4,687	638	4,711	330	4,807	132	4,811	16					1	1	1	1	22		
8192	2,668	5,019	2,024	4,981	667	4,900	667	4,925	345	5,026	138	5,030	16					1	1	1	1	23		
8192	2,784	5,237	2,112	5,198	696	5,114	696	5,139	360	5,244	144	5,248	16					1	1	2	1	24		1
8192	2,900	5,455	2,200	5,414	725	5,327	725	5,353	375	5,463	150	5,467	16					1	1	2	1	25		1
8192	3,016	5,673	2,288	5,631	754	5,540	754	5,568	390	5,682	156	5,686	16					1	1	2	1	26		1
8192	3,132	5,891	2,376	5,847	783	5,753	783	5,782	405	5,900	162	5,904	16					1	1	2	1	27		1
8192	3,248	6,109	2,464	6,064	812	5,966	812	5,996	420	6,119	168	6,123	16					1	1	2	1	28		1
8192	3,364	6,328	2,552	6,280	841	6,179	841	6,210	435	6,337	174	6,342	16					1	1	2	1	29		1
8192	3,480	6,546	2,640	6,497	870	6,392	870	6,424	450	6,556	180	6,561	16					1	1	2	1	30		1
8192	3,596	6,764	2,728	6,714	899	6,605	899	6,638	465	6,774	186	6,779	16					1	1	2	1	31		1
8192	3,712	6,982	2,816	6,930	928	6,818	928	6,852	480	6,993	192	6,998	16					1	1	2	1	32		1
8192	3,828	7,200	2,904	7,147	957	7,031	957	7,066	495	7,211	198	7,217	16					1	1	2	1	33		1
8192	3,944	7,419	2,992	7,363	986	7,244	986	7,281	510	7,430	204	7,435	16					1	1	2	1	34		1
8192	4,060	7,637	3,080	7,580	1,015	7,457	1,015	7,495	525	7,648	210	7,654	16					1	1	2	1	35		1
9216			3,168	7,796	1,044	7,670	1,044	7,709	540	7,867	216	7,873	18		1			1	1	2	2	36		1
9216			3,256	8,013	1,073	7,883	1,073	7,923	555	8,085	222	8,091	18		1			1	1	2	2	37		1
9216			3,344	8,230	1,102	8,096	1,102	8,137	570	8,304	228	8,310	18		1			1	1	2	2	38		1
9216			3,432	8,446	1,131	8,309	1,131	8,351	585	8,522	234	8,529	18		1			1	1	2	2	39		1
9216			3,520	8,663	1,160	8,523	1,160	8,565	600	8,741	240	8,748	18		1			1	1	2	2	40		1
9216			3,608	8,879	1,189	8,736	1,189	8,780	615	8,959	246	8,966	18		1			1	1	2	2	41		1
9216			3,696	9,096	1,218	8,949	1,218	8,994	630	9,178	252	9,185	18		1			1	1	2	2	42		1
9216			3,784	9,312	1,247	9,162	1,247	9,208	645	9,396	258	9,404	18		1			1	1	2	2	43		1
9216			3,872	9,529	1,276	9,375	1,276	9,422	660	9,615	264	9,622	18		1			1	1	2	2	44		1
9216			3,960	9,746	1,305	9,588	1,305	9,636	675	9,833	270	9,841	18		1			1	1	2	2	45		1
9216			4,048	9,962	1,334	9,801	1,334	9,850	690	10,052	276	10,060	18		1			1	1	2	2	46		1
9216					1,363	10,014	1,363	10,064	705	10,270	282	10,278	18		1			1	1	2	2	47		1
9216					1,392	10,227	1,392	10,279	720	10,489	288	10,497	18		1			2	1	1	3	2	48		1
9216					1,421	10,440	1,421	10,493	735	10,707	294	10,716	18		1			2	1	1	3	2	49		1
9216					1,450	10,653	1,450	10,707	750	10,926	300	10,935	18		1			2	1	1	3	2	50		1
9216					1,479	10,866	1,479	10,921	765	11,145	306	11,153	18		1			2	1	1	3	2	51		1
9216					1,508	11,079	1,508	11,135	780	11,363	312	11,372	18		1			2	1	1	3	2	52		1
9216					1,537	11,292	1,537	11,349	795	11,582	318	11,591	18		1			2	1	1	3	2	53		1
9216					1,566	11,505	1,566	11,563	810	11,800	324	11,809	18		1			2	1	1	3	2	54		1
9216					1,595	11,718	1,595	11,777	825	12,019	330	12,028	18		1			2	1	1	3	2	55		1
9216					1,624	11,932	1,624	11,992	840	12,237	336	12,247	18		1			2	1	1	3	2	56		1
10240					1,653	12,145	1,653	12,206	855	12,456	342	12,465	20		1			2	1	1	3	2	57		1
10240					1,682	12,358	1,682	12,420	870	12,674	348	12,684	20		1			2	1	1	3	2	58		1
10240					1,711	12,571	1,711	12,634	885	12,893	354	12,903	20		1			3	1	1	3	3	59		1
10240					1,740	12,784	1,740	12,848	900	13,111	360	13,122	20		1			3	1	1	3	3	60		1
10240					1,769	12,997	1,769	13,062	915	13,330	366	13,340	20		1			3	1	1	3	3	61		1
10240					1,798	13,210	1,798	13,276	930	13,548	372	13,559	20		1			3	1	1	3	3	62		1
10240					1,827	13,423	1,827	13,491	945	13,767	378	13,778	20		1			3	1	1	3	3	63		1
10240					1,856	13,636	1,856	13,705	960	13,985	384	13,996	20		1			3	1	1	3	3	64		1
10240					1,885	13,849	1,885	13,919	975	14,204	390	14,215	20		1	▼		3	1	1	3	3	65		1
10240					1,914	14,062	1,914	14,133	990	14,422	396	14,434	20		1	*1		3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)												Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	72J4	72J1	EXC
10240					1,943	14,275	1,943	14,347	1,005	14,641	402	14,652	20		1	*1	3	1	1	3	3	67		1
10240					1,972	14,488	1,972	14,561	1,020	14,859	408	14,871	20		1	▲	3	1	1	3	3	68		1
10240					2,001	14,701	2,001	14,775	1,035	15,078	414	15,090	20		1		3	1	1	3	3	69		1
10240					2,030	14,914	2,030	14,990	1,050	15,296	420	15,309	20		1		3	1	1	3	3	70		1
10240					2,059	15,127	2,059	15,204	1,065	15,515	426	15,527	20		1		3	1	1	4	3	71		2
10240					2,088	15,341	2,088	15,418	1,080	15,733	432	15,746	20		1		3	1	1	4	3	72		2
10240					2,117	15,554	2,117	15,632	1,095	15,952	438	15,965	20		1		3	1	1	4	3	73		2
10240					2,146	15,767	2,146	15,846	1,110	16,170	444	16,183	20		1		3	1	1	4	3	74		2
10240					2,175	15,980	2,175	16,060	1,125	16,389	450	16,402	20		1		3	1	1	4	3	75		2
10240					2,204	16,193	2,204	16,274	1,140	16,608	456	16,621	20		1		3	1	1	4	3	76		2
10240					2,233	16,406	2,233	16,488	1,155	16,826	462	16,839	20		1		3	1	1	4	3	77		2
10240					2,262	16,619	2,262	16,703	1,170	17,045	468	17,058	20		1		3	1	1	4	3	78		2
10240					2,291	16,832	2,291	16,917	1,185	17,263	474	17,277	20		1		3	1	1	4	3	79		2
10240					2,320	17,045	2,320	17,131	1,200	17,482	480	17,496	20		1		3	1	1	4	3	80		2
10240					2,349	17,258	2,349	17,345	1,215	17,700	486	17,714	20		1		3	1	1	4	3	81		2
10240					2,378	17,471	2,378	17,559	1,230	17,919	492	17,933	20		1		3	1	1	4	3	82		2
10240					2,407	17,684	2,407	17,773	1,245	18,137	498	18,152	20		1		3	1	1	4	4	83		2
10240					2,436	17,897	2,436	17,987	1,260	18,356	504	18,370	20		1		3	1	1	4	4	84		2
10240					2,465	18,110	2,465	18,202	1,275	18,574	510	18,589	20		1		3	1	1	4	4	85		2
10240					2,494	18,323	2,494	18,416	1,290	18,793	516	18,808	20		1		3	1	1	4	4	86		2
10240					2,523	18,536	2,523	18,630	1,305	19,011	522	19,026	20		1		3	1	1	4	4	87		2
10240					2,552	18,750	2,552	18,844	1,320	19,230	528	19,245	20		1		3	1	1	4	4	88		2
10240					2,581	18,963	2,581	19,058	1,335	19,448	534	19,464	20		1		3	1	1	4	4	89		2
10240					2,610	19,176	2,610	19,272	1,350	19,667	540	19,683	20		1		3	1	1	4	4	90		2
10240					2,639	19,389	2,639	19,486	1,365	19,885	546	19,901	20		1		3	1	1	4	4	91		2
10240					2,668	19,602	2,668	19,701	1,380	20,104	552	20,120	20		1		3	1	1	4	4	92		2
10240					2,697	19,815	2,697	19,915	1,395	20,322	558	20,339	20		1		3	1	1	4	4	93		2
10240					2,726	20,028	2,726	20,129	1,410	20,541	564	20,557	20		1		3	1	1	4	4	94		2
10240					2,755	20,241	2,755	20,343	1,425	20,759	570	20,776	20		1		3	1	1	5	4	95		3
10240					2,784	20,454	2,784	20,557	1,440	20,978	576	20,995	20		1		3	1	1	5	4	96		3
10240					2,813	20,667	2,813	20,771	1,455	21,196	582	21,213	20		1		3	1	1	5	4	97		3
10240					2,842	20,880	2,842	20,985	1,470	21,415	588	21,432	20		1		3	1	1	5	4	98		3
10240					2,871	21,093	2,871	21,199	1,485	21,633	594	21,651	20		1		3	1	1	5	4	99		3
10240					2,900	21,306	2,900	21,414	1,500	21,852	600	21,870	20		1		3	1	1	5	4	100		3
10240					2,929	21,519	2,929	21,628	1,515	22,071	606	22,088	20		1		3	1	1	5	4	101		3
10240					2,958	21,732	2,958	21,842	1,530	22,289	612	22,307	20		1		3	1	1	5	4	102		3
10240					2,987	21,945	2,987	22,056	1,545	22,508	618	22,526	20		1		3	1	1	5	5	103		3
10240					3,016	22,159	3,016	22,270	1,560	22,726	624	22,744	20		1		3	1	1	5	5	104		3
10240					3,045	22,372	3,045	22,484	1,575	22,945	630	22,963	20		1		3	1	1	5	5	105		3
10240					3,074	22,585	3,074	22,698	1,590	23,163	636	23,182	20		1		3	1	1	5	5	106		3
10240					3,103	22,798	3,103	22,913	1,605	23,382	642	23,400	20		1		3	1	1	5	5	107		3
10240					3,132	23,011	3,132	23,127	1,620	23,600	648	23,619	20		1		3	1	1	5	5	108		3
10240					3,161	23,224	3,161	23,341	1,635	23,819	654	23,838	20		1		3	1	1	5	5	109		3
10240					3,190	23,437	3,190	23,555	1,650	24,037	660	24,057	20		1		3	1	1	5	5	110		3
10240					3,219	23,650	3,219	23,769	1,665	24,256	666	24,275	20		1		3	1	1	6	5	111		4
10240					3,248	23,863	3,248	23,983	1,680	24,474	672	24,494	20		1		3	1	1	6	5	112		4
10240					3,277	24,076	3,277	24,197	1,695	24,693	678	24,713	20		1		3	1	1	6	5	113		4
10240					3,306	24,289	3,306	24,412	1,710	24,911	684	24,931	20		1		3	1	1	6	5	114		4
10240					3,335	24,502	3,335	24,626	1,725	25,130	690	25,150	20		1		3	1	1	6	5	115		4
10240					3,364	24,715	3,364	24,840	1,740	25,348	696	25,369	20		1		3	1	1	6	5	116		4
10240					3,393	24,928	3,393	25,054	1,755	25,567	702	25,587	20		1		3	1	1	6	5	117		4
10240					3,422	25,141	3,422	25,268	1,770	25,785	708	25,806	20		1		3	1	1	6	5	118		4
10240					3,451	25,354	3,451	25,482	1,785	26,004	714	26,025	20		1		3	1	1	6	6	119		4
10240					3,480	25,568	3,480	25,696	1,800	26,222	720	26,244	20		1		3	1	1	6	6	120		4
10240					3,509	25,781	3,509	25,910	1,815	26,441	726	26,462	20		1		3	1	1	6	6	121		4
10240					3,538	25,994	3,538	26,125	1,830	26,659	732	26,681	20		1		3	1	1	6	6	122		4
10240					3,567	26,207	3,567	26,339	1,845	26,878	738	26,900	20		1		3	1	1	6	6	123		4
10240					3,596	26,420	3,596	26,553	1,860	27,096	744	27,118	20		1		3	1	1	6	6	124		4
10240					3,625	26,633	3,625	26,767	1,875	27,315	750	27,337	20		1	▼	3	1	1	6	6	125		4
10240					3,654	26,846	3,654	26,981	1,890	27,534	756	27,556	20		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note1: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

Note2: OPEN-L is applicable for Windows 2000 only.

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(7) High Speed 18GB HDD, RAID5, for Mainframe

Cache (MB)	Storage Capacity (GB)														Number of necessary options												
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I-14	B4	18K4	18K1	EXC
512	81	51	40	50	27	51	53	50	26	49	17	48	5	43	1			*1				1		1		
512	162	102	80	101	54	102	106	100	52	98	34	96	10	85	1			▲				1		2		
512	243	153	120	151	81	153	159	150	78	148	51	145	15	128	1							1		3		
512	324	204	160	202	108	204	212	201	104	197	68	193	20	170	1							1		4		
1024	405	255	200	252	135	255	265	251	130	246	85	241	25	213	2							1		5		
1024	486	306	240	302	162	306	318	301	156	295	102	289	30	255	2							1		6		
1024	567	357	280	353	189	357	371	351	182	344	119	338	35	298	2							1		7		
1536	648	408	320	403	216	408	424	401	208	394	136	386	40	340	3							1		8		
2048	729	459	360	454	243	459	477	451	234	443	153	434	45	383	4							1		9		
2048	810	510	400	504	270	510	530	501	260	492	170	482	50	426	4							1		10		
2048	891	561	440	554	297	561	583	552	286	541	187	531	55	468	4							1		11		
3072	972	612	480	605	324	612	636	602	312	590	204	579	60	511	6				1	1		1	1	12		
3072	1,053	663	520	655	351	663	689	652	338	639	221	627	65	553	6				1	1		1	1	13		
3072	1,134	714	560	706	378	714	742	702	364	689	238	675	70	596	6				1	1		1	1	14		
4096	1,215	765	600	756	405	765	795	752	390	738	255	724	75	638	8				1	1		1	1	15		
4096	1,296	816	640	806	432	816	848	802	416	787	272	772	80	681	8				1	1		1	1	16		
4096	1,377	868	680	857	459	868	901	852	442	836	289	820	85	723	8				1	1		1	1	17		
5120	1,458	919	720	907	486	919	954	902	468	885	306	868	90	766	10				1	1		1	1	18		
5120	1,539	970	760	958	513	970	1,007	953	494	935	323	917	95	808	10				1	1		1	1	19		
5120	1,620	1,021	800	1,008	540	1,021	1,060	1,003	520	984	340	965	100	851	10				1	1		1	1	20		
5120	1,701	1,072	840	1,058	567	1,072	1,113	1,053	546	1,033	357	1,013	105	894	10				1	1		1	1	21		
5120	1,782	1,123	880	1,109	594	1,123	1,166	1,103	572	1,082	374	1,061	110	936	10				1	1		1	1	22		
6144	1,863	1,174	920	1,159	621	1,174	1,219	1,153	598	1,131	391	1,110	115	979	12				1	1		1	1	23		
6144	1,944	1,225	960	1,210	648	1,225	1,272	1,203	624	1,181	408	1,158	120	1,021	12				1	1		2	1	24		1
6144	2,025	1,276	1,000	1,260	675	1,276	1,325	1,253	650	1,230	425	1,206	125	1,064	12				1	1		2	1	25		1
7168	2,106	1,327	1,040	1,310	702	1,327	1,378	1,304	676	1,279	442	1,254	130	1,106	14				1	1		2	1	26		1
7168	2,187	1,378	1,080	1,361	729	1,378	1,431	1,354	702	1,328	459	1,303	135	1,149	14				1	1		2	1	27		1
7168	2,268	1,429	1,120	1,411	756	1,429	1,484	1,404	728	1,377	476	1,351	140	1,191	14				1	1		2	1	28		1
7168	2,349	1,480	1,160	1,462	783	1,480	1,537	1,454	754	1,427	493	1,399	145	1,234	14				1	1		2	1	29		1
7168	2,430	1,531	1,200	1,512	810	1,531	1,590	1,504	780	1,476	510	1,447	150	1,277	14				1	1		2	1	30		1
7168	2,511	1,582	1,240	1,562	837	1,582	1,643	1,554	806	1,525	527	1,496	155	1,319	14				1	1		2	1	31		1
7168	2,592	1,633	1,280	1,613	864	1,633	1,696	1,604	832	1,574	544	1,544	160	1,362	14				1	1		2	1	32		1
7168	2,673	1,684	1,320	1,663	891	1,684	1,749	1,655	858	1,623	561	1,592	165	1,404	14				1	1		2	1	33		1
7168	2,754	1,735	1,360	1,714	918	1,735	1,802	1,705	884	1,673	578	1,640	170	1,447	14				1	1		2	1	34		1
7168	2,835	1,786	1,400	1,764	945	1,786	1,855	1,755	910	1,722	595	1,689	175	1,489	14				1	1		2	1	35		1
7168	2,916	1,837	1,440	1,814	972	1,837	1,908	1,805	936	1,771	612	1,737	180	1,532	14				1	1		2	2	36		1
7168	2,997	1,888	1,480	1,865	999	1,888	1,961	1,855	962	1,820	629	1,785	185	1,574	14				1	1		2	2	37		1
7168	3,078	1,939	1,520	1,915	1,026	1,939	2,014	1,905	988	1,869	646	1,833	190	1,617	14				1	1		2	2	38		1
7168	3,159	1,990	1,560	1,966	1,053	1,990	2,067	1,955	1,014	1,918	663	1,882	195	1,659	14				1	1		2	2	39		1
7168	3,240	2,041	1,600	2,016	1,080	2,041	2,120	2,006	1,040	1,968	680	1,930	200	1,702	14				1	1		2	2	40		1
7168	3,321	2,092	1,640	2,066	1,107	2,092	2,173	2,056	1,066	2,017	697	1,978	205	1,745	14				1	1		2	2	41		1
7168	3,402	2,143	1,680	2,117	1,134	2,143	2,226	2,106	1,092	2,066	714	2,026	210	1,787	14				1	1		2	2	42		1
7168	3,483	2,194	1,720	2,167	1,161	2,194	2,279	2,156	1,118	2,115	731	2,075	215	1,830	14				1	1		2	2	43		1
7168	3,564	2,245	1,760	2,218	1,188	2,245	2,332	2,206	1,144	2,164	748	2,123	220	1,872	14				1	1		2	2	44		1
7168	3,645	2,296	1,800	2,268	1,215	2,296	2,385	2,256	1,170	2,214	765	2,171	225	1,915	14				1	1		2	2	45		1
7168	3,726	2,347	1,840	2,318	1,242	2,347	2,438	2,306	1,196	2,263	782	2,219	230	1,957	14				1	1		2	2	46		1
7168	3,807	2,398	1,880	2,369	1,269	2,398	2,491	2,356	1,222	2,312	799	2,268	235	2,000	14				1	1		2	2	47		1
7168	3,888	2,449	1,920	2,419	1,296	2,449	2,544	2,407	1,248	2,361	816	2,316	240	2,042	14				2	1	1	3	2	48		1
7168	3,969	2,500	1,960	2,470	1,323	2,500	2,597	2,457	1,274	2,410	833	2,364	245	2,085	14				2	1	1	3	2	49		1
7168	4,050	2,552	2,000	2,520	1,350	2,552	2,650	2,507	1,300	2,460	850	2,412	250	2,128	14				2	1	1	3	2	50		1
7168			2,040	2,570	1,377	2,603	2,703	2,557	1,326	2,509	867	2,461	255	2,170	14				2	1	1	3	2	51		1
7168			2,080	2,621	1,404	2,654	2,756	2,607	1,352	2,558	884	2,509	260	2,213	14				2	1	1	3	2	52		1
7168			2,120	2,671	1,431	2,705	2,809	2,657	1,378	2,607	901	2,557	265	2,255	14				2	1	1	3	2	53		1
7168			2,160	2,722	1,458	2,756	2,862	2,707	1,404	2,656	918	2,605	270	2,298	14				2	1	1	3	2	54		1
7168			2,200	2,772	1,485	2,807	2,915	2,758	1,430	2,706	935	2,654	275	2,340	14				2	1	1	3	2	55		1
7168			2,240	2,822	1,512	2,858	2,968	2,808	1,456	2,755	952	2,702	280	2,383	14				2	1	1	3	2	56		1
8192			2,280	2,873	1,539	2,909	3,021	2,858	1,482	2,804	969	2,750	285	2,425	16				2	1	1	3	2	57		1
8192			2,320	2,923	1,566	2,960	3,074	2,908	1,508	2,853	986	2,798	290	2,468	16				2	1	1	3	2	58		1
8192			2,360	2,974	1,593	3,011	3,127	2,958	1,534	2,902	1,003	2,847	295	2,510	16				3	1	1	3	3	59		1
8192			2,400	3,024	1,620	3,062	3,180	3,008	1,560	2,952	1,020	2,895	300	2,553	16				3	1	1	3	3	60		1
8192			2,440	3,074	1,647	3,113	3,233	3,058	1,586	3,001	1,037	2,943	305	2,596	16				3	1	1	3	3	61		1
8192			2,480	3,125	1,674	3,164	3,286	3,109	1,612	3,050	1,054	2,991	310	2,638	16				3	1	1	3	3	62		1
8192			2,520	3,175	1,701	3,215	3,339	3,159	1,638	3,099	1,071	3,039	315	2,681	16				3	1	1	3	3	63		1
8192			2,560	3,226	1,728	3,266	3,392	3,209	1,664	3,148	1,088	3,088	320	2,723	16				3	1	1	3	3	64		1
8192			2,600	3,276	1,755	3,317	3,445	3,259	1,690	3,197	1,105	3,136	325	2,766	16			▼	3	1	1	3	3	65		1
8192			2,640	3,326	1,782	3,368	3,498	3,309	1,716	3,247	1,122	3,184	330	2,808	16			*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)														Number of necessary options											
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	18K4	18K1	EXC
8192			2,680	3,377	1,809	3,419	3,551	3,359	1,742	3,296	1,139	3,232	335	2,851	16			*1	3	1	1	3	3	67		1
8192			2,720	3,427	1,836	3,470	3,604	3,409	1,768	3,345	1,156	3,281	340	2,893	16				3	1	1	3	3	68		1
8192			2,760	3,478	1,863	3,521	3,657	3,460	1,794	3,394	1,173	3,329	345	2,936	16				3	1	1	3	3	69		1
8192			2,800	3,528	1,890	3,572	3,710	3,510	1,820	3,443	1,190	3,377	350	2,979	16				3	1	1	3	3	70		1
8192			2,840	3,578	1,917	3,623	3,763	3,560	1,846	3,493	1,207	3,425	355	3,021	16				3	1	1	4	3	71		2
8192			2,880	3,629	1,944	3,674	3,816	3,610	1,872	3,542	1,224	3,474	360	3,064	16				3	1	1	4	3	72		2
8192			2,920	3,679	1,971	3,725	3,869	3,660	1,898	3,591	1,241	3,522	365	3,106	16				3	1	1	4	3	73		2
8192			2,960	3,730	1,998	3,776	3,922	3,710	1,924	3,640	1,258	3,570	370	3,149	16				3	1	1	4	3	74		2
8192			3,000	3,780	2,025	3,827	3,975	3,760	1,950	3,689	1,275	3,618	375	3,191	16				3	1	1	4	3	75		2
8192			3,040	3,830	2,052	3,878	4,028	3,810	1,976	3,739	1,292	3,667	380	3,234	16				3	1	1	4	3	76		2
8192			3,080	3,881	2,079	3,929	4,081	3,861	2,002	3,788	1,309	3,715	385	3,276	16				3	1	1	4	3	77		2
8192			3,120	3,931	2,106	3,980			2,028	3,837	1,326	3,763	390	3,319	16				3	1	1	4	3	78		2
8192			3,160	3,982	2,133	4,031			2,054	3,886	1,343	3,811	395	3,361	16				3	1	1	4	3	79		2
8192			3,200	4,032	2,160	4,082			2,080	3,935	1,360	3,860	400	3,404	16				3	1	1	4	3	80		2
8192			3,240	4,082	2,187	4,133			2,106	3,985	1,377	3,908	405	3,447	16				3	1	1	4	3	81		2
8192			3,280	4,133	2,214	4,184			2,132	4,034	1,394	3,956	410	3,489	16				3	1	1	4	3	82		2
8192			3,320	4,183	2,241	4,235			2,158	4,083	1,411	4,004	415	3,532	16				3	1	1	4	4	83		2
8192			3,360	4,234	2,268	4,287			2,184	4,132	1,428	4,053	420	3,574	16				3	1	1	4	4	84		2
8192			3,400	4,284	2,295	4,338			2,210	4,181	1,445	4,101	425	3,617	16				3	1	1	4	4	85		2
8192			3,440	4,334	2,322	4,389			2,236	4,231	1,462	4,149	430	3,659	16				3	1	1	4	4	86		2
8192			3,480	4,385	2,349	4,440			2,262	4,280	1,479	4,197	435	3,702	16				3	1	1	4	4	87		2
8192			3,520	4,435	2,376	4,491			2,288	4,329	1,496	4,246	440	3,744	16				3	1	1	4	4	88		2
8192			3,560	4,486	2,403	4,542			2,314	4,378	1,513	4,294	445	3,787	16				3	1	1	4	4	89		2
8192			3,600	4,536	2,430	4,593			2,340	4,427	1,530	4,342	450	3,830	16				3	1	1	4	4	90		2
8192			3,640	4,586	2,457	4,644			2,366	4,476	1,547	4,390	455	3,872	16				3	1	1	4	4	91		2
8192			3,680	4,637	2,484	4,695			2,392	4,526	1,564	4,439	460	3,915	16				3	1	1	4	4	92		2
8192			3,720	4,687	2,511	4,746			2,418	4,575	1,581	4,487	465	3,957	16				3	1	1	4	4	93		2
8192			3,760	4,738	2,538	4,797			2,444	4,624	1,598	4,535	470	4,000	16				3	1	1	4	4	94		2
8192			3,800	4,788	2,565	4,848			2,470	4,673	1,615	4,583	475	4,042	16				3	1	1	5	4	95		3
8192			3,840	4,838	2,592	4,899			2,496	4,722	1,632	4,632	480	4,085	16				3	1	1	5	4	96		3
8192			3,880	4,889	2,619	4,950			2,522	4,772	1,649	4,680	485	4,127	16				3	1	1	5	4	97		3
8192			3,920	4,939	2,646	5,001			2,548	4,821	1,666	4,728	490	4,170	16				3	1	1	5	4	98		3
8192			3,960	4,990	2,673	5,052			2,574	4,870	1,683	4,776	495	4,212	16				3	1	1	5	4	99		3
8192			4,000	5,040	2,700	5,103			2,600	4,919	1,700	4,825	500	4,255	16				3	1	1	5	4	100		3
8192			4,040	5,090	2,727	5,154			2,626	4,968	1,717	4,873	505	4,298	16				3	1	1	5	4	101		3
8192			4,080	5,141	2,754	5,205			2,652	5,018	1,734	4,921	510	4,340	16				3	1	1	5	4	102		3
8192					2,781	5,256			2,678	5,067	1,751	4,969	515	4,383	16				3	1	1	5	5	103		3
8192					2,808	5,307			2,704	5,116	1,768	5,018	520	4,425	16				3	1	1	5	5	104		3
8192					2,835	5,358			2,730	5,165	1,785	5,066	525	4,468	16				3	1	1	5	5	105		3
8192					2,862	5,409			2,756	5,214	1,802	5,114	530	4,510	16				3	1	1	5	5	106		3
8192					2,889	5,460			2,782	5,264	1,819	5,162	535	4,553	16				3	1	1	5	5	107		3
8192					2,916	5,511			2,808	5,313	1,836	5,211	540	4,595	16				3	1	1	5	5	108		3
8192					2,943	5,562			2,834	5,362	1,853	5,259	545	4,638	16				3	1	1	5	5	109		3
8192					2,970	5,613			2,860	5,411	1,870	5,307	550	4,681	16				3	1	1	5	5	110		3
8192					2,997	5,664			2,886	5,460	1,887	5,355	555	4,723	16				3	1	1	6	5	111		4
8192					3,024	5,715			2,912	5,510	1,904	5,404	560	4,766	16				3	1	1	6	5	112		4
8192					3,051	5,766			2,938	5,559	1,921	5,452	565	4,808	16				3	1	1	6	5	113		4
8192					3,078	5,817			2,964	5,608	1,938	5,500	570	4,851	16				3	1	1	6	5	114		4
8192					3,105	5,868			2,990	5,657	1,955	5,548	575	4,893	16				3	1	1	6	5	115		4
8192					3,132	5,919			3,016	5,706	1,972	5,597	580	4,936	16				3	1	1	6	5	116		4
8192					3,159	5,971			3,042	5,755	1,989	5,645	585	4,978	16				3	1	1	6	5	117		4
8192					3,186	6,022			3,068	5,805	2,006	5,693	590	5,021	16				3	1	1	6	5	118		4
8192					3,213	6,073			3,094	5,854	2,023	5,741	595	5,063	16				3	1	1	6	6	119		4
8192					3,240	6,124			3,120	5,903	2,040	5,790	600	5,106	16				3	1	1	6	6	120		4
8192					3,267	6,175			3,146	5,952	2,057	5,838	605	5,149	16				3	1	1	6	6	121		4
8192					3,294	6,226			3,172	6,001	2,074	5,886	610	5,191	16				3	1	1	6	6	122		4
8192					3,321	6,277			3,198	6,051	2,091	5,934	615	5,234	16				3	1	1	6	6	123		4
8192					3,348	6,328			3,224	6,100	2,108	5,983	620	5,276	16				3	1	1	6	6	124		4
8192					3,375	6,379			3,250	6,149	2,125	6,031	625	5,319	16				3	1	1	6	6	125		4
8192					3,402	6,430			3,276	6,198	2,142	6,079	630	5,361	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(8) High Speed 18GB HDD, RAID5, for Open System

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	18K4	18K1	EXC
512	28	53	21	52	7	51	7	52	3	44	1			*1				1		1		
512	56	105	42	103	14	103	14	103	6	87	1			▲				1		2		
512	84	158	63	155	21	154	21	155	9	131	1							1		3		
512	112	211	84	207	28	206	28	207	12	175	1							1		4		
1024	140	263	105	258	35	257	35	258	15	219	2							1		5		
1024	168	316	126	310	42	309	42	310	18	262	2							1		6		
1024	196	369	147	362	49	360	49	362	21	306	2							1		7		
1536	224	421	168	413	56	411	56	414	24	350	3							1		8		
2048	252	474	189	465	63	463	63	465	27	393	4							1		9		
2048	280	527	210	517	70	514	70	517	30	437	4							1		10		
2048	308	579	231	568	77	566	77	569	33	481	4							1		11		
3072	336	632	252	620	84	617	84	620	36	524	6				1	1		1	1	12		
3072	364	685	273	672	91	669	91	672	39	568	6				1	1		1	1	13		
3072	392	737	294	724	98	720	98	724	42	612	6				1	1		1	1	14		
4096	420	790	315	775	105	771	105	775	45	656	8				1	1		1	1	15		
4096	448	843	336	827	112	823	112	827	48	699	8				1	1		1	1	16		
4096	476	895	357	879	119	874	119	879	51	743	8				1	1		1	1	17		
5120	504	948	378	930	126	926	126	930	54	787	10				1	1		1	1	18		
5120	532	1,001	399	982	133	977	133	982	57	830	10				1	1		1	1	19		
5120	560	1,053	420	1,034	140	1,029	140	1,034	60	874	10				1	1		1	1	20		
5120	588	1,106	441	1,085	147	1,080	147	1,085	63	918	10				1	1		1	1	21		
5120	616	1,159	462	1,137	154	1,131	154	1,137	66	961	10				1	1		1	1	22		
6144	644	1,211	483	1,189	161	1,183	161	1,189	69	1,005	12				1	1		1	1	23		
6144	672	1,264	504	1,240	168	1,234	168	1,241	72	1,049	12				1	1		2	1	24		1
6144	700	1,317	525	1,292	175	1,286	175	1,292	75	1,093	12				1	1		2	1	25		1
7168	728	1,369	546	1,344	182	1,337	182	1,344	78	1,136	14				1	1		2	1	26		1
7168	756	1,422	567	1,395	189	1,389	189	1,396	81	1,180	14				1	1		2	1	27		1
7168	784	1,475	588	1,447	196	1,440	196	1,447	84	1,224	14				1	1		2	1	28		1
7168	812	1,527	609	1,499	203	1,491	203	1,499	87	1,267	14				1	1		2	1	29		1
7168	840	1,580	630	1,550	210	1,543	210	1,551	90	1,311	14				1	1		2	1	30		1
7168	868	1,633	651	1,602	217	1,594	217	1,602	93	1,355	14				1	1		2	1	31		1
7168	896	1,685	672	1,654	224	1,646	224	1,654	96	1,399	14				1	1		2	1	32		1
7168	924	1,738	693	1,705	231	1,697	231	1,706	99	1,442	14				1	1		2	1	33		1
7168	952	1,791	714	1,757	238	1,749	238	1,757	102	1,486	14				1	1		2	1	34		1
7168	980	1,843	735	1,809	245	1,800	245	1,809	105	1,530	14				1	1		2	1	35		1
7168	1,008	1,896	756	1,861	252	1,851	252	1,861	108	1,573	14				1	1		2	2	36		1
7168	1,036	1,949	777	1,912	259	1,903	259	1,912	111	1,617	14				1	1		2	2	37		1
7168	1,064	2,001	798	1,964	266	1,954	266	1,964	114	1,661	14				1	1		2	2	38		1
7168	1,092	2,054	819	2,016	273	2,006	273	2,016	117	1,704	14				1	1		2	2	39		1
7168	1,120	2,107	840	2,067	280	2,057	280	2,068	120	1,748	14				1	1		2	2	40		1
7168	1,148	2,159	861	2,119	287	2,109	287	2,119	123	1,792	14				1	1		2	2	41		1
7168	1,176	2,212	882	2,171	294	2,160	294	2,171	126	1,836	14				1	1		2	2	42		1
7168	1,204	2,265	903	2,222	301	2,211	301	2,223	129	1,879	14				1	1		2	2	43		1
7168	1,232	2,317	924	2,274	308	2,263	308	2,274	132	1,923	14				1	1		2	2	44		1
7168	1,260	2,370	945	2,326	315	2,314	315	2,326	135	1,967	14				1	1		2	2	45		1
7168	1,288	2,423	966	2,377	322	2,366	322	2,378	138	2,010	14				1	1		2	2	46		1
7168	1,316	2,475	987	2,429	329	2,417	329	2,429	141	2,054	14				1	1		2	2	47		1
7168	1,344	2,528	1,008	2,481	336	2,469	336	2,481	144	2,098	14				2	1	1	3	2	48		1
7168	1,372	2,581	1,029	2,532	343	2,520	343	2,533	147	2,141	14				2	1	1	3	2	49		1
7168	1,400	2,633	1,050	2,584	350	2,571	350	2,584	150	2,185	14				2	1	1	3	2	50		1
7168	1,428	2,686	1,071	2,636	357	2,623	357	2,636	153	2,229	14				2	1	1	3	2	51		1
7168	1,456	2,739	1,092	2,687	364	2,674	364	2,688	156	2,273	14				2	1	1	3	2	52		1
7168	1,484	2,791	1,113	2,739	371	2,726	371	2,739	159	2,316	14				2	1	1	3	2	53		1
7168	1,512	2,844	1,134	2,791	378	2,777	378	2,791	162	2,360	14				2	1	1	3	2	54		1
7168	1,540	2,897	1,155	2,842	385	2,829	385	2,843	165	2,404	14				2	1	1	3	2	55		1
7168	1,568	2,949	1,176	2,894	392	2,880	392	2,895	168	2,447	14				2	1	1	3	2	56		1
8192	1,596	3,002	1,197	2,946	399	2,931	399	2,946	171	2,491	16				2	1	1	3	2	57		1
8192	1,624	3,055	1,218	2,997	406	2,983	406	2,998	174	2,535	16				2	1	1	3	2	58		1
8192	1,652	3,107	1,239	3,049	413	3,034	413	3,050	177	2,579	16				3	1	1	3	3	59		1
8192	1,680	3,160	1,260	3,101	420	3,086	420	3,101	180	2,622	16				3	1	1	3	3	60		1
8192	1,708	3,213	1,281	3,153	427	3,137	427	3,153	183	2,666	16				3	1	1	3	3	61		1
8192	1,736	3,265	1,302	3,204	434	3,189	434	3,205	186	2,710	16				3	1	1	3	3	62		1
8192	1,764	3,318	1,323	3,256	441	3,240	441	3,256	189	2,753	16				3	1	1	3	3	63		1
8192	1,792	3,371	1,344	3,308	448	3,291	448	3,308	192	2,797	16				3	1	1	3	3	64		1
8192	1,820	3,423	1,365	3,359	455	3,343	455	3,360	195	2,841	16			▼	3	1	1	3	3	65		1
8192	1,848	3,476	1,386	3,411	462	3,394	462	3,411	198	2,884	16			*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
											512	1024	20	S256	100	R1C	L1C		B4	18K4	18K1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
8192	1,876	3,529	1,407	3,463	469	3,446	469	3,463	201	2,928	16			*1	3	1	1	3	3	67		1
8192	1,904	3,581	1,428	3,514	476	3,497	476	3,515	204	2,972	16				3	1	1	3	3	68		1
8192	1,932	3,634	1,449	3,566	483	3,549	483	3,566	207	3,016	16				3	1	1	3	3	69		1
8192	1,960	3,687	1,470	3,618	490	3,600	490	3,618	210	3,059	16				3	1	1	3	3	70		1
8192	1,988	3,739	1,491	3,669	497	3,651	497	3,670	213	3,103	16				3	1	1	4	3	71		2
8192	2,016	3,792	1,512	3,721	504	3,703	504	3,722	216	3,147	16				3	1	1	4	3	72		2
8192	2,044	3,845	1,533	3,773	511	3,754	511	3,773	219	3,190	16				3	1	1	4	3	73		2
8192	2,072	3,897	1,554	3,824	518	3,806	518	3,825	222	3,234	16				3	1	1	4	3	74		2
8192	2,100	3,950	1,575	3,876	525	3,857	525	3,877	225	3,278	16				3	1	1	4	3	75		2
8192	2,128	4,003	1,596	3,928	532	3,909	532	3,928	228	3,322	16				3	1	1	4	3	76		2
8192	2,156	4,055	1,617	3,979	539	3,960	539	3,980	231	3,365	16				3	1	1	4	3	77		2
8192	2,184	4,108	1,638	4,031	546	4,011	546	4,032	234	3,409	16				3	1	1	4	3	78		2
8192	2,212	4,161	1,659	4,083	553	4,063	553	4,083	237	3,453	16				3	1	1	4	3	79		2
8192	2,240	4,213	1,680	4,134	560	4,114	560	4,135	240	3,496	16				3	1	1	4	3	80		2
8192	2,268	4,266	1,701	4,186	567	4,166	567	4,187	243	3,540	16				3	1	1	4	3	81		2
8192	2,296	4,319	1,722	4,238	574	4,217	574	4,238	246	3,584	16				3	1	1	4	3	82		2
8192	2,324	4,371	1,743	4,290	581	4,269	581	4,290	249	3,627	16				3	1	1	4	4	83		2
8192	2,352	4,424	1,764	4,341	588	4,320	588	4,342	252	3,671	16				3	1	1	4	4	84		2
8192	2,380	4,477	1,785	4,393	595	4,371	595	4,393	255	3,715	16				3	1	1	4	4	85		2
8192	2,408	4,529	1,806	4,445	602	4,423	602	4,445	258	3,759	16				3	1	1	4	4	86		2
8192	2,436	4,582	1,827	4,496	609	4,474	609	4,497	261	3,802	16				3	1	1	4	4	87		2
8192	2,464	4,635	1,848	4,548	616	4,526	616	4,549	264	3,846	16				3	1	1	4	4	88		2
8192	2,492	4,687	1,869	4,600	623	4,577	623	4,600	267	3,890	16				3	1	1	4	4	89		2
8192	2,520	4,740	1,890	4,651	630	4,629	630	4,652	270	3,933	16				3	1	1	4	4	90		2
8192	2,548	4,793	1,911	4,703	637	4,680	637	4,704	273	3,977	16				3	1	1	4	4	91		2
8192	2,576	4,845	1,932	4,755	644	4,731	644	4,755	276	4,021	16				3	1	1	4	4	92		2
8192	2,604	4,898	1,953	4,806	651	4,783	651	4,807	279	4,064	16				3	1	1	4	4	93		2
8192	2,632	4,951	1,974	4,858	658	4,834	658	4,859	282	4,108	16				3	1	1	4	4	94		2
8192	2,660	5,003	1,995	4,910	665	4,886	665	4,910	285	4,152	16				3	1	1	5	4	95		3
8192	2,688	5,056	2,016	4,961	672	4,937	672	4,962	288	4,196	16				3	1	1	5	4	96		3
8192	2,716	5,109	2,037	5,013	679	4,989	679	5,014	291	4,239	16				3	1	1	5	4	97		3
8192	2,744	5,161	2,058	5,065	686	5,040	686	5,065	294	4,283	16				3	1	1	5	4	98		3
8192	2,772	5,214	2,079	5,116	693	5,091	693	5,117	297	4,327	16				3	1	1	5	4	99		3
8192	2,800	5,267	2,100	5,168	700	5,143	700	5,169	300	4,370	16				3	1	1	5	4	100		3
8192	2,828	5,319	2,121	5,220	707	5,194	707	5,220	303	4,414	16				3	1	1	5	4	101		3
8192	2,856	5,372	2,142	5,271	714	5,246	714	5,272	306	4,458	16				3	1	1	5	4	102		3
8192	2,884	5,425	2,163	5,323	721	5,297	721	5,324	309	4,502	16				3	1	1	5	5	103		3
8192	2,912	5,477	2,184	5,375	728	5,349	728	5,376	312	4,545	16				3	1	1	5	5	104		3
8192	2,940	5,530	2,205	5,427	735	5,400	735	5,427	315	4,589	16				3	1	1	5	5	105		3
8192	2,968	5,583	2,226	5,478	742	5,451	742	5,479	318	4,633	16				3	1	1	5	5	106		3
8192	2,996	5,635	2,247	5,530	749	5,503	749	5,531	321	4,676	16				3	1	1	5	5	107		3
8192	3,024	5,688	2,268	5,582	756	5,554	756	5,582	324	4,720	16				3	1	1	5	5	108		3
8192	3,052	5,741	2,289	5,633	763	5,606	763	5,634	327	4,764	16				3	1	1	5	5	109		3
8192	3,080	5,793	2,310	5,685	770	5,657	770	5,686	330	4,807	16				3	1	1	5	5	110		3
8192	3,108	5,846	2,331	5,737	777	5,709	777	5,737	333	4,851	16				3	1	1	6	5	111		4
8192	3,136	5,899	2,352	5,788	784	5,760	784	5,789	336	4,895	16				3	1	1	6	5	112		4
8192	3,164	5,951	2,373	5,840	791	5,811	791	5,841	339	4,939	16				3	1	1	6	5	113		4
8192	3,192	6,004	2,394	5,892	798	5,863	798	5,892	342	4,982	16				3	1	1	6	5	114		4
8192	3,220	6,057	2,415	5,943	805	5,914	805	5,944	345	5,026	16				3	1	1	6	5	115		4
8192	3,248	6,109	2,436	5,995	812	5,966	812	5,996	348	5,070	16				3	1	1	6	5	116		4
8192	3,276	6,162	2,457	6,047	819	6,017	819	6,047	351	5,113	16				3	1	1	6	5	117		4
8192	3,304	6,215	2,478	6,098	826	6,069	826	6,099	354	5,157	16				3	1	1	6	5	118		4
8192	3,332	6,267	2,499	6,150	833	6,120	833	6,151	357	5,201	16				3	1	1	6	6	119		4
8192	3,360	6,320	2,520	6,202	840	6,171	840	6,203	360	5,244	16				3	1	1	6	6	120		4
8192	3,388	6,373	2,541	6,253	847	6,223	847	6,254	363	5,288	16				3	1	1	6	6	121		4
8192	3,416	6,425	2,562	6,305	854	6,274	854	6,306	366	5,332	16				3	1	1	6	6	122		4
8192	3,444	6,478	2,583	6,357	861	6,326	861	6,358	369	5,376	16				3	1	1	6	6	123		4
8192	3,472	6,531	2,604	6,408	868	6,377	868	6,409	372	5,419	16				3	1	1	6	6	124		4
8192	3,500	6,584	2,625	6,460	875	6,429	875	6,461	375	5,463	16				3	1	1	6	6	125		4
8192	3,528	6,636	2,646	6,512	882	6,480	882	6,513	378	5,507	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(9) 180GB HDD, RAID5, for Mainframe

Cache (GB)	Storage Capacity (GB)				Number of necessary options										
	3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -180H4	F405I -180H1	F405I -EXC
2	173	491	57	485	2		*1				1		1		
5	346	982	114	970	5		▲				1		2		
7	519	1,473	171	1,455	7						1		3		
7	692	1,964	228	1,940	7						1		4		
7	865	2,455	285	2,425	7						1		5		
7	1,038	2,946	342	2,910	7						1		6		
8	1,211	3,437	399	3,395	8						1		7		
8	1,384	3,928	456	3,881	8						1		8		
8	1,557	4,419	513	4,366	8						1		9		
8	1,730	4,910	570	4,851	8						1		10		
8	1,903	5,401	627	5,336	8						1		11		
8	2,076	5,892	684	5,821	8			1	1		1	1	12		
8	2,249	6,383	741	6,306	8			1	1		1	1	13		
8	2,422	6,874	798	6,791	8			1	1		1	1	14		
8	2,595	7,365	855	7,276	8			1	1		1	1	15		
9	2,768	7,856	912	7,761	9			1	1		1	1	16		
9	2,941	8,347	969	8,246	9			1	1		1	1	17		
9	3,114	8,838	1,026	8,731	9			1	1		1	1	18		
9	3,287	9,329	1,083	9,216	9			1	1		1	1	19		
9	3,460	9,819	1,140	9,701	9			1	1		1	1	20		
9	3,633	10,310	1,197	10,186	9			1	1		1	1	21		
9	3,806	10,801	1,254	10,672	9			1	1		1	1	22		
9	3,979	11,292	1,311	11,157	9			1	1		1	1	23		
9			1,368	11,642	9			1	1		2	1	24		1
10			1,425	12,127	10			1	1		2	1	25		1
10			1,482	12,612	10			1	1		2	1	26		1
10			1,539	13,097	10			1	1		2	1	27		1
10			1,596	13,582	10			1	1		2	1	28		1
10			1,653	14,067	10			1	1		2	1	29		1
10			1,710	14,552	10			1	1		2	1	30		1
10			1,767	15,037	10			1	1		2	1	31		1
10			1,824	15,522	10			1	1		2	1	32		1
10			1,881	16,007	10			1	1		2	1	33		1
10			1,938	16,492	10			1	1		2	1	34		1
10			1,995	16,977	10			1	1		2	1	35		1
10			2,052	17,463	10			1	1		2	2	36		1
10			2,109	17,948	10			1	1		2	2	37		1
10			2,166	18,433	10			1	1		2	2	38		1
10			2,223	18,918	10			1	1		2	2	39		1
10			2,280	19,403	10			1	1		2	2	40		1
10			2,337	19,888	10			1	1		2	2	41		1
10			2,394	20,373	10			1	1		2	2	42		1
10			2,451	20,858	10			1	1		2	2	43		1
10			2,508	21,343	10			1	1		2	2	44		1
10			2,565	21,828	10			1	1		2	2	45		1
10			2,622	22,313	10			1	1		2	2	46		1
10			2,679	22,798	10			1	1		2	2	47		1
10			2,736	23,283	10			2	1	1	3	2	48		1
10			2,793	23,768	10			2	1	1	3	2	49		1
10			2,850	24,254	10			2	1	1	3	2	50		1
10			2,907	24,739	10			2	1	1	3	2	51		1
10			2,964	25,224	10			2	1	1	3	2	52		1
10			3,021	25,709	10			2	1	1	3	2	53		1
10			3,078	26,194	10			2	1	1	3	2	54		1
10			3,135	26,679	10			2	1	1	3	2	55		1
10			3,192	27,164	10			2	1	1	3	2	56		1
10			3,249	27,649	10			2	1	1	3	2	57		1
10			3,306	28,134	10			2	1	1	3	2	58		1
10			3,363	28,619	10			3	1	1	3	3	59		1
10			3,420	29,104	10			3	1	1	3	3	60		1
10			3,477	29,589	10			3	1	1	3	3	61		1
10			3,534	30,074	10			3	1	1	3	3	62		1
10			3,591	30,559	10			3	1	1	3	3	63		1
10			3,648	31,044	10			3	1	1	3	3	64		1
10			3,705	31,530	10		▼	3	1	1	3	3	65		1
10			3,762	32,015	10		*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	Storage Capacity (GB)				Number of necessary options										
	3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -180H4	F405I -180H1	F405I -EXC
10			3,819	32,500	10		*1	3	1	1	3	3	67		1
10			3,876	32,985	10		↕	3	1	1	3	3	68		1
10			3,933	33,470	10			3	1	1	3	3	69		1
10			3,990	33,955	10			3	1	1	3	3	70		1
10			4,047	34,440	10		*1	3	1	1	4	3	71		2

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-41 in page INST01-85.
Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(10) 180GB HDD, RAID5, for Open System

Cache (GB)	OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		OPEN-M (47.185GB)		DKC options						DKU options				
													F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	405I -B4	405I -180H4	405I -180H1	405I -EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap											
2	209	514	70	514	69	509	35	510	14	510	10	472	2		*1				1		1		
5	418	1,029	140	1,029	138	1,019	70	1,020	28	1,021	20	944	5		▲				1		2		
7	627	1,543	210	1,543	207	1,528	105	1,530	42	1,531	30	1,416	7						1		3		
7	836	2,057	280	2,057	276	2,038	140	2,040	56	2,041	40	1,887	7						1		4		
7	1,045	2,572	350	2,571	345	2,547	175	2,549	70	2,552	50	2,359	7						1		5		
8	1,254	3,086	420	3,086	414	3,057	210	3,059	84	3,062	60	2,831	8						1		6		
8	1,463	3,600	490	3,600	483	3,566	245	3,569	98	3,572	70	3,303	8						1		7		
8	1,672	4,115	560	4,114	552	4,076	280	4,079	112	4,082	80	3,775	8						1		8		
8	1,881	4,629	630	4,629	621	4,585	315	4,589	126	4,593	90	4,247	8						1		9		
8	2,090	5,143	700	5,143	690	5,095	350	5,099	140	5,103	100	4,719	8						1		10		
8	2,299	5,658	770	5,657	759	5,604	385	5,609	154	5,613	110	5,190	8						1		11		
8	2,508	6,172	840	6,171	828	6,114	420	6,119	168	6,124	120	5,662	8			1	1		1	1	12		
8	2,717	6,687	910	6,686	897	6,623	455	6,628	182	6,634	130	6,134	8			1	1		1	1	13		
8	2,926	7,201	980	7,200	966	7,133	490	7,138	196	7,144	140	6,606	8			1	1		1	1	14		
9	3,135	7,715	1,050	7,714	1,035	7,642	525	7,648	210	7,655	150	7,078	9			1	1		1	1	15		
9	3,344	8,230	1,120	8,229	1,104	8,152	560	8,158	224	8,165	160	7,550	9			1	1		1	1	16		
9	3,553	8,744	1,190	8,743	1,173	8,661	595	8,668	238	8,675	170	8,021	9			1	1		1	1	17		
9	3,762	9,258	1,260	9,257	1,242	9,171	630	9,178	252	9,185	180	8,493	9			1	1		1	1	18		
9	3,971	9,773	1,330	9,772	1,311	9,680	665	9,688	266	9,696	190	8,965	9			1	1		1	1	19		
9			1,400	10,286	1,380	10,190	700	10,198	280	10,206	200	9,437	9			1	1		1	1	20		
9			1,470	10,800	1,449	10,699	735	10,707	294	10,716	210	9,909	9			1	1		1	1	21		
9			1,540	11,314	1,518	11,209	770	11,217	308	11,227	220	10,381	9			1	1		1	1	22		
9			1,610	11,829	1,587	11,718	805	11,727	322	11,737	230	10,853	9			1	1		1	1	23		
10			1,680	12,343	1,656	12,228	840	12,237	336	12,247	240	11,324	10			1	1		2	1	24		1
10			1,750	12,857	1,725	12,737	875	12,747	350	12,758	250	11,796	10			1	1		2	1	25		1
10			1,820	13,372	1,794	13,247	910	13,257	364	13,268	260	12,268	10			1	1		2	1	26		1
10			1,890	13,886	1,863	13,756	945	13,767	378	13,778	270	12,740	10			1	1		2	1	27		1
10			1,960	14,400	1,932	14,266	980	14,277	392	14,288	280	13,212	10			1	1		2	1	28		1
10			2,030	14,914	2,001	14,775	1,015	14,787	406	14,799	290	13,684	10			1	1		2	1	29		1
10			2,100	15,429	2,070	15,285	1,050	15,296	420	15,309	300	14,156	10			1	1		2	1	30		1
10			2,170	15,943	2,139	15,794	1,085	15,806	434	15,819	310	14,627	10			1	1		2	1	31		1
10			2,240	16,457	2,208	16,304	1,120	16,316	448	16,330	320	15,099	10			1	1		2	1	32		1
10			2,310	16,972	2,277	16,813	1,155	16,826	462	16,840	330	15,571	10			1	1		2	1	33		1
10			2,380	17,486	2,346	17,323	1,190	17,336	476	17,350	340	16,043	10			1	1		2	1	34		1
10			2,450	18,000	2,415	17,832	1,225	17,846	490	17,861	350	16,515	10			1	1		2	1	35		1
10			2,520	18,514	2,484	18,342	1,260	18,356	504	18,371	360	16,987	10			1	1		2	2	36		1
10			2,590	19,029	2,553	18,851	1,295	18,866	518	18,881	370	17,458	10			1	1		2	2	37		1
10			2,660	19,543	2,622	19,361	1,330	19,375	532	19,391	380	17,930	10			1	1		2	2	38		1
10			2,730	20,057	2,691	19,870	1,365	19,885	546	19,902	390	18,402	10			1	1		2	2	39		1
10			2,800	20,572	2,760	20,380	1,400	20,395	560	20,412	400	18,874	10			1	1		2	2	40		1
10			2,870	21,086	2,829	20,889	1,435	20,905	574	20,922	410	19,346	10			1	1		2	2	41		1
10			2,940	21,600	2,898	21,399	1,470	21,415	588	21,433	420	19,818	10			1	1		2	2	42		1
10			3,010	22,114	2,967	21,908	1,505	21,925	602	21,943	430	20,290	10			1	1		2	2	43		1
10			3,080	22,629	3,036	22,418	1,540	22,435	616	22,453	440	20,761	10			1	1		2	2	44		1
10			3,150	23,143	3,105	22,927	1,575	22,945	630	22,964	450	21,233	10			1	1		2	2	45		1
10			3,220	23,657	3,174	23,437	1,610	23,454	644	23,474	460	21,705	10			1	1		2	2	46		1
10			3,290	24,172	3,243	23,946	1,645	23,964	658	23,984	470	22,177	10			1	1		2	2	47		1
10			3,360	24,686	3,312	24,456	1,680	24,474	672	24,494	480	22,649	10			2	1	1	3	2	48		1
10			3,430	25,200	3,381	24,965	1,715	24,984	686	25,005	490	23,121	10			2	1	1	3	2	49		1
10			3,500	25,715	3,450	25,475	1,750	25,494	700	25,515	500	23,593	10			2	1	1	3	2	50		1
10			3,570	26,229	3,519	25,984	1,785	26,004	714	26,025	510	24,064	10			2	1	1	3	2	51		1
10			3,640	26,743	3,588	26,494	1,820	26,514	728	26,536	520	24,536	10			2	1	1	3	2	52		1
10			3,710	27,257	3,657	27,003	1,855	27,024	742	27,046	530	25,008	10			2	1	1	3	2	53		1
10			3,780	27,772	3,726	27,513	1,890	27,534	756	27,556	540	25,480	10			2	1	1	3	2	54		1
10			3,850	28,286	3,795	28,022	1,925	28,043	770	28,067	550	25,952	10			2	1	1	3	2	55		1
10			3,920	28,800	3,864	28,532	1,960	28,553	784	28,577	560	26,424	10			2	1	1	3	2	56		1
10			3,990	29,315	3,933	29,041	1,995	29,063	798	29,087	570	26,895	10			2	1	1	3	2	57		1
10			4,060	29,829	4,002	29,551	2,030	29,573	812	29,597	580	27,367	10			2	1	1	3	2	58		1
10					4,071	30,060	2,065	30,083	826	30,108	590	27,839	10			3	1	1	3	3	59		1
10							2,100	30,593	840	30,618	600	28,311	10			3	1	1	3	3	60		1
10							2,135	31,103	854	31,128	610	28,783	10			3	1	1	3	3	61		1
10							2,170	31,613	868	31,639	620	29,255	10			3	1	1	3	3	62		1
10							2,205	32,122	882	32,149	630	29,727	10			3	1	1	3	3	63		1
10							2,240	32,632	896	32,659	640	30,198	10			3	1	1	3	3	64		1
10							2,275	33,142	910	33,170	650	30,670	10			3	1	1	3	3	65		1
10							2,310	33,652	924	33,680	660	31,142	10			3	1	1	3	3	66		1
10							2,345	34,162	938	34,190	670	31,614	10			3	1	1	3	3	67		1
10							2,380	34,672	952	34,700	680	32,086	10			3	1	1	3	3	68		1
10							2,415	35,182	966	35,211	690	32,558	10			3	1	1	3	3	69		1
10							2,450	35,692	980	35,721	700	33,030	10			3	1	1	3	3	70		1
10							2,485	36,201	994	36,231	710	33,501	10			3	1	1	4	3	71		2
10							2,520	36,711	1,008	36,742	720	33,973	10			3	1	1	4	3	72		2
10							2,555	37,221	1,022	37,252	730	34,445	10		▼	3	1	1	4	3	73		2
10							2,590	37,731	1,036	37,762	740	34,917	10		*1	3	1	1	4	3	74		2

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		OPEN-M (47.185GB)		DKC options						DKU options				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -180H4	F405I -180H1	F405I -EXC
10							2,625	38,241	1,050	38,273	750	35,389	10		*1	3	1	1	4	3	75		2
10							2,660	38,751	1,064	38,783	760	35,861	10		▲	3	1	1	4	3	76		2
10							2,695	39,261	1,078	39,293	770	36,332	10			3	1	1	4	3	77		2
10							2,730	39,771	1,092	39,803	780	36,804	10			3	1	1	4	3	78		2
10							2,765	40,281	1,106	40,314	790	37,276	10			3	1	1	4	3	79		2
10							2,800	40,790	1,120	40,824	800	37,748	10			3	1	1	4	3	80		2
10							2,835	41,300	1,134	41,334	810	38,220	10			3	1	1	4	3	81		2
10							2,870	41,810	1,148	41,845	820	38,692	10			3	1	1	4	3	82		2
10							2,905	42,320	1,162	42,355	830	39,164	10			3	1	1	4	4	83		2
10							2,940	42,830	1,176	42,865	840	39,635	10			3	1	1	4	4	84		2
10							2,975	43,340	1,190	43,376	850	40,107	10			3	1	1	4	4	85		2
10							3,010	43,850	1,204	43,886	860	40,579	10			3	1	1	4	4	86		2
10							3,045	44,360	1,218	44,396	870	41,051	10			3	1	1	4	4	87		2
10							3,080	44,869	1,232	44,906	880	41,523	10			3	1	1	4	4	88		2
10							3,115	45,379	1,246	45,417	890	41,995	10			3	1	1	4	4	89		2
10							3,150	45,889	1,260	45,927	900	42,467	10			3	1	1	4	4	90		2
10							3,185	46,399	1,274	46,437	910	42,938	10			3	1	1	4	4	91		2
10							3,220	46,909	1,288	46,948	920	43,410	10			3	1	1	4	4	92		2
10							3,255	47,419	1,302	47,458	930	43,882	10			3	1	1	4	4	93		2
10							3,290	47,929	1,316	47,968	940	44,354	10			3	1	1	4	4	94		2
10							3,325	48,439	1,330	48,479	950	44,826	10			3	1	1	5	4	95		3
10							3,360	48,948	1,344	48,989	960	45,298	10			3	1	1	5	4	96		3
10							3,395	49,458	1,358	49,499	970	45,769	10			3	1	1	5	4	97		3
10							3,430	49,968	1,372	50,009	980	46,241	10			3	1	1	5	4	98		3
10							3,465	50,478	1,386	50,520	990	46,713	10			3	1	1	5	4	99		3
10							3,500	50,988	1,400	51,030	1,000	47,185	10			3	1	1	5	4	100		3
10							3,535	51,498	1,414	51,540	1,010	47,657	10			3	1	1	5	4	101		3
10							3,570	52,008	1,428	52,051	1,020	48,129	10			3	1	1	5	4	102		3
10							3,605	52,518	1,442	52,561	1,030	48,601	10			3	1	1	5	5	103		3
10							3,640	53,028	1,456	53,071	1,040	49,072	10			3	1	1	5	5	104		3
10							3,675	53,537	1,470	53,582	1,050	49,544	10			3	1	1	5	5	105		3
10							3,710	54,047	1,484	54,092	1,060	50,016	10			3	1	1	5	5	106		3
10							3,745	54,557	1,498	54,602	1,070	50,488	10			3	1	1	5	5	107		3
10							3,780	55,067	1,512	55,112	1,080	50,960	10			3	1	1	5	5	108		3
10							3,815	55,577	1,526	55,623	1,090	51,432	10			3	1	1	5	5	109		3
10							3,850	56,087	1,540	56,133	1,100	51,904	10			3	1	1	5	5	110		3
10							3,885	56,597	1,554	56,643	1,110	52,375	10			3	1	1	6	5	111		4
10							3,920	57,107	1,568	57,154	1,120	52,847	10			3	1	1	6	5	112		4
10							3,955	57,616	1,582	57,664	1,130	53,319	10			3	1	1	6	5	113		4
10							3,990	58,126	1,596	58,174	1,140	53,791	10			3	1	1	6	5	114		4
10							4,025	58,636	1,610	58,685	1,150	54,263	10			3	1	1	6	5	115		4
10							4,060	59,146	1,624	59,195	1,160	54,735	10			3	1	1	6	5	116		4
10							4,095	59,656	1,638	59,705	1,170	55,206	10			3	1	1	6	5	117		4
10									1,652	60,215	1,180	55,678	10			3	1	1	6	5	118		4
10									1,666	60,726	1,190	56,150	10			3	1	1	6	6	119		4
10									1,680	61,236	1,200	56,622	10			3	1	1	6	6	120		4
10									1,694	61,746	1,210	57,094	10			3	1	1	6	6	121		4
10									1,708	62,257	1,220	57,566	10			3	1	1	6	6	122		4
10									1,722	62,767	1,230	58,038	10			3	1	1	6	6	123		4
10									1,736	63,277	1,240	58,509	10			3	1	1	6	6	124		4
10									1,750	63,788	1,250	58,981	10		▼	3	1	1	6	6	125		4
10									1,764	64,298	1,260	59,453	10		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-41 in page INST01-85.
Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(11) High Speed 36GB HDD, RAID5, for Mainframe

Cache (GB)	Storage Capacity (GB)														Number of necessary options										
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-						DKU 405l -14	DKU-F405l-			
															1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap											
1	163	103	81	102	54	102	107	101	53	100	35	99	11	94	1		*1				1		1		
1	326	205	162	204	108	204	214	202	106	201	70	199	22	187	1		▲				1		2		
1	489	308	243	306	162	306	321	304	159	301	105	298	33	281	1						1		3		
2	652	411	324	408	216	408	428	405	212	401	140	397	44	374	2						1		4		
2	815	513	405	510	270	510	535	506	265	501	175	497	55	468	2						1		5		
3	978	616	486	612	324	612	642	607	318	602	210	596	66	562	3						1		6		
3	1,141	719	567	714	378	714	749	709	371	702	245	695	77	655	3						1		7		
4	1,304	822	648	816	432	816	856	810	424	802	280	795	88	749	4						1		8		
4	1,467	924	729	919	486	919	963	911	477	902	315	894	99	842	4						1		9		
5	1,630	1,027	810	1,021	540	1,021	1,070	1,012	530	1,003	350	993	110	936	5						1		10		
5	1,793	1,130	891	1,123	594	1,123	1,177	1,113	583	1,103	385	1,093	121	1,030	5						1		11		
6	1,956	1,232	972	1,225	648	1,225	1,284	1,215	636	1,203	420	1,192	132	1,123	6				1	1	1	1	12		
6	2,119	1,335	1,053	1,327	702	1,327	1,391	1,316	689	1,304	455	1,291	143	1,217	6				1	1	1	1	13		
7	2,282	1,438	1,134	1,429	756	1,429	1,498	1,417	742	1,404	490	1,391	154	1,311	7				1	1	1	1	14		
7	2,445	1,540	1,215	1,531	810	1,531	1,605	1,518	795	1,504	525	1,490	165	1,404	7				1	1	1	1	15		
7	2,608	1,643	1,296	1,633	864	1,633	1,712	1,620	848	1,604	560	1,589	176	1,498	7				1	1	1	1	16		
7	2,771	1,746	1,377	1,735	918	1,735	1,819	1,721	901	1,705	595	1,689	187	1,591	7				1	1	1	1	17		
7	2,934	1,848	1,458	1,837	972	1,837	1,926	1,822	954	1,805	630	1,788	198	1,685	7				1	1	1	1	18		
7	3,097	1,951	1,539	1,939	1,026	1,939	2,033	1,923	1,007	1,905	665	1,887	209	1,779	7				1	1	1	1	19		
7	3,260	2,054	1,620	2,041	1,080	2,041	2,140	2,024	1,060	2,006	700	1,987	220	1,872	7				1	1	1	1	20		
7	3,423	2,156	1,701	2,143	1,134	2,143	2,247	2,126	1,113	2,106	735	2,086	231	1,966	7				1	1	1	1	21		
7	3,586	2,259	1,782	2,245	1,188	2,245	2,354	2,227	1,166	2,206	770	2,185	242	2,059	7				1	1	1	1	22		
7	3,749	2,362	1,863	2,347	1,242	2,347	2,461	2,328	1,219	2,306	805	2,285	253	2,153	7				1	1	1	1	23		
7	3,912	2,465	1,944	2,449	1,296	2,449	2,568	2,429	1,272	2,407	840	2,384	264	2,247	7				1	1	2	1	24		1
7	4,075	2,567	2,025	2,552	1,350	2,552	2,675	2,531	1,325	2,507	875	2,483	275	2,340	7				1	1	2	1	25		1
7			2,106	2,654	1,404	2,654	2,782	2,632	1,378	2,607	910	2,583	286	2,434	7				1	1	2	1	26		1
7			2,187	2,756	1,458	2,756	2,889	2,733	1,431	2,707	945	2,682	297	2,527	7				1	1	2	1	27		1
7			2,268	2,858	1,512	2,858	2,996	2,834	1,484	2,808	980	2,781	308	2,621	7				1	1	2	1	28		1
7			2,349	2,960	1,566	2,960	3,103	2,935	1,537	2,908	1,015	2,881	319	2,715	7				1	1	2	1	29		1
8			2,430	3,062	1,620	3,062	3,210	3,037	1,590	3,008	1,050	2,980	330	2,808	8				1	1	2	1	30		1
8			2,511	3,164	1,674	3,164	3,317	3,138	1,643	3,109	1,085	3,079	341	2,902	8				1	1	2	1	31		1
8			2,592	3,266	1,728	3,266	3,424	3,239	1,696	3,209	1,120	3,179	352	2,996	8				1	1	2	1	32		1
8			2,673	3,368	1,782	3,368	3,531	3,340	1,749	3,309	1,155	3,278	363	3,089	8				1	1	2	1	33		1
8			2,754	3,470	1,836	3,470	3,638	3,442	1,802	3,409	1,190	3,377	374	3,183	8				1	1	2	1	34		1
8			2,835	3,572	1,890	3,572	3,745	3,543	1,855	3,510	1,225	3,477	385	3,276	8				1	1	2	1	35		1
8			2,916	3,674	1,944	3,674	3,852	3,644	1,908	3,610	1,260	3,576	396	3,370	8				1	1	2	2	36		1
8			2,997	3,776	1,998	3,776	3,959	3,745	1,961	3,710	1,295	3,675	407	3,464	8				1	1	2	2	37		1
8			3,078	3,878	2,052	3,878	4,066	3,846	2,014	3,810	1,330	3,775	418	3,557	8				1	1	2	2	38		1
8			3,159	3,980	2,106	3,980			2,067	3,911	1,365	3,874	429	3,651	8				1	1	2	2	39		1
8			3,240	4,082	2,160	4,082			2,120	4,011	1,400	3,973	440	3,744	8				1	1	2	2	40		1
8			3,321	4,184	2,214	4,184			2,173	4,111	1,435	4,073	451	3,838	8				1	1	2	2	41		1
8			3,402	4,287	2,268	4,287			2,226	4,212	1,470	4,172	462	3,932	8				1	1	2	2	42		1
8			3,483	4,389	2,322	4,389			2,279	4,312	1,505	4,271	473	4,025	8				1	1	2	2	43		1
8			3,564	4,491	2,376	4,491			2,332	4,412	1,540	4,371	484	4,119	8				1	1	2	2	44		1
8			3,645	4,593	2,430	4,593			2,385	4,512	1,575	4,470	495	4,212	8				1	1	2	2	45		1
8			3,726	4,695	2,484	4,695			2,438	4,613	1,610	4,569	506	4,306	8				1	1	2	2	46		1
8			3,807	4,797	2,538	4,797			2,491	4,713	1,645	4,669	517	4,400	8				1	1	2	2	47		1
8			3,888	4,899	2,592	4,899			2,544	4,813	1,680	4,768	528	4,493	8				2	1	1	3	2	48		1
8			3,969	5,001	2,646	5,001			2,597	4,914	1,715	4,867	539	4,587	8				2	1	1	3	2	49		1
8			4,050	5,103	2,700	5,103			2,650	5,014	1,750	4,967	550	4,681	8				2	1	1	3	2	50		1
8					2,754	5,205			2,703	5,114	1,785	5,066	561	4,774	8				2	1	1	3	2	51		1
8					2,808	5,307			2,756	5,214	1,820	5,165	572	4,868	8				2	1	1	3	2	52		1
8					2,862	5,409			2,809	5,315	1,855	5,264	583	4,961	8				2	1	1	3	2	53		1
8					2,916	5,511			2,862	5,415	1,890	5,364	594	5,055	8				2	1	1	3	2	54		1
8					2,970	5,613			2,915	5,515	1,925	5,463	605	5,149	8				2	1	1	3	2	55		1
8					3,024	5,715			2,968	5,615	1,960	5,562	616	5,242	8				2	1	1	3	2	56		1
8					3,078	5,817			3,021	5,716	1,995	5,662	627	5,336	8				2	1	1	3	2	57		1
8					3,132	5,919			3,074	5,816	2,030	5,761	638	5,429	8				2	1	1	3	2	58		1
8					3,186	6,022			3,127	5,916	2,065	5,860	649	5,523	8				3	1	1	3	3	59		1
8					3,240	6,124			3,180	6,017	2,100	5,960	660	5,617	8				3	1	1	3	3	60		1
8					3,294	6,226			3,233	6,117	2,135	6,059	671	5,710	8				3	1	1	3	3	61		1
8					3,348	6,328			3,286	6,217	2,170	6,158	682	5,804	8				3	1	1	3	3	62		1
8					3,402	6,430			3,339	6,317	2,205	6,258	693	5,897	8				3	1	1	3	3	63		1
8					3,456	6,532			3,392	6,418	2,240	6,357	704	5,991	8				3	1	1	3	3	64		1
8					3,510	6,634			3,445	6,518	2,275	6,456	715	6,085	8			▼	3	1	1	3	3	65		1
8					3,564	6,736			3,498	6,618	2,310	6,556	726	6,178	8			*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	Storage Capacity (GB)														Number of necessary options										
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-						DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	1024	20	S256	100	R1C	L1C	405I -14	B4	36K4	36K1	EXC
8					3,618	6,838			3,551	6,718	2,345	6,655	737	6,272	8		*1	3	1	1	3	3	67		1
8					3,672	6,940			3,604	6,819	2,380	6,754	748	6,365	8		▲	3	1	1	3	3	68		1
8					3,726	7,042			3,657	6,919	2,415	6,854	759	6,459	8			3	1	1	3	3	69		1
8					3,780	7,144			3,710	7,019	2,450	6,953	770	6,553	8			3	1	1	3	3	70		1
8					3,834	7,246			3,763	7,120	2,485	7,052	781	6,646	8			3	1	1	4	3	71		2
8					3,888	7,348			3,816	7,220	2,520	7,152	792	6,740	8			3	1	1	4	3	72		2
9					3,942	7,450			3,869	7,320	2,555	7,251	803	6,834	9			3	1	1	4	3	73		2
9					3,996	7,552			3,922	7,420	2,590	7,350	814	6,927	9			3	1	1	4	3	74		2
9					4,050	7,655			3,975	7,521	2,625	7,450	825	7,021	9			3	1	1	4	3	75		2
9									4,028	7,621	2,660	7,549	836	7,114	9			3	1	1	4	3	76		2
9									4,081	7,721	2,695	7,648	847	7,208	9			3	1	1	4	3	77		2
9											2,730	7,748	858	7,302	9			3	1	1	4	3	78		2
9											2,765	7,847	869	7,395	9			3	1	1	4	3	79		2
9											2,800	7,946	880	7,489	9			3	1	1	4	3	80		2
9											2,835	8,046	891	7,582	9			3	1	1	4	3	81		2
9											2,870	8,145	902	7,676	9			3	1	1	4	3	82		2
9											2,905	8,244	913	7,770	9			3	1	1	4	4	83		2
9											2,940	8,344	924	7,863	9			3	1	1	4	4	84		2
9											2,975	8,443	935	7,957	9			3	1	1	4	4	85		2
9											3,010	8,542	946	8,050	9			3	1	1	4	4	86		2
9											3,045	8,642	957	8,144	9			3	1	1	4	4	87		2
9											3,080	8,741	968	8,238	9			3	1	1	4	4	88		2
9											3,115	8,840	979	8,331	9			3	1	1	4	4	89		2
9											3,150	8,940	990	8,425	9			3	1	1	4	4	90		2
9											3,185	9,039	1,001	8,519	9			3	1	1	4	4	91		2
9											3,220	9,138	1,012	8,612	9			3	1	1	4	4	92		2
9											3,255	9,238	1,023	8,706	9			3	1	1	4	4	93		2
9											3,290	9,337	1,034	8,799	9			3	1	1	4	4	94		2
9											3,325	9,436	1,045	8,893	9			3	1	1	5	4	95		3
9											3,360	9,536	1,056	8,987	9			3	1	1	5	4	96		3
9											3,395	9,635	1,067	9,080	9			3	1	1	5	4	97		3
9											3,430	9,734	1,078	9,174	9			3	1	1	5	4	98		3
9											3,465	9,834	1,089	9,267	9			3	1	1	5	4	99		3
9											3,500	9,933	1,100	9,361	9			3	1	1	5	4	100		3
9											3,535	10,032	1,111	9,455	9			3	1	1	5	4	101		3
9											3,570	10,132	1,122	9,548	9			3	1	1	5	4	102		3
9											3,605	10,231	1,133	9,642	9			3	1	1	5	5	103		3
9											3,640	10,330	1,144	9,735	9			3	1	1	5	5	104		3
9											3,675	10,430	1,155	9,829	9			3	1	1	5	5	105		3
9											3,710	10,529	1,166	9,923	9			3	1	1	5	5	106		3
9											3,745	10,628	1,177	10,016	9			3	1	1	5	5	107		3
9											3,780	10,728	1,188	10,110	9			3	1	1	5	5	108		3
9											3,815	10,827	1,199	10,203	9			3	1	1	5	5	109		3
9											3,850	10,926	1,210	10,297	9			3	1	1	5	5	110		3
9											3,885	11,026	1,221	10,391	9			3	1	1	6	5	111		4
9											3,920	11,125	1,232	10,484	9			3	1	1	6	5	112		4
9											3,955	11,224	1,243	10,578	9			3	1	1	6	5	113		4
9											3,990	11,324	1,254	10,672	9			3	1	1	6	5	114		4
9											4,025	11,423	1,265	10,765	9			3	1	1	6	5	115		4
9											4,060	11,522	1,276	10,859	9			3	1	1	6	5	116		4
9											4,095	11,622	1,287	10,952	9			3	1	1	6	5	117		4
9													1,298	11,046	9			3	1	1	6	5	118		4
9													1,309	11,140	9			3	1	1	6	6	119		4
10													1,320	11,233	10			3	1	1	6	6	120		4
10													1,331	11,327	10			3	1	1	6	6	121		4
10													1,342	11,420	10			3	1	1	6	6	122		4
10													1,353	11,514	10			3	1	1	6	6	123		4
10													1,364	11,608	10			3	1	1	6	6	124		4
10													1,375	11,701	10		▼	3	1	1	6	6	125		4
10													1,386	11,795	10		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(12) High Speed 36GB HDD, RAID5, for Open System

Cache (GB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
											512	1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
1	56	105	43	106	14	103	14	103	7	102		1		*1				1		1		
1	112	211	86	212	28	206	28	207	14	204		1						1		2		
1	168	316	129	317	42	309	42	310	21	306		1						1		3		
1	224	421	172	423	56	411	56	414	28	408		1						1		4		
2	280	527	215	529	70	514	70	517	35	510		2						1		5		
2	336	632	258	635	84	617	84	620	42	612		2						1		6		
3	392	737	301	741	98	720	98	724	49	714		3						1		7		
4	448	843	344	847	112	823	112	827	56	816		4						1		8		
4	504	948	387	952	126	926	126	930	63	918		4						1		9		
5	560	1,053	430	1,058	140	1,029	140	1,034	70	1,020		5						1		10		
5	616	1,159	473	1,164	154	1,131	154	1,137	77	1,122		5						1		11		
6	672	1,264	516	1,270	168	1,234	168	1,241	84	1,224		6			1	1		1	1	12		
6	728	1,369	559	1,376	182	1,337	182	1,344	91	1,326		6			1	1		1	1	13		
7	784	1,475	602	1,482	196	1,440	196	1,447	98	1,428		7			1	1		1	1	14		
7	840	1,580	645	1,587	210	1,543	210	1,551	105	1,530		7			1	1		1	1	15		
7	896	1,685	688	1,693	224	1,646	224	1,654	112	1,632		7			1	1		1	1	16		
7	952	1,791	731	1,799	238	1,749	238	1,757	119	1,734		7			1	1		1	1	17		
7	1,008	1,896	774	1,905	252	1,851	252	1,861	126	1,836		7			1	1		1	1	18		
7	1,064	2,001	817	2,011	266	1,954	266	1,964	133	1,938		7			1	1		1	1	19		
7	1,120	2,107	860	2,116	280	2,057	280	2,068	140	2,040		7			1	1		1	1	20		
7	1,176	2,212	903	2,222	294	2,160	294	2,171	147	2,141		7			1	1		1	1	21		
7	1,232	2,317	946	2,328	308	2,263	308	2,274	154	2,243		7			1	1		1	1	22		
7	1,288	2,423	989	2,434	322	2,366	322	2,378	161	2,345		7			1	1		1	1	23		
7	1,344	2,528	1,032	2,540	336	2,469	336	2,481	168	2,447		7			1	1		2	1	24		1
7	1,400	2,633	1,075	2,646	350	2,571	350	2,584	175	2,549		7			1	1		2	1	25		1
7	1,456	2,739	1,118	2,751	364	2,674	364	2,688	182	2,651		7			1	1		2	1	26		1
7	1,512	2,844	1,161	2,857	378	2,777	378	2,791	189	2,753		7			1	1		2	1	27		1
7	1,568	2,949	1,204	2,963	392	2,880	392	2,895	196	2,855		7			1	1		2	1	28		1
7	1,624	3,055	1,247	3,069	406	2,983	406	2,998	203	2,957		7			1	1		2	1	29		1
8	1,680	3,160	1,290	3,175	420	3,086	420	3,101	210	3,059		8			1	1		2	1	30		1
8	1,736	3,265	1,333	3,281	434	3,189	434	3,205	217	3,161		8			1	1		2	1	31		1
8	1,792	3,371	1,376	3,386	448	3,291	448	3,308	224	3,263		8			1	1		2	1	32		1
8	1,848	3,476	1,419	3,492	462	3,394	462	3,411	231	3,365		8			1	1		2	1	33		1
8	1,904	3,581	1,462	3,598	476	3,497	476	3,515	238	3,467		8			1	1		2	1	34		1
8	1,960	3,687	1,505	3,704	490	3,600	490	3,618	245	3,569		8			1	1		2	1	35		1
8	2,016	3,792	1,548	3,810	504	3,703	504	3,722	252	3,671		8			1	1		2	2	36		1
8	2,072	3,897	1,591	3,915	518	3,806	518	3,825	259	3,773		8			1	1		2	2	37		1
8	2,128	4,003	1,634	4,021	532	3,909	532	3,928	266	3,875		8			1	1		2	2	38		1
8	2,184	4,108	1,677	4,127	546	4,011	546	4,032	273	3,977		8			1	1		2	2	39		1
8	2,240	4,213	1,720	4,233	560	4,114	560	4,135	280	4,079		8			1	1		2	2	40		1
8	2,296	4,319	1,763	4,339	574	4,217	574	4,238	287	4,181		8			1	1		2	2	41		1
8	2,352	4,424	1,806	4,445	588	4,320	588	4,342	294	4,283		8			1	1		2	2	42		1
8	2,408	4,529	1,849	4,550	602	4,423	602	4,445	301	4,385		8			1	1		2	2	43		1
8	2,464	4,635	1,892	4,656	616	4,526	616	4,549	308	4,487		8			1	1		2	2	44		1
8	2,520	4,740	1,935	4,762	630	4,629	630	4,652	315	4,589		8			1	1		2	2	45		1
8	2,576	4,845	1,978	4,868	644	4,731	644	4,755	322	4,691		8			1	1		2	2	46		1
8	2,632	4,951	2,021	4,974	658	4,834	658	4,859	329	4,793		8			1	1		2	2	47		1
8	2,688	5,056	2,064	5,080	672	4,937	672	4,962	336	4,895		8			2	1	1	3	2	48		1
8	2,744	5,161	2,107	5,185	686	5,040	686	5,065	343	4,997		8			2	1	1	3	2	49		1
8	2,800	5,267	2,150	5,291	700	5,143	700	5,169	350	5,099		8			2	1	1	3	2	50		1
8	2,856	5,372	2,193	5,397	714	5,246	714	5,272	357	5,201		8			2	1	1	3	2	51		1
8	2,912	5,477	2,236	5,503	728	5,349	728	5,376	364	5,303		8			2	1	1	3	2	52		1
8	2,968	5,583	2,279	5,609	742	5,451	742	5,479	371	5,405		8			2	1	1	3	2	53		1
8	3,024	5,688	2,322	5,714	756	5,554	756	5,582	378	5,507		8			2	1	1	3	2	54		1
8	3,080	5,793	2,365	5,820	770	5,657	770	5,686	385	5,609		8			2	1	1	3	2	55		1
8	3,136	5,899	2,408	5,926	784	5,760	784	5,789	392	5,711		8			2	1	1	3	2	56		1
8	3,192	6,004	2,451	6,032	798	5,863	798	5,892	399	5,813		8			2	1	1	3	2	57		1
8	3,248	6,109	2,494	6,138	812	5,966	812	5,996	406	5,915		8			2	1	1	3	2	58		1
8	3,304	6,215	2,537	6,244	826	6,069	826	6,099	413	6,017		8			3	1	1	3	3	59		1
8	3,360	6,320	2,580	6,349	840	6,171	840	6,203	420	6,119		8			3	1	1	3	3	60		1
8	3,416	6,425	2,623	6,455	854	6,274	854	6,306	427	6,221		8			3	1	1	3	3	61		1
8	3,472	6,531	2,666	6,561	868	6,377	868	6,409	434	6,323		8			3	1	1	3	3	62		1
8	3,528	6,636	2,709	6,667	882	6,480	882	6,513	441	6,424		8			3	1	1	3	3	63		1
8	3,584	6,742	2,752	6,773	896	6,583	896	6,616	448	6,526		8			3	1	1	3	3	64		1
8	3,640	6,847	2,795	6,878	910	6,686	910	6,719	455	6,628		8		*1	3	1	1	3	3	65		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
8	3,696	6,952	2,838	6,984	924	6,789	924	6,823	462	6,730		8		*1	3	1	1	3	3	66		1
8	3,752	7,058	2,881	7,090	938	6,891	938	6,926	469	6,832		8		▲	3	1	1	3	3	67		1
8	3,808	7,163	2,924	7,196	952	6,994	952	7,030	476	6,934		8			3	1	1	3	3	68		1
8	3,864	7,268	2,967	7,302	966	7,097	966	7,133	483	7,036		8			3	1	1	3	3	69		1
8	3,920	7,374	3,010	7,408	980	7,200	980	7,236	490	7,138		8			3	1	1	3	3	70		1
8	3,976	7,479	3,053	7,513	994	7,303	994	7,340	497	7,240		8			3	1	1	4	3	71		2
8	4,032	7,584	3,096	7,619	1,008	7,406	1,008	7,443	504	7,342		8			3	1	1	4	3	72		2
8	4,088	7,690	3,139	7,725	1,022	7,509	1,022	7,546	511	7,444		8			3	1	1	4	3	73		2
9			3,182	7,831	1,036	7,611	1,036	7,650	518	7,546		9			3	1	1	4	3	74		2
9			3,225	7,937	1,050	7,714	1,050	7,753	525	7,648		9			3	1	1	4	3	75		2
9			3,268	8,043	1,064	7,817	1,064	7,857	532	7,750		9			3	1	1	4	3	76		2
9			3,311	8,148	1,078	7,920	1,078	7,960	539	7,852		9			3	1	1	4	3	77		2
9			3,354	8,254	1,092	8,023	1,092	8,063	546	7,954		9			3	1	1	4	3	78		2
9			3,397	8,360	1,106	8,126	1,106	8,167	553	8,056		9			3	1	1	4	3	79		2
9			3,440	8,466	1,120	8,229	1,120	8,270	560	8,158		9			3	1	1	4	3	80		2
9			3,483	8,572	1,134	8,331	1,134	8,373	567	8,260		9			3	1	1	4	3	81		2
9			3,526	8,677	1,148	8,434	1,148	8,477	574	8,362		9			3	1	1	4	3	82		2
9			3,569	8,783	1,162	8,537	1,162	8,580	581	8,464		9			3	1	1	4	4	83		2
9			3,612	8,889	1,176	8,640	1,176	8,684	588	8,566		9			3	1	1	4	4	84		2
9			3,655	8,995	1,190	8,743	1,190	8,787	595	8,668		9			3	1	1	4	4	85		2
9			3,698	9,101	1,204	8,846	1,204	8,890	602	8,770		9			3	1	1	4	4	86		2
9			3,741	9,207	1,218	8,949	1,218	8,994	609	8,872		9			3	1	1	4	4	87		2
9			3,784	9,312	1,232	9,052	1,232	9,097	616	8,974		9			3	1	1	4	4	88		2
9			3,827	9,418	1,246	9,154	1,246	9,200	623	9,076		9			3	1	1	4	4	89		2
9			3,870	9,524	1,260	9,257	1,260	9,304	630	9,178		9			3	1	1	4	4	90		2
9			3,913	9,630	1,274	9,360	1,274	9,407	637	9,280		9			3	1	1	4	4	91		2
9			3,956	9,736	1,288	9,463	1,288	9,511	644	9,382		9			3	1	1	4	4	92		2
9			3,999	9,842	1,302	9,566	1,302	9,614	651	9,484		9			3	1	1	4	4	93		2
9			4,042	9,947	1,316	9,669	1,316	9,717	658	9,586		9			3	1	1	4	4	94		2
9			4,085	10,053	1,330	9,772	1,330	9,821	665	9,688		9			3	1	1	5	4	95		3
9					1,344	9,874	1,344	9,924	672	9,790		9			3	1	1	5	4	96		3
9					1,358	9,977	1,358	10,027	679	9,892		9			3	1	1	5	4	97		3
9					1,372	10,080	1,372	10,131	686	9,994		9			3	1	1	5	4	98		3
9					1,386	10,183	1,386	10,234	693	10,096		9			3	1	1	5	4	99		3
9					1,400	10,286	1,400	10,338	700	10,198		9			3	1	1	5	4	100		3
9					1,414	10,389	1,414	10,441	707	10,300		9			3	1	1	5	4	101		3
9					1,428	10,492	1,428	10,544	714	10,402		9			3	1	1	5	4	102		3
9					1,442	10,594	1,442	10,648	721	10,504		9			3	1	1	5	5	103		3
9					1,456	10,697	1,456	10,751	728	10,606		9			3	1	1	5	5	104		3
9					1,470	10,800	1,470	10,854	735	10,707		9			3	1	1	5	5	105		3
9					1,484	10,903	1,484	10,958	742	10,809		9			3	1	1	5	5	106		3
9					1,498	11,006	1,498	11,061	749	10,911		9			3	1	1	5	5	107		3
9					1,512	11,109	1,512	11,165	756	11,013		9			3	1	1	5	5	108		3
9					1,526	11,212	1,526	11,268	763	11,115		9			3	1	1	5	5	109		3
9					1,540	11,314	1,540	11,371	770	11,217		9			3	1	1	5	5	110		3
9					1,554	11,417	1,554	11,475	777	11,319		9			3	1	1	6	5	111		4
9					1,568	11,520	1,568	11,578	784	11,421		9			3	1	1	6	5	112		4
9					1,582	11,623	1,582	11,681	791	11,523		9			3	1	1	6	5	113		4
9					1,596	11,726	1,596	11,785	798	11,625		9			3	1	1	6	5	114		4
9					1,610	11,829	1,610	11,888	805	11,727		9			3	1	1	6	5	115		4
9					1,624	11,932	1,624	11,992	812	11,829		9			3	1	1	6	5	116		4
9					1,638	12,034	1,638	12,095	819	11,931		9			3	1	1	6	5	117		4
9					1,652	12,137	1,652	12,198	826	12,033		9			3	1	1	6	5	118		4
10					1,666	12,240	1,666	12,302	833	12,135		10			3	1	1	6	6	119		4
10					1,680	12,343	1,680	12,405	840	12,237		10			3	1	1	6	6	120		4
10					1,694	12,446	1,694	12,508	847	12,339		10			3	1	1	6	6	121		4
10					1,708	12,549	1,708	12,612	854	12,441		10			3	1	1	6	6	122		4
10					1,722	12,652	1,722	12,715	861	12,543		10			3	1	1	6	6	123		4
10					1,736	12,754	1,736	12,819	868	12,645		10			3	1	1	6	6	124		4
10					1,750	12,857	1,750	12,922	875	12,747		10			3	1	1	6	6	125		4
10					1,764	12,960	1,764	13,025	882	12,849		10			3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(13) 146GB HDD, RAID5, for Mainframe

RAID group	Cache (GB)	Storage Capacity (GB)				Number of necessary options										
		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
1	2048	144	409	48	408	2		*1				1		1		
2	4096	288	817	96	817	4		▲				1		2		
3	6144	432	1,226	144	1,225	6						1		3		
4	7168	576	1,635	192	1,634	7						1		4		
5	7168	720	2,043	240	2,042	7						1		5		
6	7168	864	2,452	288	2,451	7						1		6		
7	7168	1,008	2,861	336	2,859	7						1		7		
8	8192	1,152	3,269	384	3,268	8						1		8		
9	8192	1,296	3,678	432	3,676	8						1		9		
10	8192	1,440	4,087	480	4,085	8						1		10		
11	8192	1,584	4,495	528	4,493	8						1		11		
12	8192	1,728	4,904	576	4,902	8			1	1		1	1	12		
13	8192	1,872	5,313	624	5,310	8			1	1		1	1	13		
14	8192	2,016	5,721	672	5,719	8			1	1		1	1	14		
15	8192	2,160	6,130	720	6,127	8			1	1		1	1	15		
16	8192	2,304	6,539	768	6,536	8			1	1		1	1	16		
17	8192	2,448	6,947	816	6,944	8			1	1		1	1	17		
18	8192	2,592	7,356	864	7,353	8			1	1		1	1	18		
19	9216	2,736	7,765	912	7,761	9			1	1		1	1	19		
20	9216	2,880	8,173	960	8,170	9			1	1		1	1	20		
21	9216	3,024	8,582	1,008	8,578	9			1	1		1	1	21		
22	9216	3,168	8,991	1,056	8,987	9			1	1		1	1	22		
23	9216	3,312	9,399	1,104	9,395	9			1	1		1	1	23		
24	9216	3,456	9,808	1,152	9,804	9			1	1		2	1	24		1
25	9216	3,600	10,217	1,200	10,212	9			1	1		2	1	25		1
26	9216	3,744	10,625	1,248	10,620	9			1	1		2	1	26		1
27	9216	3,888	11,034	1,296	11,029	9			1	1		2	1	27		1
28	9216	4,032	11,443	1,344	11,437	9			1	1		2	1	28		1
29	9216			1,392	11,846	9			1	1		2	1	29		1
30	10240			1,440	12,254	10			1	1		2	1	30		1
31	10240			1,488	12,663	10			1	1		2	1	31		1
32	10240			1,536	13,071	10			1	1		2	1	32		1
33	10240			1,584	13,480	10			1	1		2	1	33		1
34	10240			1,632	13,888	10			1	1		2	1	34		1
35	10240			1,680	14,297	10			1	1		2	1	35		1
36	10240			1,728	14,705	10			1	1		2	2	36		1
37	10240			1,776	15,114	10			1	1		2	2	37		1
38	10240			1,824	15,522	10			1	1		2	2	38		1
39	10240			1,872	15,931	10			1	1		2	2	39		1
40	10240			1,920	16,339	10			1	1		2	2	40		1
41	10240			1,968	16,748	10			1	1		2	2	41		1
42	10240			2,016	17,156	10			1	1		2	2	42		1
43	10240			2,064	17,565	10			1	1		2	2	43		1
44	10240			2,112	17,973	10			1	1		2	2	44		1
45	10240			2,160	18,382	10			1	1		2	2	45		1
46	10240			2,208	18,790	10			1	1		2	2	46		1
47	10240			2,256	19,199	10			1	1		2	2	47		1
48	10240			2,304	19,607	10			2	1	1	3	2	48		1
49	10240			2,352	20,016	10			2	1	1	3	2	49		1
50	10240			2,400	20,424	10			2	1	1	3	2	50		1
51	10240			2,448	20,832	10			2	1	1	3	2	51		1
52	10240			2,496	21,241	10			2	1	1	3	2	52		1
53	10240			2,544	21,649	10			2	1	1	3	2	53		1
54	10240			2,592	22,058	10			2	1	1	3	2	54		1
55	10240			2,640	22,466	10			2	1	1	3	2	55		1
56	10240			2,688	22,875	10			2	1	1	3	2	56		1
57	10240			2,736	23,283	10			2	1	1	3	2	57		1
58	10240			2,784	23,692	10			2	1	1	3	2	58		1
59	10240			2,832	24,100	10			3	1	1	3	3	59		1
60	10240			2,880	24,509	10			3	1	1	3	3	60		1
61	10240			2,928	24,917	10			3	1	1	3	3	61		1
62	10240			2,976	25,326	10			3	1	1	3	3	62		1
63	10240			3,024	25,734	10			3	1	1	3	3	63		1
64	10240			3,072	26,143	10			3	1	1	3	3	64		1
65	10240			3,120	26,551	10			3	1	1	3	3	65		1
66	10240			3,168	26,960	10			3	1	1	3	3	66		1
67	10240			3,216	27,368	10			3	1	1	3	3	67		1
68	10240			3,264	27,777	10		▼	3	1	1	3	3	68		1
69	10240			3,312	28,185	10		*1	3	1	1	3	3	69		1

(To be continued)

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(Continued from preceding sheet)

RAID group	Cache (GB)	Storage Capacity (GB)				Number of necessary options										
		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
70	10240			3,360	28,594	10		*1	3	1	1	3	3	70		1
71	10240			3,408	29,002	10			3	1	1	4	3	71		2
72	10240			3,456	29,411	10			3	1	1	4	3	72		2
73	10240			3,504	29,819	10			3	1	1	4	3	73		2
74	10240			3,552	30,228	10			3	1	1	4	3	74		2
75	10240			3,600	30,636	10			3	1	1	4	3	75		2
76	10240			3,648	31,044	10			3	1	1	4	3	76		2
77	10240			3,696	31,453	10			3	1	1	4	3	77		2
78	10240			3,744	31,861	10			3	1	1	4	3	78		2
79	10240			3,792	32,270	10			3	1	1	4	3	79		2
80	10240			3,840	32,678	10			3	1	1	4	3	80		2
81	10240			3,888	33,087	10			3	1	1	4	3	81		2
82	10240			3,936	33,495	10			3	1	1	4	3	82		2
83	10240			3,984	33,904	10			3	1	1	4	4	83		2
84	10240			4,032	34,312	10			3	1	1	4	4	84		2
85	10240			4,080	34,721	10		*1	3	1	1	4	4	85		2
86																
87																
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*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(14) 146GB HDD, RAID5, for Open System

RAID group	Cache (GB)	Storage Capacity (GB)										Number of necessary options										
		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC options						DKU options				
												F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
		VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap											
1	2048	174	428	58	426	58	428	29	422	11	401	2		*1				1		1		
2	4096	348	856	116	852	116	857	58	845	22	802	4		▲				1		2		
3	6144	522	1,285	174	1,278	174	1,285	87	1,267	33	1,203	6						1		3		
4	7168	696	1,713	232	1,705	232	1,713	116	1,690	44	1,604	7						1		4		
5	7168	870	2,141	290	2,131	290	2,141	145	2,112	55	2,005	7						1		5		
6	7168	1,044	2,569	348	2,557	348	2,570	174	2,535	66	2,406	7						1		6		
7	7168	1,218	2,997	406	2,983	406	2,998	203	2,957	77	2,807	7						1		7		
8	8192	1,392	3,426	464	3,409	464	3,426	232	3,380	88	3,208	8						1		8		
9	8192	1,566	3,854	522	3,835	522	3,854	261	3,802	99	3,609	8						1		9		
10	8192	1,740	4,282	580	4,261	580	4,283	290	4,225	110	4,010	8						1		10		
11	8192	1,914	4,710	638	4,687	638	4,711	319	4,647	121	4,410	8						1		11		
12	8192	2,088	5,139	696	5,114	696	5,139	348	5,070	132	4,811	8			1	1		1	1	12		
13	8192	2,262	5,567	754	5,540	754	5,568	377	5,492	143	5,212	8			1	1		1	1	13		
14	8192	2,436	5,995	812	5,966	812	5,996	406	5,915	154	5,613	8			1	1		1	1	14		
15	8192	2,610	6,423	870	6,392	870	6,424	435	6,337	165	6,014	8			1	1		1	1	15		
16	8192	2,784	6,851	928	6,818	928	6,852	464	6,760	176	6,415	8			1	1		1	1	16		
17	8192	2,958	7,280	986	7,244	986	7,281	493	7,182	187	6,816	8			1	1		1	1	17		
18	8192	3,132	7,708	1,044	7,670	1,044	7,709	522	7,604	198	7,217	8			1	1		1	1	18		
19	9216	3,306	8,136	1,102	8,096	1,102	8,137	551	8,027	209	7,618	9			1	1		1	1	19		
20	9216	3,480	8,564	1,160	8,523	1,160	8,565	580	8,449	220	8,019	9			1	1		1	1	20		
21	9216	3,654	8,992	1,218	8,949	1,218	8,994	609	8,872	231	8,420	9			1	1		1	1	21		
22	9216	3,828	9,421	1,276	9,375	1,276	9,422	638	9,294	242	8,821	9			1	1		1	1	22		
23	9216	4,002	9,849	1,334	9,801	1,334	9,850	667	9,717	253	9,222	9			1	1		1	1	23		
24	9216			1,392	10,227	1,392	10,279	696	10,139	264	9,623	9			1	1		2	1	24		1
25	9216			1,450	10,653	1,450	10,707	725	10,562	275	10,024	9			1	1		2	1	25		1
26	9216			1,508	11,079	1,508	11,135	754	10,984	286	10,425	9			1	1		2	1	26		1
27	9216			1,566	11,505	1,566	11,563	783	11,407	297	10,826	9			1	1		2	1	27		1
28	9216			1,624	11,932	1,624	11,992	812	11,829	308	11,227	9			1	1		2	1	28		1
29	9216			1,682	12,358	1,682	12,420	841	12,252	319	11,628	9			1	1		2	1	29		1
30	10240			1,740	12,784	1,740	12,848	870	12,674	330	12,029	10			1	1		2	1	30		1
31	10240			1,798	13,210	1,798	13,276	899	13,097	341	12,429	10			1	1		2	1	31		1
32	10240			1,856	13,636	1,856	13,705	928	13,519	352	12,830	10			1	1		2	1	32		1
33	10240			1,914	14,062	1,914	14,133	957	13,942	363	13,231	10			1	1		2	1	33		1
34	10240			1,972	14,488	1,972	14,561	986	14,364	374	13,632	10			1	1		2	1	34		1
35	10240			2,030	14,914	2,030	14,990	1,015	14,787	385	14,033	10			1	1		2	1	35		1
36	10240			2,088	15,341	2,088	15,418	1,044	15,209	396	14,434	10			1	1		2	2	36		1
37	10240			2,146	15,767	2,146	15,846	1,073	15,631	407	14,835	10			1	1		2	2	37		1
38	10240			2,204	16,193	2,204	16,274	1,102	16,054	418	15,236	10			1	1		2	2	38		1
39	10240			2,262	16,619	2,262	16,703	1,131	16,476	429	15,637	10			1	1		2	2	39		1
40	10240			2,320	17,045	2,320	17,131	1,160	16,899	440	16,038	10			1	1		2	2	40		1
41	10240			2,378	17,471	2,378	17,559	1,189	17,321	451	16,439	10			1	1		2	2	41		1
42	10240			2,436	17,897	2,436	17,987	1,218	17,744	462	16,840	10			1	1		2	2	42		1
43	10240			2,494	18,323	2,494	18,416	1,247	18,166	473	17,241	10			1	1		2	2	43		1
44	10240			2,552	18,750	2,552	18,844	1,276	18,589	484	17,642	10			1	1		2	2	44		1
45	10240			2,610	19,176	2,610	19,272	1,305	19,011	495	18,043	10			1	1		2	2	45		1
46	10240			2,668	19,602	2,668	19,701	1,334	19,434	506	18,444	10			1	1		2	2	46		1
47	10240			2,726	20,028	2,726	20,129	1,363	19,856	517	18,845	10			1	1		2	2	47		1
48	10240			2,784	20,454	2,784	20,557	1,392	20,279	528	19,246	10			2	1	1	3	2	48		1
49	10240			2,842	20,880	2,842	20,985	1,421	20,701	539	19,647	10			2	1	1	3	2	49		1
50	10240			2,900	21,306	2,900	21,414	1,450	21,124	550	20,048	10			2	1	1	3	2	50		1
51	10240			2,958	21,732	2,958	21,842	1,479	21,546	561	20,448	10			2	1	1	3	2	51		1
52	10240			3,016	22,159	3,016	22,270	1,508	21,969	572	20,849	10			2	1	1	3	2	52		1
53	10240			3,074	22,585	3,074	22,698	1,537	22,391	583	21,250	10			2	1	1	3	2	53		1
54	10240			3,132	23,011	3,132	23,127	1,566	22,813	594	21,651	10			2	1	1	3	2	54		1
55	10240			3,190	23,437	3,190	23,555	1,595	23,236	605	22,052	10			2	1	1	3	2	55		1
56	10240			3,248	23,863	3,248	23,983	1,624	23,658	616	22,453	10			2	1	1	3	2	56		1
57	10240			3,306	24,289	3,306	24,412	1,653	24,081	627	22,854	10			2	1	1	3	2	57		1
58	10240			3,364	24,715	3,364	24,840	1,682	24,503	638	23,255	10			2	1	1	3	2	58		1
59	10240			3,422	25,141	3,422	25,268	1,711	24,926	649	23,656	10			3	1	1	3	3	59		1
60	10240			3,480	25,568	3,480	25,696	1,740	25,348	660	24,057	10			3	1	1	3	3	60		1
61	10240			3,538	25,994	3,538	26,125	1,769	25,771	671	24,458	10			3	1	1	3	3	61		1
62	10240			3,596	26,420	3,596	26,553	1,798	26,193	682	24,859	10			3	1	1	3	3	62		1
63	10240			3,654	26,846	3,654	26,981	1,827	26,616	693	25,260	10			3	1	1	3	3	63		1
64	10240			3,712	27,272	3,712	27,409	1,856	27,038	704	25,661	10			3	1	1	3	3	64		1
65	10240			3,770	27,698	3,770	27,838	1,885	27,461	715	26,062	10			3	1	1	3	3	65		1
66	10240			3,828	28,124	3,828	28,266	1,914	27,883	726	26,463	10			3	1	1	3	3	66		1
67	10240			3,886	28,550	3,886	28,694	1,943	28,306	737	26,864	10			3	1	1	3	3	67		1
68	10240			3,944	28,977	3,944	29,122	1,972	28,728	748	27,265	10		▼	3	1	1	3	3	68		1
69	10240			4,002	29,403	4,002	29,551	2,001	29,151	759	27,666	10		*1	3	1	1	3	3	69		1

(To be continued)

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(Continued from preceding sheet)

RAID group	Cache (GB)	Storage Capacity (GB)										Number of necessary options										
		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
70	10240			4,060	29,829	4,060	29,979	2,030	29,573	770	28,067	10		*1	3	1	1	3	3	70		1
71	10240							2,059	29,996	781	28,467	10		▲	3	1	1	4	3	71		2
72	10240							2,088	30,418	792	28,868	10			3	1	1	4	3	72		2
73	10240							2,117	30,840	803	29,269	10			3	1	1	4	3	73		2
74	10240							2,146	31,263	814	29,670	10			3	1	1	4	3	74		2
75	10240							2,175	31,685	825	30,071	10			3	1	1	4	3	75		2
76	10240							2,204	32,108	836	30,472	10			3	1	1	4	3	76		2
77	10240							2,233	32,530	847	30,873	10			3	1	1	4	3	77		2
78	10240							2,262	32,953	858	31,274	10			3	1	1	4	3	78		2
79	10240							2,291	33,375	869	31,675	10			3	1	1	4	3	79		2
80	10240							2,320	33,798	880	32,076	10			3	1	1	4	3	80		2
81	10240							2,349	34,220	891	32,477	10			3	1	1	4	3	81		2
82	10240							2,378	34,643	902	32,878	10			3	1	1	4	3	82		2
83	10240							2,407	35,065	913	33,279	10			3	1	1	4	4	83		2
84	10240							2,436	35,488	924	33,680	10			3	1	1	4	4	84		2
85	10240							2,465	35,910	935	34,081	10			3	1	1	4	4	85		2
86	10240							2,494	36,333	946	34,482	10			3	1	1	4	4	86		2
87	10240							2,523	36,755	957	34,883	10			3	1	1	4	4	87		2
88	10240							2,552	37,178	968	35,284	10			3	1	1	4	4	88		2
89	10240							2,581	37,600	979	35,685	10			3	1	1	4	4	89		2
90	10240							2,610	38,022	990	36,086	10			3	1	1	4	4	90		2
91	10240							2,639	38,445	1,001	36,486	10			3	1	1	4	4	91		2
92	10240							2,668	38,867	1,012	36,887	10			3	1	1	4	4	92		2
93	10240							2,697	39,290	1,023	37,288	10			3	1	1	4	4	93		2
94	10240							2,726	39,712	1,034	37,689	10			3	1	1	4	4	94		2
95	10240							2,755	40,135	1,045	38,090	10			3	1	1	5	4	95		3
96	10240							2,784	40,557	1,056	38,491	10			3	1	1	5	4	96		3
97	10240							2,813	40,980	1,067	38,892	10			3	1	1	5	4	97		3
98	10240							2,842	41,402	1,078	39,293	10			3	1	1	5	4	98		3
99	10240							2,871	41,825	1,089	39,694	10			3	1	1	5	4	99		3
100	10240							2,900	42,247	1,100	40,095	10			3	1	1	5	4	100		3
101	10240							2,929	42,670	1,111	40,496	10			3	1	1	5	4	101		3
102	10240							2,958	43,092	1,122	40,897	10			3	1	1	5	4	102		3
103	10240							2,987	43,515	1,133	41,298	10			3	1	1	5	5	103		3
104	10240							3,016	43,937	1,144	41,699	10			3	1	1	5	5	104		3
105	10240							3,045	44,360	1,155	42,100	10			3	1	1	5	5	105		3
106	10240							3,074	44,782	1,166	42,501	10			3	1	1	5	5	106		3
107	10240							3,103	45,205	1,177	42,902	10			3	1	1	5	5	107		3
108	10240							3,132	45,627	1,188	43,303	10			3	1	1	5	5	108		3
109	10240							3,161	46,049	1,199	43,704	10			3	1	1	5	5	109		3
110	10240							3,190	46,472	1,210	44,105	10			3	1	1	5	5	110		3
111	10240							3,219	46,894	1,221	44,505	10			3	1	1	6	5	111		4
112	10240							3,248	47,317	1,232	44,906	10			3	1	1	6	5	112		4
113	10240							3,277	47,739	1,243	45,307	10			3	1	1	6	5	113		4
114	10240							3,306	48,162	1,254	45,708	10			3	1	1	6	5	114		4
115	10240							3,335	48,584	1,265	46,109	10			3	1	1	6	5	115		4
116	10240							3,364	49,007	1,276	46,510	10			3	1	1	6	5	116		4
117	10240							3,393	49,429	1,287	46,911	10			3	1	1	6	5	117		4
118	10240							3,422	49,852	1,298	47,312	10			3	1	1	6	5	118		4
119	10240							3,451	50,274	1,309	47,713	10			3	1	1	6	6	119		4
120	10240							3,480	50,697	1,320	48,114	10			3	1	1	6	6	120		4
121	10240							3,509	51,119	1,331	48,515	10			3	1	1	6	6	121		4
122	10240							3,538	51,542	1,342	48,916	10			3	1	1	6	6	122		4
123	10240							3,567	51,964	1,353	49,317	10			3	1	1	6	6	123		4
124	10240							3,596	52,387	1,364	49,718	10			3	1	1	6	6	124		4
125	10240							3,625	52,809	1,375	50,119	10		▼	3	1	1	6	6	125		4
126	10240							3,654	53,231	1,386	50,520	10		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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8.2 Separate Model, Standard Configuration for RAID1

(1) 18GB HDD, RAID1, for Mainframe

Cache (MB)	Storage Capacity (GB)														Number of necessary options												
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	18J4	18J1	EXC
512	56	35	28	35	18	34	37	35	18	34	12	34	4	34	1			*1				1		1		
512	112	71	56	71	36	68	74	70	36	68	24	68	8	68	1			▲				1		2		
512	168	106	84	106	54	102	111	105	54	102	36	102	12	102	1							1		3		
512	224	141	112	141	72	136	148	140	72	136	48	136	16	136	1							1		4		
512	280	176	140	176	90	170	185	175	90	170	60	170	20	170	1							1		5		
512	336	212	168	212	108	204	222	210	108	204	72	204	24	204	1							1		6		
512	392	247	196	247	126	238	259	245	126	238	84	238	28	238	1							1		7		
1024	448	282	224	282	144	272	296	280	144	272	96	272	32	272	2							1		8		
1024	504	318	252	318	162	306	333	315	162	307	108	307	36	306	2							1		9		
1024	560	353	280	353	180	340	370	350	180	341	120	341	40	340	2							1		10		
1024	616	388	308	388	198	374	407	385	198	375	132	375	44	374	2							1		11		
1024	672	423	336	423	216	408	444	420	216	409	144	409	48	408	2				1	1		1	1	12		
1024	728	459	364	459	234	442	481	455	234	443	156	443	52	443	2				1	1		1	1	13		
2048	784	494	392	494	252	476	518	490	252	477	168	477	56	477	4				1	1		1	1	14		
2048	840	529	420	529	270	510	555	525	270	511	180	511	60	511	4				1	1		1	1	15		
2048	896	564	448	564	288	544	592	560	288	545	192	545	64	545	4				1	1		1	1	16		
3072	952	600	476	600	306	578	629	595	306	579	204	579	68	579	6				1	1		1	1	17		
3072	1,008	635	504	635	324	612	666	630	324	613	216	613	72	613	6				1	1		1	1	18		
3072	1,064	670	532	670	342	646	703	665	342	647	228	647	76	647	6				1	1		1	1	19		
3072	1,120	706	560	706	360	680	740	700	360	681	240	681	80	681	6				1	1		1	1	20		
3072	1,176	741	588	741	378	714	777	735	378	715	252	715	84	715	6				1	1		1	1	21		
4096	1,232	776	616	776	396	748	814	770	396	749	264	749	88	749	8				1	1		1	1	22		
4096	1,288	811	644	811	414	782	851	805	414	783	276	783	92	783	8				1	1		1	1	23		
4096	1,344	847	672	847	432	816	888	840	432	817	288	817	96	817	8				1	1		2	1	24		1
4096	1,400	882	700	882	450	851	925	875	450	851	300	851	100	851	8				1	1		2	1	25		1
4096	1,456	917	728	917	468	885	962	910	468	885	312	885	104	885	8				1	1		2	1	26		1
4096	1,512	953	756	953	486	919	999	945	486	920	324	920	108	919	8				1	1		2	1	27		1
5120	1,568	988	784	988	504	953	1,036	980	504	954	336	954	112	953	10				1	1		2	1	28		1
5120	1,624	1,023	812	1,023	522	987	1,073	1,015	522	988	348	988	116	987	10				1	1		2	1	29		1
5120	1,680	1,058	840	1,058	540	1,021	1,110	1,050	540	1,022	360	1,022	120	1,021	10				1	1		2	1	30		1
5120	1,736	1,094	868	1,094	558	1,055	1,147	1,085	558	1,056	372	1,056	124	1,055	10				1	1		2	1	31		1
5120	1,792	1,129	896	1,129	576	1,089	1,184	1,120	576	1,090	384	1,090	128	1,089	10				1	1		2	1	32		1
6144	1,848	1,164	924	1,164	594	1,123	1,221	1,155	594	1,124	396	1,124	132	1,123	12				1	1		2	1	33		1
6144	1,904	1,200	952	1,200	612	1,157	1,258	1,190	612	1,158	408	1,158	136	1,157	12				1	1		2	1	34		1
6144	1,960	1,235	980	1,235	630	1,191	1,295	1,225	630	1,192	420	1,192	140	1,191	12				1	1		2	1	35		1
6144	2,016	1,270	1,008	1,270	648	1,225	1,332	1,260	648	1,226	432	1,226	144	1,225	12				1	1		2	2	36		1
6144	2,072	1,305	1,036	1,305	666	1,259	1,369	1,295	666	1,260	444	1,260	148	1,259	12				1	1		2	2	37		1
6144	2,128	1,341	1,064	1,341	684	1,293	1,406	1,330	684	1,294	456	1,294	152	1,294	12				1	1		2	2	38		1
7168	2,184	1,376	1,092	1,376	702	1,327	1,443	1,365	702	1,328	468	1,328	156	1,328	14				1	1		2	2	39		1
7168	2,240	1,411	1,120	1,411	720	1,361	1,480	1,400	720	1,362	480	1,362	160	1,362	14				1	1		2	2	40		1
7168	2,296	1,446	1,148	1,446	738	1,395	1,517	1,435	738	1,396	492	1,396	164	1,396	14				1	1		2	2	41		1
7168	2,352	1,482	1,176	1,482	756	1,429	1,554	1,470	756	1,430	504	1,430	168	1,430	14				1	1		2	2	42		1
7168	2,408	1,517	1,204	1,517	774	1,463	1,591	1,505	774	1,464	516	1,464	172	1,464	14				1	1		2	2	43		1
7168	2,464	1,552	1,232	1,552	792	1,497	1,628	1,540	792	1,498	528	1,498	176	1,498	14				1	1		2	2	44		1
7168	2,520	1,588	1,260	1,588	810	1,531	1,665	1,575	810	1,533	540	1,533	180	1,532	14				1	1		2	2	45		1
7168	2,576	1,623	1,288	1,623	828	1,565	1,702	1,610	828	1,567	552	1,567	184	1,566	14				1	1		2	2	46		1
7168	2,632	1,658	1,316	1,658	846	1,599	1,739	1,645	846	1,601	564	1,601	188	1,600	14				1	1		2	2	47		1
7168	2,688	1,693	1,344	1,693	864	1,633	1,776	1,680	864	1,635	576	1,635	192	1,634	14				2	1	1	3	2	48		1
7168	2,744	1,729	1,372	1,729	882	1,667	1,813	1,715	882	1,669	588	1,669	196	1,668	14				2	1	1	3	2	49		1
7168	2,800	1,764	1,400	1,764	900	1,701	1,850	1,750	900	1,703	600	1,703	200	1,702	14				2	1	1	3	2	50		1
7168	2,856	1,799	1,428	1,799	918	1,735	1,887	1,785	918	1,737	612	1,737	204	1,736	14				2	1	1	3	2	51		1
7168	2,912	1,835	1,456	1,835	936	1,769	1,924	1,820	936	1,771	624	1,771	208	1,770	14				2	1	1	3	2	52		1
7168	2,968	1,870	1,484	1,870	954	1,803	1,961	1,855	954	1,805	636	1,805	212	1,804	14				2	1	1	3	2	53		1
7168	3,024	1,905	1,512	1,905	972	1,837	1,998	1,890	972	1,839	648	1,839	216	1,838	14				2	1	1	3	2	54		1
7168	3,080	1,940	1,540	1,940	990	1,871	2,035	1,925	990	1,873	660	1,873	220	1,872	14				2	1	1	3	2	55		1
7168	3,136	1,976	1,568	1,976	1,008	1,905	2,072	1,960	1,008	1,907	672	1,907	224	1,906	14				2	1	1	3	2	56		1
7168	3,192	2,011	1,596	2,011	1,026	1,939	2,109	1,995	1,026	1,941	684	1,941	228	1,940	14				2	1	1	3	2	57		1
7168	3,248	2,046	1,624	2,046	1,044	1,973	2,146	2,030	1,044	1,975	696	1,975	232	1,974	14				2	1	1	3	2	58		1
7168	3,304	2,082	1,652	2,082	1,062	2,007	2,183	2,065	1,062	2,009	708	2,009	236	2,008	14				3	1	1	3	3	59		1
7168	3,360	2,117	1,680	2,117	1,080	2,041	2,220	2,100	1,080	2,043	720	2,043	240	2,042	14				3	1	1	3	3	60		1
7168	3,416	2,152	1,708	2,152	1,098	2,075	2,257	2,135	1,098	2,077	732	2,077	244	2,076	14				3	1	1	3	3	61		1
7168	3,472	2,187	1,736	2,187	1,116	2,109	2,294	2,170	1,116	2,111	744	2,111	248	2,110	14				3	1	1	3	3	62		1
7168	3,528	2,223	1,764	2,223	1,134	2,143	2,331	2,205	1,134	2,146	756	2,146	252	2,145	14			▼	3	1	1	3	3	63		1
7168	3,584	2,258	1,792	2,258	1,152	2,177	2,368	2,240	1,152	2,180	768	2,180	256	2,179	14			*1	3	1	1	3	3	64		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)														Number of necessary options											
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	18J4	18J1	EXC
7168	3,640	2,293	1,820	2,293	1,170	2,211	2,405	2,275	1,170	2,214	780	2,214	260	2,213	14			*1	3	1	1	3	3	65		1
7168	3,696	2,328	1,848	2,328	1,188	2,245	2,442	2,310	1,188	2,248	792	2,248	264	2,247	14			▲	3	1	1	3	3	66		1
7168	3,752	2,364	1,876	2,364	1,206	2,279	2,479	2,345	1,206	2,282	804	2,282	268	2,281	14				3	1	1	3	3	67		1
7168	3,808	2,399	1,904	2,399	1,224	2,313	2,516	2,380	1,224	2,316	816	2,316	272	2,315	14				3	1	1	3	3	68		1
7168	3,864	2,434	1,932	2,434	1,242	2,347	2,553	2,415	1,242	2,350	828	2,350	276	2,349	14				3	1	1	3	3	69		1
7168	3,920	2,470	1,960	2,470	1,260	2,381	2,590	2,450	1,260	2,384	840	2,384	280	2,383	14				3	1	1	3	3	70		1
7168	3,976	2,505	1,988	2,505	1,278	2,415	2,627	2,485	1,278	2,418	852	2,418	284	2,417	14				3	1	1	4	3	71		2
7168	4,032	2,540	2,016	2,540	1,296	2,449	2,664	2,520	1,296	2,452	864	2,452	288	2,451	14				3	1	1	4	3	72		2
7168	4,088	2,575	2,044	2,575	1,314	2,483	2,701	2,555	1,314	2,486	876	2,486	292	2,485	14				3	1	1	4	3	73		2
7168			2,072	2,611	1,332	2,517	2,738	2,590	1,332	2,520	888	2,520	296	2,519	14				3	1	1	4	3	74		2
7168			2,100	2,646	1,350	2,552	2,775	2,625	1,350	2,554	900	2,554	300	2,553	14				3	1	1	4	3	75		2
7168			2,128	2,681	1,368	2,586	2,812	2,660	1,368	2,588	912	2,588	304	2,587	14				3	1	1	4	3	76		2
7168			2,156	2,717	1,386	2,620	2,849	2,695	1,386	2,622	924	2,622	308	2,621	14				3	1	1	4	3	77		2
7168			2,184	2,752	1,404	2,654	2,886	2,730	1,404	2,656	936	2,656	312	2,655	14				3	1	1	4	3	78		2
7168			2,212	2,787	1,422	2,688	2,923	2,765	1,422	2,690	948	2,690	316	2,689	14				3	1	1	4	3	79		2
7168			2,240	2,822	1,440	2,722	2,960	2,800	1,440	2,724	960	2,724	320	2,723	14				3	1	1	4	3	80		2
7168			2,268	2,858	1,458	2,756	2,997	2,835	1,458	2,759	972	2,759	324	2,757	14				3	1	1	4	3	81		2
7168			2,296	2,893	1,476	2,790	3,034	2,870	1,476	2,793	984	2,793	328	2,791	14				3	1	1	4	3	82		2
7168			2,324	2,928	1,494	2,824	3,071	2,905	1,494	2,827	996	2,827	332	2,825	14				3	1	1	4	4	83		2
7168			2,352	2,964	1,512	2,858	3,108	2,940	1,512	2,861	1,008	2,861	336	2,859	14				3	1	1	4	4	84		2
7168			2,380	2,999	1,530	2,892	3,145	2,975	1,530	2,895	1,020	2,895	340	2,893	14				3	1	1	4	4	85		2
8192			2,408	3,034	1,548	2,926	3,182	3,010	1,548	2,929	1,032	2,929	344	2,927	16				3	1	1	4	4	86		2
8192			2,436	3,069	1,566	2,960	3,219	3,045	1,566	2,963	1,044	2,963	348	2,961	16				3	1	1	4	4	87		2
8192			2,464	3,105	1,584	2,994	3,256	3,080	1,584	2,997	1,056	2,997	352	2,996	16				3	1	1	4	4	88		2
8192			2,492	3,140	1,602	3,028	3,293	3,115	1,602	3,031	1,068	3,031	356	3,030	16				3	1	1	4	4	89		2
8192			2,520	3,175	1,620	3,062	3,330	3,150	1,620	3,065	1,080	3,065	360	3,064	16				3	1	1	4	4	90		2
8192			2,548	3,210	1,638	3,096	3,367	3,185	1,638	3,099	1,092	3,099	364	3,098	16				3	1	1	4	4	91		2
8192			2,576	3,246	1,656	3,130	3,404	3,220	1,656	3,133	1,104	3,133	368	3,132	16				3	1	1	4	4	92		2
8192			2,604	3,281	1,674	3,164	3,441	3,255	1,674	3,167	1,116	3,167	372	3,166	16				3	1	1	4	4	93		2
8192			2,632	3,316	1,692	3,198	3,478	3,290	1,692	3,201	1,128	3,201	376	3,200	16				3	1	1	4	4	94		2
8192			2,660	3,352	1,710	3,232	3,515	3,325	1,710	3,235	1,140	3,235	380	3,234	16				3	1	1	5	4	95		3
8192			2,688	3,387	1,728	3,266	3,552	3,360	1,728	3,269	1,152	3,269	384	3,268	16				3	1	1	5	4	96		3
8192			2,716	3,422	1,746	3,300	3,589	3,395	1,746	3,303	1,164	3,303	388	3,302	16				3	1	1	5	4	97		3
8192			2,744	3,457	1,764	3,334	3,626	3,430	1,764	3,337	1,176	3,337	392	3,336	16				3	1	1	5	4	98		3
8192			2,772	3,493	1,782	3,368	3,663	3,465	1,782	3,372	1,188	3,372	396	3,370	16				3	1	1	5	4	99		3
8192			2,800	3,528	1,800	3,402	3,700	3,500	1,800	3,406	1,200	3,406	400	3,404	16				3	1	1	5	4	100		3
8192			2,828	3,563	1,818	3,436	3,737	3,535	1,818	3,440	1,212	3,440	404	3,438	16				3	1	1	5	4	101		3
8192			2,856	3,599	1,836	3,470	3,774	3,570	1,836	3,474	1,224	3,474	408	3,472	16				3	1	1	5	4	102		3
8192			2,884	3,634	1,854	3,504	3,811	3,605	1,854	3,508	1,236	3,508	412	3,506	16				3	1	1	5	5	103		3
8192			2,912	3,669	1,872	3,538	3,848	3,640	1,872	3,542	1,248	3,542	416	3,540	16				3	1	1	5	5	104		3
8192			2,940	3,704	1,890	3,572	3,885	3,675	1,890	3,576	1,260	3,576	420	3,574	16				3	1	1	5	5	105		3
8192			2,968	3,740	1,908	3,606	3,922	3,710	1,908	3,610	1,272	3,610	424	3,608	16				3	1	1	5	5	106		3
8192			2,996	3,775	1,926	3,640	3,959	3,745	1,926	3,644	1,284	3,644	428	3,642	16				3	1	1	5	5	107		3
8192			3,024	3,810	1,944	3,674	3,996	3,780	1,944	3,678	1,296	3,678	432	3,676	16				3	1	1	5	5	108		3
8192			3,052	3,846	1,962	3,708	4,033	3,815	1,962	3,712	1,308	3,712	436	3,710	16				3	1	1	5	5	109		3
8192			3,080	3,881	1,980	3,742	4,070	3,850	1,980	3,746	1,320	3,746	440	3,744	16				3	1	1	5	5	110		3
8192			3,108	3,916	1,998	3,776			1,998	3,780	1,332	3,780	444	3,778	16				3	1	1	6	5	111		4
8192			3,136	3,951	2,016	3,810			2,016	3,814	1,344	3,814	448	3,812	16				3	1	1	6	5	112		4
8192			3,164	3,987	2,034	3,844			2,034	3,848	1,356	3,848	452	3,847	16				3	1	1	6	5	113		4
8192			3,192	4,022	2,052	3,878			2,052	3,882	1,368	3,882	456	3,881	16				3	1	1	6	5	114		4
8192			3,220	4,057	2,070	3,912			2,070	3,916	1,380	3,916	460	3,915	16				3	1	1	6	5	115		4
8192			3,248	4,092	2,088	3,946			2,088	3,950	1,392	3,950	464	3,949	16				3	1	1	6	5	116		4
8192			3,276	4,128	2,106	3,980			2,106	3,985	1,404	3,985	468	3,983	16				3	1	1	6	5	117		4
8192			3,304	4,163	2,124	4,014			2,124	4,019	1,416	4,019	472	4,017	16				3	1	1	6	5	118		4
8192			3,332	4,198	2,142	4,048			2,142	4,053	1,428	4,053	476	4,051	16				3	1	1	6	6	119		4
8192			3,360	4,234	2,160	4,082			2,160	4,087	1,440	4,087	480	4,085	16				3	1	1	6	6	120		4
8192			3,388	4,269	2,178	4,116			2,178	4,121	1,452	4,121	484	4,119	16				3	1	1	6	6	121		4
8192			3,416	4,304	2,196	4,150			2,196	4,155	1,464	4,155	488	4,153	16				3	1	1	6	6	122		4
8192			3,444	4,339	2,214	4,184			2,214	4,189	1,476	4,189	492	4,187	16				3	1	1	6	6	123		4
8192			3,472	4,375	2,232	4,218			2,232	4,223	1,488	4,223	496	4,221	16				3	1	1	6	6	124		4
8192			3,500	4,410	2,250	4,253			2,250	4,257	1,500	4,257	500	4,255	16			▼	3	1	1	6	6	125		4
8192			3,528	4,445	2,268	4,287			2,268	4,291	1,512	4,291	504	4,289	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(2) 18GB HDD, RAID1, for Open System

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
											512	1024	20	S256	100	R1C	L1C		B4	18J4	18J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	19	36	14	34	5	37	4	30	2	29	1			*1				1		1		
512	38	71	28	69	10	73	8	59	4	58	1			▲				1		2		
512	57	107	42	103	15	110	12	89	6	87	1							1		3		
512	76	143	56	138	20	147	16	118	8	117	1							1		4		
512	95	179	70	172	25	184	20	148	10	146	1							1		5		
512	114	214	84	207	30	220	24	177	12	175	1							1		6		
512	133	250	98	241	35	257	28	207	14	204	1							1		7		
1024	152	286	112	276	40	294	32	236	16	233	2							1		8		
1024	171	322	126	310	45	331	36	266	18	262	2							1		9		
1024	190	357	140	345	50	367	40	295	20	291	2							1		10		
1024	209	393	154	379	55	404	44	325	22	320	2							1		11		
1024	228	429	168	413	60	441	48	354	24	350	2				1	1		1	1	12		
1024	247	465	182	448	65	478	52	384	26	379	2				1	1		1	1	13		
2048	266	500	196	482	70	514	56	414	28	408	4				1	1		1	1	14		
2048	285	536	210	517	75	551	60	443	30	437	4				1	1		1	1	15		
2048	304	572	224	551	80	588	64	473	32	466	4				1	1		1	1	16		
3072	323	608	238	586	85	624	68	502	34	495	6				1	1		1	1	17		
3072	342	643	252	620	90	661	72	532	36	524	6				1	1		1	1	18		
3072	361	679	266	655	95	698	76	561	38	554	6				1	1		1	1	19		
3072	380	715	280	689	100	735	80	591	40	583	6				1	1		1	1	20		
3072	399	751	294	724	105	771	84	620	42	612	6				1	1		1	1	21		
4096	418	786	308	758	110	808	88	650	44	641	8				1	1		1	1	22		
4096	437	822	322	792	115	845	92	679	46	670	8				1	1		1	1	23		
4096	456	858	336	827	120	882	96	709	48	699	8				1	1		2	1	24		1
4096	475	893	350	861	125	918	100	738	50	728	8				1	1		2	1	25		1
4096	494	929	364	896	130	955	104	768	52	758	8				1	1		2	1	26		1
4096	513	965	378	930	135	992	108	797	54	787	8				1	1		2	1	27		1
5120	532	1,001	392	965	140	1,029	112	827	56	816	10				1	1		2	1	28		1
5120	551	1,036	406	999	145	1,065	116	857	58	845	10				1	1		2	1	29		1
5120	570	1,072	420	1,034	150	1,102	120	886	60	874	10				1	1		2	1	30		1
5120	589	1,108	434	1,068	155	1,139	124	916	62	903	10				1	1		2	1	31		1
5120	608	1,144	448	1,103	160	1,176	128	945	64	932	10				1	1		2	1	32		1
6144	627	1,179	462	1,137	165	1,212	132	975	66	961	12				1	1		2	1	33		1
6144	646	1,215	476	1,171	170	1,249	136	1,004	68	991	12				1	1		2	1	34		1
6144	665	1,251	490	1,206	175	1,286	140	1,034	70	1,020	12				1	1		2	1	35		1
6144	684	1,287	504	1,240	180	1,322	144	1,063	72	1,049	12				1	1		2	2	36		1
6144	703	1,322	518	1,275	185	1,359	148	1,093	74	1,078	12				1	1		2	2	37		1
6144	722	1,358	532	1,309	190	1,396	152	1,122	76	1,107	12				1	1		2	2	38		1
7168	741	1,394	546	1,344	195	1,433	156	1,152	78	1,136	14				1	1		2	2	39		1
7168	760	1,430	560	1,378	200	1,469	160	1,181	80	1,165	14				1	1		2	2	40		1
7168	779	1,465	574	1,413	205	1,506	164	1,211	82	1,195	14				1	1		2	2	41		1
7168	798	1,501	588	1,447	210	1,543	168	1,241	84	1,224	14				1	1		2	2	42		1
7168	817	1,537	602	1,482	215	1,580	172	1,270	86	1,253	14				1	1		2	2	43		1
7168	836	1,573	616	1,516	220	1,616	176	1,300	88	1,282	14				1	1		2	2	44		1
7168	855	1,608	630	1,550	225	1,653	180	1,329	90	1,311	14				1	1		2	2	45		1
7168	874	1,644	644	1,585	230	1,690	184	1,359	92	1,340	14				1	1		2	2	46		1
7168	893	1,680	658	1,619	235	1,727	188	1,388	94	1,369	14				1	1		2	2	47		1
7168	912	1,715	672	1,654	240	1,763	192	1,418	96	1,399	14				2	1	1	3	2	48		1
7168	931	1,751	686	1,688	245	1,800	196	1,447	98	1,428	14				2	1	1	3	2	49		1
7168	950	1,787	700	1,723	250	1,837	200	1,477	100	1,457	14				2	1	1	3	2	50		1
7168	969	1,823	714	1,757	255	1,873	204	1,506	102	1,486	14				2	1	1	3	2	51		1
7168	988	1,858	728	1,792	260	1,910	208	1,536	104	1,515	14				2	1	1	3	2	52		1
7168	1,007	1,894	742	1,826	265	1,947	212	1,565	106	1,544	14				2	1	1	3	2	53		1
7168	1,026	1,930	756	1,861	270	1,984	216	1,595	108	1,573	14				2	1	1	3	2	54		1
7168	1,045	1,966	770	1,895	275	2,020	220	1,624	110	1,602	14				2	1	1	3	2	55		1
7168	1,064	2,001	784	1,929	280	2,057	224	1,654	112	1,632	14				2	1	1	3	2	56		1
7168	1,083	2,037	798	1,964	285	2,094	228	1,684	114	1,661	14				2	1	1	3	2	57		1
7168	1,102	2,073	812	1,998	290	2,131	232	1,713	116	1,690	14				2	1	1	3	2	58		1
7168	1,121	2,109	826	2,033	295	2,167	236	1,743	118	1,719	14				3	1	1	3	3	59		1
7168	1,140	2,144	840	2,067	300	2,204	240	1,772	120	1,748	14				3	1	1	3	3	60		1
7168	1,159	2,180	854	2,102	305	2,241	244	1,802	122	1,777	14				3	1	1	3	3	61		1
7168	1,178	2,216	868	2,136	310	2,278	248	1,831	124	1,806	14				3	1	1	3	3	62		1
7168	1,197	2,252	882	2,171	315	2,314	252	1,861	126	1,836	14				3	1	1	3	3	63		1
7168	1,216	2,287	896	2,205	320	2,351	256	1,890	128	1,865	14				3	1	1	3	3	64		1
7168	1,235	2,323	910	2,240	325	2,388	260	1,920	130	1,894	14			▼	3	1	1	3	3	65		1
7168	1,254	2,359	924	2,274	330	2,425	264	1,949	132	1,923	14			*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	18J4	18J1	EXC
7168	1,273	2,395	938	2,308	335	2,461	268	1,979	134	1,952	14			*1	3	1	1	3	3	67		1
7168	1,292	2,430	952	2,343	340	2,498	272	2,008	136	1,981	14			▲	3	1	1	3	3	68		1
7168	1,311	2,466	966	2,377	345	2,535	276	2,038	138	2,010	14				3	1	1	3	3	69		1
7168	1,330	2,502	980	2,412	350	2,571	280	2,068	140	2,040	14				3	1	1	3	3	70		1
7168	1,349	2,537	994	2,446	355	2,608	284	2,097	142	2,069	14				3	1	1	4	3	71		2
7168	1,368	2,573	1,008	2,481	360	2,645	288	2,127	144	2,098	14				3	1	1	4	3	72		2
7168	1,387	2,609	1,022	2,515	365	2,682	292	2,156	146	2,127	14				3	1	1	4	3	73		2
7168	1,406	2,645	1,036	2,550	370	2,718	296	2,186	148	2,156	14				3	1	1	4	3	74		2
7168	1,425	2,680	1,050	2,584	375	2,755	300	2,215	150	2,185	14				3	1	1	4	3	75		2
7168	1,444	2,716	1,064	2,619	380	2,792	304	2,245	152	2,214	14				3	1	1	4	3	76		2
7168	1,463	2,752	1,078	2,653	385	2,829	308	2,274	154	2,243	14				3	1	1	4	3	77		2
7168	1,482	2,788	1,092	2,687	390	2,865	312	2,304	156	2,273	14				3	1	1	4	3	78		2
7168	1,501	2,823	1,106	2,722	395	2,902	316	2,333	158	2,302	14				3	1	1	4	3	79		2
7168	1,520	2,859	1,120	2,756	400	2,939	320	2,363	160	2,331	14				3	1	1	4	3	80		2
7168	1,539	2,895	1,134	2,791	405	2,976	324	2,392	162	2,360	14				3	1	1	4	3	81		2
7168	1,558	2,931	1,148	2,825	410	3,012	328	2,422	164	2,389	14				3	1	1	4	3	82		2
7168	1,577	2,966	1,162	2,860	415	3,049	332	2,451	166	2,418	14				3	1	1	4	4	83		2
7168	1,596	3,002	1,176	2,894	420	3,086	336	2,481	168	2,447	14				3	1	1	4	4	84		2
7168	1,615	3,038	1,190	2,929	425	3,122	340	2,511	170	2,477	14				3	1	1	4	4	85		2
8192	1,634	3,074	1,204	2,963	430	3,159	344	2,540	172	2,506	16				3	1	1	4	4	86		2
8192	1,653	3,109	1,218	2,997	435	3,196	348	2,570	174	2,535	16				3	1	1	4	4	87		2
8192	1,672	3,145	1,232	3,032	440	3,233	352	2,599	176	2,564	16				3	1	1	4	4	88		2
8192	1,691	3,181	1,246	3,066	445	3,269	356	2,629	178	2,593	16				3	1	1	4	4	89		2
8192	1,710	3,217	1,260	3,101	450	3,306	360	2,658	180	2,622	16				3	1	1	4	4	90		2
8192	1,729	3,252	1,274	3,135	455	3,343	364	2,688	182	2,651	16				3	1	1	4	4	91		2
8192	1,748	3,288	1,288	3,170	460	3,380	368	2,717	184	2,681	16				3	1	1	4	4	92		2
8192	1,767	3,324	1,302	3,204	465	3,416	372	2,747	186	2,710	16				3	1	1	4	4	93		2
8192	1,786	3,359	1,316	3,239	470	3,453	376	2,776	188	2,739	16				3	1	1	4	4	94		2
8192	1,805	3,395	1,330	3,273	475	3,490	380	2,806	190	2,768	16				3	1	1	5	4	95		3
8192	1,824	3,431	1,344	3,308	480	3,527	384	2,835	192	2,797	16				3	1	1	5	4	96		3
8192	1,843	3,467	1,358	3,342	485	3,563	388	2,865	194	2,826	16				3	1	1	5	4	97		3
8192	1,862	3,502	1,372	3,376	490	3,600	392	2,895	196	2,855	16				3	1	1	5	4	98		3
8192	1,881	3,538	1,386	3,411	495	3,637	396	2,924	198	2,884	16				3	1	1	5	4	99		3
8192	1,900	3,574	1,400	3,445	500	3,674	400	2,954	200	2,914	16				3	1	1	5	4	100		3
8192	1,919	3,610	1,414	3,480	505	3,710	404	2,983	202	2,943	16				3	1	1	5	4	101		3
8192	1,938	3,645	1,428	3,514	510	3,747	408	3,013	204	2,972	16				3	1	1	5	4	102		3
8192	1,957	3,681	1,442	3,549	515	3,784	412	3,042	206	3,001	16				3	1	1	5	5	103		3
8192	1,976	3,717	1,456	3,583	520	3,820	416	3,072	208	3,030	16				3	1	1	5	5	104		3
8192	1,995	3,753	1,470	3,618	525	3,857	420	3,101	210	3,059	16				3	1	1	5	5	105		3
8192	2,014	3,788	1,484	3,652	530	3,894	424	3,131	212	3,088	16				3	1	1	5	5	106		3
8192	2,033	3,824	1,498	3,687	535	3,931	428	3,160	214	3,118	16				3	1	1	5	5	107		3
8192	2,052	3,860	1,512	3,721	540	3,967	432	3,190	216	3,147	16				3	1	1	5	5	108		3
8192	2,071	3,896	1,526	3,755	545	4,004	436	3,219	218	3,176	16				3	1	1	5	5	109		3
8192	2,090	3,931	1,540	3,790	550	4,041	440	3,249	220	3,205	16				3	1	1	5	5	110		3
8192	2,109	3,967	1,554	3,824	555	4,078	444	3,278	222	3,234	16				3	1	1	6	5	111		4
8192	2,128	4,003	1,568	3,859	560	4,114	448	3,308	224	3,263	16				3	1	1	6	5	112		4
8192	2,147	4,039	1,582	3,893	565	4,151	452	3,338	226	3,292	16				3	1	1	6	5	113		4
8192	2,166	4,074	1,596	3,928	570	4,188	456	3,367	228	3,322	16				3	1	1	6	5	114		4
8192	2,185	4,110	1,610	3,962	575	4,225	460	3,397	230	3,351	16				3	1	1	6	5	115		4
8192	2,204	4,146	1,624	3,997	580	4,261	464	3,426	232	3,380	16				3	1	1	6	5	116		4
8192	2,223	4,181	1,638	4,031	585	4,298	468	3,456	234	3,409	16				3	1	1	6	5	117		4
8192	2,242	4,217	1,652	4,066	590	4,335	472	3,485	236	3,438	16				3	1	1	6	5	118		4
8192	2,261	4,253	1,666	4,100	595	4,371	476	3,515	238	3,467	16				3	1	1	6	6	119		4
8192	2,280	4,289	1,680	4,134	600	4,408	480	3,544	240	3,496	16				3	1	1	6	6	120		4
8192	2,299	4,324	1,694	4,169	605	4,445	484	3,574	242	3,525	16				3	1	1	6	6	121		4
8192	2,318	4,360	1,708	4,203	610	4,482	488	3,603	244	3,555	16				3	1	1	6	6	122		4
8192	2,337	4,396	1,722	4,238	615	4,518	492	3,633	246	3,584	16				3	1	1	6	6	123		4
8192	2,356	4,432	1,736	4,272	620	4,555	496	3,662	248	3,613	16				3	1	1	6	6	124		4
8192	2,375	4,467	1,750	4,307	625	4,592	500	3,692	250	3,642	16			▼	3	1	1	6	6	125		4
8192	2,394	4,503	1,764	4,341	630	4,629	504	3,722	252	3,671	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(3) 47GB HDD, RAID1, for Mainframe

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
									512	1024	20	S256	100	R1C	L1C	405I -14	B4	47J4	47J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	48	91	47	89	31	88	10	85	1			*1				1		1		
512	96	181	94	178	62	176	20	170	1			▲				1		2		
1024	144	272	141	267	93	264	30	255	2							1		3		
1024	192	363	188	356	124	352	40	340	2							1		4		
1536	240	454	235	445	155	440	50	426	3							1		5		
2048	288	544	282	534	186	528	60	511	4							1		6		
3072	336	635	329	622	217	616	70	596	6							1		7		
3072	384	726	376	711	248	704	80	681	6							1		8		
4096	432	816	423	800	279	792	90	766	8							1		9		
4096	480	907	470	889	310	880	100	851	8							1		10		
5120	528	998	517	978	341	968	110	936	10							1		11		
5120	576	1,089	564	1,067	372	1,056	120	1,021	10				1	1		1	1	12		
5120	624	1,179	611	1,156	403	1,144	130	1,106	10				1	1		1	1	13		
6144	672	1,270	658	1,245	434	1,232	140	1,191	12				1	1		1	1	14		
6144	720	1,361	705	1,334	465	1,320	150	1,277	12				1	1		1	1	15		
7168	768	1,452	752	1,423	496	1,408	160	1,362	14				1	1		1	1	16		
7168	816	1,542	799	1,512	527	1,496	170	1,447	14				1	1		1	1	17		
7168	864	1,633	846	1,601	558	1,584	180	1,532	14				1	1		1	1	18		
7168	912	1,724	893	1,690	589	1,672	190	1,617	14				1	1		1	1	19		
7168	960	1,814	940	1,778	620	1,760	200	1,702	14				1	1		1	1	20		
7168	1,008	1,905	987	1,867	651	1,848	210	1,787	14				1	1		1	1	21		
7168	1,056	1,996	1,034	1,956	682	1,936	220	1,872	14				1	1		1	1	22		
7168	1,104	2,087	1,081	2,045	713	2,023	230	1,957	14				1	1		1	1	23		
7168	1,152	2,177	1,128	2,134	744	2,111	240	2,042	14				1	1		2	1	24		1
7168	1,200	2,268	1,175	2,223	775	2,199	250	2,128	14				1	1		2	1	25		1
7168	1,248	2,359	1,222	2,312	806	2,287	260	2,213	14				1	1		2	1	26		1
7168	1,296	2,449	1,269	2,401	837	2,375	270	2,298	14				1	1		2	1	27		1
7168	1,344	2,540	1,316	2,490	868	2,463	280	2,383	14				1	1		2	1	28		1
7168	1,392	2,631	1,363	2,579	899	2,551	290	2,468	14				1	1		2	1	29		1
7168	1,440	2,722	1,410	2,668	930	2,639	300	2,553	14				1	1		2	1	30		1
7168	1,488	2,812	1,457	2,757	961	2,727	310	2,638	14				1	1		2	1	31		1
7168	1,536	2,903	1,504	2,846	992	2,815	320	2,723	14				1	1		2	1	32		1
7168	1,584	2,994	1,551	2,934	1,023	2,903	330	2,808	14				1	1		2	1	33		1
8192	1,632	3,084	1,598	3,023	1,054	2,991	340	2,893	16				1	1		2	1	34		1
8192	1,680	3,175	1,645	3,112	1,085	3,079	350	2,979	16				1	1		2	1	35		1
8192	1,728	3,266	1,692	3,201	1,116	3,167	360	3,064	16				1	1		2	2	36		1
8192	1,776	3,357	1,739	3,290	1,147	3,255	370	3,149	16				1	1		2	2	37		1
8192	1,824	3,447	1,786	3,379	1,178	3,343	380	3,234	16				1	1		2	2	38		1
8192	1,872	3,538	1,833	3,468	1,209	3,431	390	3,319	16				1	1		2	2	39		1
8192	1,920	3,629	1,880	3,557	1,240	3,519	400	3,404	16				1	1		2	2	40		1
8192	1,968	3,720	1,927	3,646	1,271	3,607	410	3,489	16				1	1		2	2	41		1
8192	2,016	3,810	1,974	3,735	1,302	3,695	420	3,574	16				1	1		2	2	42		1
8192	2,064	3,901	2,021	3,824	1,333	3,783	430	3,659	16				1	1		2	2	43		1
8192	2,112	3,992	2,068	3,913	1,364	3,871	440	3,744	16				1	1		2	2	44		1
8192	2,160	4,082	2,115	4,002	1,395	3,959	450	3,830	16				1	1		2	2	45		1
8192	2,208	4,173	2,162	4,091	1,426	4,047	460	3,915	16				1	1		2	2	46		1
8192	2,256	4,264	2,209	4,179	1,457	4,135	470	4,000	16				1	1		2	2	47		1
8192	2,304	4,355	2,256	4,268	1,488	4,223	480	4,085	16				2	1	1	3	2	48		1
8192	2,352	4,445	2,303	4,357	1,519	4,311	490	4,170	16				2	1	1	3	2	49		1
8192	2,400	4,536	2,350	4,446	1,550	4,399	500	4,255	16				2	1	1	3	2	50		1
8192	2,448	4,627	2,397	4,535	1,581	4,487	510	4,340	16				2	1	1	3	2	51		1
8192	2,496	4,717	2,444	4,624	1,612	4,575	520	4,425	16				2	1	1	3	2	52		1
8192	2,544	4,808	2,491	4,713	1,643	4,663	530	4,510	16				2	1	1	3	2	53		1
8192	2,592	4,899	2,538	4,802	1,674	4,751	540	4,595	16				2	1	1	3	2	54		1
8192	2,640	4,990	2,585	4,891	1,705	4,839	550	4,681	16				2	1	1	3	2	55		1
8192	2,688	5,080	2,632	4,980	1,736	4,927	560	4,766	16				2	1	1	3	2	56		1
8192	2,736	5,171	2,679	5,069	1,767	5,015	570	4,851	16				2	1	1	3	2	57		1
8192	2,784	5,262	2,726	5,158	1,798	5,103	580	4,936	16				2	1	1	3	2	58		1
8192	2,832	5,352	2,773	5,247	1,829	5,191	590	5,021	16				3	1	1	3	3	59		1
8192	2,880	5,443	2,820	5,335	1,860	5,279	600	5,106	16				3	1	1	3	3	60		1
8192	2,928	5,534	2,867	5,424	1,891	5,367	610	5,191	16				3	1	1	3	3	61		1
8192	2,976	5,625	2,914	5,513	1,922	5,455	620	5,276	16				3	1	1	3	3	62		1
8192	3,024	5,715	2,961	5,602	1,953	5,543	630	5,361	16				3	1	1	3	3	63		1
8192	3,072	5,806	3,008	5,691	1,984	5,631	640	5,446	16				3	1	1	3	3	64		1
8192	3,120	5,897	3,055	5,780	2,015	5,719	650	5,532	16			▼	3	1	1	3	3	65		1
8192	3,168	5,988	3,102	5,869	2,046	5,807	660	5,617	16			*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	47J4	47J1	EXC
8192	3,216	6,078	3,149	5,958	2,077	5,895	670	5,702	16			*1	3	1	1	3	3	67		1
8192	3,264	6,169	3,196	6,047	2,108	5,983	680	5,787	16				3	1	1	3	3	68		1
8192	3,312	6,260	3,243	6,136	2,139	6,070	690	5,872	16				3	1	1	3	3	69		1
8192	3,360	6,350	3,290	6,225	2,170	6,158	700	5,957	16				3	1	1	3	3	70		1
8192	3,408	6,441	3,337	6,314	2,201	6,246	710	6,042	16				3	1	1	4	3	71		2
8192	3,456	6,532	3,384	6,403	2,232	6,334	720	6,127	16				3	1	1	4	3	72		2
8192	3,504	6,623	3,431	6,491	2,263	6,422	730	6,212	16				3	1	1	4	3	73		2
8192	3,552	6,713	3,478	6,580	2,294	6,510	740	6,297	16				3	1	1	4	3	74		2
8192	3,600	6,804	3,525	6,669	2,325	6,598	750	6,383	16				3	1	1	4	3	75		2
8192	3,648	6,895	3,572	6,758	2,356	6,686	760	6,468	16				3	1	1	4	3	76		2
8192	3,696	6,985	3,619	6,847	2,387	6,774	770	6,553	16				3	1	1	4	3	77		2
8192	3,744	7,076	3,666	6,936	2,418	6,862	780	6,638	16				3	1	1	4	3	78		2
8192	3,792	7,167	3,713	7,025	2,449	6,950	790	6,723	16				3	1	1	4	3	79		2
8192	3,840	7,258	3,760	7,114	2,480	7,038	800	6,808	16				3	1	1	4	3	80		2
8192	3,888	7,348	3,807	7,203	2,511	7,126	810	6,893	16				3	1	1	4	3	81		2
8192	3,936	7,439	3,854	7,292	2,542	7,214	820	6,978	16				3	1	1	4	3	82		2
9216	3,984	7,530	3,901	7,381	2,573	7,302	830	7,063	18		1		3	1	1	4	4	83		2
9216	4,032	7,620	3,948	7,470	2,604	7,390	840	7,148	18		1		3	1	1	4	4	84		2
9216	4,080	7,711	3,995	7,559	2,635	7,478	850	7,234	18		1		3	1	1	4	4	85		2
9216			4,042	7,647	2,666	7,566	860	7,319	18		1		3	1	1	4	4	86		2
9216			4,089	7,736	2,697	7,654	870	7,404	18		1		3	1	1	4	4	87		2
9216					2,728	7,742	880	7,489	18		1		3	1	1	4	4	88		2
9216					2,759	7,830	890	7,574	18		1		3	1	1	4	4	89		2
9216					2,790	7,918	900	7,659	18		1		3	1	1	4	4	90		2
9216					2,821	8,006	910	7,744	18		1		3	1	1	4	4	91		2
9216					2,852	8,094	920	7,829	18		1		3	1	1	4	4	92		2
9216					2,883	8,182	930	7,914	18		1		3	1	1	4	4	93		2
9216					2,914	8,270	940	7,999	18		1		3	1	1	4	4	94		2
9216					2,945	8,358	950	8,085	18		1		3	1	1	5	4	95		3
9216					2,976	8,446	960	8,170	18		1		3	1	1	5	4	96		3
9216					3,007	8,534	970	8,255	18		1		3	1	1	5	4	97		3
9216					3,038	8,622	980	8,340	18		1		3	1	1	5	4	98		3
9216					3,069	8,710	990	8,425	18		1		3	1	1	5	4	99		3
9216					3,100	8,798	1,000	8,510	18		1		3	1	1	5	4	100		3
9216					3,131	8,886	1,010	8,595	18		1		3	1	1	5	4	101		3
9216					3,162	8,974	1,020	8,680	18		1		3	1	1	5	4	102		3
9216					3,193	9,062	1,030	8,765	18		1		3	1	1	5	5	103		3
9216					3,224	9,150	1,040	8,850	18		1		3	1	1	5	5	104		3
9216					3,255	9,238	1,050	8,936	18		1		3	1	1	5	5	105		3
9216					3,286	9,326	1,060	9,021	18		1		3	1	1	5	5	106		3
9216					3,317	9,414	1,070	9,106	18		1		3	1	1	5	5	107		3
9216					3,348	9,502	1,080	9,191	18		1		3	1	1	5	5	108		3
9216					3,379	9,590	1,090	9,276	18		1		3	1	1	5	5	109		3
9216					3,410	9,678	1,100	9,361	18		1		3	1	1	5	5	110		3
9216					3,441	9,766	1,110	9,446	18		1		3	1	1	6	5	111		4
9216					3,472	9,854	1,120	9,531	18		1		3	1	1	6	5	112		4
9216					3,503	9,942	1,130	9,616	18		1		3	1	1	6	5	113		4
9216					3,534	10,029	1,140	9,701	18		1		3	1	1	6	5	114		4
9216					3,565	10,117	1,150	9,787	18		1		3	1	1	6	5	115		4
9216					3,596	10,205	1,160	9,872	18		1		3	1	1	6	5	116		4
9216					3,627	10,293	1,170	9,957	18		1		3	1	1	6	5	117		4
9216					3,658	10,381	1,180	10,042	18		1		3	1	1	6	5	118		4
9216					3,689	10,469	1,190	10,127	18		1		3	1	1	6	6	119		4
9216					3,720	10,557	1,200	10,212	18		1		3	1	1	6	6	120		4
9216					3,751	10,645	1,210	10,297	18		1		3	1	1	6	6	121		4
9216					3,782	10,733	1,220	10,382	18		1		3	1	1	6	6	122		4
9216					3,813	10,821	1,230	10,467	18		1		3	1	1	6	6	123		4
9216					3,844	10,909	1,240	10,552	18		1		3	1	1	6	6	124		4
9216					3,875	10,997	1,250	10,638	18		1		3	1	1	6	6	125		4
9216					3,906	11,085	1,260	10,723	18		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(4) 47GB HDD, RAID1, for Open System

Cache (MB)	Storage Capacity (GB)												Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-M (47.185GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	47J4	47J1	EXC
512	50	94	38	94	12	88	12	89	6	87	2	94	1			*1				1		1		
512	100	188	76	187	24	176	24	177	12	175	4	188	1			▲				1		2		
1024	150	282	114	281	36	264	36	266	18	262	6	283	2							1		3		
1024	200	376	152	374	48	353	48	354	24	350	8	377	2							1		4		
1536	250	470	190	468	60	441	60	443	30	437	10	471	3							1		5		
2048	300	564	228	561	72	529	72	532	36	524	12	566	4							1		6		
3072	350	658	266	655	84	617	84	620	42	612	14	660	6							1		7		
3072	400	752	304	748	96	705	96	709	48	699	16	754	6							1		8		
4096	450	846	342	842	108	793	108	797	54	787	18	849	8							1		9		
4096	500	941	380	935	120	882	120	886	60	874	20	943	8							1		10		
5120	550	1,035	418	1,029	132	970	132	975	66	961	22	1,038	10							1		11		
5120	600	1,129	456	1,122	144	1,058	144	1,063	72	1,049	24	1,132	10					1	1	1	1	12		
5120	650	1,223	494	1,216	156	1,146	156	1,152	78	1,136	26	1,226	10					1	1	1	1	13		
6144	700	1,317	532	1,309	168	1,234	168	1,241	84	1,224	28	1,321	12					1	1	1	1	14		
6144	750	1,411	570	1,403	180	1,322	180	1,329	90	1,311	30	1,415	12					1	1	1	1	15		
7168	800	1,505	608	1,496	192	1,411	192	1,418	96	1,399	32	1,509	14					1	1	1	1	16		
7168	850	1,599	646	1,590	204	1,499	204	1,506	102	1,486	34	1,604	14					1	1	1	1	17		
7168	900	1,693	684	1,683	216	1,587	216	1,595	108	1,573	36	1,698	14					1	1	1	1	18		
7168	950	1,787	722	1,777	228	1,675	228	1,684	114	1,661	38	1,793	14					1	1	1	1	19		
7168	1,000	1,881	760	1,870	240	1,763	240	1,772	120	1,748	40	1,887	14					1	1	1	1	20		
7168	1,050	1,975	798	1,964	252	1,851	252	1,861	126	1,836	42	1,981	14					1	1	1	1	21		
7168	1,100	2,069	836	2,057	264	1,940	264	1,949	132	1,923	44	2,076	14					1	1	1	1	22		
7168	1,150	2,163	874	2,151	276	2,028	276	2,038	138	2,010	46	2,170	14					1	1	1	1	23		
7168	1,200	2,257	912	2,244	288	2,116	288	2,127	144	2,098	48	2,264	14					1	1	2	1	24		1
7168	1,250	2,351	950	2,338	300	2,204	300	2,215	150	2,185	50	2,359	14					1	1	2	1	25		1
7168	1,300	2,445	988	2,431	312	2,292	312	2,304	156	2,273	52	2,453	14					1	1	2	1	26		1
7168	1,350	2,539	1,026	2,525	324	2,380	324	2,392	162	2,360	54	2,547	14					1	1	2	1	27		1
7168	1,400	2,633	1,064	2,619	336	2,469	336	2,481	168	2,447	56	2,642	14					1	1	2	1	28		1
7168	1,450	2,727	1,102	2,712	348	2,557	348	2,570	174	2,535	58	2,736	14					1	1	2	1	29		1
7168	1,500	2,822	1,140	2,806	360	2,645	360	2,658	180	2,622	60	2,831	14					1	1	2	1	30		1
7168	1,550	2,916	1,178	2,899	372	2,733	372	2,747	186	2,710	62	2,925	14					1	1	2	1	31		1
7168	1,600	3,010	1,216	2,993	384	2,821	384	2,835	192	2,797	64	3,019	14					1	1	2	1	32		1
7168	1,650	3,104	1,254	3,086	396	2,909	396	2,924	198	2,884	66	3,114	14					1	1	2	1	33		1
8192	1,700	3,198	1,292	3,180	408	2,998	408	3,013	204	2,972	68	3,208	16					1	1	2	1	34		1
8192	1,750	3,292	1,330	3,273	420	3,086	420	3,101	210	3,059	70	3,302	16					1	1	2	1	35		1
8192	1,800	3,386	1,368	3,367	432	3,174	432	3,190	216	3,147	72	3,397	16					1	1	2	2	36		1
8192	1,850	3,480	1,406	3,460	444	3,262	444	3,278	222	3,234	74	3,491	16					1	1	2	2	37		1
8192	1,900	3,574	1,444	3,554	456	3,350	456	3,367	228	3,322	76	3,586	16					1	1	2	2	38		1
8192	1,950	3,668	1,482	3,647	468	3,438	468	3,456	234	3,409	78	3,680	16					1	1	2	2	39		1
8192	2,000	3,762	1,520	3,741	480	3,527	480	3,544	240	3,496	80	3,774	16					1	1	2	2	40		1
8192	2,050	3,856	1,558	3,834	492	3,615	492	3,633	246	3,584	82	3,869	16					1	1	2	2	41		1
8192	2,100	3,950	1,596	3,928	504	3,703	504	3,722	252	3,671	84	3,963	16					1	1	2	2	42		1
8192	2,150	4,044	1,634	4,021	516	3,791	516	3,810	258	3,759	86	4,057	16					1	1	2	2	43		1
8192	2,200	4,138	1,672	4,115	528	3,879	528	3,899	264	3,846	88	4,152	16					1	1	2	2	44		1
8192	2,250	4,232	1,710	4,208	540	3,967	540	3,987	270	3,933	90	4,246	16					1	1	2	2	45		1
8192	2,300	4,326	1,748	4,302	552	4,056	552	4,076	276	4,021	92	4,341	16					1	1	2	2	46		1
8192	2,350	4,420	1,786	4,395	564	4,144	564	4,165	282	4,108	94	4,435	16					1	1	2	2	47		1
8192	2,400	4,514	1,824	4,489	576	4,232	576	4,253	288	4,196	96	4,529	16					2	1	1	3	2	48	1
8192	2,450	4,608	1,862	4,582	588	4,320	588	4,342	294	4,283	98	4,624	16					2	1	1	3	2	49	1
8192	2,500	4,703	1,900	4,676	600	4,408	600	4,430	300	4,370	100	4,718	16					2	1	1	3	2	50	1
8192	2,550	4,797	1,938	4,769	612	4,496	612	4,519	306	4,458	102	4,812	16					2	1	1	3	2	51	1
8192	2,600	4,891	1,976	4,863	624	4,585	624	4,608	312	4,545	104	4,907	16					2	1	1	3	2	52	1
8192	2,650	4,985	2,014	4,956	636	4,673	636	4,696	318	4,633	106	5,001	16					2	1	1	3	2	53	1
8192	2,700	5,079	2,052	5,050	648	4,761	648	4,785	324	4,720	108	5,095	16					2	1	1	3	2	54	1
8192	2,750	5,173	2,090	5,143	660	4,849	660	4,873	330	4,807	110	5,190	16					2	1	1	3	2	55	1
8192	2,800	5,267	2,128	5,237	672	4,937	672	4,962	336	4,895	112	5,284	16					2	1	1	3	2	56	1
8192	2,850	5,361	2,166	5,331	684	5,025	684	5,051	342	4,982	114	5,379	16					2	1	1	3	2	57	1
8192	2,900	5,455	2,204	5,424	696	5,114	696	5,139	348	5,070	116	5,473	16					2	1	1	3	2	58	1
8192	2,950	5,549	2,242	5,518	708	5,202	708	5,228	354	5,157	118	5,567	16					3	1	1	3	3	59	1
8192	3,000	5,643	2,280	5,611	720	5,290	720	5,316	360	5,244	120	5,662	16					3	1	1	3	3	60	1
8192	3,050	5,737	2,318	5,705	732	5,378	732	5,405	366	5,332	122	5,756	16					3	1	1	3	3	61	1
8192	3,100	5,831	2,356	5,798	744	5,466	744	5,494	372	5,419	124	5,850	16					3	1	1	3	3	62	1
8192	3,150	5,925	2,394	5,892	756	5,554	756	5,582	378	5,507	126	5,945	16					3	1	1	3	3	63	1
8192	3,200	6,019	2,432	5,985	768	5,642	768	5,671	384	5,594	128	6,039	16					3	1	1	3	3	64	1
8192	3,250	6,113	2,470	6,079	780	5,731	780	5,760	390	5,682	130	6,134	16			▼		3	1	1	3	3	65	1
8192	3,300	6,207	2,508	6,172	792	5,819	792	5,848	396	5,769	132	6,228	16			*1		3	1	1	3	3	66	1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)												Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-M (47.185GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	47J4	47J1	EXC
8192	3,350	6,301	2,546	6,266	804	5,907	804	5,937	402	5,856	134	6,322	16			*1	3	1	1	3	3	67		1
8192	3,400	6,395	2,584	6,359	816	5,995	816	6,025	408	5,944	136	6,417	16			▲	3	1	1	3	3	68		1
8192	3,450	6,489	2,622	6,453	828	6,083	828	6,114	414	6,031	138	6,511	16				3	1	1	3	3	69		1
8192	3,500	6,584	2,660	6,546	840	6,171	840	6,203	420	6,119	140	6,605	16				3	1	1	3	3	70		1
8192	3,550	6,678	2,698	6,640	852	6,260	852	6,291	426	6,206	142	6,700	16				3	1	1	4	3	71		2
8192	3,600	6,772	2,736	6,733	864	6,348	864	6,380	432	6,293	144	6,794	16				3	1	1	4	3	72		2
8192	3,650	6,866	2,774	6,827	876	6,436	876	6,468	438	6,381	146	6,889	16				3	1	1	4	3	73		2
8192	3,700	6,960	2,812	6,920	888	6,524	888	6,557	444	6,468	148	6,983	16				3	1	1	4	3	74		2
8192	3,750	7,054	2,850	7,014	900	6,612	900	6,646	450	6,556	150	7,077	16				3	1	1	4	3	75		2
8192	3,800	7,148	2,888	7,107	912	6,700	912	6,734	456	6,643	152	7,172	16				3	1	1	4	3	76		2
8192	3,850	7,242	2,926	7,201	924	6,789	924	6,823	462	6,730	154	7,266	16				3	1	1	4	3	77		2
8192	3,900	7,336	2,964	7,294	936	6,877	936	6,911	468	6,818	156	7,360	16				3	1	1	4	3	78		2
8192	3,950	7,430	3,002	7,388	948	6,965	948	7,000	474	6,905	158	7,455	16				3	1	1	4	3	79		2
8192	4,000	7,524	3,040	7,481	960	7,053	960	7,089	480	6,993	160	7,549	16				3	1	1	4	3	80		2
8192	4,050	7,618	3,078	7,575	972	7,141	972	7,177	486	7,080	162	7,643	16				3	1	1	4	3	81		2
8192			3,116	7,668	984	7,229	984	7,266	492	7,167	164	7,738	16				3	1	1	4	3	82		2
9216			3,154	7,762	996	7,318	996	7,354	498	7,255	166	7,832	18		1		3	1	1	4	4	83		2
9216			3,192	7,856	1,008	7,406	1,008	7,443	504	7,342	168	7,927	18		1		3	1	1	4	4	84		2
9216			3,230	7,949	1,020	7,494	1,020	7,532	510	7,430	170	8,021	18		1		3	1	1	4	4	85		2
9216			3,268	8,043	1,032	7,582	1,032	7,620	516	7,517	172	8,115	18		1		3	1	1	4	4	86		2
9216			3,306	8,136	1,044	7,670	1,044	7,709	522	7,604	174	8,210	18		1		3	1	1	4	4	87		2
9216			3,344	8,230	1,056	7,758	1,056	7,798	528	7,692	176	8,304	18		1		3	1	1	4	4	88		2
9216			3,382	8,323	1,068	7,847	1,068	7,886	534	7,779	178	8,398	18		1		3	1	1	4	4	89		2
9216			3,420	8,417	1,080	7,935	1,080	7,975	540	7,867	180	8,493	18		1		3	1	1	4	4	90		2
9216			3,458	8,510	1,092	8,023	1,092	8,063	546	7,954	182	8,587	18		1		3	1	1	4	4	91		2
9216			3,496	8,604	1,104	8,111	1,104	8,152	552	8,042	184	8,682	18		1		3	1	1	4	4	92		2
9216			3,534	8,697	1,116	8,199	1,116	8,241	558	8,129	186	8,776	18		1		3	1	1	4	4	93		2
9216			3,572	8,791	1,128	8,287	1,128	8,329	564	8,216	188	8,870	18		1		3	1	1	4	4	94		2
9216			3,610	8,884	1,140	8,376	1,140	8,418	570	8,304	190	8,965	18		1		3	1	1	5	4	95		3
9216			3,648	8,978	1,152	8,464	1,152	8,506	576	8,391	192	9,059	18		1		3	1	1	5	4	96		3
9216			3,686	9,071	1,164	8,552	1,164	8,595	582	8,479	194	9,153	18		1		3	1	1	5	4	97		3
9216			3,724	9,165	1,176	8,640	1,176	8,684	588	8,566	196	9,248	18		1		3	1	1	5	4	98		3
9216			3,762	9,258	1,188	8,728	1,188	8,772	594	8,653	198	9,342	18		1		3	1	1	5	4	99		3
9216			3,800	9,352	1,200	8,816	1,200	8,861	600	8,741	200	9,437	18		1		3	1	1	5	4	100		3
9216			3,838	9,445	1,212	8,905	1,212	8,949	606	8,828	202	9,531	18		1		3	1	1	5	4	101		3
9216			3,876	9,539	1,224	8,993	1,224	9,038	612	8,916	204	9,625	18		1		3	1	1	5	4	102		3
9216			3,914	9,632	1,236	9,081	1,236	9,127	618	9,003	206	9,720	18		1		3	1	1	5	5	103		3
9216			3,952	9,726	1,248	9,169	1,248	9,215	624	9,090	208	9,814	18		1		3	1	1	5	5	104		3
9216			3,990	9,819	1,260	9,257	1,260	9,304	630	9,178	210	9,908	18		1		3	1	1	5	5	105		3
9216			4,028	9,913	1,272	9,345	1,272	9,392	636	9,265	212	10,003	18		1		3	1	1	5	5	106		3
9216			4,066	10,006	1,284	9,434	1,284	9,481	642	9,353	214	10,097	18		1		3	1	1	5	5	107		3
9216					1,296	9,522	1,296	9,570	648	9,440	216	10,191	18		1		3	1	1	5	5	108		3
9216					1,308	9,610	1,308	9,658	654	9,527	218	10,286	18		1		3	1	1	5	5	109		3
9216					1,320	9,698	1,320	9,747	660	9,615	220	10,380	18		1		3	1	1	5	5	110		3
9216					1,332	9,786	1,332	9,835	666	9,702	222	10,475	18		1		3	1	1	6	5	111		4
9216					1,344	9,874	1,344	9,924	672	9,790	224	10,569	18		1		3	1	1	6	5	112		4
9216					1,356	9,963	1,356	10,013	678	9,877	226	10,663	18		1		3	1	1	6	5	113		4
9216					1,368	10,051	1,368	10,101	684	9,965	228	10,758	18		1		3	1	1	6	5	114		4
9216					1,380	10,139	1,380	10,190	690	10,052	230	10,852	18		1		3	1	1	6	5	115		4
9216					1,392	10,227	1,392	10,279	696	10,139	232	10,946	18		1		3	1	1	6	5	116		4
9216					1,404	10,315	1,404	10,367	702	10,227	234	11,041	18		1		3	1	1	6	5	117		4
9216					1,416	10,403	1,416	10,456	708	10,314	236	11,135	18		1		3	1	1	6	5	118		4
9216					1,428	10,492	1,428	10,544	714	10,402	238	11,230	18		1		3	1	1	6	6	119		4
9216					1,440	10,580	1,440	10,633	720	10,489	240	11,324	18		1		3	1	1	6	6	120		4
9216					1,452	10,668	1,452	10,722	726	10,576	242	11,418	18		1		3	1	1	6	6	121		4
9216					1,464	10,756	1,464	10,810	732	10,664	244	11,513	18		1		3	1	1	6	6	122		4
9216					1,476	10,844	1,476	10,899	738	10,751	246	11,607	18		1		3	1	1	6	6	123		4
9216					1,488	10,932	1,488	10,987	744	10,839	248	11,701	18		1		3	1	1	6	6	124		4
9216					1,500	11,021	1,500	11,076	750	10,926	250	11,796	18		1	▼	3	1	1	6	6	125		4
9216					1,512	11,109	1,512	11,165	756	11,013	252	11,890	18		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note1: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

Note2: OPEN-M is applicable for Windows 2000 only.

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(5) 73GB HDD, RAID1, for Mainframe

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
									512	1024	20	S256	100	R1C	L1C	405I -14	B4	72J4	72J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	74	140	73	138	48	136	16	136	1			*1				1		1		
1024	148	280	146	276	96	272	32	272	2			▲				1		2		
1536	222	420	219	414	144	409	48	408	3							1		3		
2048	296	559	292	552	192	545	64	545	4							1		4		
3072	370	699	365	691	240	681	80	681	6							1		5		
4096	444	839	438	829	288	817	96	817	8							1		6		
5120	518	979	511	967	336	954	112	953	10							1		7		
5120	592	1,119	584	1,105	384	1,090	128	1,089	10							1		8		
6144	666	1,259	657	1,243	432	1,226	144	1,225	12							1		9		
6144	740	1,399	730	1,381	480	1,362	160	1,362	12							1		10		
7168	814	1,538	803	1,519	528	1,498	176	1,498	14							1		11		
7168	888	1,678	876	1,657	576	1,635	192	1,634	14				1	1		1	1	12		
7168	962	1,818	949	1,796	624	1,771	208	1,770	14				1	1		1	1	13		
7168	1,036	1,958	1,022	1,934	672	1,907	224	1,906	14				1	1		1	1	14		
7168	1,110	2,098	1,095	2,072	720	2,043	240	2,042	14				1	1		1	1	15		
7168	1,184	2,238	1,168	2,210	768	2,180	256	2,179	14				1	1		1	1	16		
7168	1,258	2,378	1,241	2,348	816	2,316	272	2,315	14				1	1		1	1	17		
7168	1,332	2,517	1,314	2,486	864	2,452	288	2,451	14				1	1		1	1	18		
7168	1,406	2,657	1,387	2,624	912	2,588	304	2,587	14				1	1		1	1	19		
7168	1,480	2,797	1,460	2,762	960	2,724	320	2,723	14				1	1		1	1	20		
7168	1,554	2,937	1,533	2,900	1,008	2,861	336	2,859	14				1	1		1	1	21		
8192	1,628	3,077	1,606	3,039	1,056	2,997	352	2,996	16				1	1		1	1	22		
8192	1,702	3,217	1,679	3,177	1,104	3,133	368	3,132	16				1	1		1	1	23		
8192	1,776	3,357	1,752	3,315	1,152	3,269	384	3,268	16				1	1		2	1	24		1
8192	1,850	3,497	1,825	3,453	1,200	3,406	400	3,404	16				1	1		2	1	25		1
8192	1,924	3,636	1,898	3,591	1,248	3,542	416	3,540	16				1	1		2	1	26		1
8192	1,998	3,776	1,971	3,729	1,296	3,678	432	3,676	16				1	1		2	1	27		1
8192	2,072	3,916	2,044	3,867	1,344	3,814	448	3,812	16				1	1		2	1	28		1
8192	2,146	4,056	2,117	4,005	1,392	3,950	464	3,949	16				1	1		2	1	29		1
8192	2,220	4,196	2,190	4,143	1,440	4,087	480	4,085	16				1	1		2	1	30		1
8192	2,294	4,336	2,263	4,282	1,488	4,223	496	4,221	16				1	1		2	1	31		1
8192	2,368	4,476	2,336	4,420	1,536	4,359	512	4,357	16				1	1		2	1	32		1
8192	2,442	4,615	2,409	4,558	1,584	4,495	528	4,493	16				1	1		2	1	33		1
8192	2,516	4,755	2,482	4,696	1,632	4,632	544	4,629	16				1	1		2	1	34		1
8192	2,590	4,895	2,555	4,834	1,680	4,768	560	4,766	16				1	1		2	1	35		1
8192	2,664	5,035	2,628	4,972	1,728	4,904	576	4,902	16				1	1		2	2	36		1
8192	2,738	5,175	2,701	5,110	1,776	5,040	592	5,038	16				1	1		2	2	37		1
8192	2,812	5,315	2,774	5,248	1,824	5,177	608	5,174	16				1	1		2	2	38		1
8192	2,886	5,455	2,847	5,387	1,872	5,313	624	5,310	16				1	1		2	2	39		1
8192	2,960	5,594	2,920	5,525	1,920	5,449	640	5,446	16				1	1		2	2	40		1
8192	3,034	5,734	2,993	5,663	1,968	5,585	656	5,583	16				1	1		2	2	41		1
8192	3,108	5,874	3,066	5,801	2,016	5,721	672	5,719	16				1	1		2	2	42		1
8192	3,182	6,014	3,139	5,939	2,064	5,858	688	5,855	16				1	1		2	2	43		1
8192	3,256	6,154	3,212	6,077	2,112	5,994	704	5,991	16				1	1		2	2	44		1
8192	3,330	6,294	3,285	6,215	2,160	6,130	720	6,127	16				1	1		2	2	45		1
8192	3,404	6,434	3,358	6,353	2,208	6,266	736	6,263	16				1	1		2	2	46		1
8192	3,478	6,573	3,431	6,491	2,256	6,403	752	6,400	16				1	1		2	2	47		1
8192	3,552	6,713	3,504	6,630	2,304	6,539	768	6,536	16				2	1	1	3	2	48		1
8192	3,626	6,853	3,577	6,768	2,352	6,675	784	6,672	16				2	1	1	3	2	49		1
8192	3,700	6,993	3,650	6,906	2,400	6,811	800	6,808	16				2	1	1	3	2	50		1
8192	3,774	7,133	3,723	7,044	2,448	6,947	816	6,944	16				2	1	1	3	2	51		1
8192	3,848	7,273	3,796	7,182	2,496	7,084	832	7,080	16				2	1	1	3	2	52		1
8192	3,922	7,413	3,869	7,320	2,544	7,220	848	7,216	16				2	1	1	3	2	53		1
9216	3,996	7,552	3,942	7,458	2,592	7,356	864	7,353	18		1		2	1	1	3	2	54		1
9216	4,070	7,692	4,015	7,596	2,640	7,492	880	7,489	18		1		2	1	1	3	2	55		1
9216			4,088	7,734	2,688	7,629	896	7,625	18		1		2	1	1	3	2	56		1
9216					2,736	7,765	912	7,761	18		1		2	1	1	3	2	57		1
9216					2,784	7,901	928	7,897	18		1		2	1	1	3	2	58		1
9216					2,832	8,037	944	8,033	18		1		3	1	1	3	3	59		1
9216					2,880	8,173	960	8,170	18		1		3	1	1	3	3	60		1
9216					2,928	8,310	976	8,306	18		1		3	1	1	3	3	61		1
9216					2,976	8,446	992	8,442	18		1		3	1	1	3	3	62		1
9216					3,024	8,582	1,008	8,578	18		1		3	1	1	3	3	63		1
9216					3,072	8,718	1,024	8,714	18		1		3	1	1	3	3	64		1
9216					3,120	8,855	1,040	8,850	18		1	▼	3	1	1	3	3	65		1
9216					3,168	8,991	1,056	8,987	18		1	*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)								Number of necessary options											
	3380-K (1.890GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	72J4	72J1	EXC
9216					3,216	9,127	1,072	9,123	18		1	*1	3	1	1	3	3	67		1
9216					3,264	9,263	1,088	9,259	18		1	▲	3	1	1	3	3	68		1
9216					3,312	9,399	1,104	9,395	18		1		3	1	1	3	3	69		1
9216					3,360	9,536	1,120	9,531	18		1		3	1	1	3	3	70		1
9216					3,408	9,672	1,136	9,667	18		1		3	1	1	4	3	71		2
9216					3,456	9,808	1,152	9,804	18		1		3	1	1	4	3	72		2
9216					3,504	9,944	1,168	9,940	18		1		3	1	1	4	3	73		2
9216					3,552	10,081	1,184	10,076	18		1		3	1	1	4	3	74		2
9216					3,600	10,217	1,200	10,212	18		1		3	1	1	4	3	75		2
9216					3,648	10,353	1,216	10,348	18		1		3	1	1	4	3	76		2
9216					3,696	10,489	1,232	10,484	18		1		3	1	1	4	3	77		2
9216					3,744	10,625	1,248	10,620	18		1		3	1	1	4	3	78		2
9216					3,792	10,762	1,264	10,757	18		1		3	1	1	4	3	79		2
9216					3,840	10,898	1,280	10,893	18		1		3	1	1	4	3	80		2
9216					3,888	11,034	1,296	11,029	18		1		3	1	1	4	3	81		2
9216					3,936	11,170	1,312	11,165	18		1		3	1	1	4	3	82		2
9216					3,984	11,307	1,328	11,301	18		1		3	1	1	4	4	83		2
9216					4,032	11,443	1,344	11,437	18		1		3	1	1	4	4	84		2
9216					4,080	11,579	1,360	11,574	18		1		3	1	1	4	4	85		2
10240							1,376	11,710	20		1		3	1	1	4	4	86		2
10240							1,392	11,846	20		1		3	1	1	4	4	87		2
10240							1,408	11,982	20		1		3	1	1	4	4	88		2
10240							1,424	12,118	20		1		3	1	1	4	4	89		2
10240							1,440	12,254	20		1		3	1	1	4	4	90		2
10240							1,456	12,391	20		1		3	1	1	4	4	91		2
10240							1,472	12,527	20		1		3	1	1	4	4	92		2
10240							1,488	12,663	20		1		3	1	1	4	4	93		2
10240							1,504	12,799	20		1		3	1	1	4	4	94		2
10240							1,520	12,935	20		1		3	1	1	5	4	95		3
10240							1,536	13,071	20		1		3	1	1	5	4	96		3
10240							1,552	13,208	20		1		3	1	1	5	4	97		3
10240							1,568	13,344	20		1		3	1	1	5	4	98		3
10240							1,584	13,480	20		1		3	1	1	5	4	99		3
10240							1,600	13,616	20		1		3	1	1	5	4	100		3
10240							1,616	13,752	20		1		3	1	1	5	4	101		3
10240							1,632	13,888	20		1		3	1	1	5	4	102		3
10240							1,648	14,024	20		1		3	1	1	5	5	103		3
10240							1,664	14,161	20		1		3	1	1	5	5	104		3
10240							1,680	14,297	20		1		3	1	1	5	5	105		3
10240							1,696	14,433	20		1		3	1	1	5	5	106		3
10240							1,712	14,569	20		1		3	1	1	5	5	107		3
10240							1,728	14,705	20		1		3	1	1	5	5	108		3
10240							1,744	14,841	20		1		3	1	1	5	5	109		3
10240							1,760	14,978	20		1		3	1	1	5	5	110		3
10240							1,776	15,114	20		1		3	1	1	6	5	111		4
10240							1,792	15,250	20		1		3	1	1	6	5	112		4
10240							1,808	15,386	20		1		3	1	1	6	5	113		4
10240							1,824	15,522	20		1		3	1	1	6	5	114		4
10240							1,840	15,658	20		1		3	1	1	6	5	115		4
10240							1,856	15,795	20		1		3	1	1	6	5	116		4
10240							1,872	15,931	20		1		3	1	1	6	5	117		4
10240							1,888	16,067	20		1		3	1	1	6	5	118		4
10240							1,904	16,203	20		1		3	1	1	6	6	119		4
10240							1,920	16,339	20		1		3	1	1	6	6	120		4
10240							1,936	16,475	20		1		3	1	1	6	6	121		4
10240							1,952	16,612	20		1		3	1	1	6	6	122		4
10240							1,968	16,748	20		1		3	1	1	6	6	123		4
10240							1,984	16,884	20		1		3	1	1	6	6	124		4
10240							2,000	17,020	20		1	▼	3	1	1	6	6	125		4
10240							2,016	17,156	20		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(6) 73GB HDD, RAID1, for Open System

Cache (MB)	Storage Capacity (GB)												Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
													512	1024	20	S256	100	R1C	L1C		B4	72J4	72J1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	77	145	59	145	19	140	19	140	10	146	4	145	1			*1				1		1		
1024	154	290	118	290	38	279	38	281	20	291	8	291	2			▲				1		2		
1536	231	435	177	436	57	419	57	421	30	437	12	437	3							1		3		
2048	308	579	236	581	76	558	76	561	40	583	16	583	4							1		4		
3072	385	724	295	726	95	698	95	701	50	728	20	729	6							1		5		
4096	462	869	354	871	114	838	114	842	60	874	24	874	8							1		6		
5120	539	1,014	413	1,016	133	977	133	982	70	1,020	28	1,020	10							1		7		
5120	616	1,159	472	1,162	152	1,117	152	1,122	80	1,165	32	1,166	10							1		8		
6144	693	1,304	531	1,307	171	1,256	171	1,263	90	1,311	36	1,312	12							1		9		
6144	770	1,448	590	1,452	190	1,396	190	1,403	100	1,457	40	1,458	12							1		10		
7168	847	1,593	649	1,597	209	1,536	209	1,543	110	1,602	44	1,603	14							1		11		
7168	924	1,738	708	1,742	228	1,675	228	1,684	120	1,748	48	1,749	14					1	1	1	1	12		
7168	1,001	1,883	767	1,888	247	1,815	247	1,824	130	1,894	52	1,895	14					1	1	1	1	13		
7168	1,078	2,028	826	2,033	266	1,954	266	1,964	140	2,040	56	2,041	14					1	1	1	1	14		
7168	1,155	2,173	885	2,178	285	2,094	285	2,104	150	2,185	60	2,187	14					1	1	1	1	15		
7168	1,232	2,317	944	2,323	304	2,233	304	2,245	160	2,331	64	2,332	14					1	1	1	1	16		
7168	1,309	2,462	1,003	2,468	323	2,373	323	2,385	170	2,477	68	2,478	14					1	1	1	1	17		
7168	1,386	2,607	1,062	2,614	342	2,513	342	2,525	180	2,622	72	2,624	14					1	1	1	1	18		
7168	1,463	2,752	1,121	2,759	361	2,652	361	2,666	190	2,768	76	2,770	14					1	1	1	1	19		
7168	1,540	2,897	1,180	2,904	380	2,792	380	2,806	200	2,914	80	2,916	14					1	1	1	1	20		
7168	1,617	3,042	1,239	3,049	399	2,931	399	2,946	210	3,059	84	3,061	14					1	1	1	1	21		
8192	1,694	3,186	1,298	3,194	418	3,071	418	3,087	220	3,205	88	3,207	16					1	1	1	1	22		
8192	1,771	3,331	1,357	3,340	437	3,211	437	3,227	230	3,351	92	3,353	16					1	1	1	1	23		
8192	1,848	3,476	1,416	3,485	456	3,350	456	3,367	240	3,496	96	3,499	16					1	1	2	1	24		1
8192	1,925	3,621	1,475	3,630	475	3,490	475	3,507	250	3,642	100	3,645	16					1	1	2	1	25		1
8192	2,002	3,766	1,534	3,775	494	3,629	494	3,648	260	3,788	104	3,790	16					1	1	2	1	26		1
8192	2,079	3,911	1,593	3,920	513	3,769	513	3,788	270	3,933	108	3,936	16					1	1	2	1	27		1
8192	2,156	4,055	1,652	4,066	532	3,909	532	3,928	280	4,079	112	4,082	16					1	1	2	1	28		1
8192	2,233	4,200	1,711	4,211	551	4,048	551	4,069	290	4,225	116	4,228	16					1	1	2	1	29		1
8192	2,310	4,345	1,770	4,356	570	4,188	570	4,209	300	4,370	120	4,374	16					1	1	2	1	30		1
8192	2,387	4,490	1,829	4,501	589	4,327	589	4,349	310	4,516	124	4,519	16					1	1	2	1	31		1
8192	2,464	4,635	1,888	4,646	608	4,467	608	4,489	320	4,662	128	4,665	16					1	1	2	1	32		1
8192	2,541	4,780	1,947	4,792	627	4,607	627	4,630	330	4,807	132	4,811	16					1	1	2	1	33		1
8192	2,618	4,924	2,006	4,937	646	4,746	646	4,770	340	4,953	136	4,957	16					1	1	2	1	34		1
8192	2,695	5,069	2,065	5,082	665	4,886	665	4,910	350	5,099	140	5,103	16					1	1	2	1	35		1
8192	2,772	5,214	2,124	5,227	684	5,025	684	5,051	360	5,244	144	5,248	16					1	1	2	2	36		1
8192	2,849	5,359	2,183	5,372	703	5,165	703	5,191	370	5,390	148	5,394	16					1	1	2	2	37		1
8192	2,926	5,504	2,242	5,518	722	5,305	722	5,331	380	5,536	152	5,540	16					1	1	2	2	38		1
8192	3,003	5,649	2,301	5,663	741	5,444	741	5,472	390	5,682	156	5,686	16					1	1	2	2	39		1
8192	3,080	5,793	2,360	5,808	760	5,584	760	5,612	400	5,827	160	5,832	16					1	1	2	2	40		1
8192	3,157	5,938	2,419	5,953	779	5,723	779	5,752	410	5,973	164	5,977	16					1	1	2	2	41		1
8192	3,234	6,083	2,478	6,098	798	5,863	798	5,892	420	6,119	168	6,123	16					1	1	2	2	42		1
8192	3,311	6,228	2,537	6,244	817	6,002	817	6,033	430	6,264	172	6,269	16					1	1	2	2	43		1
8192	3,388	6,373	2,596	6,389	836	6,142	836	6,173	440	6,410	176	6,415	16					1	1	2	2	44		1
8192	3,465	6,518	2,655	6,534	855	6,282	855	6,313	450	6,556	180	6,561	16					1	1	2	2	45		1
8192	3,542	6,663	2,714	6,679	874	6,421	874	6,454	460	6,701	184	6,706	16					1	1	2	2	46		1
8192	3,619	6,807	2,773	6,824	893	6,561	893	6,594	470	6,847	188	6,852	16					1	1	2	2	47		1
8192	3,696	6,952	2,832	6,970	912	6,700	912	6,734	480	6,993	192	6,998	16					2	1	1	3	2	48	1
8192	3,773	7,097	2,891	7,115	931	6,840	931	6,875	490	7,138	196	7,144	16					2	1	1	3	2	49	1
8192	3,850	7,242	2,950	7,260	950	6,980	950	7,015	500	7,284	200	7,290	16					2	1	1	3	2	50	1
8192	3,927	7,387	3,009	7,405	969	7,119	969	7,155	510	7,430	204	7,435	16					2	1	1	3	2	51	1
8192	4,004	7,532	3,068	7,550	988	7,259	988	7,295	520	7,575	208	7,581	16					2	1	1	3	2	52	1
8192	4,081	7,676	3,127	7,696	1,007	7,398	1,007	7,436	530	7,721	212	7,727	16					2	1	1	3	2	53	1
9216			3,186	7,841	1,026	7,538	1,026	7,576	540	7,867	216	7,873	18		1			2	1	1	3	2	54		1
9216			3,245	7,986	1,045	7,678	1,045	7,716	550	8,012	220	8,019	18		1			2	1	1	3	2	55		1
9216			3,304	8,131	1,064	7,817	1,064	7,857	560	8,158	224	8,164	18		1			2	1	1	3	2	56		1
9216			3,363	8,276	1,083	7,957	1,083	7,997	570	8,304	228	8,310	18		1			2	1	1	3	2	57		1
9216			3,422	8,422	1,102	8,096	1,102	8,137	580	8,449	232	8,456	18		1			2	1	1	3	2	58		1
9216			3,481	8,567	1,121	8,236	1,121	8,277	590	8,595	236	8,602	18		1			3	1	1	3	3	59		1
9216			3,540	8,712	1,140	8,376	1,140	8,418	600	8,741	240	8,748	18		1			3	1	1	3	3	60		1
9216			3,599	8,857	1,159	8,515	1,159	8,558	610	8,886	244	8,893	18		1			3	1	1	3	3	61		1
9216			3,658	9,002	1,178	8,655	1,178	8,698	620	9,032	248	9,039	18		1			3	1	1	3	3	62		1
9216			3,717	9,148	1,197	8,794	1,197	8,839	630	9,178	252	9,185	18		1			3	1	1	3	3	63		1
9216			3,776	9,293	1,216	8,934	1,216	8,979	640	9,324	256	9,331	18		1			3	1	1	3	3	64		1
9216			3,835	9,438	1,235	9,074	1,235	9,119	650	9,469	260	9,477	18		1	▼		3	1	1	3	3	65		1
9216			3,894	9,583	1,254	9,213	1,254	9,260	660	9,615	264	9,622	18		1	*1		3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)												Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	72J4	72J1	EXC
9216			3,953	9,728	1,273	9,353	1,273	9,400	670	9,761	268	9,768	18		1	*1	3	1	1	3	3	67		1
9216			4,012	9,874	1,292	9,492	1,292	9,540	680	9,906	272	9,914	18		1	▲	3	1	1	3	3	68		1
9216			4,071	10,019	1,311	9,632	1,311	9,680	690	10,052	276	10,060	18		1		3	1	1	3	3	69		1
9216					1,330	9,772	1,330	9,821	700	10,198	280	10,206	18		1		3	1	1	3	3	70		1
9216					1,349	9,911	1,349	9,961	710	10,343	284	10,351	18		1		3	1	1	4	3	71		2
9216					1,368	10,051	1,368	10,101	720	10,489	288	10,497	18		1		3	1	1	4	3	72		2
9216					1,387	10,190	1,387	10,242	730	10,635	292	10,643	18		1		3	1	1	4	3	73		2
9216					1,406	10,330	1,406	10,382	740	10,780	296	10,789	18		1		3	1	1	4	3	74		2
9216					1,425	10,469	1,425	10,522	750	10,926	300	10,935	18		1		3	1	1	4	3	75		2
9216					1,444	10,609	1,444	10,662	760	11,072	304	11,080	18		1		3	1	1	4	3	76		2
9216					1,463	10,749	1,463	10,803	770	11,217	308	11,226	18		1		3	1	1	4	3	77		2
9216					1,482	10,888	1,482	10,943	780	11,363	312	11,372	18		1		3	1	1	4	3	78		2
9216					1,501	11,028	1,501	11,083	790	11,509	316	11,518	18		1		3	1	1	4	3	79		2
9216					1,520	11,167	1,520	11,224	800	11,654	320	11,664	18		1		3	1	1	4	3	80		2
9216					1,539	11,307	1,539	11,364	810	11,800	324	11,809	18		1		3	1	1	4	3	81		2
9216					1,558	11,447	1,558	11,504	820	11,946	328	11,955	18		1		3	1	1	4	3	82		2
9216					1,577	11,586	1,577	11,645	830	12,091	332	12,101	18		1		3	1	1	4	4	83		2
9216					1,596	11,726	1,596	11,785	840	12,237	336	12,247	18		1		3	1	1	4	4	84		2
9216					1,615	11,865	1,615	11,925	850	12,383	340	12,393	18		1		3	1	1	4	4	85		2
10240					1,634	12,005	1,634	12,065	860	12,528	344	12,538	20		1		3	1	1	4	4	86		2
10240					1,653	12,145	1,653	12,206	870	12,674	348	12,684	20		1		3	1	1	4	4	87		2
10240					1,672	12,284	1,672	12,346	880	12,820	352	12,830	20		1		3	1	1	4	4	88		2
10240					1,691	12,424	1,691	12,486	890	12,966	356	12,976	20		1		3	1	1	4	4	89		2
10240					1,710	12,563	1,710	12,627	900	13,111	360	13,122	20		1		3	1	1	4	4	90		2
10240					1,729	12,703	1,729	12,767	910	13,257	364	13,267	20		1		3	1	1	4	4	91		2
10240					1,748	12,843	1,748	12,907	920	13,403	368	13,413	20		1		3	1	1	4	4	92		2
10240					1,767	12,982	1,767	13,048	930	13,548	372	13,559	20		1		3	1	1	4	4	93		2
10240					1,786	13,122	1,786	13,188	940	13,694	376	13,705	20		1		3	1	1	4	4	94		2
10240					1,805	13,261	1,805	13,328	950	13,840	380	13,851	20		1		3	1	1	5	4	95		3
10240					1,824	13,401	1,824	13,468	960	13,985	384	13,996	20		1		3	1	1	5	4	96		3
10240					1,843	13,541	1,843	13,609	970	14,131	388	14,142	20		1		3	1	1	5	4	97		3
10240					1,862	13,680	1,862	13,749	980	14,277	392	14,288	20		1		3	1	1	5	4	98		3
10240					1,881	13,820	1,881	13,889	990	14,422	396	14,434	20		1		3	1	1	5	4	99		3
10240					1,900	13,959	1,900	14,030	1,000	14,568	400	14,580	20		1		3	1	1	5	4	100		3
10240					1,919	14,099	1,919	14,170	1,010	14,714	404	14,725	20		1		3	1	1	5	4	101		3
10240					1,938	14,238	1,938	14,310	1,020	14,859	408	14,871	20		1		3	1	1	5	4	102		3
10240					1,957	14,378	1,957	14,450	1,030	15,005	412	15,017	20		1		3	1	1	5	5	103		3
10240					1,976	14,518	1,976	14,591	1,040	15,151	416	15,163	20		1		3	1	1	5	5	104		3
10240					1,995	14,657	1,995	14,731	1,050	15,296	420	15,309	20		1		3	1	1	5	5	105		3
10240					2,014	14,797	2,014	14,871	1,060	15,442	424	15,454	20		1		3	1	1	5	5	106		3
10240					2,033	14,936	2,033	15,012	1,070	15,588	428	15,600	20		1		3	1	1	5	5	107		3
10240					2,052	15,076	2,052	15,152	1,080	15,733	432	15,746	20		1		3	1	1	5	5	108		3
10240					2,071	15,216	2,071	15,292	1,090	15,879	436	15,892	20		1		3	1	1	5	5	109		3
10240					2,090	15,355	2,090	15,433	1,100	16,025	440	16,038	20		1		3	1	1	5	5	110		3
10240					2,109	15,495	2,109	15,573	1,110	16,170	444	16,183	20		1		3	1	1	6	5	111		4
10240					2,128	15,634	2,128	15,713	1,120	16,316	448	16,329	20		1		3	1	1	6	5	112		4
10240					2,147	15,774	2,147	15,853	1,130	16,462	452	16,475	20		1		3	1	1	6	5	113		4
10240					2,166	15,914	2,166	15,994	1,140	16,608	456	16,621	20		1		3	1	1	6	5	114		4
10240					2,185	16,053	2,185	16,134	1,150	16,753	460	16,767	20		1		3	1	1	6	5	115		4
10240					2,204	16,193	2,204	16,274	1,160	16,899	464	16,912	20		1		3	1	1	6	5	116		4
10240					2,223	16,332	2,223	16,415	1,170	17,045	468	17,058	20		1		3	1	1	6	5	117		4
10240					2,242	16,472	2,242	16,555	1,180	17,190	472	17,204	20		1		3	1	1	6	5	118		4
10240					2,261	16,612	2,261	16,695	1,190	17,336	476	17,350	20		1		3	1	1	6	6	119		4
10240					2,280	16,751	2,280	16,836	1,200	17,482	480	17,496	20		1		3	1	1	6	6	120		4
10240					2,299	16,891	2,299	16,976	1,210	17,627	484	17,641	20		1		3	1	1	6	6	121		4
10240					2,318	17,030	2,318	17,116	1,220	17,773	488	17,787	20		1		3	1	1	6	6	122		4
10240					2,337	17,170	2,337	17,256	1,230	17,919	492	17,933	20		1		3	1	1	6	6	123		4
10240					2,356	17,310	2,356	17,397	1,240	18,064	496	18,079	20		1		3	1	1	6	6	124		4
10240					2,375	17,449	2,375	17,537	1,250	18,210	500	18,225	20		1	▼	3	1	1	6	6	125		4
10240					2,394	17,589	2,394	17,677	1,260	18,356	504	18,370	20		1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note1: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

Note2: OPEN-L is applicable for Windows 2000 only.

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(7) High Speed 18GB HDD, RAID1, for Mainframe

Cache (MB)	Storage Capacity (GB)														Number of necessary options												
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I-14	B4	18K4	18K1	EXC
512	54	34	27	34	18	34	35	33	17	32	11	31	3	26	1			*1				1		1		
512	108	68	54	68	36	68	70	66	34	64	22	62	6	51	1			▲				1		2		
512	162	102	81	102	54	102	105	99	51	96	33	94	9	77	1							1		3		
512	216	136	108	136	72	136	140	132	68	129	44	125	12	102	1							1		4		
512	270	170	135	170	90	170	175	166	85	161	55	156	15	128	1							1		5		
512	324	204	162	204	108	204	210	199	102	193	66	187	18	153	1							1		6		
512	378	238	189	238	126	238	245	232	119	225	77	219	21	179	1							1		7		
1024	432	272	216	272	144	272	280	265	136	257	88	250	24	204	2							1		8		
1024	486	306	243	306	162	306	315	298	153	289	99	281	27	230	2							1		9		
1024	540	340	270	340	180	340	350	331	170	322	110	312	30	255	2							1		10		
1024	594	374	297	374	198	374	385	364	187	354	121	343	33	281	2							1		11		
1024	648	408	324	408	216	408	420	397	204	386	132	375	36	306	2				1	1		1	1	12		
1024	702	442	351	442	234	442	455	430	221	418	143	406	39	332	2				1	1		1	1	13		
2048	756	476	378	476	252	476	490	464	238	450	154	437	42	357	4				1	1		1	1	14		
2048	810	510	405	510	270	510	525	497	255	482	165	468	45	383	4				1	1		1	1	15		
2048	864	544	432	544	288	544	560	530	272	515	176	499	48	408	4				1	1		1	1	16		
3072	918	578	459	578	306	578	595	563	289	547	187	531	51	434	6				1	1		1	1	17		
3072	972	612	486	612	324	612	630	596	306	579	198	562	54	460	6				1	1		1	1	18		
3072	1,026	646	513	646	342	646	665	629	323	611	209	593	57	485	6				1	1		1	1	19		
3072	1,080	680	540	680	360	680	700	662	340	643	220	624	60	511	6				1	1		1	1	20		
3072	1,134	714	567	714	378	714	735	695	357	675	231	656	63	536	6				1	1		1	1	21		
4096	1,188	748	594	748	396	748	770	728	374	708	242	687	66	562	8				1	1		1	1	22		
4096	1,242	782	621	782	414	782	805	762	391	740	253	718	69	587	8				1	1		1	1	23		
4096	1,296	816	648	816	432	816	840	795	408	772	264	749	72	613	8				1	1		2	1	24		1
4096	1,350	851	675	851	450	851	875	828	425	804	275	780	75	638	8				1	1		2	1	25		1
4096	1,404	885	702	885	468	885	910	861	442	836	286	812	78	664	8				1	1		2	1	26		1
4096	1,458	919	729	919	486	919	945	894	459	868	297	843	81	689	8				1	1		2	1	27		1
5120	1,512	953	756	953	504	953	980	927	476	901	308	874	84	715	10				1	1		2	1	28		1
5120	1,566	987	783	987	522	987	1,015	960	493	933	319	905	87	740	10				1	1		2	1	29		1
5120	1,620	1,021	810	1,021	540	1,021	1,050	993	510	965	330	937	90	766	10				1	1		2	1	30		1
5120	1,674	1,055	837	1,055	558	1,055	1,085	1,026	527	997	341	968	93	791	10				1	1		2	1	31		1
5120	1,728	1,089	864	1,089	576	1,089	1,120	1,060	544	1,029	352	999	96	817	10				1	1		2	1	32		1
6144	1,782	1,123	891	1,123	594	1,123	1,155	1,093	561	1,061	363	1,030	99	842	12				1	1		2	1	33		1
6144	1,836	1,157	918	1,157	612	1,157	1,190	1,126	578	1,094	374	1,061	102	868	12				1	1		2	1	34		1
6144	1,890	1,191	945	1,191	630	1,191	1,225	1,159	595	1,126	385	1,093	105	894	12				1	1		2	1	35		1
6144	1,944	1,225	972	1,225	648	1,225	1,260	1,192	612	1,158	396	1,124	108	919	12				1	1		2	2	36		1
6144	1,998	1,259	999	1,259	666	1,259	1,295	1,225	629	1,190	407	1,155	111	945	12				1	1		2	2	37		1
6144	2,052	1,293	1,026	1,293	684	1,293	1,330	1,258	646	1,222	418	1,186	114	970	12				1	1		2	2	38		1
7168	2,106	1,327	1,053	1,327	702	1,327	1,365	1,291	663	1,254	429	1,218	117	996	14				1	1		2	2	39		1
7168	2,160	1,361	1,080	1,361	720	1,361	1,400	1,324	680	1,287	440	1,249	120	1,021	14				1	1		2	2	40		1
7168	2,214	1,395	1,107	1,395	738	1,395	1,435	1,358	697	1,319	451	1,280	123	1,047	14				1	1		2	2	41		1
7168	2,268	1,429	1,134	1,429	756	1,429	1,470	1,391	714	1,351	462	1,311	126	1,072	14				1	1		2	2	42		1
7168	2,322	1,463	1,161	1,463	774	1,463	1,505	1,424	731	1,383	473	1,342	129	1,098	14				1	1		2	2	43		1
7168	2,376	1,497	1,188	1,497	792	1,497	1,540	1,457	748	1,415	484	1,374	132	1,123	14				1	1		2	2	44		1
7168	2,430	1,531	1,215	1,531	810	1,531	1,575	1,490	765	1,447	495	1,405	135	1,149	14				1	1		2	2	45		1
7168	2,484	1,565	1,242	1,565	828	1,565	1,610	1,523	782	1,480	506	1,436	138	1,174	14				1	1		2	2	46		1
7168	2,538	1,599	1,269	1,599	846	1,599	1,645	1,556	799	1,512	517	1,467	141	1,200	14				1	1		2	2	47		1
7168	2,592	1,633	1,296	1,633	864	1,633	1,680	1,589	816	1,544	528	1,498	144	1,225	14				2	1	1	3	2	48		1
7168	2,646	1,667	1,323	1,667	882	1,667	1,715	1,622	833	1,576	539	1,530	147	1,251	14				2	1	1	3	2	49		1
7168	2,700	1,701	1,350	1,701	900	1,701	1,750	1,656	850	1,608	550	1,561	150	1,277	14				2	1	1	3	2	50		1
7168	2,754	1,735	1,377	1,735	918	1,735	1,785	1,689	867	1,640	561	1,592	153	1,302	14				2	1	1	3	2	51		1
7168	2,808	1,769	1,404	1,769	936	1,769	1,820	1,722	884	1,673	572	1,623	156	1,328	14				2	1	1	3	2	52		1
7168	2,862	1,803	1,431	1,803	954	1,803	1,855	1,755	901	1,705	583	1,655	159	1,353	14				2	1	1	3	2	53		1
7168	2,916	1,837	1,458	1,837	972	1,837	1,890	1,788	918	1,737	594	1,686	162	1,379	14				2	1	1	3	2	54		1
7168	2,970	1,871	1,485	1,871	990	1,871	1,925	1,821	935	1,769	605	1,717	165	1,404	14				2	1	1	3	2	55		1
7168	3,024	1,905	1,512	1,905	1,008	1,905	1,960	1,854	952	1,801	616	1,748	168	1,430	14				2	1	1	3	2	56		1
7168	3,078	1,939	1,539	1,939	1,026	1,939	1,995	1,887	969	1,833	627	1,779	171	1,455	14				2	1	1	3	2	57		1
7168	3,132	1,973	1,566	1,973	1,044	1,973	2,030	1,920	986	1,866	638	1,811	174	1,481	14				2	1	1	3	2	58		1
7168	3,186	2,007	1,593	2,007	1,062	2,007	2,065	1,953	1,003	1,898	649	1,842	177	1,506	14				3	1	1	3	3	59		1
7168	3,240	2,041	1,620	2,041	1,080	2,041	2,100	1,987	1,020	1,930	660	1,873	180	1,532	14				3	1	1	3	3	60		1
7168	3,294	2,075	1,647	2,075	1,098	2,075	2,135	2,020	1,037	1,962	671	1,904	183	1,557	14				3	1	1	3	3	61		1
7168	3,348	2,109	1,674	2,109	1,116	2,109	2,170	2,053	1,054	1,994	682	1,936	186	1,583	14				3	1	1	3	3	62		1
7168	3,402	2,143	1,701	2,143	1,134	2,143	2,205	2,086	1,071	2,026	693	1,967	189	1,608	14				3	1	1	3	3	63		1
7168	3,456	2,177	1,728	2,177	1,152	2,177	2,240	2,119	1,088	2,058	704	1,998	192	1,634	14				3	1	1	3	3	64		1
7168	3,510	2,211	1,755	2,211	1,170	2,211	2,275	2,152	1,105	2,091	715	2,029	195	1,659	14			▼	3	1	1	3	3	65		1
7168	3,564	2,245	1,782	2,245	1,188	2,245	2,310	2,185	1,122	2,123	726	2,060	198	1,685	14			*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)														Number of necessary options												
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU	DKU-F405I-				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C	405I -14	B4	18K4	18K1	EXC
7168	3,618	2,279	1,809	2,279	1,206	2,279	2,345	2,218	1,139	2,155	737	2,092	201	1,711	14			*1	3	1	1	3	3	67		1
7168	3,672	2,313	1,836	2,313	1,224	2,313	2,380	2,251	1,156	2,187	748	2,123	204	1,736	14			▲	3	1	1	3	3	68		1
7168	3,726	2,347	1,863	2,347	1,242	2,347	2,415	2,285	1,173	2,219	759	2,154	207	1,762	14				3	1	1	3	3	69		1
7168	3,780	2,381	1,890	2,381	1,260	2,381	2,450	2,318	1,190	2,251	770	2,185	210	1,787	14				3	1	1	3	3	70		1
7168	3,834	2,415	1,917	2,415	1,278	2,415	2,485	2,351	1,207	2,284	781	2,216	213	1,813	14				3	1	1	4	3	71		2
7168	3,888	2,449	1,944	2,449	1,296	2,449	2,520	2,384	1,224	2,316	792	2,248	216	1,838	14				3	1	1	4	3	72		2
7168	3,942	2,483	1,971	2,483	1,314	2,483	2,555	2,417	1,241	2,348	803	2,279	219	1,864	14				3	1	1	4	3	73		2
7168	3,996	2,517	1,998	2,517	1,332	2,517	2,590	2,450	1,258	2,380	814	2,310	222	1,889	14				3	1	1	4	3	74		2
7168	4,050	2,552	2,025	2,552	1,350	2,552	2,625	2,483	1,275	2,412	825	2,341	225	1,915	14				3	1	1	4	3	75		2
7168			2,052	2,586	1,368	2,586	2,660	2,516	1,292	2,444	836	2,373	228	1,940	14				3	1	1	4	3	76		2
7168			2,079	2,620	1,386	2,620	2,695	2,549	1,309	2,477	847	2,404	231	1,966	14				3	1	1	4	3	77		2
7168			2,106	2,654	1,404	2,654	2,730	2,583	1,326	2,509	858	2,435	234	1,991	14				3	1	1	4	3	78		2
7168			2,133	2,688	1,422	2,688	2,765	2,616	1,343	2,541	869	2,466	237	2,017	14				3	1	1	4	3	79		2
7168			2,160	2,722	1,440	2,722	2,800	2,649	1,360	2,573	880	2,497	240	2,042	14				3	1	1	4	3	80		2
7168			2,187	2,756	1,458	2,756	2,835	2,682	1,377	2,605	891	2,529	243	2,068	14				3	1	1	4	3	81		2
7168			2,214	2,790	1,476	2,790	2,870	2,715	1,394	2,637	902	2,560	246	2,093	14				3	1	1	4	3	82		2
7168			2,241	2,824	1,494	2,824	2,905	2,748	1,411	2,670	913	2,591	249	2,119	14				3	1	1	4	4	83		2
7168			2,268	2,858	1,512	2,858	2,940	2,781	1,428	2,702	924	2,622	252	2,145	14				3	1	1	4	4	84		2
7168			2,295	2,892	1,530	2,892	2,975	2,814	1,445	2,734	935	2,654	255	2,170	14				3	1	1	4	4	85		2
8192			2,322	2,926	1,548	2,926	3,010	2,847	1,462	2,766	946	2,685	258	2,196	16				3	1	1	4	4	86		2
8192			2,349	2,960	1,566	2,960	3,045	2,881	1,479	2,798	957	2,716	261	2,221	16				3	1	1	4	4	87		2
8192			2,376	2,994	1,584	2,994	3,080	2,914	1,496	2,830	968	2,747	264	2,247	16				3	1	1	4	4	88		2
8192			2,403	3,028	1,602	3,028	3,115	2,947	1,513	2,863	979	2,778	267	2,272	16				3	1	1	4	4	89		2
8192			2,430	3,062	1,620	3,062	3,150	2,980	1,530	2,895	990	2,810	270	2,298	16				3	1	1	4	4	90		2
8192			2,457	3,096	1,638	3,096	3,185	3,013	1,547	2,927	1,001	2,841	273	2,323	16				3	1	1	4	4	91		2
8192			2,484	3,130	1,656	3,130	3,220	3,046	1,564	2,959	1,012	2,872	276	2,349	16				3	1	1	4	4	92		2
8192			2,511	3,164	1,674	3,164	3,255	3,079	1,581	2,991	1,023	2,903	279	2,374	16				3	1	1	4	4	93		2
8192			2,538	3,198	1,692	3,198	3,290	3,112	1,598	3,023	1,034	2,934	282	2,400	16				3	1	1	4	4	94		2
8192			2,565	3,232	1,710	3,232	3,325	3,145	1,615	3,056	1,045	2,966	285	2,425	16				3	1	1	5	4	95		3
8192			2,592	3,266	1,728	3,266	3,360	3,179	1,632	3,088	1,056	2,997	288	2,451	16				3	1	1	5	4	96		3
8192			2,619	3,300	1,746	3,300	3,395	3,212	1,649	3,120	1,067	3,028	291	2,476	16				3	1	1	5	4	97		3
8192			2,646	3,334	1,764	3,334	3,430	3,245	1,666	3,152	1,078	3,059	294	2,502	16				3	1	1	5	4	98		3
8192			2,673	3,368	1,782	3,368	3,465	3,278	1,683	3,184	1,089	3,091	297	2,527	16				3	1	1	5	4	99		3
8192			2,700	3,402	1,800	3,402	3,500	3,311	1,700	3,216	1,100	3,122	300	2,553	16				3	1	1	5	4	100		3
8192			2,727	3,436	1,818	3,436	3,535	3,344	1,717	3,249	1,111	3,153	303	2,579	16				3	1	1	5	4	101		3
8192			2,754	3,470	1,836	3,470	3,570	3,377	1,734	3,281	1,122	3,184	306	2,604	16				3	1	1	5	4	102		3
8192			2,781	3,504	1,854	3,504	3,605	3,410	1,751	3,313	1,133	3,215	309	2,630	16				3	1	1	5	5	103		3
8192			2,808	3,538	1,872	3,538	3,640	3,443	1,768	3,345	1,144	3,247	312	2,655	16				3	1	1	5	5	104		3
8192			2,835	3,572	1,890	3,572	3,675	3,477	1,785	3,377	1,155	3,278	315	2,681	16				3	1	1	5	5	105		3
8192			2,862	3,606	1,908	3,606	3,710	3,510	1,802	3,409	1,166	3,309	318	2,706	16				3	1	1	5	5	106		3
8192			2,889	3,640	1,926	3,640	3,745	3,543	1,819	3,442	1,177	3,340	321	2,732	16				3	1	1	5	5	107		3
8192			2,916	3,674	1,944	3,674	3,780	3,576	1,836	3,474	1,188	3,372	324	2,757	16				3	1	1	5	5	108		3
8192			2,943	3,708	1,962	3,708	3,815	3,609	1,853	3,506	1,199	3,403	327	2,783	16				3	1	1	5	5	109		3
8192			2,970	3,742	1,980	3,742	3,850	3,642	1,870	3,538	1,210	3,434	330	2,808	16				3	1	1	5	5	110		3
8192			2,997	3,776	1,998	3,776	3,885	3,675	1,887	3,570	1,221	3,465	333	2,834	16				3	1	1	6	5	111		4
8192			3,024	3,810	2,016	3,810	3,920	3,708	1,904	3,602	1,232	3,496	336	2,859	16				3	1	1	6	5	112		4
8192			3,051	3,844	2,034	3,844	3,955	3,741	1,921	3,635	1,243	3,528	339	2,885	16				3	1	1	6	5	113		4
8192			3,078	3,878	2,052	3,878	3,990	3,775	1,938	3,667	1,254	3,559	342	2,910	16				3	1	1	6	5	114		4
8192			3,105	3,912	2,070	3,912	4,025	3,808	1,955	3,699	1,265	3,590	345	2,936	16				3	1	1	6	5	115		4
8192			3,132	3,946	2,088	3,946	4,060	3,841	1,972	3,731	1,276	3,621	348	2,961	16				3	1	1	6	5	116		4
8192			3,159	3,980	2,106	3,980	4,095	3,874	1,989	3,763	1,287	3,653	351	2,987	16				3	1	1	6	5	117		4
8192			3,186	4,014	2,124	4,014			2,006	3,795	1,298	3,684	354	3,013	16				3	1	1	6	5	118		4
8192			3,213	4,048	2,142	4,048			2,023	3,828	1,309	3,715	357	3,038	16				3	1	1	6	6	119		4
8192			3,240	4,082	2,160	4,082			2,040	3,860	1,320	3,746	360	3,064	16				3	1	1	6	6	120		4
8192			3,267	4,116	2,178	4,116			2,057	3,892	1,331	3,777	363	3,089	16				3	1	1	6	6	121		4
8192			3,294	4,150	2,196	4,150			2,074	3,924	1,342	3,809	366	3,115	16				3	1	1	6	6	122		4
8192			3,321	4,184	2,214	4,184			2,091	3,956	1,353	3,840	369	3,140	16				3	1	1	6	6	123		4
8192			3,348	4,218	2,232	4,218			2,108	3,988	1,364	3,871	372	3,166	16				3	1	1	6	6	124		4
8192			3,375	4,253	2,250	4,253			2,125	4,021	1,375	3,902	375	3,191	16			▼	3	1	1	6	6	125		4
8192			3,402	4,287	2,268	4,287			2,142	4,053	1,386	3,933	378	3,217	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(8) High Speed 18GB HDD, RAID1, for Open System

Cache (MB)	Storage Capacity (GB)										Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-		
											512	1024	20	S256	100	R1C	L1C		B4	18K4	18K1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
512	19	36	14	34	4	29	4	30	2	29	1			*1				1		1		
512	38	71	28	69	8	59	8	59	4	58	1			▲				1		2		
512	57	107	42	103	12	88	12	89	6	87	1							1		3		
512	76	143	56	138	16	118	16	118	8	117	1							1		4		
512	95	179	70	172	20	147	20	148	10	146	1							1		5		
512	114	214	84	207	24	176	24	177	12	175	1							1		6		
512	133	250	98	241	28	206	28	207	14	204	1							1		7		
1024	152	286	112	276	32	235	32	236	16	233	2							1		8		
1024	171	322	126	310	36	264	36	266	18	262	2							1		9		
1024	190	357	140	345	40	294	40	295	20	291	2							1		10		
1024	209	393	154	379	44	323	44	325	22	320	2							1		11		
1024	228	429	168	413	48	353	48	354	24	350	2				1	1		1	1	12		
1024	247	465	182	448	52	382	52	384	26	379	2				1	1		1	1	13		
2048	266	500	196	482	56	411	56	414	28	408	4				1	1		1	1	14		
2048	285	536	210	517	60	441	60	443	30	437	4				1	1		1	1	15		
2048	304	572	224	551	64	470	64	473	32	466	4				1	1		1	1	16		
3072	323	608	238	586	68	500	68	502	34	495	6				1	1		1	1	17		
3072	342	643	252	620	72	529	72	532	36	524	6				1	1		1	1	18		
3072	361	679	266	655	76	558	76	561	38	554	6				1	1		1	1	19		
3072	380	715	280	689	80	588	80	591	40	583	6				1	1		1	1	20		
3072	399	751	294	724	84	617	84	620	42	612	6				1	1		1	1	21		
4096	418	786	308	758	88	647	88	650	44	641	8				1	1		1	1	22		
4096	437	822	322	792	92	676	92	679	46	670	8				1	1		1	1	23		
4096	456	858	336	827	96	705	96	709	48	699	8				1	1		2	1	24		1
4096	475	893	350	861	100	735	100	738	50	728	8				1	1		2	1	25		1
4096	494	929	364	896	104	764	104	768	52	758	8				1	1		2	1	26		1
4096	513	965	378	930	108	793	108	797	54	787	8				1	1		2	1	27		1
5120	532	1,001	392	965	112	823	112	827	56	816	10				1	1		2	1	28		1
5120	551	1,036	406	999	116	852	116	857	58	845	10				1	1		2	1	29		1
5120	570	1,072	420	1,034	120	882	120	886	60	874	10				1	1		2	1	30		1
5120	589	1,108	434	1,068	124	911	124	916	62	903	10				1	1		2	1	31		1
5120	608	1,144	448	1,103	128	940	128	945	64	932	10				1	1		2	1	32		1
6144	627	1,179	462	1,137	132	970	132	975	66	961	12				1	1		2	1	33		1
6144	646	1,215	476	1,171	136	999	136	1,004	68	991	12				1	1		2	1	34		1
6144	665	1,251	490	1,206	140	1,029	140	1,034	70	1,020	12				1	1		2	1	35		1
6144	684	1,287	504	1,240	144	1,058	144	1,063	72	1,049	12				1	1		2	2	36		1
6144	703	1,322	518	1,275	148	1,087	148	1,093	74	1,078	12				1	1		2	2	37		1
6144	722	1,358	532	1,309	152	1,117	152	1,122	76	1,107	12				1	1		2	2	38		1
7168	741	1,394	546	1,344	156	1,146	156	1,152	78	1,136	14				1	1		2	2	39		1
7168	760	1,430	560	1,378	160	1,176	160	1,181	80	1,165	14				1	1		2	2	40		1
7168	779	1,465	574	1,413	164	1,205	164	1,211	82	1,195	14				1	1		2	2	41		1
7168	798	1,501	588	1,447	168	1,234	168	1,241	84	1,224	14				1	1		2	2	42		1
7168	817	1,537	602	1,482	172	1,264	172	1,270	86	1,253	14				1	1		2	2	43		1
7168	836	1,573	616	1,516	176	1,293	176	1,300	88	1,282	14				1	1		2	2	44		1
7168	855	1,608	630	1,550	180	1,322	180	1,329	90	1,311	14				1	1		2	2	45		1
7168	874	1,644	644	1,585	184	1,352	184	1,359	92	1,340	14				1	1		2	2	46		1
7168	893	1,680	658	1,619	188	1,381	188	1,388	94	1,369	14				1	1		2	2	47		1
7168	912	1,715	672	1,654	192	1,411	192	1,418	96	1,399	14				2	1	1	3	2	48		1
7168	931	1,751	686	1,688	196	1,440	196	1,447	98	1,428	14				2	1	1	3	2	49		1
7168	950	1,787	700	1,723	200	1,469	200	1,477	100	1,457	14				2	1	1	3	2	50		1
7168	969	1,823	714	1,757	204	1,499	204	1,506	102	1,486	14				2	1	1	3	2	51		1
7168	988	1,858	728	1,792	208	1,528	208	1,536	104	1,515	14				2	1	1	3	2	52		1
7168	1,007	1,894	742	1,826	212	1,558	212	1,565	106	1,544	14				2	1	1	3	2	53		1
7168	1,026	1,930	756	1,861	216	1,587	216	1,595	108	1,573	14				2	1	1	3	2	54		1
7168	1,045	1,966	770	1,895	220	1,616	220	1,624	110	1,602	14				2	1	1	3	2	55		1
7168	1,064	2,001	784	1,929	224	1,646	224	1,654	112	1,632	14				2	1	1	3	2	56		1
7168	1,083	2,037	798	1,964	228	1,675	228	1,684	114	1,661	14				2	1	1	3	2	57		1
7168	1,102	2,073	812	1,998	232	1,705	232	1,713	116	1,690	14				2	1	1	3	2	58		1
7168	1,121	2,109	826	2,033	236	1,734	236	1,743	118	1,719	14				3	1	1	3	3	59		1
7168	1,140	2,144	840	2,067	240	1,763	240	1,772	120	1,748	14				3	1	1	3	3	60		1
7168	1,159	2,180	854	2,102	244	1,793	244	1,802	122	1,777	14				3	1	1	3	3	61		1
7168	1,178	2,216	868	2,136	248	1,822	248	1,831	124	1,806	14				3	1	1	3	3	62		1
7168	1,197	2,252	882	2,171	252	1,851	252	1,861	126	1,836	14				3	1	1	3	3	63		1
7168	1,216	2,287	896	2,205	256	1,881	256	1,890	128	1,865	14			▼	3	1	1	3	3	64		1
7168	1,235	2,323	910	2,240	260	1,910	260	1,920	130	1,894	14			*1	3	1	1	3	3	65		1

(To be continued)

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(Continued from preceding sheet)

Cache (MB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	18K4	18K1	EXC
7168	1,254	2,359	924	2,274	264	1,940	264	1,949	132	1,923	14			*1	3	1	1	3	3	66		1
7168	1,273	2,395	938	2,308	268	1,969	268	1,979	134	1,952	14			▲	3	1	1	3	3	67		1
7168	1,292	2,430	952	2,343	272	1,998	272	2,008	136	1,981	14				3	1	1	3	3	68		1
7168	1,311	2,466	966	2,377	276	2,028	276	2,038	138	2,010	14				3	1	1	3	3	69		1
7168	1,330	2,502	980	2,412	280	2,057	280	2,068	140	2,040	14				3	1	1	3	3	70		1
7168	1,349	2,537	994	2,446	284	2,087	284	2,097	142	2,069	14				3	1	1	4	3	71		2
7168	1,368	2,573	1,008	2,481	288	2,116	288	2,127	144	2,098	14				3	1	1	4	3	72		2
7168	1,387	2,609	1,022	2,515	292	2,145	292	2,156	146	2,127	14				3	1	1	4	3	73		2
7168	1,406	2,645	1,036	2,550	296	2,175	296	2,186	148	2,156	14				3	1	1	4	3	74		2
7168	1,425	2,680	1,050	2,584	300	2,204	300	2,215	150	2,185	14				3	1	1	4	3	75		2
7168	1,444	2,716	1,064	2,619	304	2,233	304	2,245	152	2,214	14				3	1	1	4	3	76		2
7168	1,463	2,752	1,078	2,653	308	2,263	308	2,274	154	2,243	14				3	1	1	4	3	77		2
7168	1,482	2,788	1,092	2,687	312	2,292	312	2,304	156	2,273	14				3	1	1	4	3	78		2
7168	1,501	2,823	1,106	2,722	316	2,322	316	2,333	158	2,302	14				3	1	1	4	3	79		2
7168	1,520	2,859	1,120	2,756	320	2,351	320	2,363	160	2,331	14				3	1	1	4	3	80		2
7168	1,539	2,895	1,134	2,791	324	2,380	324	2,392	162	2,360	14				3	1	1	4	3	81		2
7168	1,558	2,931	1,148	2,825	328	2,410	328	2,422	164	2,389	14				3	1	1	4	3	82		2
7168	1,577	2,966	1,162	2,860	332	2,439	332	2,451	166	2,418	14				3	1	1	4	4	83		2
7168	1,596	3,002	1,176	2,894	336	2,469	336	2,481	168	2,447	14				3	1	1	4	4	84		2
7168	1,615	3,038	1,190	2,929	340	2,498	340	2,511	170	2,477	14				3	1	1	4	4	85		2
8192	1,634	3,074	1,204	2,963	344	2,527	344	2,540	172	2,506	16				3	1	1	4	4	86		2
8192	1,653	3,109	1,218	2,997	348	2,557	348	2,570	174	2,535	16				3	1	1	4	4	87		2
8192	1,672	3,145	1,232	3,032	352	2,586	352	2,599	176	2,564	16				3	1	1	4	4	88		2
8192	1,691	3,181	1,246	3,066	356	2,616	356	2,629	178	2,593	16				3	1	1	4	4	89		2
8192	1,710	3,217	1,260	3,101	360	2,645	360	2,658	180	2,622	16				3	1	1	4	4	90		2
8192	1,729	3,252	1,274	3,135	364	2,674	364	2,688	182	2,651	16				3	1	1	4	4	91		2
8192	1,748	3,288	1,288	3,170	368	2,704	368	2,717	184	2,681	16				3	1	1	4	4	92		2
8192	1,767	3,324	1,302	3,204	372	2,733	372	2,747	186	2,710	16				3	1	1	4	4	93		2
8192	1,786	3,359	1,316	3,239	376	2,762	376	2,776	188	2,739	16				3	1	1	4	4	94		2
8192	1,805	3,395	1,330	3,273	380	2,792	380	2,806	190	2,768	16				3	1	1	5	4	95		3
8192	1,824	3,431	1,344	3,308	384	2,821	384	2,835	192	2,797	16				3	1	1	5	4	96		3
8192	1,843	3,467	1,358	3,342	388	2,851	388	2,865	194	2,826	16				3	1	1	5	4	97		3
8192	1,862	3,502	1,372	3,376	392	2,880	392	2,895	196	2,855	16				3	1	1	5	4	98		3
8192	1,881	3,538	1,386	3,411	396	2,909	396	2,924	198	2,884	16				3	1	1	5	4	99		3
8192	1,900	3,574	1,400	3,445	400	2,939	400	2,954	200	2,914	16				3	1	1	5	4	100		3
8192	1,919	3,610	1,414	3,480	404	2,968	404	2,983	202	2,943	16				3	1	1	5	4	101		3
8192	1,938	3,645	1,428	3,514	408	2,998	408	3,013	204	2,972	16				3	1	1	5	4	102		3
8192	1,957	3,681	1,442	3,549	412	3,027	412	3,042	206	3,001	16				3	1	1	5	5	103		3
8192	1,976	3,717	1,456	3,583	416	3,056	416	3,072	208	3,030	16				3	1	1	5	5	104		3
8192	1,995	3,753	1,470	3,618	420	3,086	420	3,101	210	3,059	16				3	1	1	5	5	105		3
8192	2,014	3,788	1,484	3,652	424	3,115	424	3,131	212	3,088	16				3	1	1	5	5	106		3
8192	2,033	3,824	1,498	3,687	428	3,145	428	3,160	214	3,118	16				3	1	1	5	5	107		3
8192	2,052	3,860	1,512	3,721	432	3,174	432	3,190	216	3,147	16				3	1	1	5	5	108		3
8192	2,071	3,896	1,526	3,755	436	3,203	436	3,219	218	3,176	16				3	1	1	5	5	109		3
8192	2,090	3,931	1,540	3,790	440	3,233	440	3,249	220	3,205	16				3	1	1	5	5	110		3
8192	2,109	3,967	1,554	3,824	444	3,262	444	3,278	222	3,234	16				3	1	1	6	5	111		4
8192	2,128	4,003	1,568	3,859	448	3,291	448	3,308	224	3,263	16				3	1	1	6	5	112		4
8192	2,147	4,039	1,582	3,893	452	3,321	452	3,338	226	3,292	16				3	1	1	6	5	113		4
8192	2,166	4,074	1,596	3,928	456	3,350	456	3,367	228	3,322	16				3	1	1	6	5	114		4
8192	2,185	4,110	1,610	3,962	460	3,380	460	3,397	230	3,351	16				3	1	1	6	5	115		4
8192	2,204	4,146	1,624	3,997	464	3,409	464	3,426	232	3,380	16				3	1	1	6	5	116		4
8192	2,223	4,181	1,638	4,031	468	3,438	468	3,456	234	3,409	16				3	1	1	6	5	117		4
8192	2,242	4,217	1,652	4,066	472	3,468	472	3,485	236	3,438	16				3	1	1	6	5	118		4
8192	2,261	4,253	1,666	4,100	476	3,497	476	3,515	238	3,467	16				3	1	1	6	6	119		4
8192	2,280	4,289	1,680	4,134	480	3,527	480	3,544	240	3,496	16				3	1	1	6	6	120		4
8192	2,299	4,324	1,694	4,169	484	3,556	484	3,574	242	3,525	16				3	1	1	6	6	121		4
8192	2,318	4,360	1,708	4,203	488	3,585	488	3,603	244	3,555	16				3	1	1	6	6	122		4
8192	2,337	4,396	1,722	4,238	492	3,615	492	3,633	246	3,584	16				3	1	1	6	6	123		4
8192	2,356	4,432	1,736	4,272	496	3,644	496	3,662	248	3,613	16				3	1	1	6	6	124		4
8192	2,375	4,467	1,750	4,307	500	3,674	500	3,692	250	3,642	16			▼	3	1	1	6	6	125		4
8192	2,394	4,503	1,764	4,341	504	3,703	504	3,722	252	3,671	16			*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(9) 180GB HDD, RAID1, for Mainframe

Cache (GB)	Storage Capacity (GB)				Number of necessary options										
	3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
					F410I	F410I	F410I	F410I	F410I	F410I	405I	F405I	F405I	F405I	F405I
	VOL	Cap	VOL	Cap	-1024	-20	-S256	-100	-R1C	-L1C	-14	-B4	-180H4	-180H1	-EXC
2	115	326	38	323	2		*1				1		1		
5	230	653	76	647	5		▲				1		2		
7	345	979	114	970	7						1		3		
7	460	1,305	152	1,294	7						1		4		
7	575	1,632	190	1,617	7						1		5		
7	690	1,958	228	1,940	7						1		6		
8	805	2,285	266	2,264	8						1		7		
8	920	2,611	304	2,587	8						1		8		
8	1,035	2,937	342	2,910	8						1		9		
8	1,150	3,264	380	3,234	8						1		10		
8	1,265	3,590	418	3,557	8						1		11		
8	1,380	3,916	456	3,881	8			1	1		1	1	12		
8	1,495	4,243	494	4,204	8			1	1		1	1	13		
8	1,610	4,569	532	4,527	8			1	1		1	1	14		
8	1,725	4,896	570	4,851	8			1	1		1	1	15		
9	1,840	5,222	608	5,174	9			1	1		1	1	16		
9	1,955	5,548	646	5,497	9			1	1		1	1	17		
9	2,070	5,875	684	5,821	9			1	1		1	1	18		
9	2,185	6,201	722	6,144	9			1	1		1	1	19		
9	2,300	6,527	760	6,468	9			1	1		1	1	20		
9	2,415	6,854	798	6,791	9			1	1		1	1	21		
9	2,530	7,180	836	7,114	9			1	1		1	1	22		
9	2,645	7,507	874	7,438	9			1	1		1	1	23		
10	2,760	7,833	912	7,761	10			1	1		2	1	24		1
10	2,875	8,159	950	8,085	10			1	1		2	1	25		1
10	2,990	8,486	988	8,408	10			1	1		2	1	26		1
10	3,105	8,812	1,026	8,731	10			1	1		2	1	27		1
10	3,220	9,138	1,064	9,055	10			1	1		2	1	28		1
10	3,335	9,465	1,102	9,378	10			1	1		2	1	29		1
10	3,450	9,791	1,140	9,701	10			1	1		2	1	30		1
10	3,565	10,117	1,178	10,025	10			1	1		2	1	31		1
10	3,680	10,444	1,216	10,348	10			1	1		2	1	32		1
10	3,795	10,770	1,254	10,672	10			1	1		2	1	33		1
10	3,910	11,097	1,292	10,995	10			1	1		2	1	34		1
10	4,025	11,423	1,330	11,318	10			1	1		2	1	35		1
10			1,368	11,642	10			1	1		2	2	36		1
10			1,406	11,965	10			1	1		2	2	37		1
10			1,444	12,288	10			1	1		2	2	38		1
10			1,482	12,612	10			1	1		2	2	39		1
10			1,520	12,935	10			1	1		2	2	40		1
10			1,558	13,259	10			1	1		2	2	41		1
10			1,596	13,582	10			1	1		2	2	42		1
10			1,634	13,905	10			1	1		2	2	43		1
10			1,672	14,229	10			1	1		2	2	44		1
10			1,710	14,552	10			1	1		2	2	45		1
10			1,748	14,875	10			1	1		2	2	46		1
10			1,786	15,199	10			1	1		2	2	47		1
10			1,824	15,522	10			2	1	1	3	2	48		1
10			1,862	15,846	10			2	1	1	3	2	49		1
10			1,900	16,169	10			2	1	1	3	2	50		1
10			1,938	16,492	10			2	1	1	3	2	51		1
10			1,976	16,816	10			2	1	1	3	2	52		1
10			2,014	17,139	10			2	1	1	3	2	53		1
10			2,052	17,463	10			2	1	1	3	2	54		1
10			2,090	17,786	10			2	1	1	3	2	55		1
10			2,128	18,109	10			2	1	1	3	2	56		1
10			2,166	18,433	10			2	1	1	3	2	57		1
10			2,204	18,756	10			2	1	1	3	2	58		1
10			2,242	19,079	10			3	1	1	3	3	59		1
10			2,280	19,403	10			3	1	1	3	3	60		1
10			2,318	19,726	10			3	1	1	3	3	61		1
10			2,356	20,050	10			3	1	1	3	3	62		1
10			2,394	20,373	10			3	1	1	3	3	63		1
10			2,432	20,696	10			3	1	1	3	3	64		1
10			2,470	21,020	10			3	1	1	3	3	65		1
10			2,508	21,343	10		▼	3	1	1	3	3	66		1
10			2,546	21,666	10		*1	3	1	1	3	3	67		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	Storage Capacity (GB)				Number of necessary options										
	3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -180H4	F405I -180H1	F405I -EXC
10			2,584	21,990	10		*1	3	1	1	3	3	68		1
10			2,622	22,313	10			3	1	1	3	3	69		1
10			2,660	22,637	10			3	1	1	3	3	70		1
10			2,698	22,960	10			3	1	1	4	3	71		2
10			2,736	23,283	10			3	1	1	4	3	72		2
10			2,774	23,607	10			3	1	1	4	3	73		2
10			2,812	23,930	10			3	1	1	4	3	74		2
10			2,850	24,254	10			3	1	1	4	3	75		2
10			2,888	24,577	10			3	1	1	4	3	76		2
10			2,926	24,900	10			3	1	1	4	3	77		2
10			2,964	25,224	10			3	1	1	4	3	78		2
10			3,002	25,547	10			3	1	1	4	3	79		2
10			3,040	25,870	10			3	1	1	4	3	80		2
10			3,078	26,194	10			3	1	1	4	3	81		2
10			3,116	26,517	10			3	1	1	4	3	82		2
10			3,154	26,841	10			3	1	1	4	4	83		2
10			3,192	27,164	10			3	1	1	4	4	84		2
10			3,230	27,487	10			3	1	1	4	4	85		2
10			3,268	27,811	10			3	1	1	4	4	86		2
10			3,306	28,134	10			3	1	1	4	4	87		2
10			3,344	28,457	10			3	1	1	4	4	88		2
10			3,382	28,781	10			3	1	1	4	4	89		2
10			3,420	29,104	10			3	1	1	4	4	90		2
10			3,458	29,428	10			3	1	1	4	4	91		2
10			3,496	29,751	10			3	1	1	4	4	92		2
10			3,534	30,074	10			3	1	1	4	4	93		2
10			3,572	30,398	10			3	1	1	4	4	94		2
10			3,610	30,721	10			3	1	1	5	4	95		3
10			3,648	31,044	10			3	1	1	5	4	96		3
10			3,686	31,368	10			3	1	1	5	4	97		3
10			3,724	31,691	10			3	1	1	5	4	98		3
10			3,762	32,015	10			3	1	1	5	4	99		3
10			3,800	32,338	10			3	1	1	5	4	100		3
10			3,838	32,661	10			3	1	1	5	4	101		3
10			3,876	32,985	10			3	1	1	5	4	102		3
10			3,914	33,308	10			3	1	1	5	5	103		3
10			3,952	33,632	10			3	1	1	5	5	104		3
10			3,990	33,955	10			3	1	1	5	5	105		3
10			4,028	34,278	10			3	1	1	5	5	106		3
10			4,066	34,602	10			3	1	1	5	5	107		3
							*1								

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-41 in page INST01-85.
Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(10) 180GB HDD, RAID1, for Open System

Cache (GB)	OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		OPEN-M (47.185GB)		DKC options						DKU options				
													F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -180H4	F405I -180H1	F405I -EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap											
2	139	342	46	338	46	340	23	335	9	328	7	330	2		*1				1		1		
5	278	684	92	676	92	679	46	670	18	656	14	661	5		▲				1		2		
7	417	1,026	138	1,014	138	1,019	69	1,005	27	984	21	991	7						1		3		
7	556	1,368	184	1,352	184	1,359	92	1,340	36	1,312	28	1,321	7						1		4		
7	695	1,710	230	1,690	230	1,698	115	1,675	45	1,640	35	1,651	7						1		5		
7	834	2,052	276	2,028	276	2,038	138	2,010	54	1,968	42	1,982	7						1		6		
8	973	2,395	322	2,366	322	2,378	161	2,345	63	2,296	49	2,312	8						1		7		
8	1,112	2,737	368	2,704	368	2,717	184	2,681	72	2,624	56	2,642	8						1		8		
8	1,251	3,079	414	3,042	414	3,057	207	3,016	81	2,952	63	2,973	8						1		9		
8	1,390	3,421	460	3,380	460	3,397	230	3,351	90	3,281	70	3,303	8						1		10		
8	1,529	3,763	506	3,718	506	3,736	253	3,686	99	3,609	77	3,633	8						1		11		
8	1,668	4,105	552	4,056	552	4,076	276	4,021	108	3,937	84	3,964	8			1	1		1	1	12		
8	1,807	4,447	598	4,394	598	4,416	299	4,356	117	4,265	91	4,294	8			1	1		1	1	13		
8	1,946	4,789	644	4,731	644	4,755	322	4,691	126	4,593	98	4,624	8			1	1		1	1	14		
9	2,085	5,131	690	5,069	690	5,095	345	5,026	135	4,921	105	4,954	9			1	1		1	1	15		
9	2,224	5,473	736	5,407	736	5,435	368	5,361	144	5,249	112	5,285	9			1	1		1	1	16		
9	2,363	5,815	782	5,745	782	5,774	391	5,696	153	5,577	119	5,615	9			1	1		1	1	17		
9	2,502	6,157	828	6,083	828	6,114	414	6,031	162	5,905	126	5,945	9			1	1		1	1	18		
9	2,641	6,500	874	6,421	874	6,454	437	6,366	171	6,233	133	6,276	9			1	1		1	1	19		
9	2,780	6,842	920	6,759	920	6,793	460	6,701	180	6,561	140	6,606	9			1	1		1	1	20		
9	2,919	7,184	966	7,097	966	7,133	483	7,036	189	6,889	147	6,936	9			1	1		1	1	21		
9	3,058	7,526	1,012	7,435	1,012	7,473	506	7,371	198	7,217	154	7,266	9			1	1		1	1	22		
9	3,197	7,868	1,058	7,773	1,058	7,812	529	7,706	207	7,545	161	7,597	9			1	1		1	1	23		
10	3,336	8,210	1,104	8,111	1,104	8,152	552	8,042	216	7,873	168	7,927	10			1	1		2	1	24		1
10	3,475	8,552	1,150	8,449	1,150	8,492	575	8,377	225	8,201	175	8,257	10			1	1		2	1	25		1
10	3,614	8,894	1,196	8,787	1,196	8,831	598	8,712	234	8,529	182	8,588	10			1	1		2	1	26		1
10	3,753	9,236	1,242	9,125	1,242	9,171	621	9,047	243	8,857	189	8,918	10			1	1		2	1	27		1
10	3,892	9,578	1,288	9,463	1,288	9,511	644	9,382	252	9,185	196	9,248	10			1	1		2	1	28		1
10	4,031	9,920	1,334	9,801	1,334	9,850	667	9,717	261	9,513	203	9,579	10			1	1		2	1	29		1
10			1,380	10,139	1,380	10,190	690	10,052	270	9,842	210	9,909	10			1	1		2	1	30		1
10			1,426	10,477	1,426	10,530	713	10,387	279	10,170	217	10,239	10			1	1		2	1	31		1
10			1,472	10,815	1,472	10,869	736	10,722	288	10,498	224	10,569	10			1	1		2	1	32		1
10			1,518	11,153	1,518	11,209	759	11,057	297	10,826	231	10,900	10			1	1		2	1	33		1
10			1,564	11,491	1,564	11,549	782	11,392	306	11,154	238	11,230	10			1	1		2	1	34		1
10			1,610	11,829	1,610	11,888	805	11,727	315	11,482	245	11,560	10			1	1		2	1	35		1
10			1,656	12,167	1,656	12,228	828	12,062	324	11,810	252	11,891	10			1	1		2	2	36		1
10			1,702	12,505	1,702	12,568	851	12,397	333	12,138	259	12,221	10			1	1		2	2	37		1
10			1,748	12,843	1,748	12,907	874	12,732	342	12,466	266	12,551	10			1	1		2	2	38		1
10			1,794	13,181	1,794	13,247	897	13,067	351	12,794	273	12,882	10			1	1		2	2	39		1
10			1,840	13,518	1,840	13,587	920	13,403	360	13,122	280	13,212	10			1	1		2	2	40		1
10			1,886	13,856	1,886	13,926	943	13,738	369	13,450	287	13,542	10			1	1		2	2	41		1
10			1,932	14,194	1,932	14,266	966	14,073	378	13,778	294	13,872	10			1	1		2	2	42		1
10			1,978	14,532	1,978	14,606	989	14,408	387	14,106	301	14,203	10			1	1		2	2	43		1
10			2,024	14,870	2,024	14,945	1,012	14,743	396	14,434	308	14,533	10			1	1		2	2	44		1
10			2,070	15,208	2,070	15,285	1,035	15,078	405	14,762	315	14,863	10			1	1		2	2	45		1
10			2,116	15,546	2,116	15,625	1,058	15,413	414	15,090	322	15,194	10			1	1		2	2	46		1
10			2,162	15,884	2,162	15,964	1,081	15,748	423	15,418	329	15,524	10			1	1		2	2	47		1
10			2,208	16,222	2,208	16,304	1,104	16,083	432	15,746	336	15,854	10			2	1	1	3	2	48		1
10			2,254	16,560	2,254	16,644	1,127	16,418	441	16,074	343	16,184	10			2	1	1	3	2	49		1
10			2,300	16,898	2,300	16,983	1,150	16,753	450	16,403	350	16,515	10			2	1	1	3	2	50		1
10			2,346	17,236	2,346	17,323	1,173	17,088	459	16,731	357	16,845	10			2	1	1	3	2	51		1
10			2,392	17,574	2,392	17,663	1,196	17,423	468	17,059	364	17,175	10			2	1	1	3	2	52		1
10			2,438	17,912	2,438	18,002	1,219	17,758	477	17,387	371	17,506	10			2	1	1	3	2	53		1
10			2,484	18,250	2,484	18,342	1,242	18,093	486	17,715	378	17,836	10	1		2	1	1	3	2	54		1
10			2,530	18,588	2,530	18,682	1,265	18,429	495	18,043	385	18,166	10	1		2	1	1	3	2	55		1
10			2,576	18,926	2,576	19,021	1,288	18,764	504	18,371	392	18,497	10	1		2	1	1	3	2	56		1
10			2,622	19,264	2,622	19,361	1,311	19,099	513	18,699	399	18,827	10	1		2	1	1	3	2	57		1
10			2,668	19,602	2,668	19,701	1,334	19,434	522	19,027	406	19,157	10	1		2	1	1	3	2	58		1
10			2,714	19,940	2,714	20,040	1,357	19,769	531	19,355	413	19,487	10	1		3	1	1	3	3	59		1
10			2,760	20,278	2,760	20,380	1,380	20,104	540	19,683	420	19,818	10	1		3	1	1	3	3	60		1
10			2,806	20,616	2,806	20,720	1,403	20,439	549	20,011	427	20,148	10	1		3	1	1	3	3	61		1
10			2,852	20,954	2,852	21,059	1,426	20,774	558	20,339	434	20,478	10	1		3	1	1	3	3	62		1
10			2,898	21,292	2,898	21,399	1,449	21,109	567	20,667	441	20,809	10	1		3	1	1	3	3	63		1
10			2,944	21,630	2,944	21,738	1,472	21,444	576	20,995	448	21,139	10	1		3	1	1	3	3	64		1
10			2,990	21,968	2,990	22,078	1,495	21,779	585	21,323	455	21,469	10	1		3	1	1	3	3	65		1
10			3,036	22,305	3,036	22,418	1,518	22,114	594	21,651	462	21,799	10	1		3	1	1	3	3	66		1
10			3,082	22,643	3,082	22,757	1,541	22,449	603	21,979	469	22,130	10	1		3	1	1	3	3	67		1
10			3,128	22,981	3,128	23,097	1,564	22,784	612	22,307	476	22,460	10	1	▼	3	1	1	3	3	68		1
10			3,174	23,319	3,174	23,437	1,587	23,119	621	22,635	483	22,790	10	1	*1	3	1	1	3	3	69		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		OPEN-M (47.185GB)		DKC options						DKU options				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -180H4	F405I -180H1	F405I -EXC
10			3,220	23,657	3,220	23,776	1,610	23,454	630	22,964	490	23,121	10	1	*1	3	1	1	3	3	70		1
10			3,266	23,995	3,266	24,116	1,633	23,790	639	23,292	497	23,451	10	1	▲	3	1	1	4	3	71		2
10			3,312	24,333	3,312	24,456	1,656	24,125	648	23,620	504	23,781	10	1		3	1	1	4	3	72		2
10			3,358	24,671	3,358	24,795	1,679	24,460	657	23,948	511	24,112	10	1		3	1	1	4	3	73		2
10			3,404	25,009	3,404	25,135	1,702	24,795	666	24,276	518	24,442	10	1		3	1	1	4	3	74		2
10			3,450	25,347	3,450	25,475	1,725	25,130	675	24,604	525	24,772	10	1		3	1	1	4	3	75		2
10			3,496	25,685	3,496	25,814	1,748	25,465	684	24,932	532	25,102	10	1		3	1	1	4	3	76		2
10			3,542	26,023	3,542	26,154	1,771	25,800	693	25,260	539	25,433	10	1		3	1	1	4	3	77		2
10			3,588	26,361	3,588	26,494	1,794	26,135	702	25,588	546	25,763	10	1		3	1	1	4	3	78		2
10			3,634	26,699	3,634	26,833	1,817	26,470	711	25,916	553	26,093	10	1		3	1	1	4	3	79		2
10			3,680	27,037	3,680	27,173	1,840	26,805	720	26,244	560	26,424	10	1		3	1	1	4	3	80		2
10			3,726	27,375	3,726	27,513	1,863	27,140	729	26,572	567	26,754	10	1		3	1	1	4	3	81		2
10			3,772	27,713	3,772	27,852	1,886	27,475	738	26,900	574	27,084	10	1		3	1	1	4	3	82		2
10			3,818	28,051	3,818	28,192	1,909	27,810	747	27,228	581	27,414	10	1		3	1	1	4	4	83		2
10			3,864	28,389	3,864	28,532	1,932	28,145	756	27,556	588	27,745	10	1		3	1	1	4	4	84		2
10			3,910	28,727	3,910	28,871	1,955	28,480	765	27,884	595	28,075	10	1		3	1	1	4	4	85		2
10			3,956	29,065	3,956	29,211	1,978	28,816	774	28,212	602	28,405	10	1		3	1	1	4	4	86		2
10			4,002	29,403	4,002	29,551	2,001	29,151	783	28,540	609	28,736	10	1		3	1	1	4	4	87		2
10			4,048	29,741	4,048	29,890	2,024	29,486	792	28,868	616	29,066	10	1		3	1	1	4	4	88		2
10			4,094	30,079	4,094	30,230	2,047	29,821	801	29,196	623	29,396	10	1		3	1	1	4	4	89		2
10							2,070	30,156	810	29,525	630	29,727	10	1		3	1	1	4	4	90		2
10							2,093	30,491	819	29,853	637	30,057	10	1		3	1	1	4	4	91		2
10							2,116	30,826	828	30,181	644	30,387	10	1		3	1	1	4	4	92		2
10							2,139	31,161	837	30,509	651	30,717	10	1		3	1	1	4	4	93		2
10							2,162	31,496	846	30,837	658	31,048	10	1		3	1	1	4	4	94		2
10							2,185	31,831	855	31,165	665	31,378	10	1		3	1	1	5	4	95		3
10							2,208	32,166	864	31,493	672	31,708	10	1		3	1	1	5	4	96		3
10							2,231	32,501	873	31,821	679	32,039	10	1		3	1	1	5	4	97		3
10							2,254	32,836	882	32,149	686	32,369	10	1		3	1	1	5	4	98		3
10							2,277	33,171	891	32,477	693	32,699	10	1		3	1	1	5	4	99		3
10							2,300	33,506	900	32,805	700	33,030	10	1		3	1	1	5	4	100		3
10							2,323	33,841	909	33,133	707	33,360	10	1		3	1	1	5	4	101		3
10							2,346	34,177	918	33,461	714	33,690	10	1		3	1	1	5	4	102		3
10							2,369	34,512	927	33,789	721	34,020	10	1		3	1	1	5	5	103		3
10							2,392	34,847	936	34,117	728	34,351	10	1		3	1	1	5	5	104		3
10							2,415	35,182	945	34,445	735	34,681	10	1		3	1	1	5	5	105		3
10							2,438	35,517	954	34,773	742	35,011	10	1		3	1	1	5	5	106		3
10							2,461	35,852	963	35,101	749	35,342	10	1		3	1	1	5	5	107		3
10							2,484	36,187	972	35,429	756	35,672	10	1		3	1	1	5	5	108		3
10							2,507	36,522	981	35,757	763	36,002	10	1		3	1	1	5	5	109		3
10							2,530	36,857	990	36,086	770	36,332	10	1		3	1	1	5	5	110		3
10							2,553	37,192	999	36,414	777	36,663	10	1		3	1	1	6	5	111		4
10							2,576	37,527	1,008	36,742	784	36,993	10	1		3	1	1	6	5	112		4
10							2,599	37,862	1,017	37,070	791	37,323	10	1		3	1	1	6	5	113		4
10							2,622	38,197	1,026	37,398	798	37,654	10	1		3	1	1	6	5	114		4
10							2,645	38,532	1,035	37,726	805	37,984	10	1		3	1	1	6	5	115		4
10							2,668	38,867	1,044	38,054	812	38,314	10	1		3	1	1	6	5	116		4
10							2,691	39,202	1,053	38,382	819	38,645	10	1		3	1	1	6	5	117		4
10							2,714	39,538	1,062	38,710	826	38,975	10	1		3	1	1	6	5	118		4
10							2,737	39,873	1,071	39,038	833	39,305	10	1		3	1	1	6	6	119		4
10							2,760	40,208	1,080	39,366	840	39,635	10	1		3	1	1	6	6	120		4
10							2,783	40,543	1,089	39,694	847	39,966	10	1		3	1	1	6	6	121		4
10							2,806	40,878	1,098	40,022	854	40,296	10	1		3	1	1	6	6	122		4
10							2,829	41,213	1,107	40,350	861	40,626	10	1		3	1	1	6	6	123		4
10							2,852	41,548	1,116	40,678	868	40,957	10	1		3	1	1	6	6	124		4
10							2,875	41,883	1,125	41,006	875	41,287	10	1	▼	3	1	1	6	6	125		4
10							2,898	42,218	1,134	41,334	882	41,617	10	1	*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-41 in page INST01-85.
Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(11) High Speed 36GB HDD, RAID1, for Mainframe

Cache (GB)	Storage Capacity (GB)														Number of necessary options												
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-				
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
1	109	69	54	68	36	68	71	67	35	66	23	65	7	60	1			*1				1		1		
1	218	137	108	136	72	136	142	134	70	132	46	131	14	119	1			▲				1		2		
1	327	206	162	204	108	204	213	201	105	199	69	196	21	179	1							1		3		
1	436	275	216	272	144	272	284	269	140	265	92	261	28	238	1							1		4		
1	545	343	270	340	180	340	355	336	175	331	115	326	35	298	1							1		5		
2	654	412	324	408	216	408	426	403	210	397	138	392	42	357	2							1		6		
2	763	481	378	476	252	476	497	470	245	464	161	457	49	417	2							1		7		
2	872	549	432	544	288	544	568	537	280	530	184	522	56	477	2							1		8		
3	981	618	486	612	324	612	639	604	315	596	207	587	63	536	3							1		9		
3	1,090	687	540	680	360	680	710	672	350	662	230	653	70	596	3							1		10		
3	1,199	755	594	748	396	748	781	739	385	728	253	718	77	655	3							1		11		
4	1,308	824	648	816	432	816	852	806	420	795	276	783	84	715	4				1	1		1	1	12		
4	1,417	893	702	885	468	885	923	873	455	861	299	849	91	774	4				1	1		1	1	13		
4	1,526	961	756	953	504	953	994	940	490	927	322	914	98	834	4				1	1		1	1	14		
5	1,635	1,030	810	1,021	540	1,021	1,065	1,007	525	993	345	979	105	894	5				1	1		1	1	15		
5	1,744	1,099	864	1,089	576	1,089	1,136	1,075	560	1,060	368	1,044	112	953	5				1	1		1	1	16		
5	1,853	1,167	918	1,157	612	1,157	1,207	1,142	595	1,126	391	1,110	119	1,013	5				1	1		1	1	17		
5	1,962	1,236	972	1,225	648	1,225	1,278	1,209	630	1,192	414	1,175	126	1,072	5				1	1		1	1	18		
6	2,071	1,305	1,026	1,293	684	1,293	1,349	1,276	665	1,258	437	1,240	133	1,132	6				1	1		1	1	19		
6	2,180	1,373	1,080	1,361	720	1,361	1,420	1,343	700	1,324	460	1,305	140	1,191	6				1	1		1	1	20		
7	2,289	1,442	1,134	1,429	756	1,429	1,491	1,410	735	1,391	483	1,371	147	1,251	7				1	1		1	1	21		
7	2,398	1,511	1,188	1,497	792	1,497	1,562	1,478	770	1,457	506	1,436	154	1,311	7				1	1		1	1	22		
7	2,507	1,579	1,242	1,565	828	1,565	1,633	1,545	805	1,523	529	1,501	161	1,370	7				1	1		1	1	23		
7	2,616	1,648	1,296	1,633	864	1,633	1,704	1,612	840	1,589	552	1,567	168	1,430	7				1	1		2	1	24		1
7	2,725	1,717	1,350	1,701	900	1,701	1,775	1,679	875	1,656	575	1,632	175	1,489	7				1	1		2	1	25		1
7	2,834	1,785	1,404	1,769	936	1,769	1,846	1,746	910	1,722	598	1,697	182	1,549	7				1	1		2	1	26		1
7	2,943	1,854	1,458	1,837	972	1,837	1,917	1,813	945	1,788	621	1,762	189	1,608	7				1	1		2	1	27		1
7	3,052	1,923	1,512	1,905	1,008	1,905	1,988	1,881	980	1,854	644	1,828	196	1,668	7				1	1		2	1	28		1
7	3,161	1,991	1,566	1,973	1,044	1,973	2,059	1,948	1,015	1,920	667	1,893	203	1,728	7				1	1		2	1	29		1
7	3,270	2,060	1,620	2,041	1,080	2,041	2,130	2,015	1,050	1,987	690	1,958	210	1,787	7				1	1		2	1	30		1
7	3,379	2,129	1,674	2,109	1,116	2,109	2,201	2,082	1,085	2,053	713	2,023	217	1,847	7				1	1		2	1	31		1
7	3,488	2,197	1,728	2,177	1,152	2,177	2,272	2,149	1,120	2,119	736	2,089	224	1,906	7				1	1		2	1	32		1
7	3,597	2,266	1,782	2,245	1,188	2,245	2,343	2,216	1,155	2,185	759	2,154	231	1,966	7				1	1		2	1	33		1
7	3,706	2,335	1,836	2,313	1,224	2,313	2,414	2,284	1,190	2,251	782	2,219	238	2,025	7				1	1		2	1	34		1
7	3,815	2,403	1,890	2,381	1,260	2,381	2,485	2,351	1,225	2,318	805	2,285	245	2,085	7				1	1		2	1	35		1
7	3,924	2,472	1,944	2,449	1,296	2,449	2,556	2,418	1,260	2,384	828	2,350	252	2,145	7				1	1		2	2	36		1
7	4,033	2,541	1,998	2,517	1,332	2,517	2,627	2,485	1,295	2,450	851	2,415	259	2,204	7				1	1		2	2	37		1
7			2,052	2,586	1,368	2,586	2,698	2,552	1,330	2,516	874	2,480	266	2,264	7				1	1		2	2	38		1
7			2,106	2,654	1,404	2,654	2,769	2,619	1,365	2,583	897	2,546	273	2,323	7				1	1		2	2	39		1
7			2,160	2,722	1,440	2,722	2,840	2,687	1,400	2,649	920	2,611	280	2,383	7				1	1		2	2	40		1
7			2,214	2,790	1,476	2,790	2,911	2,754	1,435	2,715	943	2,676	287	2,442	7				1	1		2	2	41		1
7			2,268	2,858	1,512	2,858	2,982	2,821	1,470	2,781	966	2,742	294	2,502	7				1	1		2	2	42		1
7			2,322	2,926	1,548	2,926	3,053	2,888	1,505	2,847	989	2,807	301	2,562	7				1	1		2	2	43		1
7			2,376	2,994	1,584	2,994	3,124	2,955	1,540	2,914	1,012	2,872	308	2,621	7				1	1		2	2	44		1
8			2,430	3,062	1,620	3,062	3,195	3,022	1,575	2,980	1,035	2,937	315	2,681	8				1	1		2	2	45		1
8			2,484	3,130	1,656	3,130	3,266	3,090	1,610	3,046	1,058	3,003	322	2,740	8				1	1		2	2	46		1
8			2,538	3,198	1,692	3,198	3,337	3,157	1,645	3,112	1,081	3,068	329	2,800	8				1	1		2	2	47		1
8			2,592	3,266	1,728	3,266	3,408	3,224	1,680	3,179	1,104	3,133	336	2,859	8				2	1	1	3	2	48		1
8			2,646	3,334	1,764	3,334	3,479	3,291	1,715	3,245	1,127	3,198	343	2,919	8				2	1	1	3	2	49		1
8			2,700	3,402	1,800	3,402	3,550	3,358	1,750	3,311	1,150	3,264	350	2,979	8				2	1	1	3	2	50		1
8			2,754	3,470	1,836	3,470	3,621	3,425	1,785	3,377	1,173	3,329	357	3,038	8				2	1	1	3	2	51		1
8			2,808	3,538	1,872	3,538	3,692	3,493	1,820	3,443	1,196	3,394	364	3,098	8				2	1	1	3	2	52		1
8			2,862	3,606	1,908	3,606	3,763	3,560	1,855	3,510	1,219	3,460	371	3,157	8				2	1	1	3	2	53		1
8			2,916	3,674	1,944	3,674	3,834	3,627	1,890	3,576	1,242	3,525	378	3,217	8				2	1	1	3	2	54		1
8			2,970	3,742	1,980	3,742	3,905	3,694	1,925	3,642	1,265	3,590	385	3,276	8				2	1	1	3	2	55		1
8			3,024	3,810	2,016	3,810	3,976	3,761	1,960	3,708	1,288	3,655	392	3,336	8				2	1	1	3	2	56		1
8			3,078	3,878	2,052	3,878	4,047	3,828	1,995	3,775	1,311	3,721	399	3,395	8				2	1	1	3	2	57		1
8			3,132	3,946	2,088	3,946			2,030	3,841	1,334	3,786	406	3,455	8				2	1	1	3	2	58		1
8			3,186	4,014	2,124	4,014			2,065	3,907	1,357	3,851	413	3,515	8				3	1	1	3	3	59		1
8			3,240	4,082	2,160	4,082			2,100	3,973	1,380	3,916	420	3,574	8				3	1	1	3	3	60		1
8			3,294	4,150	2,196	4,150			2,135	4,039	1,403	3,982	427	3,634	8				3	1	1	3	3	61		1
8			3,348	4,218	2,232	4,218			2,170	4,106	1,426	4,047	434	3,693	8				3	1	1	3	3	62		1
8			3,402	4,287	2,268	4,287			2,205	4,172	1,449	4,112	441	3,753	8				3	1	1	3	3	63		1
8			3,456	4,355	2,304	4,355			2,240	4,238	1,472	4,178	448	3,812	8				3	1	1	3	3	64		1
8			3,510	4,423	2,340	4,423			2,275	4,304	1,495	4,243	455	3,872	8				3	1	1	3	3	65		1
8			3,564	4,491	2,376	4,491			2,310	4,371	1,518	4,308	462	3,932	8			▼	*1	3	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	Storage Capacity (GB)														Number of necessary options											
	3380-J (0.630GB)		3380-E (1.260GB)		3380-K (1.890GB)		3390-1 (0.946GB)		3390-2 (1.892GB)		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
8			3,618	4,559	2,412	4,559			2,345	4,437	1,541	4,373	469	3,991		8		*1	3	1	1	3	3	67		1
8			3,672	4,627	2,448	4,627			2,380	4,503	1,564	4,439	476	4,051		8		▲	3	1	1	3	3	68		1
8			3,726	4,695	2,484	4,695			2,415	4,569	1,587	4,504	483	4,110		8			3	1	1	3	3	69		1
8			3,780	4,763	2,520	4,763			2,450	4,635	1,610	4,569	490	4,170		8			3	1	1	3	3	70		1
8			3,834	4,831	2,556	4,831			2,485	4,702	1,633	4,634	497	4,229		8			3	1	1	4	3	71		2
8			3,888	4,899	2,592	4,899			2,520	4,768	1,656	4,700	504	4,289		8			3	1	1	4	3	72		2
8			3,942	4,967	2,628	4,967			2,555	4,834	1,679	4,765	511	4,349		8			3	1	1	4	3	73		2
8			3,996	5,035	2,664	5,035			2,590	4,900	1,702	4,830	518	4,408		8			3	1	1	4	3	74		2
8			4,050	5,103	2,700	5,103			2,625	4,967	1,725	4,896	525	4,468		8			3	1	1	4	3	75		2
8					2,736	5,171			2,660	5,033	1,748	4,961	532	4,527		8			3	1	1	4	3	76		2
8					2,772	5,239			2,695	5,099	1,771	5,026	539	4,587		8			3	1	1	4	3	77		2
8					2,808	5,307			2,730	5,165	1,794	5,091	546	4,646		8			3	1	1	4	3	78		2
8					2,844	5,375			2,765	5,231	1,817	5,157	553	4,706		8			3	1	1	4	3	79		2
8					2,880	5,443			2,800	5,298	1,840	5,222	560	4,766		8			3	1	1	4	3	80		2
8					2,916	5,511			2,835	5,364	1,863	5,287	567	4,825		8			3	1	1	4	3	81		2
8					2,952	5,579			2,870	5,430	1,886	5,352	574	4,885		8			3	1	1	4	3	82		2
8					2,988	5,647			2,905	5,496	1,909	5,418	581	4,944		8			3	1	1	4	4	83		2
8					3,024	5,715			2,940	5,562	1,932	5,483	588	5,004		8			3	1	1	4	4	84		2
8					3,060	5,783			2,975	5,629	1,955	5,548	595	5,063		8			3	1	1	4	4	85		2
8					3,096	5,851			3,010	5,695	1,978	5,614	602	5,123		8			3	1	1	4	4	86		2
8					3,132	5,919			3,045	5,761	2,001	5,679	609	5,183		8			3	1	1	4	4	87		2
8					3,168	5,988			3,080	5,827	2,024	5,744	616	5,242		8			3	1	1	4	4	88		2
8					3,204	6,056			3,115	5,894	2,047	5,809	623	5,302		8			3	1	1	4	4	89		2
8					3,240	6,124			3,150	5,960	2,070	5,875	630	5,361		8			3	1	1	4	4	90		2
8					3,276	6,192			3,185	6,026	2,093	5,940	637	5,421		8			3	1	1	4	4	91		2
8					3,312	6,260			3,220	6,092	2,116	6,005	644	5,480		8			3	1	1	4	4	92		2
8					3,348	6,328			3,255	6,158	2,139	6,070	651	5,540		8			3	1	1	4	4	93		2
8					3,384	6,396			3,290	6,225	2,162	6,136	658	5,600		8			3	1	1	4	4	94		2
8					3,420	6,464			3,325	6,291	2,185	6,201	665	5,659		8			3	1	1	5	4	95		3
8					3,456	6,532			3,360	6,357	2,208	6,266	672	5,719		8			3	1	1	5	4	96		3
8					3,492	6,600			3,395	6,423	2,231	6,332	679	5,778		8			3	1	1	5	4	97		3
8					3,528	6,668			3,430	6,490	2,254	6,397	686	5,838		8			3	1	1	5	4	98		3
8					3,564	6,736			3,465	6,556	2,277	6,462	693	5,897		8			3	1	1	5	4	99		3
8					3,600	6,804			3,500	6,622	2,300	6,527	700	5,957		8			3	1	1	5	4	100		3
8					3,636	6,872			3,535	6,688	2,323	6,593	707	6,017		8			3	1	1	5	4	101		3
8					3,672	6,940			3,570	6,754	2,346	6,658	714	6,076		8			3	1	1	5	4	102		3
8					3,708	7,008			3,605	6,821	2,369	6,723	721	6,136		8			3	1	1	5	5	103		3
8					3,744	7,076			3,640	6,887	2,392	6,788	728	6,195		8			3	1	1	5	5	104		3
8					3,780	7,144			3,675	6,953	2,415	6,854	735	6,255		8			3	1	1	5	5	105		3
8					3,816	7,212			3,710	7,019	2,438	6,919	742	6,314		8			3	1	1	5	5	106		3
8					3,852	7,280			3,745	7,086	2,461	6,984	749	6,374		8			3	1	1	5	5	107		3
8					3,888	7,348			3,780	7,152	2,484	7,050	756	6,434		8			3	1	1	5	5	108		3
8					3,924	7,416			3,815	7,218	2,507	7,115	763	6,493		8			3	1	1	5	5	109		3
9					3,960	7,484			3,850	7,284	2,530	7,180	770	6,553		9			3	1	1	5	5	110		3
9					3,996	7,552			3,885	7,350	2,553	7,245	777	6,612		9			3	1	1	6	5	111		4
9					4,032	7,620			3,920	7,417	2,576	7,311	784	6,672		9			3	1	1	6	5	112		4
9					4,068	7,689			3,955	7,483	2,599	7,376	791	6,731		9			3	1	1	6	5	113		4
9									3,990	7,549	2,622	7,441	798	6,791		9			3	1	1	6	5	114		4
9									4,025	7,615	2,645	7,507	805	6,851		9			3	1	1	6	5	115		4
9									4,060	7,682	2,668	7,572	812	6,910		9			3	1	1	6	5	116		4
9									4,095	7,748	2,691	7,637	819	6,970		9			3	1	1	6	5	117		4
9											2,714	7,702	826	7,029		9			3	1	1	6	5	118		4
9											2,737	7,768	833	7,089		9			3	1	1	6	6	119		4
9											2,760	7,833	840	7,148		9			3	1	1	6	6	120		4
9											2,783	7,898	847	7,208		9			3	1	1	6	6	121		4
9											2,806	7,963	854	7,268		9			3	1	1	6	6	122		4
9											2,829	8,029	861	7,327		9			3	1	1	6	6	123		4
9											2,852	8,094	868	7,387		9			3	1	1	6	6	124		4
9											2,875	8,159	875	7,446		9		▼	3	1	1	6	6	125		4
9											2,898	8,225	882	7,506		9		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(12) High Speed 36GB HDD, RAID1, for Open System

Cache (GB)	Storage Capacity (GB)										Number of necessary options											
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
											512	1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap												
1	37	70	28	69	9	66	9	66	4	58		1		*1				1		1		
1	74	139	56	138	18	132	18	133	8	117		1		▲				1		2		
1	111	209	84	207	27	198	27	199	12	175		1						1		3		
1	148	278	112	276	36	264	36	266	16	233		1						1		4		
1	185	348	140	345	45	331	45	332	20	291		1						1		5		
1	222	418	168	413	54	397	54	399	24	350		1						1		6		
2	259	487	196	482	63	463	63	465	28	408		2						1		7		
2	296	557	224	551	72	529	72	532	32	466		2						1		8		
2	333	626	252	620	81	595	81	598	36	524		2						1		9		
3	370	696	280	689	90	661	90	665	40	583		3						1		10		
3	407	766	308	758	99	727	99	731	44	641		3						1		11		
3	444	835	336	827	108	793	108	797	48	699		3			1	1		1	1	12		
4	481	905	364	896	117	860	117	864	52	758		4			1	1		1	1	13		
4	518	974	392	965	126	926	126	930	56	816		4			1	1		1	1	14		
5	555	1,044	420	1,034	135	992	135	997	60	874		5			1	1		1	1	15		
5	592	1,114	448	1,103	144	1,058	144	1,063	64	932		5			1	1		1	1	16		
5	629	1,183	476	1,171	153	1,124	153	1,130	68	991		5			1	1		1	1	17		
5	666	1,253	504	1,240	162	1,190	162	1,196	72	1,049		5			1	1		1	1	18		
6	703	1,322	532	1,309	171	1,256	171	1,263	76	1,107		6			1	1		1	1	19		
6	740	1,392	560	1,378	180	1,322	180	1,329	80	1,165		6			1	1		1	1	20		
6	777	1,462	588	1,447	189	1,389	189	1,396	84	1,224		6			1	1		1	1	21		
7	814	1,531	616	1,516	198	1,455	198	1,462	88	1,282		7			1	1		1	1	22		
7	851	1,601	644	1,585	207	1,521	207	1,528	92	1,340		7			1	1		1	1	23		
7	888	1,670	672	1,654	216	1,587	216	1,595	96	1,399		7			1	1		2	1	24		1
7	925	1,740	700	1,723	225	1,653	225	1,661	100	1,457		7			1	1		2	1	25		1
7	962	1,810	728	1,792	234	1,719	234	1,728	104	1,515		7			1	1		2	1	26		1
7	999	1,879	756	1,861	243	1,785	243	1,794	108	1,573		7			1	1		2	1	27		1
7	1,036	1,949	784	1,929	252	1,851	252	1,861	112	1,632		7			1	1		2	1	28		1
7	1,073	2,018	812	1,998	261	1,918	261	1,927	116	1,690		7			1	1		2	1	29		1
7	1,110	2,088	840	2,067	270	1,984	270	1,994	120	1,748		7			1	1		2	1	30		1
7	1,147	2,158	868	2,136	279	2,050	279	2,060	124	1,806		7			1	1		2	1	31		1
7	1,184	2,227	896	2,205	288	2,116	288	2,127	128	1,865		7			1	1		2	1	32		1
7	1,221	2,297	924	2,274	297	2,182	297	2,193	132	1,923		7			1	1		2	1	33		1
7	1,258	2,366	952	2,343	306	2,248	306	2,260	136	1,981		7			1	1		2	1	34		1
7	1,295	2,436	980	2,412	315	2,314	315	2,326	140	2,040		7			1	1		2	1	35		1
7	1,332	2,505	1,008	2,481	324	2,380	324	2,392	144	2,098		7			1	1		2	2	36		1
7	1,369	2,575	1,036	2,550	333	2,447	333	2,459	148	2,156		7			1	1		2	2	37		1
7	1,406	2,645	1,064	2,619	342	2,513	342	2,525	152	2,214		7			1	1		2	2	38		1
7	1,443	2,714	1,092	2,687	351	2,579	351	2,592	156	2,273		7			1	1		2	2	39		1
7	1,480	2,784	1,120	2,756	360	2,645	360	2,658	160	2,331		7			1	1		2	2	40		1
7	1,517	2,853	1,148	2,825	369	2,711	369	2,725	164	2,389		7			1	1		2	2	41		1
7	1,554	2,923	1,176	2,894	378	2,777	378	2,791	168	2,447		7			1	1		2	2	42		1
7	1,591	2,993	1,204	2,963	387	2,843	387	2,858	172	2,506		7			1	1		2	2	43		1
7	1,628	3,062	1,232	3,032	396	2,909	396	2,924	176	2,564		7			1	1		2	2	44		1
7	1,665	3,132	1,260	3,101	405	2,976	405	2,991	180	2,622		7			1	1		2	2	45		1
8	1,702	3,201	1,288	3,170	414	3,042	414	3,057	184	2,681		8			1	1		2	2	46		1
8	1,739	3,271	1,316	3,239	423	3,108	423	3,123	188	2,739		8			1	1		2	2	47		1
8	1,776	3,341	1,344	3,308	432	3,174	432	3,190	192	2,797		8			2	1	1	3	2	48		1
8	1,813	3,410	1,372	3,376	441	3,240	441	3,256	196	2,855		8			2	1	1	3	2	49		1
8	1,850	3,480	1,400	3,445	450	3,306	450	3,323	200	2,914		8			2	1	1	3	2	50		1
8	1,887	3,549	1,428	3,514	459	3,372	459	3,389	204	2,972		8			2	1	1	3	2	51		1
8	1,924	3,619	1,456	3,583	468	3,438	468	3,456	208	3,030		8			2	1	1	3	2	52		1
8	1,961	3,689	1,484	3,652	477	3,505	477	3,522	212	3,088		8			2	1	1	3	2	53		1
8	1,998	3,758	1,512	3,721	486	3,571	486	3,589	216	3,147		8			2	1	1	3	2	54		1
8	2,035	3,828	1,540	3,790	495	3,637	495	3,655	220	3,205		8			2	1	1	3	2	55		1
8	2,072	3,897	1,568	3,859	504	3,703	504	3,722	224	3,263		8			2	1	1	3	2	56		1
8	2,109	3,967	1,596	3,928	513	3,769	513	3,788	228	3,322		8			2	1	1	3	2	57		1
8	2,146	4,037	1,624	3,997	522	3,835	522	3,854	232	3,380		8			2	1	1	3	2	58		1
8	2,183	4,106	1,652	4,066	531	3,901	531	3,921	236	3,438		8			3	1	1	3	3	59		1
8	2,220	4,176	1,680	4,134	540	3,967	540	3,987	240	3,496		8			3	1	1	3	3	60		1
8	2,257	4,245	1,708	4,203	549	4,034	549	4,054	244	3,555		8			3	1	1	3	3	61		1
8	2,294	4,315	1,736	4,272	558	4,100	558	4,120	248	3,613		8			3	1	1	3	3	62		1
8	2,331	4,385	1,764	4,341	567	4,166	567	4,187	252	3,671		8			3	1	1	3	3	63		1
8	2,368	4,454	1,792	4,410	576	4,232	576	4,253	256	3,729		8			3	1	1	3	3	64		1
8	2,405	4,524	1,820	4,479	585	4,298	585	4,320	260	3,788		8			▼	1	1	3	3	65		1
8	2,442	4,593	1,848	4,548	594	4,364	594	4,386	264	3,846		8			*1	1	1	3	3	66		1

(To be continued)

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(Continued from preceding sheet)

Cache (GB)	Storage Capacity (GB)										Number of necessary options										
	OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		DKC-F410I-							DKU 405I -14	DKU-F405I-			
	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	512	1024	20	S256	100	R1C	L1C		B4	36K4	36K1	EXC
8	2,479	4,663	1,876	4,617	603	4,430	603	4,453	268	3,904		8		*1	3	1	1	3	3	67		1
8	2,516	4,733	1,904	4,686	612	4,496	612	4,519	272	3,962		8		▲	3	1	1	3	3	68		1
8	2,553	4,802	1,932	4,755	621	4,562	621	4,585	276	4,021		8			3	1	1	3	3	69		1
8	2,590	4,872	1,960	4,824	630	4,629	630	4,652	280	4,079		8			3	1	1	3	3	70		1
8	2,627	4,941	1,988	4,892	639	4,695	639	4,718	284	4,137		8			3	1	1	4	3	71		2
8	2,664	5,011	2,016	4,961	648	4,761	648	4,785	288	4,196		8			3	1	1	4	3	72		2
8	2,701	5,081	2,044	5,030	657	4,827	657	4,851	292	4,254		8			3	1	1	4	3	73		2
8	2,738	5,150	2,072	5,099	666	4,893	666	4,918	296	4,312		8			3	1	1	4	3	74		2
8	2,775	5,220	2,100	5,168	675	4,959	675	4,984	300	4,370		8			3	1	1	4	3	75		2
8	2,812	5,289	2,128	5,237	684	5,025	684	5,051	304	4,429		8			3	1	1	4	3	76		2
8	2,849	5,359	2,156	5,306	693	5,091	693	5,117	308	4,487		8			3	1	1	4	3	77		2
8	2,886	5,429	2,184	5,375	702	5,158	702	5,184	312	4,545		8			3	1	1	4	3	78		2
8	2,923	5,498	2,212	5,444	711	5,224	711	5,250	316	4,603		8			3	1	1	4	3	79		2
8	2,960	5,568	2,240	5,513	720	5,290	720	5,316	320	4,662		8			3	1	1	4	3	80		2
8	2,997	5,637	2,268	5,582	729	5,356	729	5,383	324	4,720		8			3	1	1	4	3	81		2
8	3,034	5,707	2,296	5,650	738	5,422	738	5,449	328	4,778		8			3	1	1	4	3	82		2
8	3,071	5,777	2,324	5,719	747	5,488	747	5,516	332	4,837		8			3	1	1	4	4	83		2
8	3,108	5,846	2,352	5,788	756	5,554	756	5,582	336	4,895		8			3	1	1	4	4	84		2
8	3,145	5,916	2,380	5,857	765	5,620	765	5,649	340	4,953		8			3	1	1	4	4	85		2
8	3,182	5,985	2,408	5,926	774	5,687	774	5,715	344	5,011		8			3	1	1	4	4	86		2
8	3,219	6,055	2,436	5,995	783	5,753	783	5,782	348	5,070		8			3	1	1	4	4	87		2
8	3,256	6,125	2,464	6,064	792	5,819	792	5,848	352	5,128		8			3	1	1	4	4	88		2
8	3,293	6,194	2,492	6,133	801	5,885	801	5,915	356	5,186		8			3	1	1	4	4	89		2
8	3,330	6,264	2,520	6,202	810	5,951	810	5,981	360	5,244		8			3	1	1	4	4	90		2
8	3,367	6,333	2,548	6,271	819	6,017	819	6,047	364	5,303		8			3	1	1	4	4	91		2
8	3,404	6,403	2,576	6,340	828	6,083	828	6,114	368	5,361		8			3	1	1	4	4	92		2
8	3,441	6,473	2,604	6,408	837	6,149	837	6,180	372	5,419		8			3	1	1	4	4	93		2
8	3,478	6,542	2,632	6,477	846	6,216	846	6,247	376	5,478		8			3	1	1	4	4	94		2
8	3,515	6,612	2,660	6,546	855	6,282	855	6,313	380	5,536		8			3	1	1	5	4	95		3
8	3,552	6,681	2,688	6,615	864	6,348	864	6,380	384	5,594		8			3	1	1	5	4	96		3
8	3,589	6,751	2,716	6,684	873	6,414	873	6,446	388	5,652		8			3	1	1	5	4	97		3
8	3,626	6,821	2,744	6,753	882	6,480	882	6,513	392	5,711		8			3	1	1	5	4	98		3
8	3,663	6,890	2,772	6,822	891	6,546	891	6,579	396	5,769		8			3	1	1	5	4	99		3
8	3,700	6,960	2,800	6,891	900	6,612	900	6,646	400	5,827		8			3	1	1	5	4	100		3
8	3,737	7,029	2,828	6,960	909	6,678	909	6,712	404	5,885		8			3	1	1	5	4	101		3
8	3,774	7,099	2,856	7,029	918	6,745	918	6,779	408	5,944		8			3	1	1	5	4	102		3
8	3,811	7,168	2,884	7,098	927	6,811	927	6,845	412	6,002		8			3	1	1	5	5	103		3
8	3,848	7,238	2,912	7,166	936	6,877	936	6,911	416	6,060		8			3	1	1	5	5	104		3
8	3,885	7,308	2,940	7,235	945	6,943	945	6,978	420	6,119		8			3	1	1	5	5	105		3
8	3,922	7,377	2,968	7,304	954	7,009	954	7,044	424	6,177		8			3	1	1	5	5	106		3
8	3,959	7,447	2,996	7,373	963	7,075	963	7,111	428	6,235		8			3	1	1	5	5	107		3
8	3,996	7,516	3,024	7,442	972	7,141	972	7,177	432	6,293		8			3	1	1	5	5	108		3
8	4,033	7,586	3,052	7,511	981	7,207	981	7,244	436	6,352		8			3	1	1	5	5	109		3
8	4,070	7,656	3,080	7,580	990	7,274	990	7,310	440	6,410		8			3	1	1	5	5	110		3
8			3,108	7,649	999	7,340	999	7,377	444	6,468		8			3	1	1	6	5	111		4
9			3,136	7,718	1,008	7,406	1,008	7,443	448	6,526		9			3	1	1	6	5	112		4
9			3,164	7,787	1,017	7,472	1,017	7,510	452	6,585		9			3	1	1	6	5	113		4
9			3,192	7,856	1,026	7,538	1,026	7,576	456	6,643		9			3	1	1	6	5	114		4
9			3,220	7,924	1,035	7,604	1,035	7,642	460	6,701		9			3	1	1	6	5	115		4
9			3,248	7,993	1,044	7,670	1,044	7,709	464	6,760		9			3	1	1	6	5	116		4
9			3,276	8,062	1,053	7,736	1,053	7,775	468	6,818		9			3	1	1	6	5	117		4
9			3,304	8,131	1,062	7,803	1,062	7,842	472	6,876		9			3	1	1	6	5	118		4
9			3,332	8,200	1,071	7,869	1,071	7,908	476	6,934		9			3	1	1	6	6	119		4
9			3,360	8,269	1,080	7,935	1,080	7,975	480	6,993		9			3	1	1	6	6	120		4
9			3,388	8,338	1,089	8,001	1,089	8,041	484	7,051		9			3	1	1	6	6	121		4
9			3,416	8,407	1,098	8,067	1,098	8,108	488	7,109		9			3	1	1	6	6	122		4
9			3,444	8,476	1,107	8,133	1,107	8,174	492	7,167		9			3	1	1	6	6	123		4
9			3,472	8,545	1,116	8,199	1,116	8,241	496	7,226		9			3	1	1	6	6	124		4
9			3,500	8,614	1,125	8,265	1,125	8,307	500	7,284		9		▼	3	1	1	6	6	125		4
9			3,528	8,682	1,134	8,331	1,134	8,373	504	7,342		9		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(13) 146GB HDD, RAID1, for Mainframe

RAID group	Cache (GB)	Storage Capacity (GB)				Number of necessary options										
		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
1	1024	96	272	32	272	1		*1				1		1		
2	2048	192	545	64	545	2		▲				1		2		
3	4096	288	817	96	817	4						1		3		
4	5120	384	1,090	128	1,089	5						1		4		
5	6144	480	1,362	160	1,362	6						1		5		
6	7168	576	1,635	192	1,634	7						1		6		
7	7168	672	1,907	224	1,906	7						1		7		
8	7168	768	2,180	256	2,179	7						1		8		
9	7168	864	2,452	288	2,451	7						1		9		
10	7168	960	2,724	320	2,723	7						1		10		
11	7168	1,056	2,997	352	2,996	7						1		11		
12	8192	1,152	3,269	384	3,268	8			1	1		1	1	12		
13	8192	1,248	3,542	416	3,540	8			1	1		1	1	13		
14	8192	1,344	3,814	448	3,812	8			1	1		1	1	14		
15	8192	1,440	4,087	480	4,085	8			1	1		1	1	15		
16	8192	1,536	4,359	512	4,357	8			1	1		1	1	16		
17	8192	1,632	4,632	544	4,629	8			1	1		1	1	17		
18	8192	1,728	4,904	576	4,902	8			1	1		1	1	18		
19	8192	1,824	5,177	608	5,174	8			1	1		1	1	19		
20	8192	1,920	5,449	640	5,446	8			1	1		1	1	20		
21	8192	2,016	5,721	672	5,719	8			1	1		1	1	21		
22	8192	2,112	5,994	704	5,991	8			1	1		1	1	22		
23	8192	2,208	6,266	736	6,263	8			1	1		1	1	23		
24	8192	2,304	6,539	768	6,536	8			1	1		2	1	24		1
25	8192	2,400	6,811	800	6,808	8			1	1		2	1	25		1
26	8192	2,496	7,084	832	7,080	8			1	1		2	1	26		1
27	8192	2,592	7,356	864	7,353	8			1	1		2	1	27		1
28	9216	2,688	7,629	896	7,625	9			1	1		2	1	28		1
29	9216	2,784	7,901	928	7,897	9			1	1		2	1	29		1
30	9216	2,880	8,173	960	8,170	9			1	1		2	1	30		1
31	9216	2,976	8,446	992	8,442	9			1	1		2	1	31		1
32	9216	3,072	8,718	1,024	8,714	9			1	1		2	1	32		1
33	9216	3,168	8,991	1,056	8,987	9			1	1		2	1	33		1
34	9216	3,264	9,263	1,088	9,259	9			1	1		2	1	34		1
35	9216	3,360	9,536	1,120	9,531	9			1	1		2	1	35		1
36	9216	3,456	9,808	1,152	9,804	9			1	1		2	2	36		1
37	9216	3,552	10,081	1,184	10,076	9			1	1		2	2	37		1
38	9216	3,648	10,353	1,216	10,348	9			1	1		2	2	38		1
39	9216	3,744	10,625	1,248	10,620	9			1	1		2	2	39		1
40	9216	3,840	10,898	1,280	10,893	9			1	1		2	2	40		1
41	9216	3,936	11,170	1,312	11,165	9			1	1		2	2	41		1
42	9216	4,032	11,443	1,344	11,437	9			1	1		2	2	42		1
43	9216			1,376	11,710	9			1	1		2	2	43		1
44	9216			1,408	11,982	9			1	1		2	2	44		1
45	10240			1,440	12,254	10			1	1		2	2	45		1
46	10240			1,472	12,527	10			1	1		2	2	46		1
47	10240			1,504	12,799	10			1	1		2	2	47		1
48	10240			1,536	13,071	10			2	1	1	3	2	48		1
49	10240			1,568	13,344	10			2	1	1	3	2	49		1
50	10240			1,600	13,616	10			2	1	1	3	2	50		1
51	10240			1,632	13,888	10			2	1	1	3	2	51		1
52	10240			1,664	14,161	10			2	1	1	3	2	52		1
53	10240			1,696	14,433	10			2	1	1	3	2	53		1
54	10240			1,728	14,705	10			2	1	1	3	2	54		1
55	10240			1,760	14,978	10			2	1	1	3	2	55		1
56	10240			1,792	15,250	10			2	1	1	3	2	56		1
57	10240			1,824	15,522	10			2	1	1	3	2	57		1
58	10240			1,856	15,795	10			2	1	1	3	2	58		1
59	10240			1,888	16,067	10			3	1	1	3	3	59		1
60	10240			1,920	16,339	10			3	1	1	3	3	60		1
61	10240			1,952	16,612	10			3	1	1	3	3	61		1
62	10240			1,984	16,884	10			3	1	1	3	3	62		1
63	10240			2,016	17,156	10			3	1	1	3	3	63		1
64	10240			2,048	17,428	10			3	1	1	3	3	64		1
65	10240			2,080	17,701	10			3	1	1	3	3	65		1
66	10240			2,112	17,973	10			3	1	1	3	3	66		1
67	10240			2,144	18,245	10			3	1	1	3	3	67		1
68	10240			2,176	18,518	10		▼	3	1	1	3	3	68		1
69	10240			2,208	18,790	10		*1	3	1	1	3	3	69		1

(To be continued)

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(Continued from preceding sheet)

RAID group	Cache (GB)	Storage Capacity (GB)				Number of necessary options										
		3390-3/3R (2.838GB)		3390-9 (8.510GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
70	10240			2,240	19,062	10		*1	3	1	1	3	3	70		1
71	10240			2,272	19,335	10		▲	3	1	1	4	3	71		2
72	10240			2,304	19,607	10			3	1	1	4	3	72		2
73	10240			2,336	19,879	10			3	1	1	4	3	73		2
74	10240			2,368	20,152	10			3	1	1	4	3	74		2
75	10240			2,400	20,424	10			3	1	1	4	3	75		2
76	10240			2,432	20,696	10			3	1	1	4	3	76		2
77	10240			2,464	20,969	10			3	1	1	4	3	77		2
78	10240			2,496	21,241	10			3	1	1	4	3	78		2
79	10240			2,528	21,513	10			3	1	1	4	3	79		2
80	10240			2,560	21,786	10			3	1	1	4	3	80		2
81	10240			2,592	22,058	10			3	1	1	4	3	81		2
82	10240			2,624	22,330	10			3	1	1	4	3	82		2
83	10240			2,656	22,603	10			3	1	1	4	4	83		2
84	10240			2,688	22,875	10			3	1	1	4	4	84		2
85	10240			2,720	23,147	10			3	1	1	4	4	85		2
86	10240			2,752	23,420	10			3	1	1	4	4	86		2
87	10240			2,784	23,692	10			3	1	1	4	4	87		2
88	10240			2,816	23,964	10			3	1	1	4	4	88		2
89	10240			2,848	24,236	10			3	1	1	4	4	89		2
90	10240			2,880	24,509	10			3	1	1	4	4	90		2
91	10240			2,912	24,781	10			3	1	1	4	4	91		2
92	10240			2,944	25,053	10			3	1	1	4	4	92		2
93	10240			2,976	25,326	10			3	1	1	4	4	93		2
94	10240			3,008	25,598	10			3	1	1	4	4	94		2
95	10240			3,040	25,870	10			3	1	1	5	4	95		3
96	10240			3,072	26,143	10			3	1	1	5	4	96		3
97	10240			3,104	26,415	10			3	1	1	5	4	97		3
98	10240			3,136	26,687	10			3	1	1	5	4	98		3
99	10240			3,168	26,960	10			3	1	1	5	4	99		3
100	10240			3,200	27,232	10			3	1	1	5	4	100		3
101	10240			3,232	27,504	10			3	1	1	5	4	101		3
102	10240			3,264	27,777	10			3	1	1	5	4	102		3
103	10240			3,296	28,049	10			3	1	1	5	5	103		3
104	10240			3,328	28,321	10			3	1	1	5	5	104		3
105	10240			3,360	28,594	10			3	1	1	5	5	105		3
106	10240			3,392	28,866	10			3	1	1	5	5	106		3
107	10240			3,424	29,138	10			3	1	1	5	5	107		3
108	10240			3,456	29,411	10			3	1	1	5	5	108		3
109	10240			3,488	29,683	10			3	1	1	5	5	109		3
110	10240			3,520	29,955	10			3	1	1	5	5	110		3
111	10240			3,552	30,228	10			3	1	1	6	5	111		4
112	10240			3,584	30,500	10			3	1	1	6	5	112		4
113	10240			3,616	30,772	10			3	1	1	6	5	113		4
114	10240			3,648	31,044	10			3	1	1	6	5	114		4
115	10240			3,680	31,317	10			3	1	1	6	5	115		4
116	10240			3,712	31,589	10			3	1	1	6	5	116		4
117	10240			3,744	31,861	10			3	1	1	6	5	117		4
118	10240			3,776	32,134	10			3	1	1	6	5	118		4
119	10240			3,808	32,406	10			3	1	1	6	6	119		4
120	10240			3,840	32,678	10			3	1	1	6	6	120		4
121	10240			3,872	32,951	10			3	1	1	6	6	121		4
122	10240			3,904	33,223	10			3	1	1	6	6	122		4
123	10240			3,936	33,495	10			3	1	1	6	6	123		4
124	10240			3,968	33,768	10			3	1	1	6	6	124		4
125	10240			4,000	34,040	10		▼	3	1	1	6	6	125		4
126	10240			4,032	34,312	10		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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(14) 146GB HDD, RAID1, for Open System

RAID group	Cache (GB)	Storage Capacity (GB)												Number of necessary options										
		OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	F410I-1024	F410I-20	F410I-S256	F410I-100	F410I-R1C	F410I-L1C	405I-14	F405I-B4	F405I-146J4	F405I-146J1	F405I-EXC
1	1024	152	286	116	285	39	287	38	281	19	277	7	255	1		*1				1		1		
2	2048	304	572	232	571	78	573	76	561	38	554	14	510	2		▲				1		2		
3	4096	456	858	348	856	117	860	114	842	57	830	21	765	4						1		3		
4	5120	608	1,144	464	1,142	156	1,146	152	1,122	76	1,107	28	1,021	5						1		4		
5	6144	760	1,430	580	1,427	195	1,433	190	1,403	95	1,384	35	1,276	6						1		5		
6	7168	912	1,715	696	1,713	234	1,719	228	1,684	114	1,661	42	1,531	7						1		6		
7	7168	1,064	2,001	812	1,998	273	2,006	266	1,964	133	1,938	49	1,786	7						1		7		
8	7168	1,216	2,287	928	2,284	312	2,292	304	2,245	152	2,214	56	2,041	7						1		8		
9	7168	1,368	2,573	1,044	2,569	351	2,579	342	2,525	171	2,491	63	2,296	7						1		9		
10	7168	1,520	2,859	1,160	2,855	390	2,865	380	2,806	190	2,768	70	2,552	7						1		10		
11	8192	1,672	3,145	1,276	3,140	429	3,152	418	3,087	209	3,045	77	2,807	8						1		11		
12	8192	1,824	3,431	1,392	3,426	468	3,438	456	3,367	228	3,322	84	3,062	8			1	1		1	1	12		
13	8192	1,976	3,717	1,508	3,711	507	3,725	494	3,648	247	3,598	91	3,317	8			1	1		1	1	13		
14	8192	2,128	4,003	1,624	3,997	546	4,011	532	3,928	266	3,875	98	3,572	8			1	1		1	1	14		
15	8192	2,280	4,289	1,740	4,282	585	4,298	570	4,209	285	4,152	105	3,827	8			1	1		1	1	15		
16	8192	2,432	4,575	1,856	4,568	624	4,585	608	4,489	304	4,429	112	4,082	8			1	1		1	1	16		
17	8192	2,584	4,861	1,972	4,853	663	4,871	646	4,770	323	4,705	119	4,338	8			1	1		1	1	17		
18	8192	2,736	5,146	2,088	5,139	702	5,158	684	5,051	342	4,982	126	4,593	8			1	1		1	1	18		
19	8192	2,888	5,432	2,204	5,424	741	5,444	722	5,331	361	5,259	133	4,848	8			1	1		1	1	19		
20	8192	3,040	5,718	2,320	5,710	780	5,731	760	5,612	380	5,536	140	5,103	8			1	1		1	1	20		
21	8192	3,192	6,004	2,436	5,995	819	6,017	798	5,892	399	5,813	147	5,358	8			1	1		1	1	21		
22	8192	3,344	6,290	2,552	6,280	858	6,304	836	6,173	418	6,089	154	5,613	8			1	1		1	1	22		
23	8192	3,496	6,576	2,668	6,566	897	6,590	874	6,454	437	6,366	161	5,868	8			1	1		1	1	23		
24	8192	3,648	6,862	2,784	6,851	936	6,877	912	6,734	456	6,643	168	6,124	8			1	1		2	1	24		1
25	8192	3,800	7,148	2,900	7,137	975	7,163	950	7,015	475	6,920	175	6,379	8			1	1		2	1	25		1
26	8192	3,952	7,434	3,016	7,422	1,014	7,450	988	7,295	494	7,197	182	6,634	8			1	1		2	1	26		1
27	9216			3,132	7,708	1,053	7,736	1,026	7,576	513	7,473	189	6,889	9			1	1		2	1	27		1
28	9216			3,248	7,993	1,092	8,023	1,064	7,857	532	7,750	196	7,144	9			1	1		2	1	28		1
29	9216			3,364	8,279	1,131	8,309	1,102	8,137	551	8,027	203	7,399	9			1	1		2	1	29		1
30	9216			3,480	8,564	1,170	8,596	1,140	8,418	570	8,304	210	7,655	9			1	1		2	1	30		1
31	9216			3,596	8,850	1,209	8,883	1,178	8,698	589	8,581	217	7,910	9			1	1		2	1	31		1
32	9216			3,712	9,135	1,248	9,169	1,216	8,979	608	8,857	224	8,165	9			1	1		2	1	32		1
33	9216			3,828	9,421	1,287	9,456	1,254	9,260	627	9,134	231	8,420	9			1	1		2	1	33		1
34	9216			3,944	9,706	1,326	9,742	1,292	9,540	646	9,411	238	8,675	9			1	1		2	1	34		1
35	9216			4,060	9,992	1,365	10,029	1,330	9,821	665	9,688	245	8,930	9			1	1		2	1	35		1
36	9216					1,404	10,315	1,368	10,101	684	9,965	252	9,185	9			1	1		2	2	36		1
37	9216					1,443	10,602	1,406	10,382	703	10,241	259	9,441	9			1	1		2	2	37		1
38	9216					1,482	10,888	1,444	10,662	722	10,518	266	9,696	9			1	1		2	2	38		1
39	9216					1,521	11,175	1,482	10,943	741	10,795	273	9,951	9			1	1		2	2	39		1
40	9216					1,560	11,461	1,520	11,224	760	11,072	280	10,206	9			1	1		2	2	40		1
41	9216					1,599	11,748	1,558	11,504	779	11,348	287	10,461	9			1	1		2	2	41		1
42	9216					1,638	12,034	1,596	11,785	798	11,625	294	10,716	9			1	1		2	2	42		1
43	9216					1,677	12,321	1,634	12,065	817	11,902	301	10,971	9			1	1		2	2	43		1
44	9216					1,716	12,607	1,672	12,346	836	12,179	308	11,227	9			1	1		2	2	44		1
45	10240					1,755	12,894	1,710	12,627	855	12,456	315	11,482	10			1	1		2	2	45		1
46	10240					1,794	13,181	1,748	12,907	874	12,732	322	11,737	10			1	1		2	2	46		1
47	10240					1,833	13,467	1,786	13,188	893	13,009	329	11,992	10			1	1		2	2	47		1
48	10240					1,872	13,754	1,824	13,468	912	13,286	336	12,247	10			2	1	1	3	2	48		1
49	10240					1,911	14,040	1,862	13,749	931	13,563	343	12,502	10			2	1	1	3	2	49		1
50	10240					1,950	14,327	1,900	14,030	950	13,840	350	12,758	10			2	1	1	3	2	50		1
51	10240					1,989	14,613	1,938	14,310	969	14,116	357	13,013	10			2	1	1	3	2	51		1
52	10240					2,028	14,900	1,976	14,591	988	14,393	364	13,268	10			2	1	1	3	2	52		1
53	10240					2,067	15,186	2,014	14,871	1,007	14,670	371	13,523	10			2	1	1	3	2	53		1
54	10240					2,106	15,473	2,052	15,152	1,026	14,947	378	13,778	10			2	1	1	3	2	54		1
55	10240					2,145	15,759	2,090	15,433	1,045	15,224	385	14,033	10			2	1	1	3	2	55		1
56	10240					2,184	16,046	2,128	15,713	1,064	15,500	392	14,288	10			2	1	1	3	2	56		1
57	10240					2,223	16,332	2,166	15,994	1,083	15,777	399	14,544	10			2	1	1	3	2	57		1
58	10240					2,262	16,619	2,204	16,274	1,102	16,054	406	14,799	10			2	1	1	3	2	58		1
59	10240					2,301	16,905	2,242	16,555	1,121	16,331	413	15,054	10			3	1	1	3	3	59		1
60	10240					2,340	17,192	2,280	16,836	1,140	16,608	420	15,309	10			3	1	1	3	3	60		1
61	10240					2,379	17,479	2,318	17,116	1,159	16,884	427	15,564	10			3	1	1	3	3	61		1
62	10240					2,418	17,765	2,356	17,397	1,178	17,161	434	15,819	10			3	1	1	3	3	62		1
63	10240					2,457	18,052	2,394	17,677	1,197	17,438	441	16,074	10			3	1	1	3	3	63		1
64	10240					2,496	18,338	2,432	17,958	1,216	17,715	448	16,330	10			3	1	1	3	3	64		1
65	10240					2,535	18,625	2,470	18,238	1,235	17,991	455	16,585	10			3	1	1	3	3	65		1
66	10240					2,574	18,911	2,508	18,519	1,254	18,268	462	16,840	10			3	1	1	3	3	66		1
67	10240					2,613	19,198	2,546	18,800	1,273	18,545	469	17,095	10			3	1	1	3	3	67		1
68	10240					2,652	19,484	2,584	19,080	1,292	18,822	476	17,350	10		▼	3	1	1	3	3	68		1
69	10240					2,691	19,771	2,622	19,361	1,311	19,099	483	17,605	10		*1	3	1	1	3	3	69		1

(To be continued)

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(Continued from preceding sheet)

RAID group	Cache (GB)	Storage Capacity (GB)												Number of necessary options										
		OPEN-K (1.881GB)		OPEN-3 (2.461GB)		OPEN-8 (7.347GB)		OPEN-9 (7.384GB)		OPEN-E (14.568GB)		OPEN-L (36.450GB)		DKC options						DKU options				
		VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	VOL	Cap	F410I -1024	F410I -20	F410I -S256	F410I -100	F410I -R1C	F410I -L1C	405I -14	F405I -B4	F405I -146J4	F405I -146J1	F405I -EXC
70	10240					2,730	20,057	2,660	19,641	1,330	19,375	490	17,861	10		*1	3	1	1	3	3	70		1
71	10240					2,769	20,344	2,698	19,922	1,349	19,652	497	18,116	10		▲	3	1	1	4	3	71		2
72	10240					2,808	20,630	2,736	20,203	1,368	19,929	504	18,371	10			3	1	1	4	3	72		2
73	10240					2,847	20,917	2,774	20,483	1,387	20,206	511	18,626	10			3	1	1	4	3	73		2
74	10240					2,886	21,203	2,812	20,764	1,406	20,483	518	18,881	10			3	1	1	4	3	74		2
75	10240					2,925	21,490	2,850	21,044	1,425	20,759	525	19,136	10			3	1	1	4	3	75		2
76	10240					2,964	21,777	2,888	21,325	1,444	21,036	532	19,391	10			3	1	1	4	3	76		2
77	10240					3,003	22,063	2,926	21,606	1,463	21,313	539	19,647	10			3	1	1	4	3	77		2
78	10240					3,042	22,350	2,964	21,886	1,482	21,590	546	19,902	10			3	1	1	4	3	78		2
79	10240					3,081	22,636	3,002	22,167	1,501	21,867	553	20,157	10			3	1	1	4	3	79		2
80	10240					3,120	22,923	3,040	22,447	1,520	22,143	560	20,412	10			3	1	1	4	3	80		2
81	10240					3,159	23,209	3,078	22,728	1,539	22,420	567	20,667	10			3	1	1	4	3	81		2
82	10240					3,198	23,496	3,116	23,009	1,558	22,697	574	20,922	10			3	1	1	4	3	82		2
83	10240					3,237	23,782	3,154	23,289	1,577	22,974	581	21,177	10			3	1	1	4	4	83		2
84	10240					3,276	24,069	3,192	23,570	1,596	23,251	588	21,433	10			3	1	1	4	4	84		2
85	10240					3,315	24,355	3,230	23,850	1,615	23,527	595	21,688	10			3	1	1	4	4	85		2
86	10240					3,354	24,642	3,268	24,131	1,634	23,804	602	21,943	10			3	1	1	4	4	86		2
87	10240					3,393	24,928	3,306	24,412	1,653	24,081	609	22,198	10			3	1	1	4	4	87		2
88	10240					3,432	25,215	3,344	24,692	1,672	24,358	616	22,453	10			3	1	1	4	4	88		2
89	10240					3,471	25,501	3,382	24,973	1,691	24,634	623	22,708	10			3	1	1	4	4	89		2
90	10240					3,510	25,788	3,420	25,253	1,710	24,911	630	22,964	10			3	1	1	4	4	90		2
91	10240					3,549	26,075	3,458	25,534	1,729	25,188	637	23,219	10			3	1	1	4	4	91		2
92	10240					3,588	26,361	3,496	25,814	1,748	25,465	644	23,474	10			3	1	1	4	4	92		2
93	10240					3,627	26,648	3,534	26,095	1,767	25,742	651	23,729	10			3	1	1	4	4	93		2
94	10240					3,666	26,934	3,572	26,376	1,786	26,018	658	23,984	10			3	1	1	4	4	94		2
95	10240					3,705	27,221	3,610	26,656	1,805	26,295	665	24,239	10			3	1	1	5	4	95		3
96	10240					3,744	27,507	3,648	26,937	1,824	26,572	672	24,494	10			3	1	1	5	4	96		3
97	10240					3,783	27,794	3,686	27,217	1,843	26,849	679	24,750	10			3	1	1	5	4	97		3
98	10240					3,822	28,080	3,724	27,498	1,862	27,126	686	25,005	10			3	1	1	5	4	98		3
99	10240					3,861	28,367	3,762	27,779	1,881	27,402	693	25,260	10			3	1	1	5	4	99		3
100	10240					3,900	28,653	3,800	28,059	1,900	27,679	700	25,515	10			3	1	1	5	4	100		3
101	10240					3,939	28,940	3,838	28,340	1,919	27,956	707	25,770	10			3	1	1	5	4	101		3
102	10240					3,978	29,226	3,876	28,620	1,938	28,233	714	26,025	10			3	1	1	5	4	102		3
103	10240					4,017	29,513	3,914	28,901	1,957	28,510	721	26,280	10			3	1	1	5	5	103		3
104	10240					4,056	29,799	3,952	29,182	1,976	28,786	728	26,536	10			3	1	1	5	5	104		3
105	10240					4,095	30,086	3,990	29,462	1,995	29,063	735	26,791	10			3	1	1	5	5	105		3
106	10240							4,028	29,743	2,014	29,340	742	27,046	10			3	1	1	5	5	106		3
107	10240							4,066	30,023	2,033	29,617	749	27,301	10			3	1	1	5	5	107		3
108	10240									2,052	29,894	756	27,556	10			3	1	1	5	5	108		3
109	10240									2,071	30,170	763	27,811	10			3	1	1	5	5	109		3
110	10240									2,090	30,447	770	28,067	10			3	1	1	5	5	110		3
111	10240									2,109	30,724	777	28,322	10			3	1	1	6	5	111		4
112	10240									2,128	31,001	784	28,577	10			3	1	1	6	5	112		4
113	10240									2,147	31,277	791	28,832	10			3	1	1	6	5	113		4
114	10240									2,166	31,554	798	29,087	10			3	1	1	6	5	114		4
115	10240									2,185	31,831	805	29,342	10			3	1	1	6	5	115		4
116	10240									2,204	32,108	812	29,597	10			3	1	1	6	5	116		4
117	10240									2,223	32,385	819	29,853	10			3	1	1	6	5	117		4
118	10240									2,242	32,661	826	30,108	10			3	1	1	6	5	118		4
119	10240									2,261	32,938	833	30,363	10			3	1	1	6	6	119		4
120	10240									2,280	33,215	840	30,618	10			3	1	1	6	6	120		4
121	10240									2,299	33,492	847	30,873	10			3	1	1	6	6	121		4
122	10240									2,318	33,769	854	31,128	10			3	1	1	6	6	122		4
123	10240									2,337	34,045	861	31,383	10			3	1	1	6	6	123		4
124	10240									2,356	34,322	868	31,639	10			3	1	1	6	6	124		4
125	10240									2,375	34,599	875	31,894	10		▼	3	1	1	6	6	125		4
126	10240									2,394	34,876	882	32,149	10		*1	3	1	1	6	6	126		4

*1: The number of the Shard Memory option (DKC-F410I-S256) necessary is refer to table 1.1.2-4 in page INST01-70. Please note that location of shared memory varies according to the purpose such as additional cache installation or additional LDEV installation.

Note: In addition to the Options listed in above table as necessary parts, the Power Cable Kit option, the AC Box Kit option and the Channel options are required.

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