

INSTALLATION SECTION

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1. Storage system Configuration Outline

1.1 General Information

1.1.1 Model List

(1) Model list of DKC810I

Table 1.1.1-1 shows the model list of DKC810I.

Table 1.1.1-1 Model List of DKC810I

No.	Model Number	Model Name	Major Part	Remarks
1	DKC810I-CBXA	Primary Controller Chassis	• DKCPANEL × 1 • Logic PL × 1 • SSVPMN × 1 • DKCPS × 4 • DKCFAN (Front) × 5 • DKCFAN (Rear) × 5 • MPB (WP850-A/B) × 2 • CPEX (W840-A) × 2 • SVP × 1	This model name doesn't contain Power cables, CHA, DKA and Rack.
2	DKC-F810I-CBXB	Second Controller Chassis	• DKCPANEL × 1 • Logic PL × 1 • SSVPMN × 1 • DKCPS × 4 • DKCFAN (Front) × 5 • DKCFAN (Rear) × 5 • MPB (WP850-A/B) × 2 • CPEX (W840-A) × 2 • HUBBOX × 1	This model name doesn't contain Power cables, CHA, DKA and Rack.
3	DKC-F810I-CRF42	Controller Chassis Rail for RK42	• CBX Rail × 1	
4	DKC-F810I-CRF3R	Controller Chassis Rail for 3rd Party Rack Frame	• CBX Rail × 1	

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No.	Model Number	Model Name	Major Part	Remarks
5	DKC-F810I-RK42	Rack	• 42U Rack • Rear Door • Top Cover	
6	DKC-F810I-SCOV	Side Cover	• Side Cover L × 3 • Side Cover R × 3	
7	DKC-F810I-SCOVH	Side Cover with HITACHI description	• Side Cover L × 3 • Side Cover R × 3	
8	DKC-F810I-DECO	Decoration Panel	• Decoration Panel	for HDS
9	DKC-F810I-DECOP	Decoration Panel	• Decoration Panel	for HP
10	DKC-F810I-KYH	Key Kit	• Handle ASSY × 1 • Key × 1	for HDS
11	DKC-F810I-KYP	Key Kit	• Bracket (KEY) × 1 • Stopper Bracket × 1	for HP
12	DKC-F810I-FDR	Rack Front Door	• Front Door × 1	
13	DKC-F810I-RDH42	Front Door Hinge Kit	• Hinge × 2 • Stopper × 1	
14	DKC-F810I-TR42	PC Tray for RK42	• PC Tray × 1 • Hinge × 2	
15	DKC-F810I-FIHT	Filler Panel	• Filler Panel	for HDS
16	DKC-F810I-PDBP	PDU Bracket for HP	• Support × 2 • Cover × 4	for HP
17	DKC-F810I-UBX	LFF Drive Chassis	• SBB (3.5 inch) × 8	MDKC810I-UBX × 8
18	DKC-F810I-SBX	SFF Drive Chassis	• SBB (2.5 inch) × 8	MDKC810I-SBX × 8
19	DKC-F810I-FBX	FMD Chassis	• FMU × 4 • Rail × 4	MNF100R8-BOX × 4
20	DKC-F810I-SBBRAL	Drive Chassis Rail for SBX/UBX	• Rail × 16	
21	DKC-F810I-FMDRAL	Drive Chassis Rail for FBX	• Rail × 8	
22	DKC-F810I-BCH	Controller Chassis Bezel	• DKC Bezel (8U) × 1 • DKC Bezel (2U) × 1	For HDS
23	DKC-F810I-BCP	Controller Chassis Bezel	• DKC Bezel (8U) × 1 • DKC Bezel (2U) × 1	For HP
24	DKC-F810I-BUH	Drive Chassis Bezel	• DKU Bezel × 2	For HDS
25	DKC-F810I-BUP	Drive Chassis Bezel	• DKU Bezel × 2	For HP
26	DKC-F810I-BFH	FMD Chassis Bezel	• DKU Bezel × 1	For HDS
27	DKC-F810I-BFP	FMD Chassis Bezel	• DKU Bezel × 1	For HP
28	DKC-F810I-MOD5	Inter-Controller Connecting Kit	• MODCON × 2 • MODCON Cable × 2 • LAN Cable × 1 • MFC Cable × 8	
29	DKC-F810I-MOD30	Inter-Controller Connecting Kit	• MODCON × 2 • MODCON Cable × 2 • LAN Cable × 1 • MFC Cable × 8	

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No.	Model Number	Model Name	Major Part	Remarks
30	DKC-F810I-MOD1J	Inter-Controller Connecting Kit	• MODCON × 2 • MODCON Cable × 2 • LAN Cable × 1 • MFC Cable × 8	
31	DKC-F810I-MFC5	Inter-Controller Connecting Cable	• MFC Cable × 8	
32	DKC-F810I-MFC30	Inter-Controller Connecting Cable	• MFC Cable × 8	
33	DKC-F810I-MFC1J	Inter-Controller Connecting Cable	• MFC Cable × 8	
34	DKC-F810I-CC1	Device Interface Cable CC1	• Copper Cable 1m × 8	
35	DKC-F810I-CC2	Device Interface Cable CC2	• Copper Cable 2m × 8	
36	DKC-F810I-CC4	Device Interface Cable CC4	• Copper Cable 4m × 8	
37	DKC-F810I-FC5	Device Interface Cable FC5	• Optical Cable 5m × 8	
38	DKC-F810I-FC30	Device Interface Cable FC30	• Optical Cable 30m × 8	
39	DKC-F810I-FC1J	Device Interface Cable FC1J	• Optical Cable 100m × 8	
40	DKC-F810I-SVP	Additional Service Processor	• SVP × 1	
41	DKC-F810I-HUB	Additional HUB	• HUBBOX × 1	
42	DKC-F810I-PLUC	DKC Power Cord Kit (USA)	• Power Cord × 4	
43	DKC-F810I-PHUC	DKU Power Cord Kit (USA)	• Power Cord × 4	
44	DKC-F810I-PFUC	FBX Power Cord Kit (USA)	• Power Cord × 8	
45	DKC-F810I-PLEC	DKC Power Cord Kit (EU)	• Power Cord × 4	
46	DKC-F810I-PHEC	DKU Power Cord Kit (EU)	• Power Cord × 4	
47	DKC-F810I-PFEC	FBX Power Cord Kit (EU)	• Power Cord × 8	
48	DKC-F810I-PLCC	DKC Power Cord Kit (China)	• Power Cord × 4	
49	DKC-F810I-PHCC	DKU Power Cord Kit (China)	• Power Cord × 4	
50	DKC-F810I-PFCC	FBX Power Cord Kit (China)	• Power Cord × 8	
51	DKC-F810I-MP	Additional Processor Blade	• MPB (WP850-A/B) × 2	
52	DKC-F810I-CPEX	Additional Cache Path Control Adapter	• CPEX (WP840-A) × 2	
53	DKC-F810I-CM16G	Cache Memory (16GB)	• 16GB DIMM × 1	
54	DKC-F810I-CM32G	Cache Memory (32GB)	• 32GB DIMM × 1	
55	DKC-F810I-BKMS	Cache Backup Module Kit for Small Memory	• BKM × 2 • Battery (Ni-MH) × 4	
56	DKC-F810I-BKML	Cache Backup Module Kit for Large Memory	• BKM × 2 • Battery (Ni-MH) × 4	
57	DKC-F810I-BMM128	Cache Flash Memory (128GB)	• SSD (128GB) × 1	
58	DKC-F810I-BMM256	Cache Flash Memory (256GB)	• SSD (256GB) × 1	
59	DKC-F810I-SCA	Disk Adapter	• DKA (WP820-A) × 2	(*1), (*2)
60	DKC-F810I-ESCA	Encryption Disk Adapter	• DKA (WP820-B) × 2	(*1), (*2)

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Model Name	Major Part	Remarks
61	DKC-F810I-16FC8	Fibre 16-port 8G Host Adapter	• WP810-A × 2	
62	DKC-F810I-8FC16	Fibre 8-port 16G Host Adapter	• WP812-A × 2	
63	DKC-F810I-16MS8	Mainframe Fibre 16-port 8G Host Adapter for Shortwave	• WP811-A × 2	
64	DKC-F810I-16ML8	Mainframe Fibre 16-port 8G Host Adapter for Longwave	• WP811-B × 2	
65	DKC-F810I-1PS8	SFP for 8Gbps Shortwave	• Fibre 8Gbps SFP (Shortwave) × 1	
66	DKC-F810I-1PL8	SFP for 8Gbps Longwave	• Fibre 8Gbps SFP (Longwave) × 1	
67	DKC-F810I-1PS16	SFP for 16Gbps Shortwave	• Fibre 16Gbps SFP (Shortwave) × 1	
68	DKC-F810I-1PL16	SFP for 16Gbps Longwave	• Fibre 16Gbps SFP (Longwave) × 1	

(To be continued)

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(Continued from the preceding page)

No.	Model Number	Model Name	Major Part	Remarks
69	DKC-F810I-300KCM	SFF 300GB Disk Drive	• HDU800-300KCMSS × 1	2.5 inch 300GB/15k HDD 6Gb SAS
70	DKC-F810I-600JCM	SFF 600GB Disk Drive	• HDU800-600JCMSS × 1	2.5 inch 600GB/10k HDD 6Gb SAS
71	DKC-F810I-600J5M	LFF 600GB Disk Drive	• HDU800-600J5MSS × 1	2.5 inch 600GB/10k HDD 6Gb SAS
72	DKC-F810I-900JCM	SFF 900GB Disk Drive	• HDU800-900JCMSS × 1	2.5 inch 900GB/10k HDD 6Gb SAS
73	DKC-F810I-1R2JCM	SFF 1.2TB Disk Drive	• HDU800-1R2JCMSS × 1	2.5 inch 1.2TB/10k HDD 6Gb SAS
74	DKC-F810I-3R0H3M	LFF 3TB Disk Drive	• HDU800-3R0H3MSS × 1	3.5 inch 3TB/7.2k HDD 6Gb SAS
75	DKC-F810I-4R0H3M	LFF 4TB Disk Drive	• HDU800-4R0H3MSS × 1	3.5 inch 4TB/7.2k HDD 6Gb SAS
76	DKC-F810I-400MCM	SFF 400GB SSD Drive	• HDU800-400MCMSS × 1	2.5 inch 400GB SSD 6Gb SAS MLC
77	DKC-F810I-400M5M	LFF 400GB SSD Drive	• HDU800-400M5MSS × 1	2.5 inch 400GB SSD 6Gb SAS MLC
78	DKC-F810I-800MCM	SFF 800GB SSD Drive	• HDU800-800MCMSS × 1	2.5 inch 800GB SSD 6Gb SAS MLC
79	DKC-F810I-1R6FM	1.6TB Flash Module Drive	• HDU800-1R6FMSS × 1	
80	DKC-F810I-3R2FM	3.2TB Flash Module Drive	• HDU800-3R2FMSS × 1	

*1: When the second DKC-F810I-SCA/ESCA is installed, the Device Interface Cables between DKA and DKU, and between DKU and DKU are required to be connected.

*2: DKC-F810I-SCA and DKC-F810I-ESCA cannot be mixed in the same storage system.

(2) Correspondence of Model Number and Drive Model Name

Table 1.1.1-2 Correspondence list of Model Number and Drive Model Name

No.	Model Number	FRU Name	Drive Model Name
1	DKC-F810I-300KCM	HDU800-300KCMSS	S5C-K300SS
2	DKC-F810I-600JCM	HDU800-600JCMSS	R5D-J600SS
			S5E-J600SS
3	DKC-F810I-600J5M	HDU800-600J5MSS	R5D-J600SS
4	DKC-F810I-900JCM	HDU800-900JCMSS	R5D-J900SS
			S5E-J900SS
5	DKC-F810I-1R2JCM	HDU800-1R2JCMSS	R5E-J1R2SS
			S5F-J1R2SS
6	DKC-F810I-3R0H3M	HDU800-3R0H3MSS	S2E-H3R0SS
7	DKC-F810I-4R0H3M	HDU800-4R0H3MSS	S2E-H4R0SS
			R2E-H4R0SS
8	DKC-F810I-400MCM	HDU800-400MCMSS	B5A-M400SS
			R5C-M400SS
9	DKC-F810I-400M5M	HDU800-400M5MSS	B5A-M400SS
10	DKC-F810I-800MCM	HDU800-800MCMSS	B5A-M800SS
			R5C-M800SS
11	DKC-F810I-1R6FM	HDU800-1R6FMSS	HAA-P1R6SS
12	DKC-F810I-3R2FM	HDU800-3R2FMSS	HAB-P3R2SS

(3) Disk drive model

SVP displays each drive model as the following table.

Disk drive model	SVP screen	Drive Form Factor
DKS5C-K300SS	DKS5C-K300SS	2.5 inch SAS HDD
DKR5D-J600SS	DKR5D-J600SS	2.5 inch SAS HDD
DKS5E-J600SS	DKS5E-J600SS	2.5 inch SAS HDD
DKR5D-J900SS	DKR5D-J900SS	2.5 inch SAS HDD
DKS5E-J900SS	DKS5E-J900SS	2.5 inch SAS HDD
DKR5E-J1R2SS	DKR5E-J1R2SS	2.5 inch SAS HDD
DKS5F-J1R2SS	DKS5F-J1R2SS	2.5 inch SAS HDD
DKS2E-H3R0SS	DKS2E-H3R0SS	3.5 inch SAS HDD
DKS2E-H4R0SS	DKS2E-H4R0SS	3.5 inch SAS HDD
DKR2E-H4R0SS	DKR2E-H4R0SS	3.5 inch SAS HDD
SLB5A-M400SS	SLB5A-M400SS	2.5 inch SSD
SLR5C-M400SS	SLR5C-M400SS	2.5 inch SSD
SLB5A-M800SS	SLB5A-M800SS	2.5 inch SSD
SLR5C-M800SS	SLR5C-M800SS	2.5 inch SSD
NFHAA-P1R6SS	NFHAA-P1R6SS	Flash Module Drive
NFHAB-P3R2SS	NFHAB-P3R2SS	Flash Module Drive

(4) SVP screen display and conversion table of option type names

• SVP screen display of CHA

Model Number	SVP screen
DKC-F810I-16FC8	16FC8 (Fibre)
DKC-F810I-8FC16	8FC16 (Fibre)
DKC-F810I-16ML8	16ML8 (Mfibre)
DKC-F810I-16MS8	16MS8 (Mfibre)

• SVP screen display of DKA

Model Number	SVP screen
DKC-F810I-SCA	DKA (4Port)
DKC-F810I-ESCA	EDKA (4Port)

• SVP screen display of Cache memory

Model Number	SVP screen
DKC-F810I-CM16G	CM16G
DKC-F810I-CM32G	CM32G

1.1.2 Configuration

1.1.2.1 Controller Chassis Configuration

(1) CHA Options Installation Rule

The CHA options can be installed also in the DKA slots in addition to the CHA slots in DKC810I. After the dedicated CHA slots are fully installed, the CHA options can be installed in the DKA slots.

The order of CHA installation is shown below.

Table 1.1.2.1-1 CHA Installation Rule

Installation Order	Installation Slot Location					
	Diskless Model		Standard Model		High Performance Model	
	DKC810I-CBXA	DKC-F810I-CBXB	DKC810I-CBXA	DKC-F810I-CBXB	DKC810I-CBXA	DKC-F810I-CBXB
1	1PC/2PC (CHA0)	1PJ/2PJ (CHA6)	1PC/2PC (CHA0)	1PJ/2PJ (CHA6)	1PC/2PC (CHA0)	1PJ/2PJ (CHA6)
2	1PD/2PD (CHA1)	1PK/2PK (CHA7)	1PD/2PD (CHA1)	1PK/2PK (CHA7)	1PD/2PD (CHA1)	1PK/2PK (CHA7)
3	1PE/2PE (CHA2/MPB3)	1PL/2PL (CHA8/MPB7)	1PE/2PE (CHA2/MPB3)	1PL/2PL (CHA8/MPB7)	1PE/2PE (CHA2/MPB3)	1PL/2PL (CHA8/MPB7)
4	1PF/2PF (CHA3/MPB2)	1PM/2PM (CHA9/MPB6)	1PF/2PF (CHA3/MPB2)	1PM/2PM (CHA9/MPB6)	1PF/2PF (CHA3/MPB2)	1PM/2PM (CHA9/MPB6)
5	1PB/2PB (DKA1/CHA4)	1PH/2PH (DKA3/CHA10)	1PB/2PB (DKA1/CHA4)	1PH/2PH (DKA3/CHA10)	—	—
6	1PA/2PA (DKA0/CHA5)	1PG/2PG (DKA2/CHA11)	—	1PG/2PG (DKA2/CHA11)	—	—

Table 1.1.2.1-2 Possible Diskless CHA configurations

DKC810I-CBXA	1PC/2PC (CHA0)	1PD/2PD (CHA1)	1PE/2PE (CHA2/MPB3)	1PF/2PF (CHA3/MPB2)	1PB/2PB (CHA4/DKA1)	1PA/2PA (CHA5/DKA0)	Max Host Ports (*1)
Mainframe	16MS8/16ML8	16MS8/16ML8	16MS8/16ML8	16MS8/16ML8	16MS8/16ML8	8FC16/16FC8	Mainframe =80; Open FC=6/14
Open FC	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	Open FC 46/94

DKC-F810I-CBXB	1PJ/2PJ (CHA6)	1PK/2PK (CHA7)	1PL/2PL (CHA8/MPB7)	1PM/2PM (CHA9/MPB6)	1PH/2PH (CHA10/DKA3)	1PG/2PG (CHA11/DKA2)	Max Host Ports (*1)
Mainframe	16MS8/16ML8	16MS8/16ML8	16MS8/16ML8	16MS8/16ML8	16MS8/16ML8	8FC16/16FC8	Mainframe =80; Open FC=6/14
Open FC	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	8FC16/16FC8	Open FC 46/94

*1: This depends on the number of UVM paths to external disks. The recommended minimum is 2 paths to UVM disk.

(2) MPB Options Installation Rule

The MPB options can be installed also in the CHA slots in addition to the MPB slots in DKC810I.

Table 1.1.2.1-3 MPB Installation Rule

Installation Order	Installation Slot Location	
	DKC810I-CBXA	DKC-F810I-CBXB
1	1MA/2MA (MPB0)	1MC/2MC (MPB4)
2	1MB/2MB (MPB1)	1MD/2MD (MPB5)
3	1PF/2PF (CHA3/MPB2) (*1)	1PM/2PM (CHA9/MPB6) (*2)
4	1PE/2PE (CHA2/MPB3) (*1)	1PL/2PL (CHA8/MPB7) (*2)

*1: If MPB2/MPB3 is/are installed, DKC-F810I-HUB or DKC-F810I-SVP is required.

*2: If MPB6/MPB7 is/are installed, DKC-F810I-HUB is required.

(3) DKA Options Installation Rule**Table 1.1.2.1-4 DKA Installation Rule**

Installation Order	Installation Slot Location	
	DKC810I-CBXA	DKC-F810I-CBXB
1	1PA/2PA (DKA0)	1PG/2PG (DKA2)
2	1PB/2PB (DKA1)	1PH/2PH (DKA3)

(4) SVP and HUB Options Installation Rule

The Additional SVP (DKC-F810I-SVP) necessary for SVP duplication can be installed in DKC810I-CBXA (Primary Controller Chassis) only. Additional SVP cannot be installed in DKC-F810I-CBXB (Second Controller Chassis).

Table 1.1.2.1-5 SVP/HUB Installation Rule

No.	Installed model			
	DKC810I-CBXA		DKC-F810I-CBXB	
	SVP-BASIC slot	SVP-OPTION/ HUBBOX-01 slot	HUBBOX-10 slot	HUBBOX-11 slot
1	SVP (Standard equipment)	—	HUB (Standard equipment)	—
2	SVP (Standard equipment)	DKC-F810I-HUB (*1)	HUB (Standard equipment)	—
3	SVP (Standard equipment)	DKC-F810I-HUB (*1)	HUB (Standard equipment)	DKC-F810I-HUB (*2)
4	SVP (Standard equipment)	DKC-F810I-SVP (*3)	HUB (Standard equipment)	—
5	SVP (Standard equipment)	DKC-F810I-SVP (*3)	HUB (Standard equipment)	DKC-F810I-HUB (*2)

*1: When 2nd DKC-F810I-MP (1PF/2PF) is installed in the DKC810I-CBXA.

*2: When 2nd DKC-F810I-MP (1PM/2PM) is installed in the DKC-F810I-CBXB.

*3: In Case to make SVP duplicated.

1.1.2.2 Cache Memory Upgrade Table

NOTICE: To create a CLPR, if your storage system has any additional printed circuit boards (PCBs), you must install the cache memories with the High Performance Cache Access Model. There is a case of that expansion of cache memory. If necessary, see [INST03-10-10](#).

The method of installing the cache memory has two types.

Serial Installation

When the cache memory on the standard equipped Cache Path Control Adapter (CPEX-0) is installed to the full and the additional cache memory capacity is necessary, install DKC-F810I-CPEX Cache Path Control Adapter (CPEX-1) to increase cache memory further. When the cache memory on CPEX-1 is full, install two DKC-F810I-CPEX Cache Path Control Adapter (CPEX-2 and CPEX-3) in the second Controller Chassis to increase cache memory.

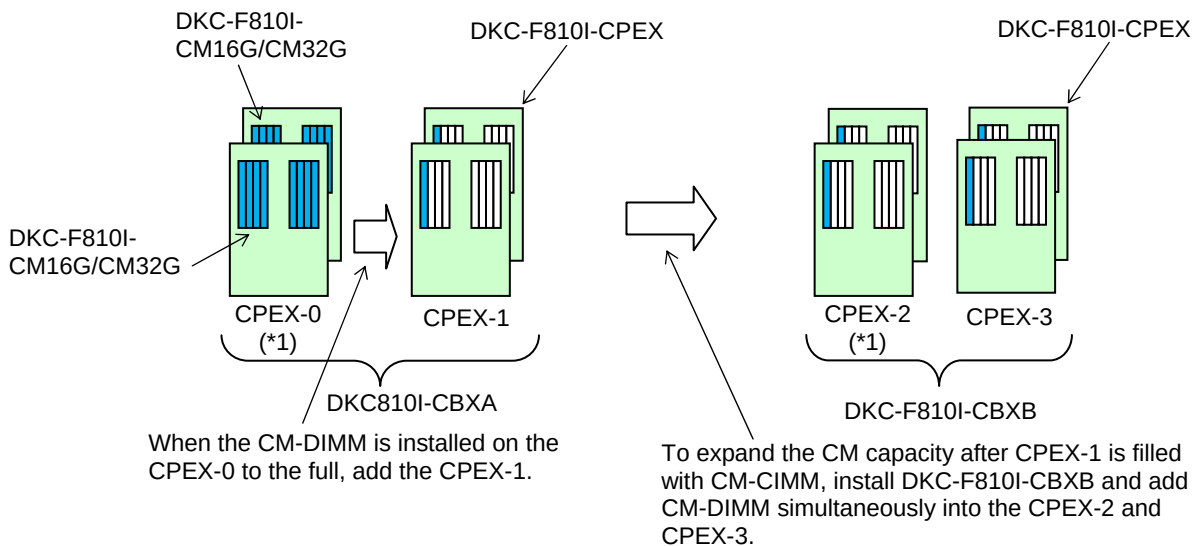


Fig. 1.1.2.2-1 Serial Installation

Parallel Installation

This model distributes the cache memory to the multiple (2 or 4 sets) Cache Path Control Adapters.

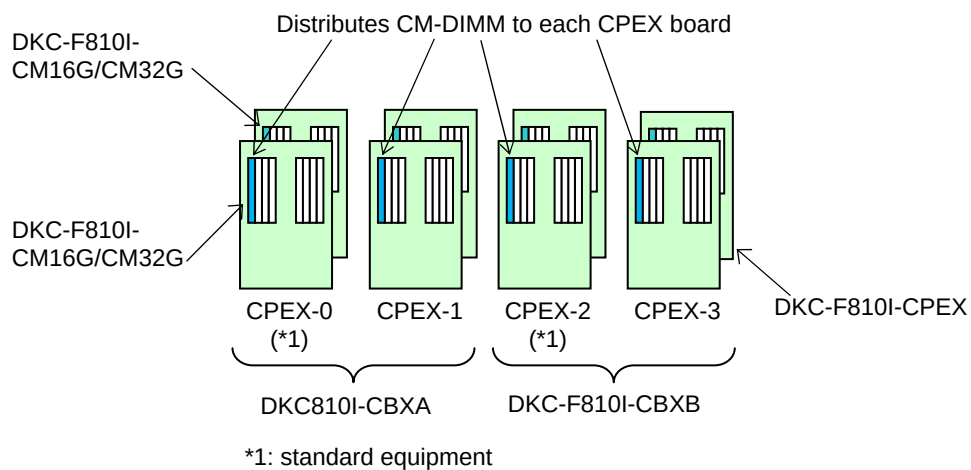


Fig. 1.1.2.2-2 Parallel Installation

The cache memory capacities and the corresponding number of options required are shown in Table 1.1.2.2-1 through 1.1.2.2-6.

Table 1.1.2.2-1 Cache Memory Upgrade Table ①

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options			
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-			
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM16G	CPEX	BKMS/ BKML	BMM128/ BMM256
1	32GB	32	—	—	—	2	0	1	2
2	64GB	64	—	—	—	4	0	1	2
3	96GB	96	—	—	—	6	0	1	2
4	128GB	128	—	—	—	8	0	1	2
5	160GB	160	—	—	—	10	0	1	2
6	192GB	192	—	—	—	12	0	1	2
7	224GB	224	—	—	—	14	0	1	2
8	256GB	256	—	—	—	16	0	1	2
9	288GB	256	32	—	—	18	1	2	4
10	320GB	256	64	—	—	20	1	2	4
11	356GB	256	96	—	—	22	1	2	4
12	384GB	256	128	—	—	24	1	2	4
13	416GB	256	160	—	—	26	1	2	4
14	448GB	256	192	—	—	28	1	2	4
15	480GB	256	224	—	—	30	1	2	4
16	512GB	256	256	—	—	32	1	2	4
17	576GB	256	256	32	32	36	2	4	8
18	608GB	256	256	64	32	38	2	4	8
19	640GB	256	256	64	64	40	2	4	8
20	672GB	256	256	96	64	42	2	4	8
21	704GB	256	256	96	96	44	2	4	8
22	736GB	256	256	128	96	46	2	4	8
23	768GB	256	256	128	128	48	2	4	8
24	800GB	256	256	160	128	50	2	4	8
25	832GB	256	256	160	160	52	2	4	8
26	864GB	256	256	192	160	54	2	4	8
27	896GB	256	256	192	192	56	2	4	8
28	928GB	256	256	224	192	58	2	4	8
29	960GB	256	256	224	224	60	2	4	8
30	992GB	256	256	256	224	62	2	4	8
31	1024GB	256	256	256	256	64	2	4	8

*1: Standard equipment.

*2: The required SM capacity shown in Table 6.1-1 ([INST06-10](#)) must be installed in CPEX-0.

Table 1.1.2.2-2 Cache Memory Upgrade Table ②

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options					
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I-					
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM32G	CPEX	BKMS	BKML	BMM 128	BMM 256
1	64GB	64	—	—	—	2	0	1	0	2	0
2	128GB	128	—	—	—	4	0	1	0	2	0
3	192GB	192	—	—	—	6	0	1	0	2	0
4	256GB	256	—	—	—	8	0	1	0	2	0
5	320GB	320	—	—	—	10	0	0	1	0	2
6	384GB	384	—	—	—	12	0	0	1	0	2
7	448GB	448	—	—	—	14	0	0	1	0	2
8	512GB	512	—	—	—	16	0	0	1	0	2
9	576GB	512	64	—	—	18	1	1	1	2	2
10	640GB	512	128	—	—	20	1	1	1	2	2
11	704GB	512	192	—	—	22	1	1	1	2	2
12	768GB	512	256	—	—	24	1	1	1	2	2
13	832GB	512	320	—	—	26	1	0	2	0	4
14	896GB	512	384	—	—	28	1	0	2	0	4
15	960GB	512	448	—	—	30	1	0	2	0	4
16	1024GB	512	512	—	—	32	1	0	2	0	4
17	1152GB	512	512	64	64	36	2	2	2	4	4
18	1216GB	512	512	128	64	38	2	2	2	4	4
19	1280GB	512	512	128	128	40	2	2	2	4	4
20	1344GB	512	512	192	128	42	2	2	2	4	4
21	1408GB	512	512	192	192	44	2	2	2	4	4
22	1472GB	512	512	256	192	46	2	2	2	4	4
23	1536GB	512	512	256	256	48	2	2	2	4	4
24	1600GB	512	512	320	256	50	2	1	3	2	6
25	1664GB	512	512	320	320	52	2	0	4	0	8
26	1728GB	512	512	384	320	54	2	0	4	0	8
27	1792GB	512	512	384	384	56	2	0	4	0	8
28	1856GB	512	512	448	384	58	2	0	4	0	8
29	1920GB	512	512	448	448	60	2	0	4	0	8
30	1984GB	512	512	512	448	62	2	0	4	0	8
31	2048GB	512	512	512	512	64	2	0	4	0	8

*1: Standard equipment.

*2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

Table 1.1.2.2-3 Cache Memory Upgrade Table ③

No.	Cache Memory Capacity	Cache Memory Capacity (GB)		Number of options					
		DKC810I-CBXA		DKC-F810I-					
		CPEX-0 (*1, *2)	CPEX-1	CM16G	CPEX	BKMS	BKML	BMM 128	BMM 256
1	64GB	32	32	4	1	2	0	4	0
2	96GB	64	32	6	1	2	0	4	0
3	128GB	64	64	8	1	2	0	4	0
4	128GB	96	32	8	1	2	0	4	0
5	160GB	96	64	10	1	2	0	4	0
6	160GB	128	32	10	1	2	0	4	0
7	192GB	96	96	12	1	2	0	4	0
8	192GB	128	64	12	1	2	0	4	0
9	192GB	160	32	12	1	2	0	4	0
10	224GB	128	96	14	1	2	0	4	0
11	224GB	160	64	14	1	2	0	4	0
12	224GB	192	32	14	1	2	0	4	0
13	256GB	128	128	16	1	2	0	4	0
14	256GB	160	96	16	1	2	0	4	0
15	256GB	192	64	16	1	2	0	4	0
16	256GB	224	32	16	1	2	0	4	0
17	288GB	160	128	18	1	2	0	4	0
18	288GB	192	96	18	1	2	0	4	0
19	288GB	224	64	18	1	2	0	4	0
20	288GB	256	32	18	1	2	0	4	0
21	320GB	160	160	20	1	2	0	4	0
22	320GB	192	128	20	1	2	0	4	0
23	320GB	224	96	20	1	2	0	4	0
24	320GB	256	64	20	1	2	0	4	0
25	352GB	192	160	22	1	2	0	4	0
26	352GB	224	128	22	1	2	0	4	0
27	352GB	256	96	22	1	2	0	4	0
28	384GB	192	192	24	1	2	0	4	0
29	384GB	224	160	24	1	2	0	4	0
30	384GB	256	128	24	1	2	0	4	0
31	416GB	224	192	26	1	2	0	4	0
32	416GB	256	160	26	1	2	0	4	0
33	448GB	224	224	28	1	2	0	4	0
34	448GB	256	192	28	1	2	0	4	0
35	480GB	256	224	30	1	2	0	4	0
36	512GB	256	256	32	1	2	0	4	0

*1: Standard equipment.

*2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

Table 1.1.2.2-4 Cache Memory Upgrade Table ④

No.	Cache Memory Capacity	Cache Memory Capacity (GB)		Number of options					
		DKC810I-CBXA		DKC-F810I-					
		CPEX-0 (*1, *2)	CPEX-1	CM32G	CPEX	BKMS	BKML	BMM 128	BMM 256
1	128GB	64	64	4	1	2	0	4	0
2	192GB	128	64	6	1	2	0	4	0
3	256GB	128	128	8	1	2	0	4	0
4	256GB	192	64	8	1	2	0	4	0
5	320GB	192	128	10	1	2	0	4	0
6	320GB	256	64	10	1	2	0	4	0
7	384GB	192	192	12	1	2	0	4	0
8	384GB	256	128	12	1	2	0	4	0
9	384GB	320	64	12	1	1	1	2	2
10	448GB	256	192	14	1	2	0	4	0
11	448GB	320	128	14	1	1	1	2	2
12	448GB	384	64	14	1	1	1	2	2
13	512GB	256	256	16	1	2	0	4	0
14	512GB	320	192	16	1	1	1	2	2
15	512GB	384	128	16	1	1	1	2	2
16	512GB	448	64	16	1	1	1	2	2
17	576GB	320	256	18	1	1	1	2	2
18	576GB	384	192	18	1	1	1	2	2
19	576GB	448	128	18	1	1	1	2	2
20	576GB	512	64	18	1	1	1	2	2
21	640GB	320	320	20	1	0	2	0	4
22	640GB	384	256	20	1	1	1	2	2
23	640GB	448	192	20	1	1	1	2	2
24	640GB	512	128	20	1	1	1	2	2
25	704GB	384	320	22	1	0	2	0	4
26	704GB	448	256	22	1	1	1	2	2
27	704GB	512	192	22	1	1	1	2	2
28	768GB	384	384	24	1	0	2	0	4
29	768GB	448	320	24	1	0	2	0	4
30	768GB	512	256	24	1	1	1	2	2
31	832GB	448	384	26	1	0	2	0	4
32	832GB	512	320	26	1	0	2	0	4
33	896GB	448	448	28	1	0	2	0	4
34	896GB	512	384	28	1	0	2	0	4
35	960GB	512	448	30	1	0	2	0	4
36	1024GB	512	512	32	1	0	2	0	4

*1: Standard equipment.

*2: The required SM capacity shown in Table 6.1-1 (INST06-10) must be installed in CPEX-0.

Table 1.1.2.2-5 Cache Memory Upgrade Table ⑤

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
1	64	32	0	32	0	4	0	1	0	2	—	4	—
2	96	64	0	32	0	6	0	1	0	2	—	4	—
3	128	32	32	32	32	8	2	1	1	4	—	8	—
4	128	64	0	64	0	8	0	1	0	2	—	4	—
5	128	96	0	32	0	8	0	1	0	2	—	4	—
6	160	64	32	32	32	10	2	1	1	4	—	8	—
7	160	96	0	64	0	10	0	1	0	2	—	4	—
8	160	128	0	32	0	10	0	1	0	2	—	4	—
9	192	64	32	64	32	12	2	1	1	4	—	8	—
10	192	64	64	32	32	12	2	1	1	4	—	8	—
11	192	96	0	96	0	12	0	1	0	2	—	4	—
12	192	96	32	32	32	12	2	1	1	4	—	8	—
13	192	128	0	64	0	12	0	1	0	2	—	4	—
14	192	160	0	32	0	12	0	1	0	2	—	4	—
15	224	64	64	64	32	14	2	1	1	4	—	8	—
16	224	96	64	32	32	14	2	1	1	4	—	8	—
17	224	128	32	32	32	14	2	1	1	4	—	8	—
18	224	160	0	64	0	14	0	1	0	2	—	4	—
19	224	192	0	32	0	14	0	1	0	2	—	4	—
20	256	64	64	64	64	16	2	1	1	4	—	8	—
21	256	96	32	96	32	16	2	1	1	4	—	8	—
22	256	96	64	64	32	16	2	1	1	4	—	8	—
23	256	96	96	32	32	16	2	1	1	4	—	8	—
24	256	128	0	128	0	16	0	1	0	2	—	4	—
25	256	128	64	32	32	16	2	1	1	4	—	8	—
26	256	160	0	96	0	16	0	1	0	2	—	4	—
27	256	160	32	32	32	16	2	1	1	4	—	8	—
28	256	192	0	64	0	16	0	1	0	2	—	4	—
29	256	224	0	32	0	16	0	1	0	2	—	4	—
30	288	96	64	64	64	18	2	1	1	4	—	8	—
31	288	96	64	96	32	18	2	1	1	4	—	8	—
32	288	96	96	64	32	18	2	1	1	4	—	8	—
33	288	128	64	64	32	18	2	1	1	4	—	8	—
34	288	128	96	32	32	18	2	1	1	4	—	8	—
35	288	160	0	128	0	18	0	1	0	2	—	4	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
36	288	160	64	32	32	18	2	1	1	4	—	8	—
37	288	192	0	96	0	18	0	1	0	2	—	4	—
38	288	192	32	32	32	18	2	1	1	4	—	8	—
39	288	224	0	64	0	18	0	1	0	2	—	4	—
40	288	256	0	32	0	18	0	1	0	2	—	4	—
41	320	96	64	96	64	20	2	1	1	4	—	8	—
42	320	96	96	64	64	20	2	1	1	4	—	8	—
43	320	96	96	96	32	20	2	1	1	4	—	8	—
44	320	128	32	128	32	20	2	1	1	4	—	8	—
45	320	128	64	64	64	20	2	1	1	4	—	8	—
46	320	128	96	64	32	20	2	1	1	4	—	8	—
47	320	128	128	32	32	20	2	1	1	4	—	8	—
48	320	160	0	160	0	20	0	1	0	2	—	4	—
49	320	160	64	64	32	20	2	1	1	4	—	8	—
50	320	160	96	32	32	20	2	1	1	4	—	8	—
51	320	192	0	128	0	20	0	1	0	2	—	4	—
52	320	192	64	32	32	20	2	1	1	4	—	8	—
53	320	224	0	96	0	20	0	1	0	2	—	4	—
54	320	224	32	32	32	20	2	1	1	4	—	8	—
55	320	256	0	64	0	20	0	1	0	2	—	4	—
56	352	96	96	96	64	22	2	1	1	4	—	8	—
57	352	128	64	128	32	22	2	1	1	4	—	8	—
58	352	128	96	64	64	22	2	1	1	4	—	8	—
59	352	128	96	96	32	22	2	1	1	4	—	8	—
60	352	128	128	64	32	22	2	1	1	4	—	8	—
61	352	160	64	64	64	22	2	1	1	4	—	8	—
62	352	160	96	64	32	22	2	1	1	4	—	8	—
63	352	160	128	32	32	22	2	1	1	4	—	8	—
64	352	192	0	160	0	22	0	1	0	2	—	4	—
65	352	192	64	64	32	22	2	1	1	4	—	8	—
66	352	192	96	32	32	22	2	1	1	4	—	8	—
67	352	224	0	128	0	22	0	1	0	2	—	4	—
68	352	224	64	32	32	22	2	1	1	4	—	8	—
69	352	256	0	96	0	22	0	1	0	2	—	4	—
70	352	256	32	32	32	22	2	1	1	4	—	8	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
71	384	96	96	96	96	24	2	1	1	4	—	8	—
72	384	128	64	128	64	24	2	1	1	4	—	8	—
73	384	128	96	96	64	24	2	1	1	4	—	8	—
74	384	128	96	128	32	24	2	1	1	4	—	8	—
75	384	128	128	64	64	24	2	1	1	4	—	8	—
76	384	128	128	96	32	24	2	1	1	4	—	8	—
77	384	160	32	160	32	24	2	1	1	4	—	8	—
78	384	160	96	64	64	24	2	1	1	4	—	8	—
79	384	160	96	96	32	24	2	1	1	4	—	8	—
80	384	160	128	64	32	24	2	1	1	4	—	8	—
81	384	160	160	32	32	24	2	1	1	4	—	8	—
82	384	192	0	192	0	24	0	1	0	2	—	4	—
83	384	192	64	64	64	24	2	1	1	4	—	8	—
84	384	192	96	64	32	24	2	1	1	4	—	8	—
85	384	192	128	32	32	24	2	1	1	4	—	8	—
86	384	224	0	160	0	24	0	1	0	2	—	4	—
87	384	224	64	64	32	24	2	1	1	4	—	8	—
88	384	224	96	32	32	24	2	1	1	4	—	8	—
89	384	256	0	128	0	24	0	1	0	2	—	4	—
90	384	256	64	32	32	24	2	1	1	4	—	8	—
91	416	128	96	96	96	26	2	1	1	4	—	8	—
92	416	128	96	128	64	26	2	1	1	4	—	8	—
93	416	128	128	96	64	26	2	1	1	4	—	8	—
94	416	128	128	128	32	26	2	1	1	4	—	8	—
95	416	160	64	160	32	26	2	1	1	4	—	8	—
96	416	160	96	96	64	26	2	1	1	4	—	8	—
97	416	160	128	64	64	26	2	1	1	4	—	8	—
98	416	160	128	96	32	26	2	1	1	4	—	8	—
99	416	160	160	64	32	26	2	1	1	4	—	8	—
100	416	192	96	64	64	26	2	1	1	4	—	8	—
101	416	192	96	96	32	26	2	1	1	4	—	8	—
102	416	192	128	64	32	26	2	1	1	4	—	8	—
103	416	192	160	32	32	26	2	1	1	4	—	8	—
104	416	224	0	192	0	26	0	1	0	2	—	4	—
105	416	224	64	64	64	26	2	1	1	4	—	8	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
106	416	224	96	64	32	26	2	1	1	4	—	8	—
107	416	224	128	32	32	26	2	1	1	4	—	8	—
108	416	256	0	160	0	26	0	1	0	2	—	4	—
109	416	256	96	32	32	26	2	1	1	4	—	8	—
110	448	128	96	128	96	28	2	1	1	4	—	8	—
111	448	128	128	96	96	28	2	1	1	4	—	8	—
112	448	128	128	128	64	28	2	1	1	4	—	8	—
113	448	160	64	160	64	28	2	1	1	4	—	8	—
114	448	160	96	96	96	28	2	1	1	4	—	8	—
115	448	160	96	160	32	28	2	1	1	4	—	8	—
116	448	160	128	96	64	28	2	1	1	4	—	8	—
117	448	160	128	128	32	28	2	1	1	4	—	8	—
118	448	160	160	64	64	28	2	1	1	4	—	8	—
119	448	160	160	96	32	28	2	1	1	4	—	8	—
120	448	192	32	192	32	28	2	1	1	4	—	8	—
121	448	192	96	96	64	28	2	1	1	4	—	8	—
122	448	192	128	64	64	28	2	1	1	4	—	8	—
123	448	192	128	96	32	28	2	1	1	4	—	8	—
124	448	192	160	64	32	28	2	1	1	4	—	8	—
125	448	192	192	32	32	28	2	1	1	4	—	8	—
126	448	224	0	224	0	28	0	1	0	2	—	4	—
127	448	224	96	64	64	28	2	1	1	4	—	8	—
128	448	224	96	96	32	28	2	1	1	4	—	8	—
129	448	224	128	64	32	28	2	1	1	4	—	8	—
130	448	224	160	32	32	28	2	1	1	4	—	8	—
131	448	256	0	192	0	28	0	1	0	2	—	4	—
132	448	256	128	32	32	28	2	1	1	4	—	8	—
133	480	128	128	128	96	30	2	1	1	4	—	8	—
134	480	160	96	160	64	30	2	1	1	4	—	8	—
135	480	160	128	96	96	30	2	1	1	4	—	8	—
136	480	160	128	128	64	30	2	1	1	4	—	8	—
137	480	160	128	160	32	30	2	1	1	4	—	8	—
138	480	160	160	96	64	30	2	1	1	4	—	8	—
139	480	160	160	128	32	30	2	1	1	4	—	8	—
140	480	192	64	192	32	30	2	1	1	4	—	8	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
141	480	192	96	96	96	30	2	1	1	4	—	8	—
142	480	192	128	96	64	30	2	1	1	4	—	8	—
143	480	192	128	128	32	30	2	1	1	4	—	8	—
144	480	192	160	64	64	30	2	1	1	4	—	8	—
145	480	192	160	96	32	30	2	1	1	4	—	8	—
146	480	192	192	64	32	30	2	1	1	4	—	8	—
147	480	224	96	96	64	30	2	1	1	4	—	8	—
148	480	224	128	64	64	30	2	1	1	4	—	8	—
149	480	224	128	96	32	30	2	1	1	4	—	8	—
150	480	224	160	64	32	30	2	1	1	4	—	8	—
151	480	256	0	224	0	30	0	1	0	2	—	4	—
152	480	256	160	32	32	30	2	1	1	4	—	8	—
153	512	128	128	128	128	32	2	1	1	4	—	8	—
154	512	160	96	160	96	32	2	1	1	4	—	8	—
155	512	160	128	128	96	32	2	1	1	4	—	8	—
156	512	160	128	160	64	32	2	1	1	4	—	8	—
157	512	160	160	96	96	32	2	1	1	4	—	8	—
158	512	160	160	128	64	32	2	1	1	4	—	8	—
159	512	160	160	160	32	32	2	1	1	4	—	8	—
160	512	192	64	192	64	32	2	1	1	4	—	8	—
161	512	192	96	192	32	32	2	1	1	4	—	8	—
162	512	192	128	96	96	32	2	1	1	4	—	8	—
163	512	192	128	128	64	32	2	1	1	4	—	8	—
164	512	192	160	96	64	32	2	1	1	4	—	8	—
165	512	192	160	128	32	32	2	1	1	4	—	8	—
166	512	192	192	64	64	32	2	1	1	4	—	8	—
167	512	192	192	96	32	32	2	1	1	4	—	8	—
168	512	224	32	224	32	32	2	1	1	4	—	8	—
169	512	224	96	96	96	32	2	1	1	4	—	8	—
170	512	224	128	96	64	32	2	1	1	4	—	8	—
171	512	224	128	128	32	32	2	1	1	4	—	8	—
172	512	224	160	64	64	32	2	1	1	4	—	8	—
173	512	224	160	96	32	32	2	1	1	4	—	8	—
174	512	224	224	32	32	32	2	1	1	4	—	8	—
175	512	256	0	256	0	32	0	1	0	2	—	4	—

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
176	512	256	192	32	32	32	2	1	1	4	—	8	—
177	544	160	128	128	128	34	2	1	1	4	—	8	—
178	544	160	128	160	96	34	2	1	1	4	—	8	—
179	544	160	160	128	96	34	2	1	1	4	—	8	—
180	544	160	160	160	64	34	2	1	1	4	—	8	—
181	544	192	96	192	64	34	2	1	1	4	—	8	—
182	544	192	128	128	96	34	2	1	1	4	—	8	—
183	544	192	128	192	32	34	2	1	1	4	—	8	—
184	544	192	160	96	96	34	2	1	1	4	—	8	—
185	544	192	160	128	64	34	2	1	1	4	—	8	—
186	544	192	160	160	32	34	2	1	1	4	—	8	—
187	544	192	192	96	64	34	2	1	1	4	—	8	—
188	544	192	192	128	32	34	2	1	1	4	—	8	—
189	544	224	64	224	32	34	2	1	1	4	—	8	—
190	544	224	128	96	96	34	2	1	1	4	—	8	—
191	544	224	128	128	64	34	2	1	1	4	—	8	—
192	544	224	160	96	64	34	2	1	1	4	—	8	—
193	544	224	160	128	32	34	2	1	1	4	—	8	—
194	544	224	224	64	32	34	2	1	1	4	—	8	—
195	544	256	224	32	32	34	2	1	1	4	—	8	—
196	576	160	128	160	128	36	2	1	1	4	—	8	—
197	576	160	160	128	128	36	2	1	1	4	—	8	—
198	576	160	160	160	96	36	2	1	1	4	—	8	—
199	576	192	96	192	96	36	2	1	1	4	—	8	—
200	576	192	128	128	128	36	2	1	1	4	—	8	—
201	576	192	128	192	64	36	2	1	1	4	—	8	—
202	576	192	160	128	96	36	2	1	1	4	—	8	—
203	576	192	160	160	64	36	2	1	1	4	—	8	—
204	576	192	160	192	32	36	2	1	1	4	—	8	—
205	576	192	160	192	32	36	2	1	1	4	—	8	—
206	576	192	192	96	96	36	2	1	1	4	—	8	—
207	576	192	192	128	64	36	2	1	1	4	—	8	—
208	576	192	192	160	32	36	2	1	1	4	—	8	—
209	576	224	64	224	64	36	2	1	1	4	—	8	—
210	576	224	96	224	32	36	2	1	1	4	—	8	—

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
211	576	224	128	128	96	36	2	1	1	4	—	8	—
212	576	224	160	96	96	36	2	1	1	4	—	8	—
213	576	224	160	128	64	36	2	1	1	4	—	8	—
214	576	224	160	160	32	36	2	1	1	4	—	8	—
215	576	224	224	96	32	36	2	1	1	4	—	8	—
216	576	256	32	256	32	36	2	1	1	4	—	8	—
217	576	256	256	32	32	36	2	1	1	4	—	8	—
218	608	160	160	160	128	38	2	1	1	4	—	8	—
219	608	192	128	192	96	38	2	1	1	4	—	8	—
220	608	192	160	128	128	38	2	1	1	4	—	8	—
221	608	192	160	160	96	38	2	1	1	4	—	8	—
222	608	192	160	192	64	38	2	1	1	4	—	8	—
223	608	192	192	128	96	38	2	1	1	4	—	8	—
224	608	192	192	160	64	38	2	1	1	4	—	8	—
225	608	192	192	192	32	38	2	1	1	4	—	8	—
226	608	224	96	224	64	38	2	1	1	4	—	8	—
227	608	224	128	128	128	38	2	1	1	4	—	8	—
228	608	224	128	224	32	38	2	1	1	4	—	8	—
229	608	224	160	128	96	38	2	1	1	4	—	8	—
230	608	224	160	160	64	38	2	1	1	4	—	8	—
231	608	224	224	96	64	38	2	1	1	4	—	8	—
232	608	224	224	128	32	38	2	1	1	4	—	8	—
233	608	256	64	256	32	38	2	1	1	4	—	8	—
234	608	256	256	64	32	38	2	1	1	4	—	8	—
235	640	160	160	160	160	40	2	1	1	4	—	8	—
236	640	192	128	192	128	40	2	1	1	4	—	8	—
237	640	192	160	160	128	40	2	1	1	4	—	8	—
238	640	192	160	192	96	40	2	1	1	4	—	8	—
239	640	192	192	128	128	40	2	1	1	4	—	8	—
240	640	192	192	160	96	40	2	1	1	4	—	8	—
241	640	192	192	192	64	40	2	1	1	4	—	8	—
242	640	224	96	224	96	40	2	1	1	4	—	8	—
243	640	224	128	224	64	40	2	1	1	4	—	8	—
244	640	224	160	128	128	40	2	1	1	4	—	8	—
245	640	224	160	160	96	40	2	1	1	4	—	8	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
246	640	224	160	224	32	40	2	1	1	4	—	8	—
247	640	224	192	192	32	40	2	1	1	4	—	8	—
248	640	224	224	96	96	40	2	1	1	4	—	8	—
249	640	224	224	128	64	40	2	1	1	4	—	8	—
250	640	224	224	160	32	40	2	1	1	4	—	8	—
251	640	256	64	256	64	40	2	1	1	4	—	8	—
252	640	256	96	256	32	40	2	1	1	4	—	8	—
253	640	256	256	96	32	40	2	1	1	4	—	8	—
254	672	192	160	160	160	42	2	1	1	4	—	8	—
255	672	192	160	192	128	42	2	1	1	4	—	8	—
256	672	192	192	160	128	42	2	1	1	4	—	8	—
257	672	192	192	192	96	42	2	1	1	4	—	8	—
258	672	224	128	224	96	42	2	1	1	4	—	8	—
259	672	224	160	160	128	42	2	1	1	4	—	8	—
260	672	224	160	224	64	42	2	1	1	4	—	8	—
261	672	224	192	192	64	42	2	1	1	4	—	8	—
262	672	224	192	224	32	42	2	1	1	4	—	8	—
263	672	224	224	128	96	42	2	1	1	4	—	8	—
264	672	224	224	160	64	42	2	1	1	4	—	8	—
265	672	224	224	192	32	42	2	1	1	4	—	8	—
266	672	256	96	256	64	42	2	1	1	4	—	8	—
267	672	256	128	256	32	42	2	1	1	4	—	8	—
268	672	256	256	128	32	42	2	1	1	4	—	8	—
269	704	192	160	192	160	44	2	1	1	4	—	8	—
270	704	192	192	160	160	44	2	1	1	4	—	8	—
271	704	192	192	192	128	44	2	1	1	4	—	8	—
272	704	224	128	224	128	44	2	1	1	4	—	8	—
273	704	224	160	160	160	44	2	1	1	4	—	8	—
274	704	224	160	224	96	44	2	1	1	4	—	8	—
275	704	224	192	192	96	44	2	1	1	4	—	8	—
276	704	224	192	224	64	44	2	1	1	4	—	8	—
277	704	224	224	128	128	44	2	1	1	4	—	8	—
278	704	224	224	160	96	44	2	1	1	4	—	8	—
279	704	224	224	192	64	44	2	1	1	4	—	8	—
280	704	224	224	224	32	44	2	1	1	4	—	8	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
281	704	256	96	256	96	44	2	1	1	4	—	8	—
282	704	256	128	256	64	44	2	1	1	4	—	8	—
283	704	256	160	256	32	44	2	1	1	4	—	8	—
284	704	256	256	160	32	44	2	1	1	4	—	8	—
285	736	192	192	192	160	46	2	1	1	4	—	8	—
286	736	224	160	224	128	46	2	1	1	4	—	8	—
287	736	224	192	192	128	46	2	1	1	4	—	8	—
288	736	224	192	224	96	46	2	1	1	4	—	8	—
289	736	224	224	160	128	46	2	1	1	4	—	8	—
290	736	224	224	192	96	46	2	1	1	4	—	8	—
291	736	224	224	224	64	46	2	1	1	4	—	8	—
292	736	256	128	256	96	46	2	1	1	4	—	8	—
293	736	256	160	256	64	46	2	1	1	4	—	8	—
294	736	256	192	256	32	46	2	1	1	4	—	8	—
295	736	256	256	192	32	46	2	1	1	4	—	8	—
296	768	192	192	192	192	48	2	1	1	4	—	8	—
297	768	224	160	224	160	48	2	1	1	4	—	8	—
298	768	224	192	192	160	48	2	1	1	4	—	8	—
299	768	224	192	224	128	48	2	1	1	4	—	8	—
300	768	224	224	160	160	48	2	1	1	4	—	8	—
301	768	224	224	192	128	48	2	1	1	4	—	8	—
302	768	224	224	224	96	48	2	1	1	4	—	8	—
303	768	256	128	256	128	48	2	1	1	4	—	8	—
304	768	256	160	256	96	48	2	1	1	4	—	8	—
305	768	256	192	256	64	48	2	1	1	4	—	8	—
306	768	256	224	256	32	48	2	1	1	4	—	8	—
307	768	256	256	224	32	48	2	1	1	4	—	8	—
308	800	224	192	192	192	50	2	1	1	4	—	8	—
309	800	224	192	224	160	50	2	1	1	4	—	8	—
310	800	224	224	192	160	50	2	1	1	4	—	8	—
311	800	224	224	224	128	50	2	1	1	4	—	8	—
312	800	256	160	256	128	50	2	1	1	4	—	8	—
313	800	256	192	256	96	50	2	1	1	4	—	8	—
314	800	256	224	256	64	50	2	1	1	4	—	8	—
315	800	256	256	256	32	50	2	1	1	4	—	8	—

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 16G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
316	832	224	192	224	192	52	2	1	1	4	—	8	—
317	832	224	224	192	192	52	2	1	1	4	—	8	—
318	832	224	224	224	160	52	2	1	1	4	—	8	—
319	832	256	160	256	160	52	2	1	1	4	—	8	—
320	832	256	192	256	128	52	2	1	1	4	—	8	—
321	832	256	224	256	96	52	2	1	1	4	—	8	—
322	832	256	256	256	64	52	2	1	1	4	—	8	—
323	864	224	224	224	192	54	2	1	1	4	—	8	—
324	864	256	192	256	160	54	2	1	1	4	—	8	—
325	864	256	224	256	128	54	2	1	1	4	—	8	—
326	864	256	256	256	96	54	2	1	1	4	—	8	—
327	896	224	224	224	224	56	2	1	1	4	—	8	—
328	896	256	192	256	192	56	2	1	1	4	—	8	—
329	896	256	224	256	160	56	2	1	1	4	—	8	—
330	896	256	256	256	128	56	2	1	1	4	—	8	—
331	928	256	224	256	192	58	2	1	1	4	—	8	—
332	928	256	256	256	160	58	2	1	1	4	—	8	—
333	960	256	224	256	224	60	2	1	1	4	—	8	—
334	960	256	256	256	192	60	2	1	1	4	—	8	—
335	992	256	256	256	224	62	2	1	1	4	—	8	—
336	1024	256	256	256	256	64	2	1	1	4	—	8	—

*1: Standard equipment.

*2: The required SM capacity shown in Table 6.1-1 ([INST06-10](#)) must be installed in CPEX-0.

Table 1.1.2.2-6 Cache Memory Upgrade Table ⑥

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
1	128	64	0	64	0	4	0	1	0	2	0	4	0
2	192	128	0	64	0	6	0	1	0	2	0	4	0
3	256	64	64	64	64	8	2	1	1	4	0	8	0
4	256	128	0	128	0	8	0	1	0	2	0	4	0
5	256	192	0	64	0	8	0	1	0	2	0	4	0
6	320	128	64	64	64	10	2	1	1	4	0	8	0
7	320	192	0	128	0	10	0	1	0	2	0	4	0
8	320	256	0	64	0	10	0	1	0	2	0	4	0
9	384	128	64	128	64	12	2	1	1	4	0	8	0
10	384	128	128	64	64	12	2	1	1	4	0	8	0
11	384	192	0	192	0	12	0	1	0	2	0	4	0
12	384	192	64	64	64	12	2	1	1	4	0	8	0
13	384	256	0	128	0	12	0	1	0	2	0	4	0
14	384	320	0	64	0	12	0	1	0	1	1	2	2
15	448	128	128	128	64	14	2	1	1	4	0	8	0
16	448	192	128	64	64	14	2	1	1	4	0	8	0
17	448	256	64	64	64	14	2	1	1	4	0	8	0
18	448	320	0	128	0	14	0	1	0	1	1	2	2
19	448	384	0	64	0	14	0	1	0	1	1	2	2
20	512	128	128	128	128	16	2	1	1	4	0	8	0
21	512	192	64	192	64	16	2	1	1	4	0	8	0
22	512	192	128	128	64	16	2	1	1	4	0	8	0
23	512	192	192	64	64	16	2	1	1	4	0	8	0
24	512	256	0	256	0	16	0	1	0	2	0	4	0
25	512	256	128	64	64	16	2	1	1	4	0	8	0
26	512	320	0	192	0	16	0	1	0	1	1	2	2
27	512	320	64	64	64	16	2	1	1	3	1	6	2
28	512	384	0	128	0	16	0	1	0	1	1	2	2
29	512	448	0	64	0	16	0	1	0	1	1	2	2
30	576	192	128	128	128	18	2	1	1	4	0	8	0
31	576	192	128	192	64	18	2	1	1	4	0	8	0
32	576	192	192	128	64	18	2	1	1	4	0	8	0
33	576	256	128	128	64	18	2	1	1	4	0	8	0
34	576	256	192	64	64	18	2	1	1	4	0	8	0
35	576	320	0	256	0	18	0	1	0	1	1	2	2

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
36	576	320	128	64	64	18	2	1	1	3	1	6	2
37	576	384	0	192	0	18	0	1	0	1	1	2	2
38	576	384	64	64	64	18	2	1	1	3	1	6	2
39	576	448	0	128	0	18	0	1	0	1	1	2	2
40	576	512	0	64	0	18	0	1	0	1	1	2	2
41	640	192	128	192	128	20	2	1	1	4	0	8	0
42	640	192	192	128	128	20	2	1	1	4	0	8	0
43	640	192	192	192	64	20	2	1	1	4	0	8	0
44	640	256	64	256	64	20	2	1	1	4	0	8	0
45	640	256	128	128	128	20	2	1	1	4	0	8	0
46	640	256	192	128	64	20	2	1	1	4	0	8	0
47	640	256	256	64	64	20	2	1	1	4	0	8	0
48	640	320	0	320	0	20	0	1	0	0	2	0	4
49	640	320	128	128	64	20	2	1	1	3	1	6	2
50	640	320	192	64	64	20	2	1	1	3	1	6	2
51	640	384	0	256	0	20	0	1	0	1	1	2	2
52	640	384	128	64	64	20	2	1	1	3	1	6	2
53	640	448	0	192	0	20	0	1	0	1	1	2	2
54	640	448	64	64	64	20	2	1	1	3	1	6	2
55	640	512	0	128	0	20	0	1	0	1	1	2	2
56	704	192	192	192	128	22	2	1	1	4	0	8	0
57	704	256	128	256	64	22	2	1	1	4	0	8	0
58	704	256	192	128	128	22	2	1	1	4	0	8	0
59	704	256	192	192	64	22	2	1	1	4	0	8	0
60	704	256	256	128	64	22	2	1	1	4	0	8	0
61	704	320	128	128	128	22	2	1	1	3	1	6	2
62	704	320	192	128	64	22	2	1	1	3	1	6	2
63	704	320	256	64	64	22	2	1	1	3	1	6	2
64	704	384	0	320	0	22	0	1	0	0	2	0	4
65	704	384	128	128	64	22	2	1	1	3	1	6	2
66	704	384	192	64	64	22	2	1	1	3	1	6	2
67	704	448	0	256	0	22	0	1	0	1	1	2	2
68	704	448	128	64	64	22	2	1	1	3	1	6	2
69	704	512	0	192	0	22	0	1	0	1	1	2	2
70	704	512	64	64	64	22	2	1	1	3	1	6	2

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
71	768	192	192	192	192	24	2	1	1	4	0	8	0
72	768	256	128	256	128	24	2	1	1	4	0	8	0
73	768	256	192	192	128	24	2	1	1	4	0	8	0
74	768	256	192	256	64	24	2	1	1	4	0	8	0
75	768	256	256	128	128	24	2	1	1	4	0	8	0
76	768	256	256	192	64	24	2	1	1	4	0	8	0
77	768	320	64	320	64	24	2	1	1	2	2	4	4
78	768	320	192	128	128	24	2	1	1	3	1	6	2
79	768	320	192	192	64	24	2	1	1	3	1	6	2
80	768	320	256	128	64	24	2	1	1	3	1	6	2
81	768	320	320	64	64	24	2	1	1	2	2	4	4
82	768	384	0	384	0	24	0	1	0	0	2	0	4
83	768	384	128	128	128	24	2	1	1	3	1	6	2
84	768	384	192	128	64	24	2	1	1	3	1	6	2
85	768	384	256	64	64	24	2	1	1	3	1	6	2
86	768	448	0	320	0	24	0	1	0	0	2	0	4
87	768	448	128	128	64	24	2	1	1	3	1	6	2
88	768	448	192	64	64	24	2	1	1	3	1	6	2
89	768	512	0	256	0	24	0	1	0	1	1	2	2
90	768	512	128	64	64	24	2	1	1	3	1	6	2
91	832	256	192	192	192	26	2	1	1	4	0	8	0
92	832	256	192	256	128	26	2	1	1	4	0	8	0
93	832	256	256	192	128	26	2	1	1	4	0	8	0
94	832	256	256	256	64	26	2	1	1	4	0	8	0
95	832	320	128	320	64	26	2	1	1	2	2	4	4
96	832	320	192	192	128	26	2	1	1	3	1	6	2
97	832	320	256	128	128	26	2	1	1	3	1	6	2
98	832	320	256	192	64	26	2	1	1	3	1	6	2
99	832	320	320	128	64	26	2	1	1	2	2	4	4
100	832	384	192	128	128	26	2	1	1	3	1	6	2
101	832	384	192	192	64	26	2	1	1	3	1	6	2
102	832	384	256	128	64	26	2	1	1	3	1	6	2
103	832	384	320	64	64	26	2	1	1	2	2	4	4
104	832	448	0	384	0	26	0	1	0	0	2	0	4
105	832	448	128	128	128	26	2	1	1	3	1	6	2

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
106	832	448	192	128	64	26	2	1	1	3	1	6	2
107	832	448	256	64	64	26	2	1	1	3	1	6	2
108	832	512	0	320	0	26	0	1	0	0	2	0	4
109	832	512	192	64	64	26	2	1	1	3	1	6	2
110	896	256	192	256	192	28	2	1	1	4	0	8	0
111	896	256	256	192	192	28	2	1	1	4	0	8	0
112	896	256	256	256	128	28	2	1	1	4	0	8	0
113	896	320	128	320	128	28	2	1	1	2	2	4	4
114	896	320	192	192	192	28	2	1	1	3	1	6	2
115	896	320	192	320	64	28	2	1	1	2	2	4	4
116	896	320	256	192	128	28	2	1	1	3	1	6	2
117	896	320	256	256	64	28	2	1	1	3	1	6	2
118	896	320	320	128	128	28	2	1	1	2	2	4	4
119	896	320	320	192	64	28	2	1	1	2	2	4	4
120	896	384	64	384	64	28	2	1	1	2	2	4	4
121	896	384	192	192	128	28	2	1	1	3	1	6	2
122	896	384	256	128	128	28	2	1	1	3	1	6	2
123	896	384	256	192	64	28	2	1	1	3	1	6	2
124	896	384	320	128	64	28	2	1	1	2	2	4	4
125	896	384	384	64	64	28	2	1	1	2	2	4	4
126	896	448	0	448	0	28	0	1	0	0	2	0	4
127	896	448	192	128	128	28	2	1	1	3	1	6	2
128	896	448	192	192	64	28	2	1	1	3	1	6	2
129	896	448	256	128	64	28	2	1	1	3	1	6	2
130	896	448	320	64	64	28	2	1	1	2	2	4	4
131	896	512	0	384	0	28	0	1	0	0	2	0	4
132	896	512	256	64	64	28	2	1	1	3	1	6	2
133	960	256	256	256	192	30	2	1	1	4	0	8	0
134	960	320	192	320	128	30	2	1	1	2	2	4	4
135	960	320	256	192	192	30	2	1	1	3	1	6	2
136	960	320	256	256	128	30	2	1	1	3	1	6	2
137	960	320	256	320	64	30	2	1	1	2	2	4	4
138	960	320	320	192	128	30	2	1	1	2	2	4	4
139	960	320	320	256	64	30	2	1	1	2	2	4	4
140	960	384	128	384	64	30	2	1	1	2	2	4	4

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
141	960	384	192	192	192	30	2	1	1	3	1	6	2
142	960	384	256	192	128	30	2	1	1	3	1	6	2
143	960	384	256	256	64	30	2	1	1	3	1	6	2
144	960	384	320	128	128	30	2	1	1	2	2	4	4
145	960	384	320	192	64	30	2	1	1	2	2	4	4
146	960	384	384	128	64	30	2	1	1	2	2	4	4
147	960	448	192	192	128	30	2	1	1	3	1	6	2
148	960	448	256	128	128	30	2	1	1	3	1	6	2
149	960	448	256	192	64	30	2	1	1	3	1	6	2
150	960	448	320	128	64	30	2	1	1	2	2	4	4
151	960	512	0	448	0	30	0	1	0	0	2	0	4
152	960	512	320	64	64	30	2	1	1	2	2	4	4
153	1024	256	256	256	256	32	2	1	1	4	0	8	0
154	1024	320	192	320	192	32	2	1	1	2	2	4	4
155	1024	320	256	256	192	32	2	1	1	3	1	6	2
156	1024	320	256	320	128	32	2	1	1	2	2	4	4
157	1024	320	320	192	192	32	2	1	1	2	2	4	4
158	1024	320	320	256	128	32	2	1	1	2	2	4	4
159	1024	320	320	320	64	32	2	1	1	1	3	2	6
160	1024	384	128	384	128	32	2	1	1	2	2	4	4
161	1024	384	192	384	64	32	2	1	1	2	2	4	4
162	1024	384	256	192	192	32	2	1	1	3	1	6	2
163	1024	384	256	256	128	32	2	1	1	3	1	6	2
164	1024	384	320	192	128	32	2	1	1	2	2	4	4
165	1024	384	320	256	64	32	2	1	1	2	2	4	4
166	1024	384	384	128	128	32	2	1	1	2	2	4	4
167	1024	384	384	192	64	32	2	1	1	2	2	4	4
168	1024	448	64	448	64	32	2	1	1	2	2	4	4
169	1024	448	192	192	192	32	2	1	1	3	1	6	2
170	1024	448	256	192	128	32	2	1	1	3	1	6	2
171	1024	448	256	256	64	32	2	1	1	3	1	6	2
172	1024	448	320	128	128	32	2	1	1	2	2	4	4
173	1024	448	320	192	64	32	2	1	1	2	2	4	4
174	1024	448	448	64	64	32	2	1	1	2	2	4	4
175	1024	512	0	512	0	32	0	1	0	0	2	0	4

(To be continued)

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(Continued from the preceding page)

No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
176	1024	512	384	64	64	32	2	1	1	2	2	4	4
177	1088	320	256	256	256	34	2	1	1	3	1	6	2
178	1088	320	256	320	192	34	2	1	1	2	2	4	4
179	1088	320	320	256	192	34	2	1	1	2	2	4	4
180	1088	320	320	320	128	34	2	1	1	1	3	2	6
181	1088	384	192	384	128	34	2	1	1	2	2	4	4
182	1088	384	256	256	192	34	2	1	1	3	1	6	2
183	1088	384	256	384	64	34	2	1	1	2	2	4	4
184	1088	384	320	192	192	34	2	1	1	2	2	4	4
185	1088	384	320	256	128	34	2	1	1	2	2	4	4
186	1088	384	320	320	64	34	2	1	1	1	3	2	6
187	1088	384	384	192	128	34	2	1	1	2	2	4	4
188	1088	384	384	256	64	34	2	1	1	2	2	4	4
189	1088	448	128	448	64	34	2	1	1	2	2	4	4
190	1088	448	256	192	192	34	2	1	1	3	1	6	2
191	1088	448	256	256	128	34	2	1	1	3	1	6	2
192	1088	448	320	192	128	34	2	1	1	2	2	4	4
193	1088	448	320	256	64	34	2	1	1	2	2	4	4
194	1088	448	448	128	64	34	2	1	1	2	2	4	4
195	1088	512	448	64	64	34	2	1	1	2	2	4	4
196	1152	320	256	320	256	36	2	1	1	2	2	4	4
197	1152	320	320	256	256	36	2	1	1	2	2	4	4
198	1152	320	320	320	192	36	2	1	1	1	3	2	6
199	1152	384	192	384	192	36	2	1	1	2	2	4	4
200	1152	384	256	256	256	36	2	1	1	3	1	6	2
201	1152	384	256	384	128	36	2	1	1	2	2	4	4
202	1152	384	320	256	192	36	2	1	1	2	2	4	4
203	1152	384	320	320	128	36	2	1	1	1	3	2	6
204	1152	384	320	384	64	36	2	1	1	1	3	2	6
205	1152	384	320	384	64	36	2	1	1	1	3	2	6
206	1152	384	384	192	192	36	2	1	1	2	2	4	4
207	1152	384	384	256	128	36	2	1	1	2	2	4	4
208	1152	384	384	320	64	36	2	1	1	1	3	2	6
209	1152	448	128	448	128	36	2	1	1	2	2	4	4
210	1152	448	192	448	64	36	2	1	1	2	2	4	4

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
211	1152	448	256	256	192	36	2	1	1	3	1	6	2
212	1152	448	320	192	192	36	2	1	1	2	2	4	4
213	1152	448	320	256	128	36	2	1	1	2	2	4	4
214	1152	448	320	320	64	36	2	1	1	1	3	2	6
215	1152	448	448	192	64	36	2	1	1	2	2	4	4
216	1152	512	64	512	64	36	2	1	1	2	2	4	4
217	1152	512	512	64	64	36	2	1	1	2	2	4	4
218	1216	320	320	320	256	38	2	1	1	1	3	2	6
219	1216	384	256	384	192	38	2	1	1	2	2	4	4
220	1216	384	320	256	256	38	2	1	1	2	2	4	4
221	1216	384	320	320	192	38	2	1	1	1	3	2	6
222	1216	384	320	384	128	38	2	1	1	1	3	2	6
223	1216	384	384	256	192	38	2	1	1	2	2	4	4
224	1216	384	384	320	128	38	2	1	1	1	3	2	6
225	1216	384	384	384	64	38	2	1	1	1	3	2	6
226	1216	448	192	448	128	38	2	1	1	2	2	4	4
227	1216	448	256	256	256	38	2	1	1	3	1	6	2
228	1216	448	256	448	64	38	2	1	1	2	2	4	4
229	1216	448	320	256	192	38	2	1	1	2	2	4	4
230	1216	448	320	320	128	38	2	1	1	1	3	2	6
231	1216	448	448	192	128	38	2	1	1	2	2	4	4
232	1216	448	448	256	64	38	2	1	1	2	2	4	4
233	1216	512	128	512	64	38	2	1	1	2	2	4	4
234	1216	512	512	128	64	38	2	1	1	2	2	4	4
235	1280	320	320	320	320	40	2	1	1	0	4	0	8
236	1280	384	256	384	256	40	2	1	1	2	2	4	4
237	1280	384	320	320	256	40	2	1	1	1	3	2	6
238	1280	384	320	384	192	40	2	1	1	1	3	2	6
239	1280	384	384	256	256	40	2	1	1	2	2	4	4
240	1280	384	384	320	192	40	2	1	1	1	3	2	6
241	1280	384	384	384	128	40	2	1	1	1	3	2	6
242	1280	448	192	448	192	40	2	1	1	2	2	4	4
243	1280	448	256	448	128	40	2	1	1	2	2	4	4
244	1280	448	320	256	256	40	2	1	1	2	2	4	4
245	1280	448	320	320	192	40	2	1	1	1	3	2	6

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
246	1280	448	320	448	64	40	2	1	1	1	3	2	6
247	1280	448	384	384	64	40	2	1	1	1	3	2	6
248	1280	448	448	192	192	40	2	1	1	2	2	4	4
249	1280	448	448	256	128	40	2	1	1	2	2	4	4
250	1280	448	448	320	64	40	2	1	1	1	3	2	6
251	1280	512	128	512	128	40	2	1	1	2	2	4	4
252	1280	512	192	512	64	40	2	1	1	2	2	4	4
253	1280	512	512	192	64	40	2	1	1	2	2	4	4
254	1344	384	320	320	320	42	2	1	1	0	4	0	8
255	1344	384	320	384	256	42	2	1	1	1	3	2	6
256	1344	384	384	320	256	42	2	1	1	1	3	2	6
257	1344	384	384	384	192	42	2	1	1	1	3	2	6
258	1344	448	256	448	192	42	2	1	1	2	2	4	4
259	1344	448	320	320	256	42	2	1	1	1	3	2	6
260	1344	448	320	448	128	42	2	1	1	1	3	2	6
261	1344	448	384	384	128	42	2	1	1	1	3	2	6
262	1344	448	384	448	64	42	2	1	1	1	3	2	6
263	1344	448	448	256	192	42	2	1	1	2	2	4	4
264	1344	448	448	320	128	42	2	1	1	1	3	2	6
265	1344	448	448	384	64	42	2	1	1	1	3	2	6
266	1344	512	192	512	128	42	2	1	1	2	2	4	4
267	1344	512	256	512	64	42	2	1	1	2	2	4	4
268	1344	512	512	256	64	42	2	1	1	2	2	4	4
269	1408	384	320	384	320	44	2	1	1	0	4	0	8
270	1408	384	384	320	320	44	2	1	1	0	4	0	8
271	1408	384	384	384	256	44	2	1	1	1	3	2	6
272	1408	448	256	448	256	44	2	1	1	2	2	4	4
273	1408	448	320	320	320	44	2	1	1	0	4	0	8
274	1408	448	320	448	192	44	2	1	1	1	3	2	6
275	1408	448	384	384	192	44	2	1	1	1	3	2	6
276	1408	448	384	448	128	44	2	1	1	1	3	2	6
277	1408	448	448	256	256	44	2	1	1	2	2	4	4
278	1408	448	448	320	192	44	2	1	1	1	3	2	6
279	1408	448	448	384	128	44	2	1	1	1	3	2	6
280	1408	448	448	448	64	44	2	1	1	1	3	2	6

(To be continued)

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
281	1408	512	192	512	192	44	2	1	1	2	2	4	4
282	1408	512	256	512	128	44	2	1	1	2	2	4	4
283	1408	512	320	512	64	44	2	1	1	1	3	2	6
284	1408	512	512	320	64	44	2	1	1	1	3	2	6
285	1472	384	384	384	320	46	2	1	1	0	4	0	8
286	1472	448	320	448	256	46	2	1	1	1	3	2	6
287	1472	448	384	384	256	46	2	1	1	1	3	2	6
288	1472	448	384	448	192	46	2	1	1	1	3	2	6
289	1472	448	448	320	256	46	2	1	1	1	3	2	6
290	1472	448	448	384	192	46	2	1	1	1	3	2	6
291	1472	448	448	448	128	46	2	1	1	1	3	2	6
292	1472	512	256	512	192	46	2	1	1	2	2	4	4
293	1472	512	320	512	128	46	2	1	1	1	3	2	6
294	1472	512	384	512	64	46	2	1	1	1	3	2	6
295	1472	512	512	384	64	46	2	1	1	1	3	2	6
296	1536	384	384	384	384	48	2	1	1	0	4	0	8
297	1536	448	320	448	320	48	2	1	1	0	4	0	8
298	1536	448	384	384	320	48	2	1	1	0	4	0	8
299	1536	448	384	448	256	48	2	1	1	1	3	2	6
300	1536	448	448	320	320	48	2	1	1	0	4	0	8
301	1536	448	448	384	256	48	2	1	1	1	3	2	6
302	1536	448	448	448	192	48	2	1	1	1	3	2	6
303	1536	512	256	512	256	48	2	1	1	2	2	4	4
304	1536	512	320	512	192	48	2	1	1	1	3	2	6
305	1536	512	384	512	128	48	2	1	1	1	3	2	6
306	1536	512	448	512	64	48	2	1	1	1	3	2	6
307	1536	512	512	448	64	48	2	1	1	1	3	2	6
308	1600	448	384	384	384	50	2	1	1	0	4	0	8
309	1600	448	384	448	320	50	2	1	1	0	4	0	8
310	1600	448	448	384	320	50	2	1	1	0	4	0	8
311	1600	448	448	448	256	50	2	1	1	1	3	2	6
312	1600	512	320	512	256	50	2	1	1	1	3	2	6
313	1600	512	384	512	192	50	2	1	1	1	3	2	6
314	1600	512	448	512	128	50	2	1	1	1	3	2	6
315	1600	512	512	512	64	50	2	1	1	1	3	2	6

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No.	Cache Memory Capacity	Cache Memory Capacity (GB)				Number of options							
		DKC810I-CBXA		DKC-F810I-CBXB		DKC-F810I							
		CPEX-0 (*1, *2)	CPEX-1	CPEX-2 (*1)	CPEX-3	CM 32G	CPEX	MOD5	MFC5	BKMS	BKML	BMM 128	BMM 256
316	1664	448	384	448	384	52	2	1	1	0	4	0	8
317	1664	448	448	384	384	52	2	1	1	0	4	0	8
318	1664	448	448	448	320	52	2	1	1	0	4	0	8
319	1664	512	320	512	320	52	2	1	1	0	4	0	8
320	1664	512	384	512	256	52	2	1	1	1	3	2	6
321	1664	512	448	512	192	52	2	1	1	1	3	2	6
322	1664	512	512	512	128	52	2	1	1	1	3	2	6
323	1728	448	448	448	384	54	2	1	1	0	4	0	8
324	1728	512	384	512	320	54	2	1	1	0	4	0	8
325	1728	512	448	512	256	54	2	1	1	1	3	2	6
326	1728	512	512	512	192	54	2	1	1	1	3	2	6
327	1792	448	448	448	448	56	2	1	1	0	4	0	8
328	1792	512	384	512	384	56	2	1	1	0	4	0	8
329	1792	512	448	512	320	56	2	1	1	0	4	0	8
330	1792	512	512	512	256	56	2	1	1	1	3	2	6
331	1856	512	448	512	384	58	2	1	1	0	4	0	8
332	1856	512	512	512	320	58	2	1	1	0	4	0	8
333	1920	512	448	512	448	60	2	1	1	0	4	0	8
334	1920	512	512	512	384	60	2	1	1	0	4	0	8
335	1984	512	512	512	448	62	2	1	1	0	4	0	8
336	2048	512	512	512	512	64	2	1	1	0	4	0	8

*1: Standard equipment.

*2: The required SM capacity shown in Table 6.1-1 ([INST06-10](#)) must be installed in CPEX-0.

1.1.2.3 System Configurations and RAID Group Installation Order

1.1.2.3.1 Rough Time of Installation

Rough time of RAID Group installation becomes addition of the following A, B, C, D, and E.

Table 1.1.2.3.1-1 Rough time of installation

	Process	Time	NOTE
A	Chassis setting time	90min / 1chassis	
B	HDD setting time	1min / 1HDD	
C	Micro code overhead for Path initialization	90sec × (The number of existing chassis + number of increase chassis)	*1
D	Micro code over head for HDD spin up	20sec × (number of increase HDD)	*1
E	LDEV Formatting time	Refer to THEORY 3.5	

*1: Twice time at the high performance model are possessed.

1.1.2.3.2 System Configurations

(1) DKC Rack Configuration

There are eleven patterns of DKC rack configurations to install chassis. Only the eleven patterns shown below are allowed. The other patterns are not allowed.

Installing the DKU (FBX) in the free space in Pattern A-5/A-8, or the DKU (SBX/UBX) in the free space in Pattern A-7 is not allowed due to the DKC-F810I-RK42 Rack load limitation.

When installing the SBX/UBX/FBX at the same time, the FBX should be located as near the DKC as possible to maximize the performance of FMDs.

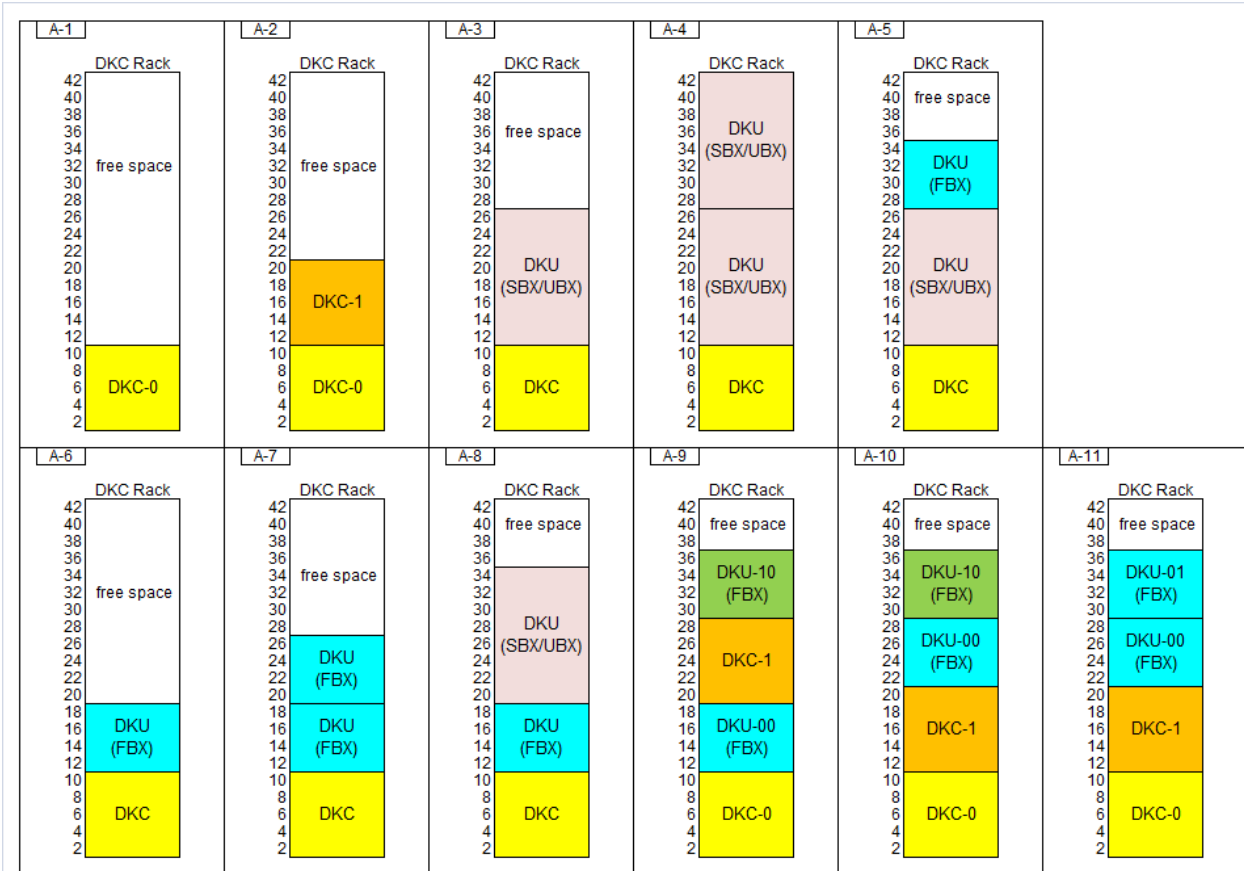


Fig. 1.1.2.3.2-1 DKC Rack Configuration

(2) DKU Rack Configuration

There are nine patterns of DKU rack configurations to install chassis. Only the nine patterns shown below are allowed. The other patterns are not allowed.

Installing the DKU (FBX) in the free space in Pattern B-2, or the DKU (SBX/UBX) in the free space in Pattern B-3/B-4 is not allowed due to the lack for the outlets or current capacity of the PDUs installed in the DKC-F810I-RK42 Rack.

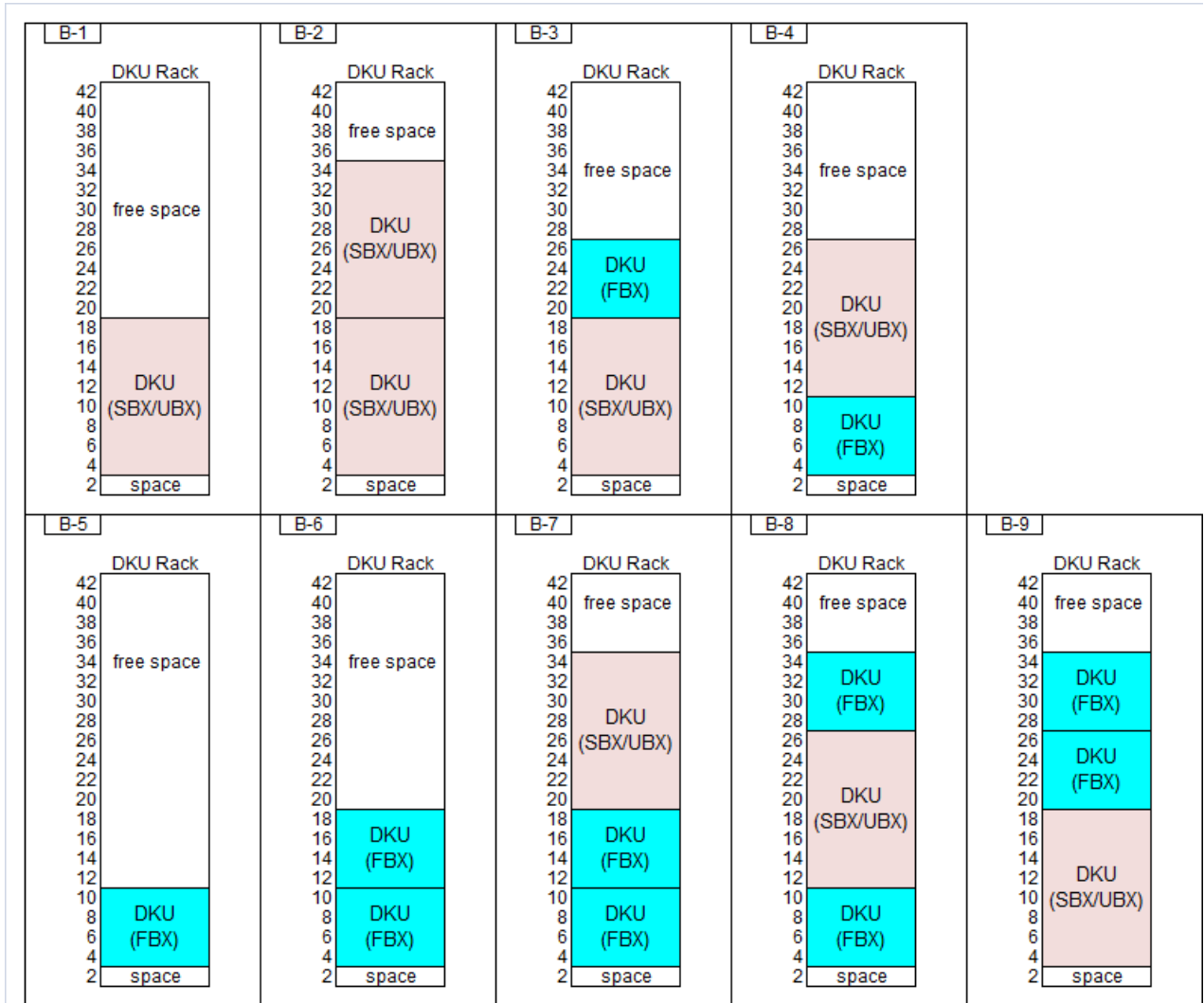


Fig. 1.1.2.3.2-2 DKU Rack Configuration

(3) Single DKC Layout

Table 1.1.2.3.2-1 Single DKC Layout-1

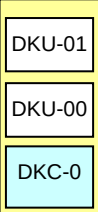
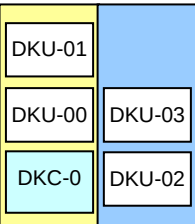
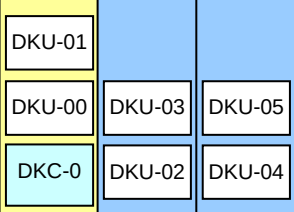
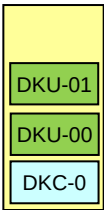
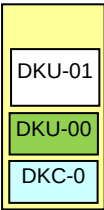
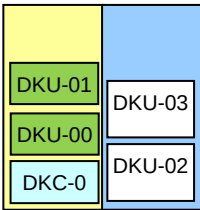
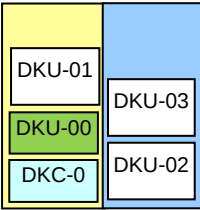
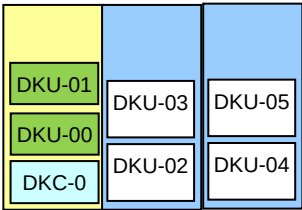
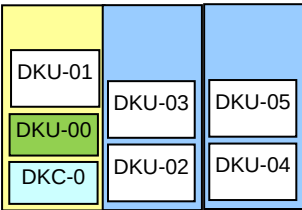
No.	Rack Layout	Number of DKC	Number of DKU	Number of maximum drive installations	
				2.5-inch HDD	3.5-inch HDD
A1		1	2	384	192
A2		1	4	768	384
A3		1	6	1152	576

Table 1.1.2.3.2-2 Single DKC Layout-2

No.	Rack Layout	Number of DKC	Number of DKU		Number of maximum drive installations		
			SBX/UBX	FBX	2.5-inch HDD	3.5-inch HDD	FMD
B1		1	0	2	0	0	96
B2		1	1	1	192	96	48
B3		1	2	2	384	192	96
B4		1	3	1	576	288	48
B5		1	4	2	768	384	96
B6		1	5	1	960	480	48

(4) Twin DKC Layout

Table 1.1.2.3.2-3 Twin DKC Layout-1

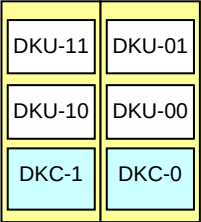
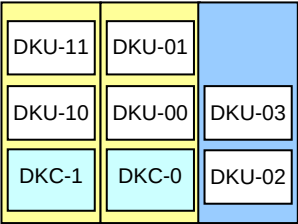
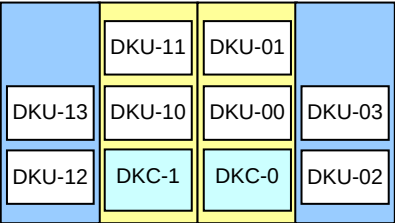
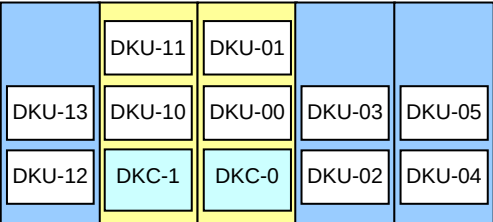
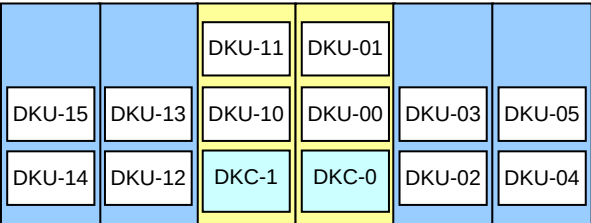
No.	Rack Layout	Number of DKC	Number of DKU	Number of maximum drive installations	
				2.5-inch HDD	3.5-inch HDD
C1		2	4	768	384
C2		2	6	1152	576
C3		2	8	1536	768
C4		2	10	1920	960
C5		2	12	2304	1152

Table 1.1.2.3.2-4 Twin DKC Layout-2

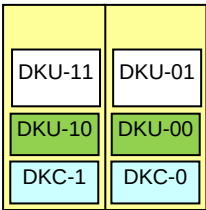
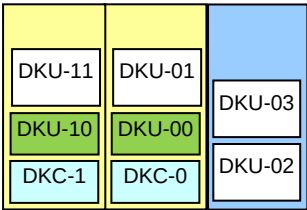
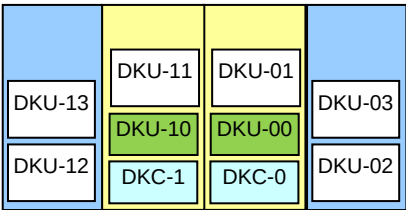
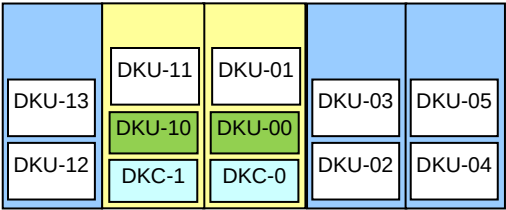
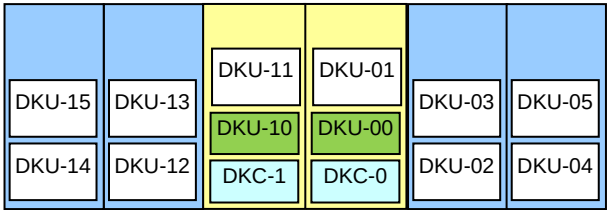
No.	Rack Layout	Number of DKC	Number of DKU		Number of maximum drive installations		
			SBX/UBX	FBX	2.5-inch HDD	3.5-inch HDD	FMD
D1		2	2	2	384	192	96
D2		2	4	2	768	384	96
D3		2	6	2	1152	576	96
D4		2	8	2	1536	768	96
D5		2	10	2	1920	960	96

Table 1.1.2.3.2-5 Twin DKC Layout-3

No.	Rack Layout	Number of DKC	Number of DKU		Number of maximum drive installations		
			SBX/UBX	FBX	2.5-inch HDD	3.5-inch HDD	FMD
E1		2	0	4	0	0	192
E2		2	2	4	384	192	192
E3		2	4	4	768	384	192
E4		2	6	4	1152	576	192
E5		2	8	4	1536	768	192

(5) Dual DKC Layout

Table 1.1.2.3.2-6 Dual DKC Layout-1

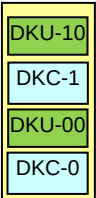
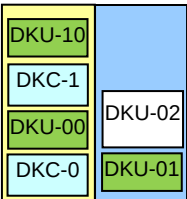
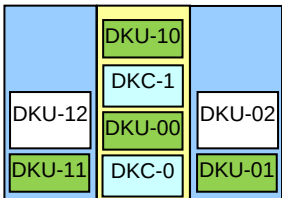
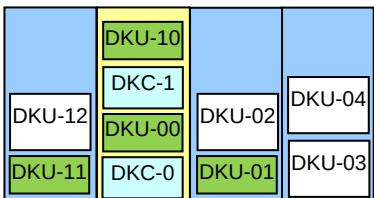
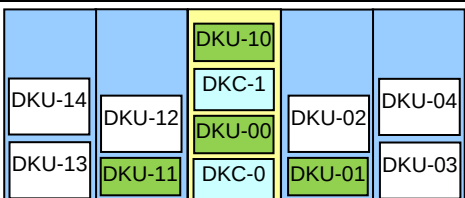
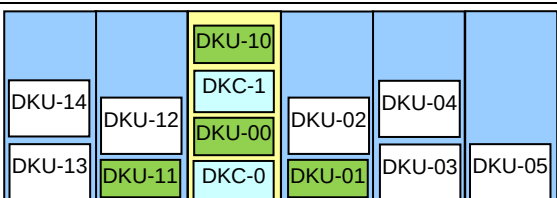
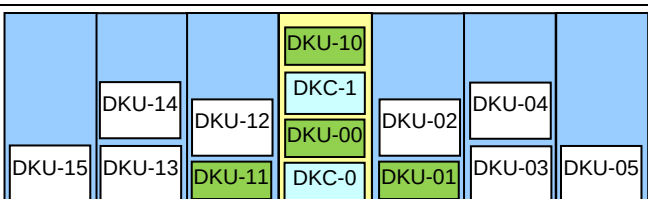
No.	Rack Layout	Number of DKC	Number of DKU		Number of maximum drive installations		
			SBX/UBX	FBX	2.5-inch HDD	3.5-inch HDD	FMD
F1		2	0	2	0	0	96
F2		2	1	3	192	96	144
F3		2	2	4	384	192	192
F4		2	4	4	768	384	192
F5		2	6	4	1152	576	192
F6		2	7	4	1344	672	192
F7		2	8	4	1536	768	192

Table 1.1.2.3.2-7 Dual DKC Layout-2

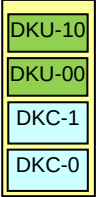
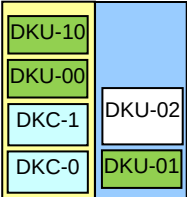
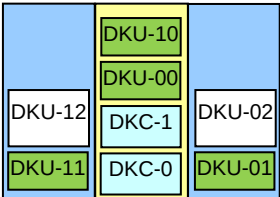
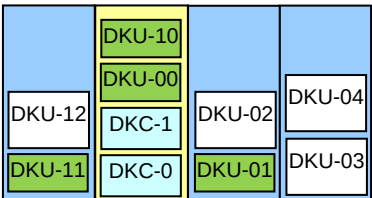
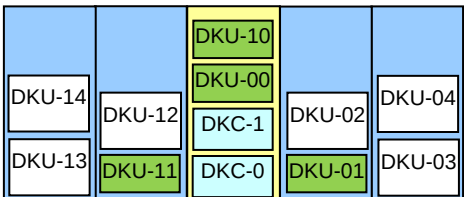
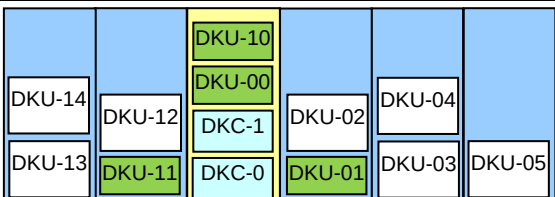
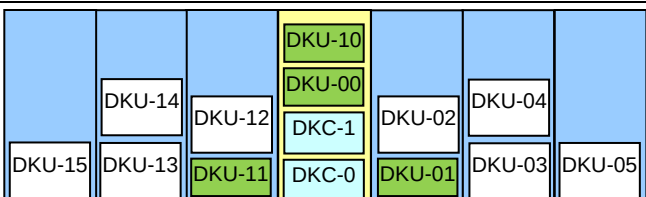
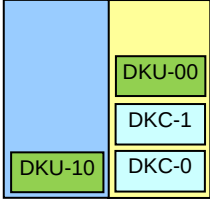
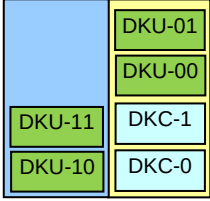
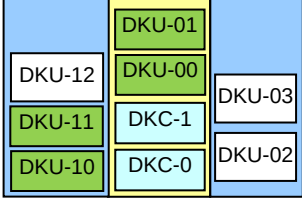
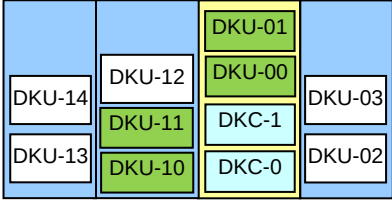
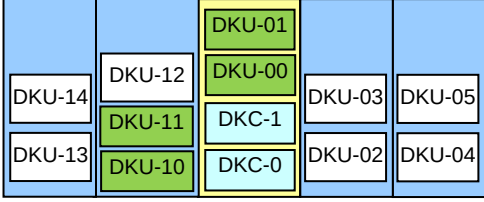
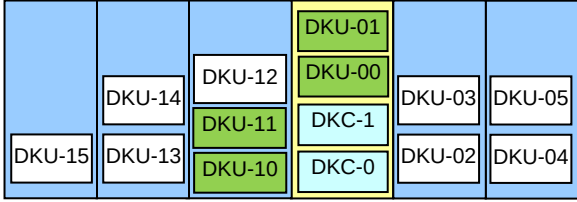
No.	Rack Layout	Number of DKC	Number of DKU		Number of maximum drive installations		
			SBX/UBX	FBX	2.5-inch HDD	3.5-inch HDD	FMD
G1		2	0	2	0	0	96
G2		2	1	3	192	96	144
G3		2	2	4	384	192	192
G4		2	4	4	768	384	192
G5		2	6	4	1152	576	192
G6		2	7	4	1344	672	192
G7		2	8	4	1536	768	192

Table 1.1.2.3.2-8 Dual DKC Layout-3

No.	Rack Layout	Number of DKC	Number of DKU		Number of maximum drive installations		
			SBX/UBX	FBX	2.5-inch HDD	3.5-inch HDD	FMD
H1		2	0	2	0	0	96
H2		2	0	4	0	0	192
H3		2	3	4	576	288	192
H4		2	5	4	960	480	192
H5		2	7	4	1344	672	192
H6		2	8	4	1536	768	192

1.1.2.3.3 Connection of DKA to Drive Chassis

The DKA and the Drive Chassis connections are shown below.

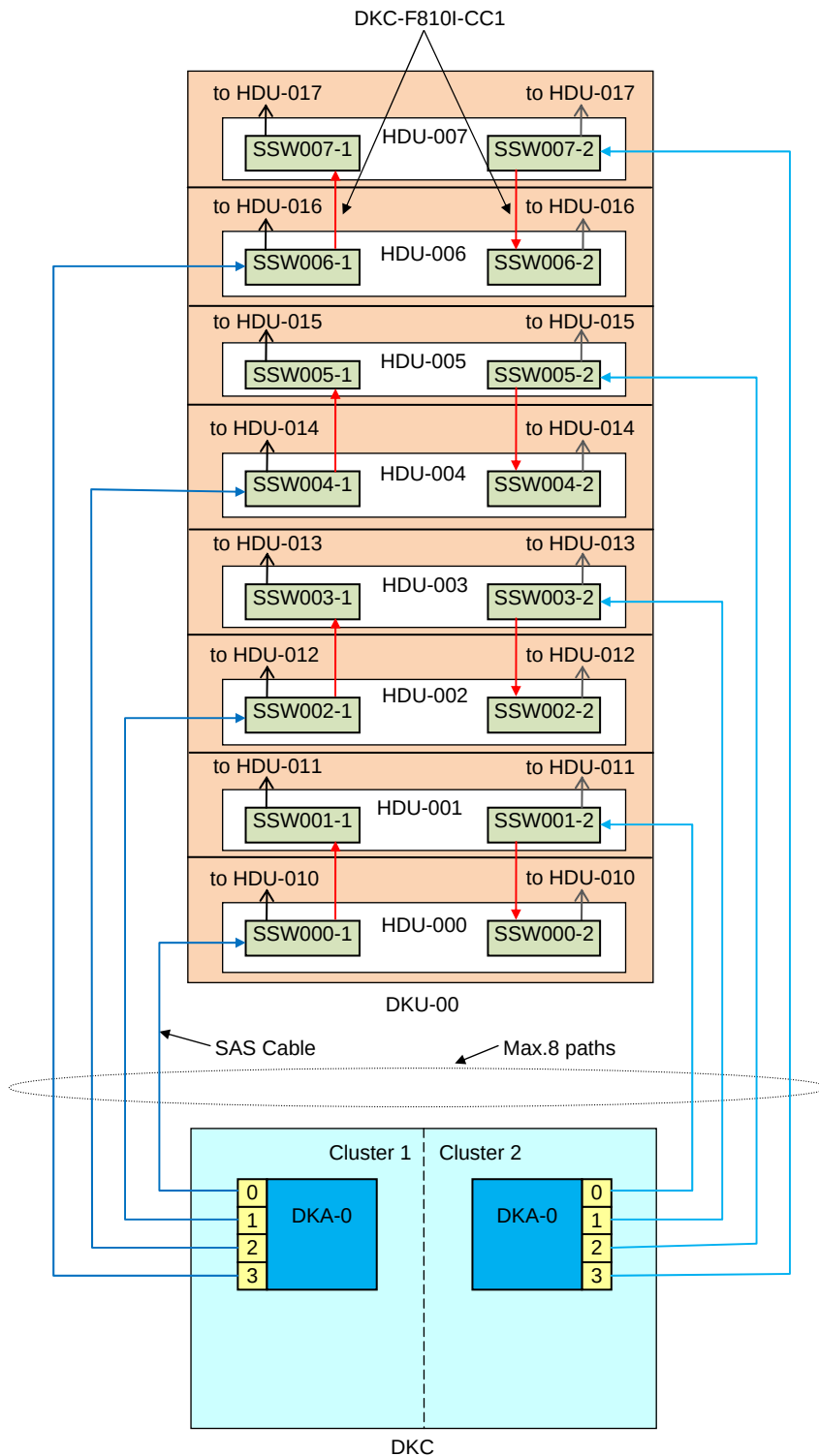


Fig. 1.1.2.3.3-1 The SAS Connections Diagram of RACK-00 (SBX/UBX Standard Model)

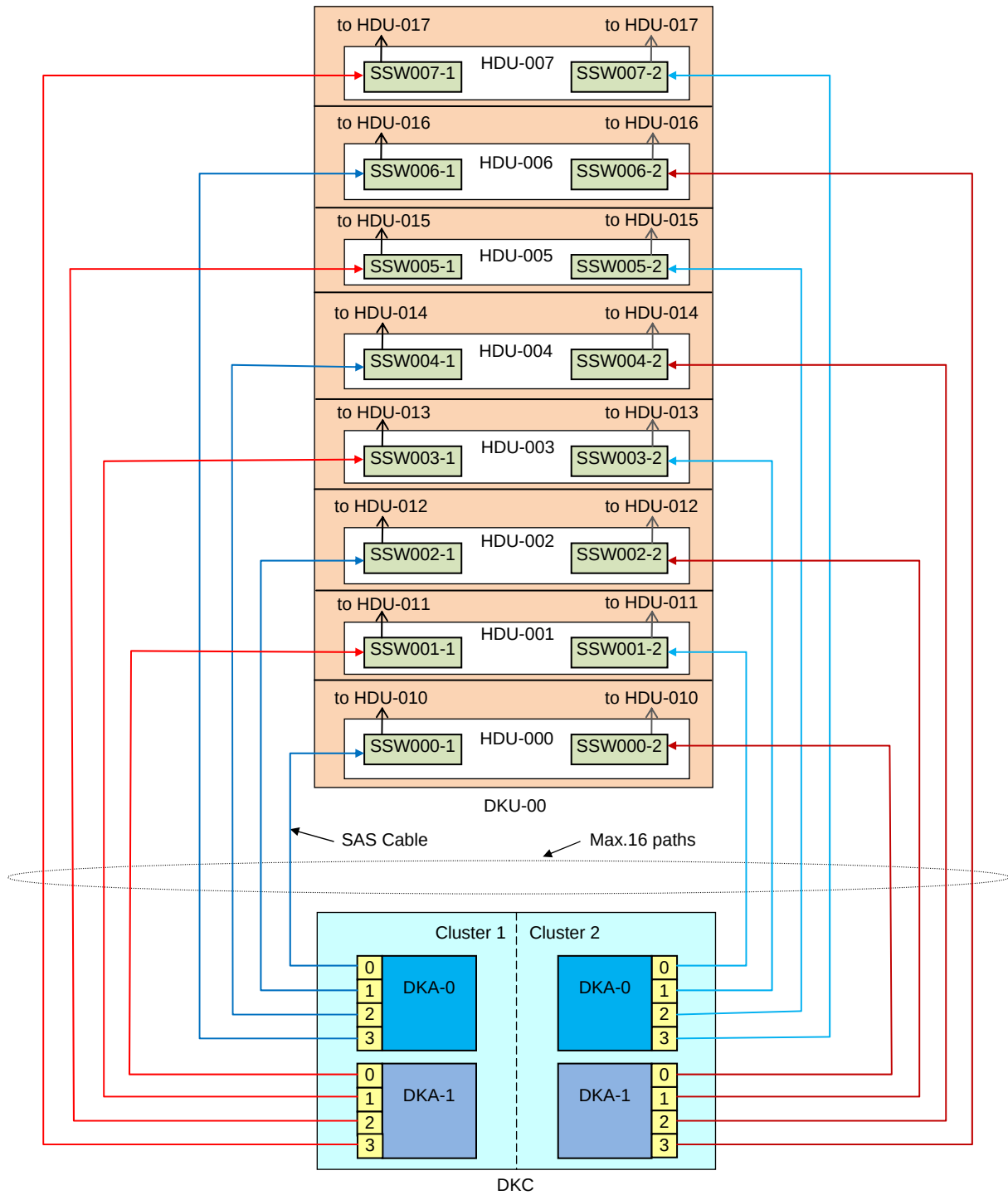


Fig. 1.1.2.3.3-2 The SAS Connections Diagram of RACK-00
(SBX/UBX High Performance Model)



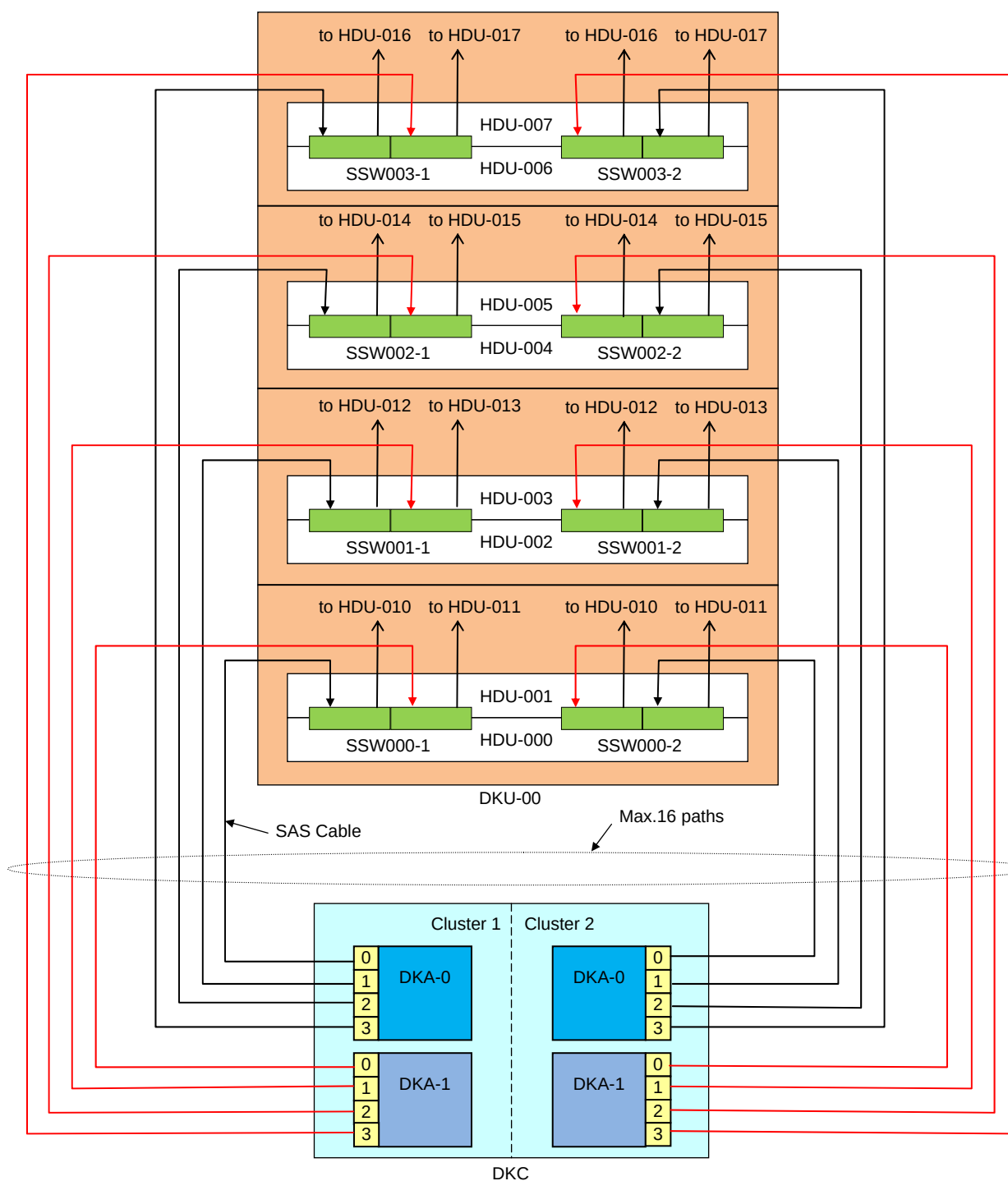


Fig. 1.1.2.3.3-4 The SAS Connections Diagram of RACK-00 (FBX High Performance Model)

The installation order of the DKA and Drive Chassis is as follows.

DKA → DKU-00 → DKU-01 → DKU-02 → DKU-03 → DKU-04 → DKU-05

The relation of DKA connection to HDU in the Drive Chassis is shown below.

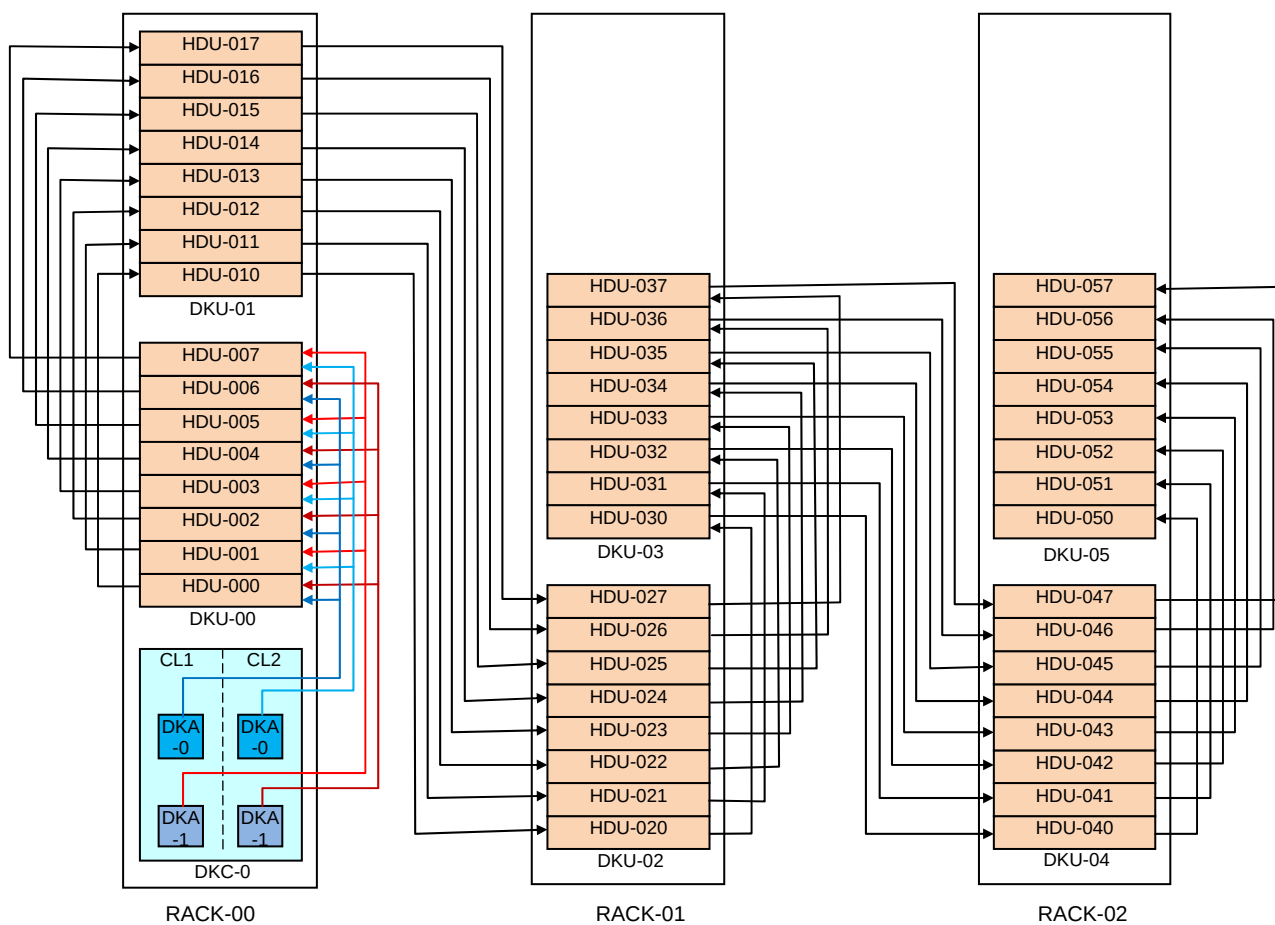


Fig. 1.1.2.3.3-5 Connection Order of Drive Chassis

INST01-540**1.1.2.3.4 System Configurations and Numbers of Options Required**

The required options are shown below.

**Table 1.1.2.3.4-1 Requisite Options for Standard Model
(Single and Twin DKC model)**

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

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

Table 1.1.2.3.4-2 Requisite Options for Standard Model (Dual DKC model)

No.	Required Number of Options											Remarks
	DKC810I -CBXA	DKC-F810I-									FMD (*1)	
		CBXB	RK42	FBX	SCA/ ESCA	CC1	CC2	CC4	FC5	MOD5		
1	1	1	1	2	2	2	2	—	—	1	96	Table 1.1.2.3.2-6 (F1)
2	1	1	2	3	2	2	2	—	2	1	144	Table 1.1.2.3.2-6 (F2)
3	1	1	3	4	2	2	2	2	2	1	192	Table 1.1.2.3.2-6 (F3)
4	1	1	1	2	2	2	—	—	2	1	96	Table 1.1.2.3.2-7 (G1)
5	1	1	2	3	2	2	—	—	4	1	144	Table 1.1.2.3.2-7 (G2)
6	1	1	3	4	2	2	—	2	4	1	192	Table 1.1.2.3.2-7 (G3)
7	1	1	2	2	2	2	—	—	2	1	96	Table 1.1.2.3.2-8 (H1)
8	1	1	2	3	2	4	—	—	2	1	144	Table 1.1.2.3.2-8 (H2)
9	1	1	2	4	2	6	—	—	2	1	192	Table 1.1.2.3.2-8 (H3)

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

**Table 1.1.2.3.4-3 Requisite Options for High Performance Model
(Single and Twin DKC model)**

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

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

Table 1.1.2.3.4-4 Requisite Options for High Performance Model (Dual DKC model)

No.	Required Number of Options											Remarks
	DKC810I -CBXA	DKC-F810I-									FMD (*1)	
		CBXB	RK42	FBX	SCA/ ESCA	CC1	CC2	CC4	FC5	MOD5		
1	1	1	1	2	4	—	4	—	—	1	96	Table 1.1.2.3.2-6 (F1)
2	1	1	2	3	4	—	4	—	2	1	144	Table 1.1.2.3.2-6 (F2)
3	1	1	3	4	4	—	4	2	2	1	192	Table 1.1.2.3.2-6 (F3)
4	1	1	1	2	4	—	—	—	4	1	96	Table 1.1.2.3.2-7 (G1)
5	1	1	2	3	4	—	—	—	6	1	144	Table 1.1.2.3.2-7 (G2)
6	1	1	3	4	4	—	—	2	6	1	192	Table 1.1.2.3.2-7 (G3)
7	1	1	2	2	4	—	—	—	4	1	96	Table 1.1.2.3.2-8 (H1)
8	1	1	2	3	4	2	—	—	4	1	144	Table 1.1.2.3.2-8 (H2)
9	1	1	2	4	4	4	—	—	4	1	192	Table 1.1.2.3.2-8 (H3)

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

(1) In case of the twin DKC configuration that uses HDDs and FMDs

The storage system configuration and the number of required options for each model are shown below.

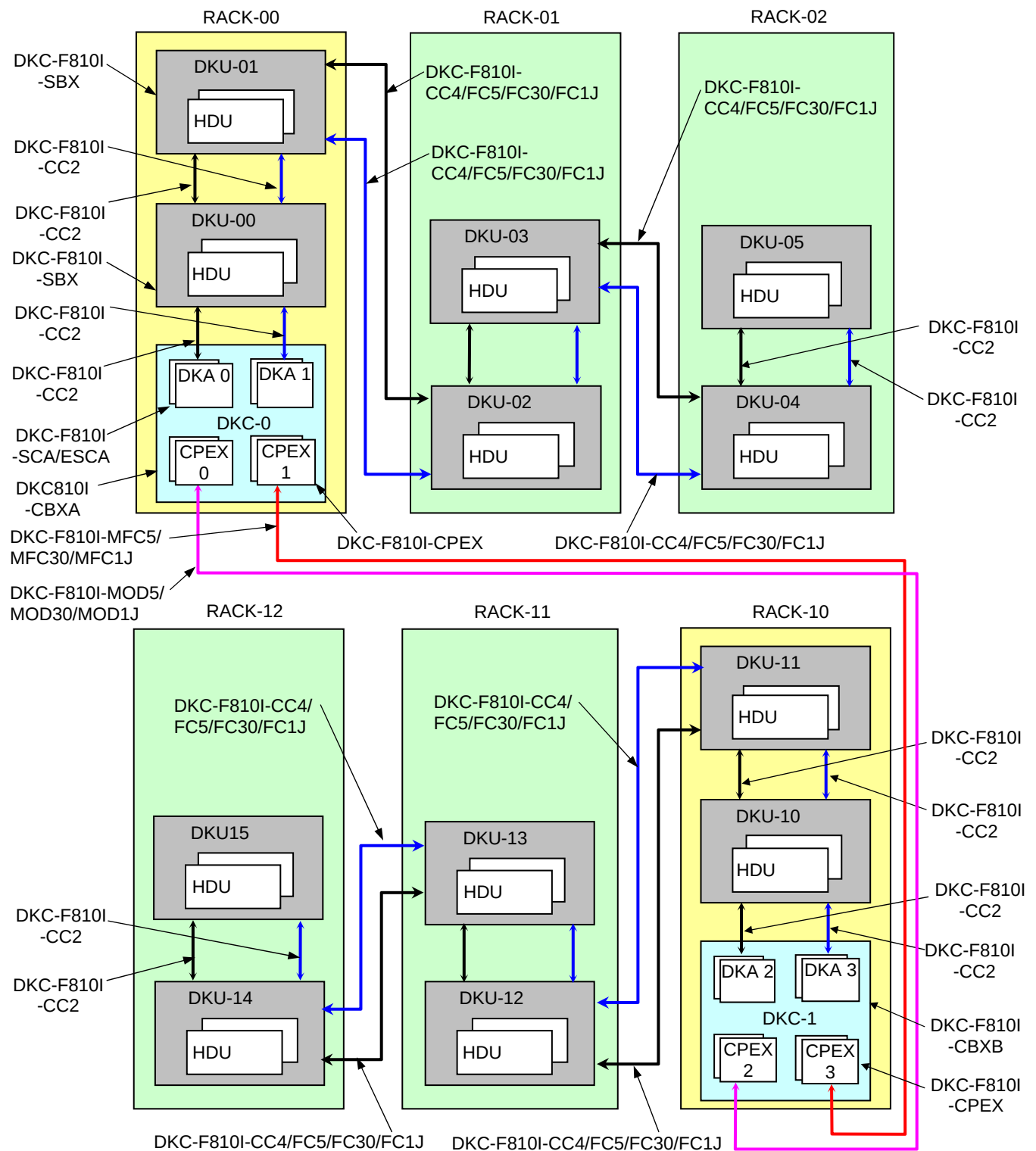


Fig. 1.1.2.3.4-1 Twin DKC Configurations and Required I/F Cable Options (High Performance Model)

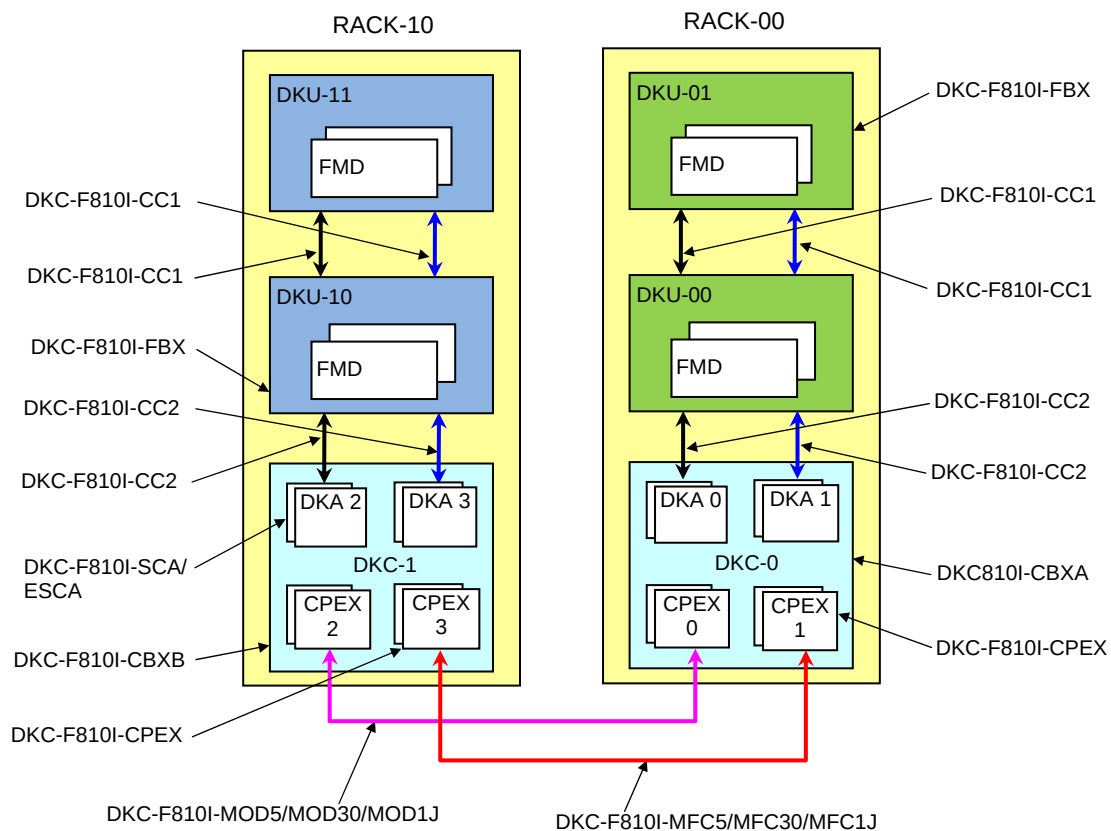


Fig. 1.1.2.3.4-2 Twin DKC Configuration and Required I/F Cable Options (FMD High Performance Model)

(2) In case of the single DKC configuration that uses HDDs and FMDs

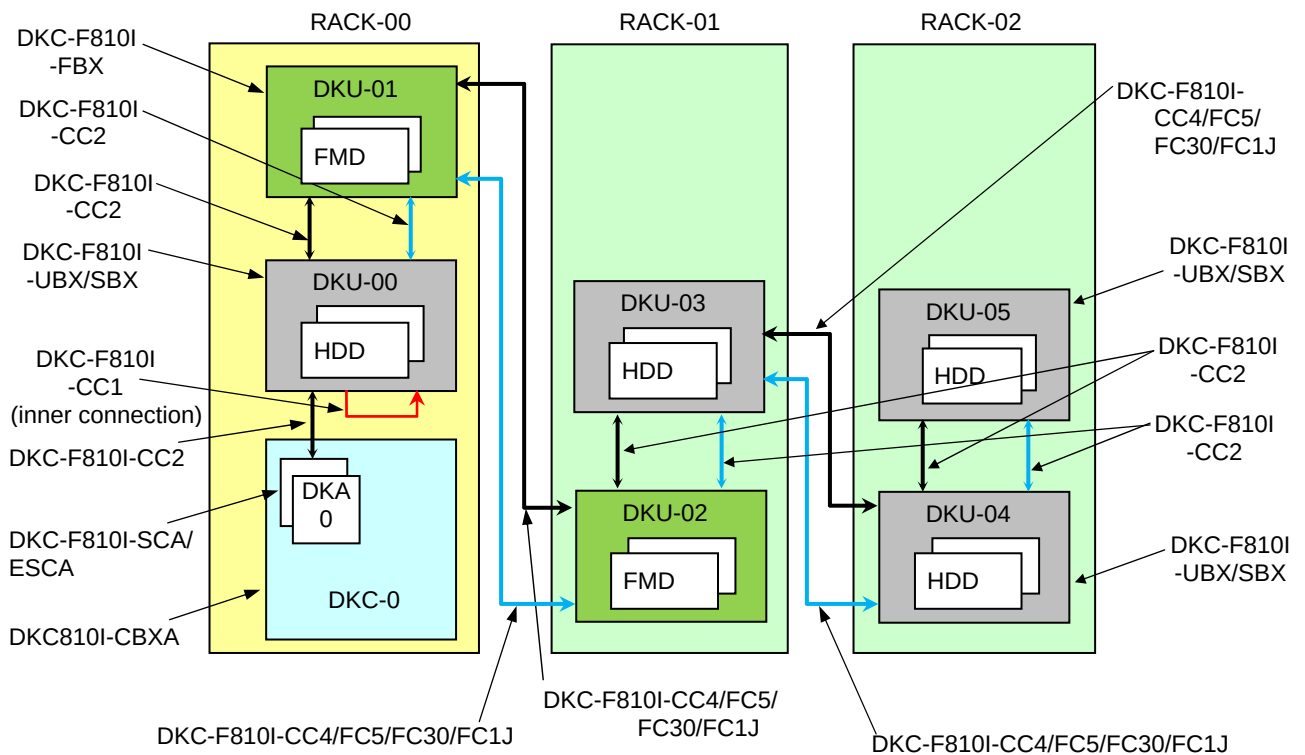


Fig. 1.1.2.3.4-3 Single DKC Configurations and Required I/F Cable Options (Standard Model)

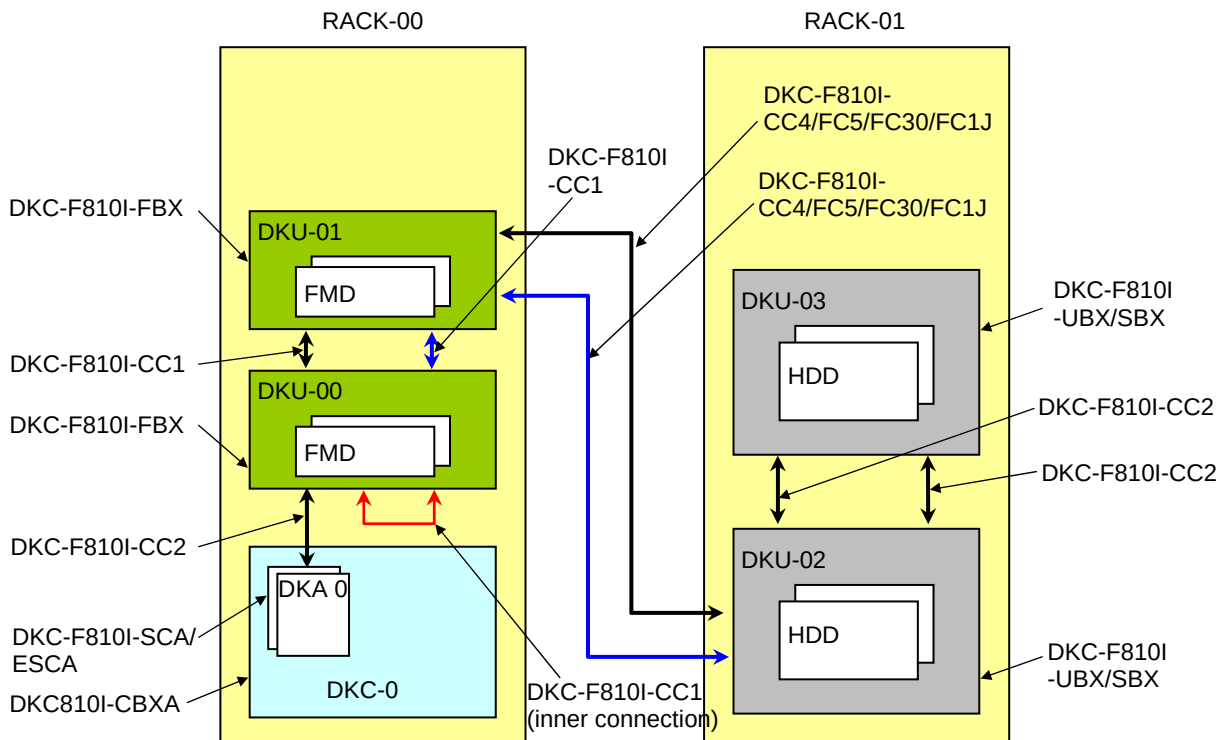


Fig. 1.1.2.3.4-4 Single DKC Configuration and Required I/F Cable Options (FMD Standard Model)

(3) In case of the dual DKC configuration that uses HDDs and FMDs

In the case of the dual DKC configurations, DKC-F810I-FC5 cables are required for DKC-DKU connection.

Only in the case of the configuration shown in Fig. 1.1.2.3.4-5, DKC-F810I-CC2 cables can be used for DKC-DKU connection.

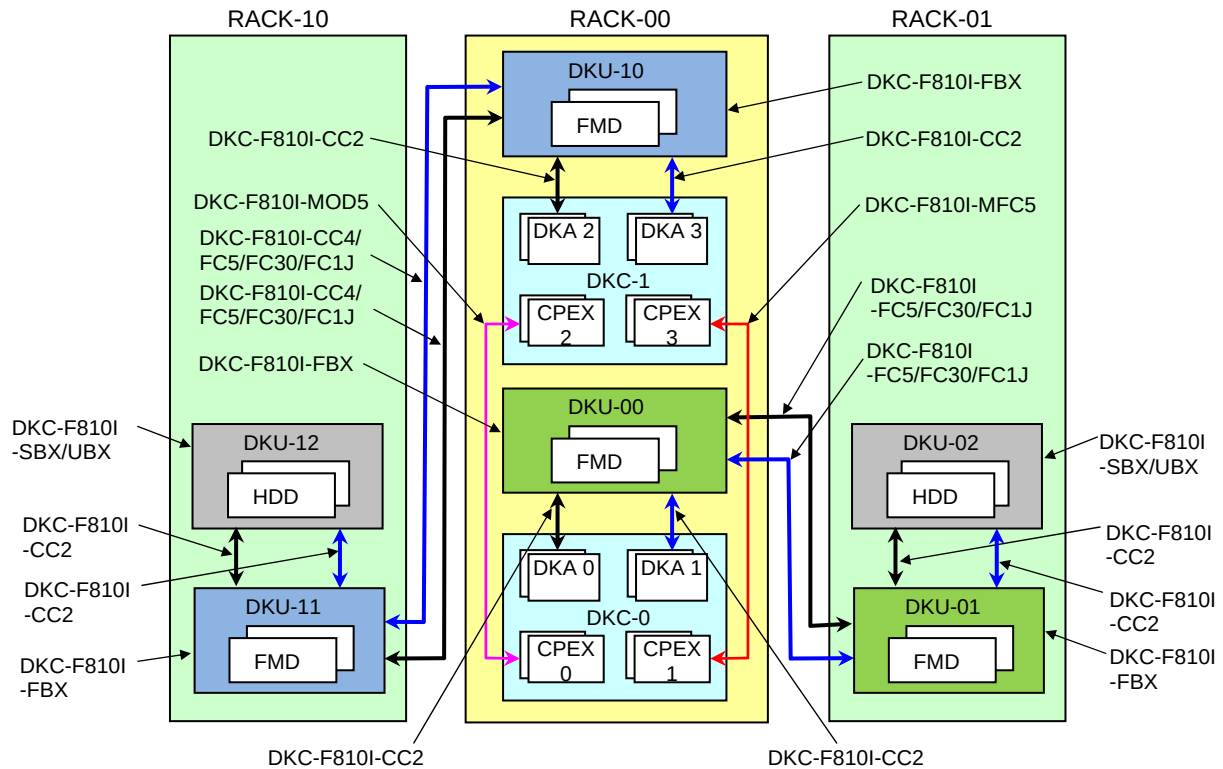


Fig. 1.1.2.3.4-5 Dual DKC Configuration and Required I/F Cable Options-1

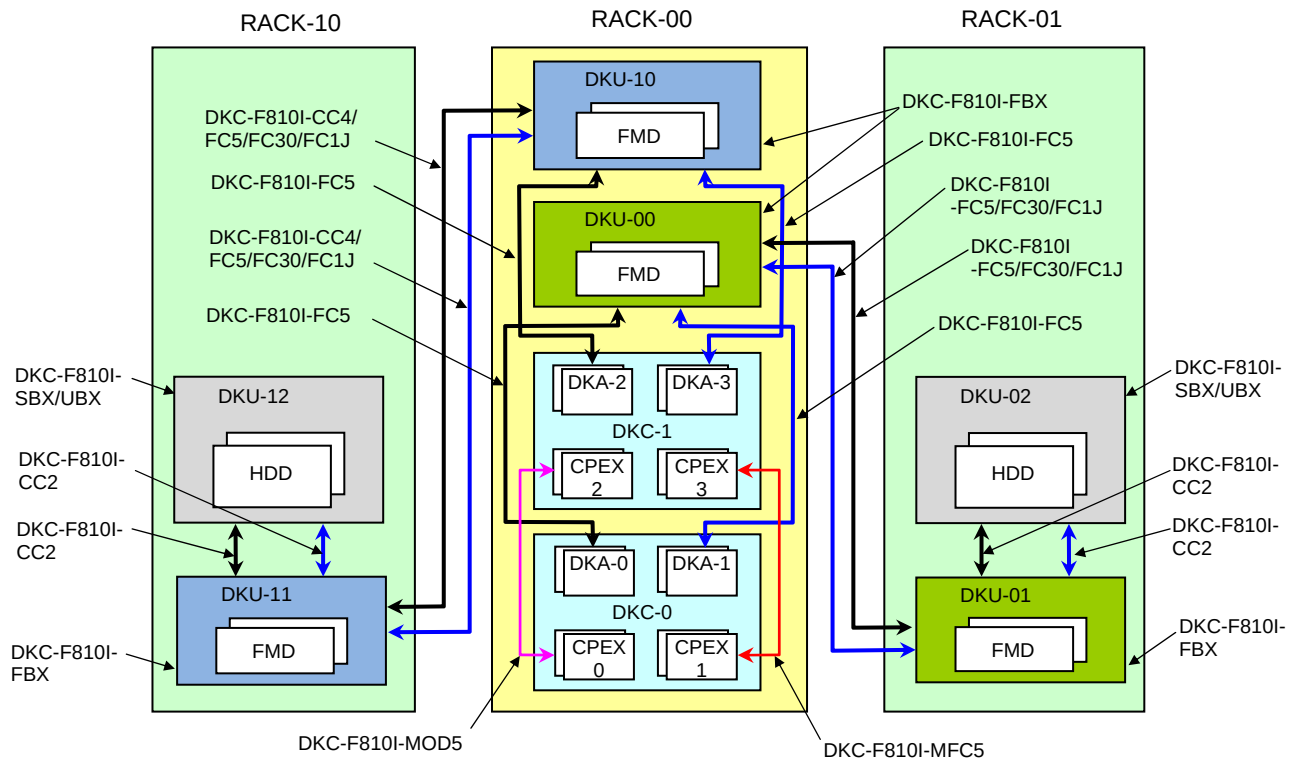


Fig. 1.1.2.3.4-6 Dual DKC Configuration and Required I/F Cable Options-2

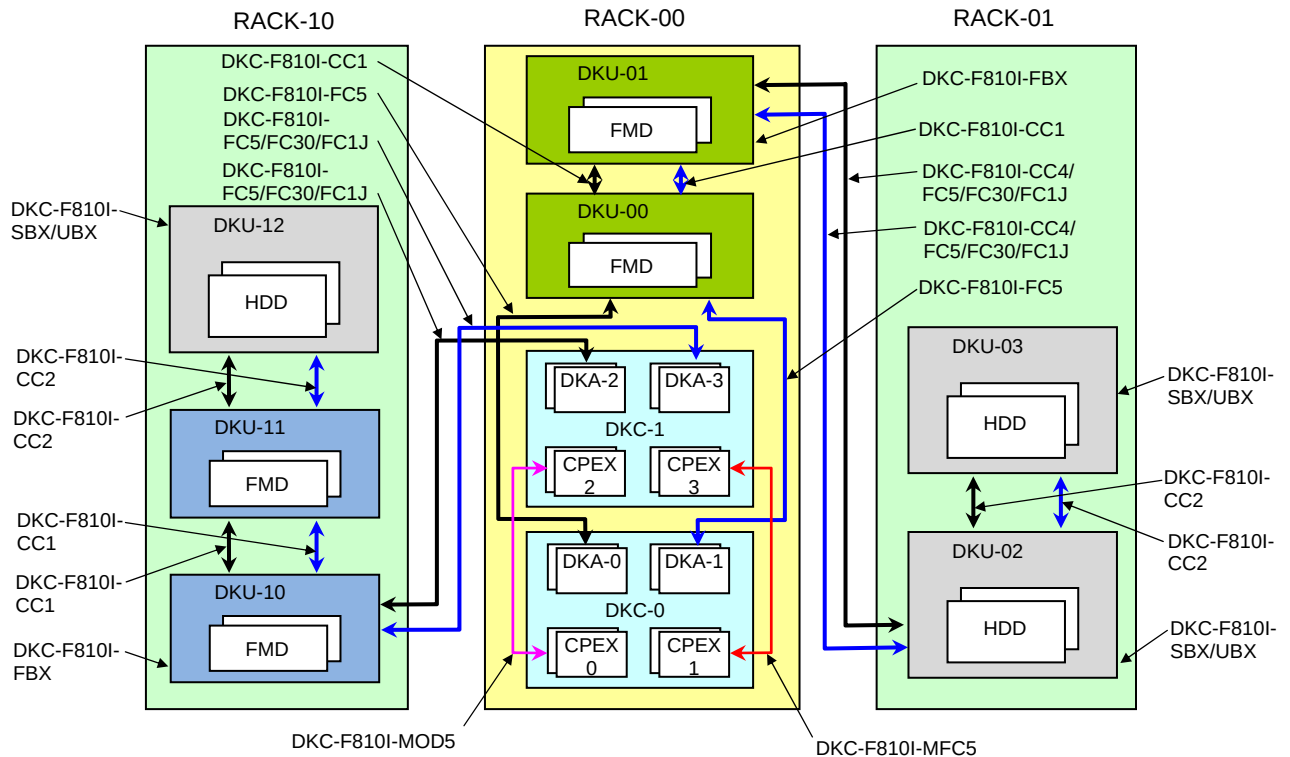


Fig. 1.1.2.3.4-7 Dual DKC Configuration and Required I/F Cable Options-3

(4) In case of the diskless configuration

In case of the diskless configuration, two controller chassis can be installed in the same rack.

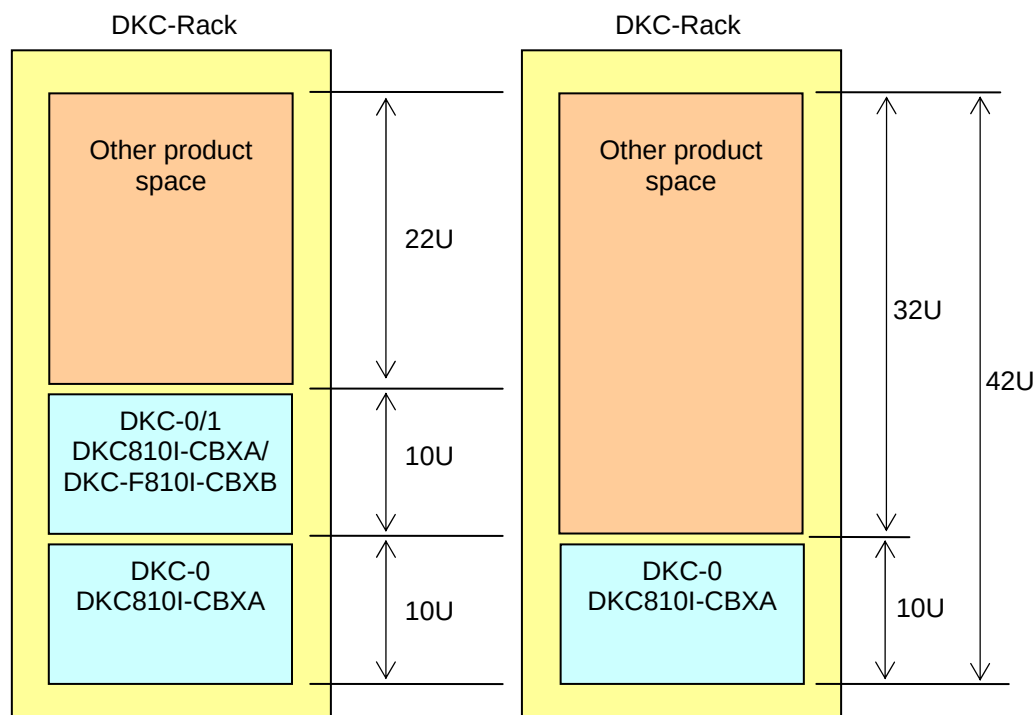


Fig. 1.1.2.3.4-8 Diskless System Configurations

1.1.2.3.5 RAID Group Installation Order

(1) Order of HDD installation in SFF Drive Chassis

The HDDs are installed from the location of 00 to 23 in turn per HDU-box.

7-23	7-22	7-21	7-20	7-19	7-18	7-17	7-16	7-15	7-14	7-13	7-12	7-11	7-10	7-09	7-08	7-07	7-06	7-05	7-04	7-03	7-02	7-01	7-00
6-23	6-22	6-21	6-20	6-19	6-18	6-17	6-16	6-15	6-14	6-13	6-12	6-11	6-10	6-09	6-08	6-07	6-06	6-05	6-04	6-03	6-02	6-01	6-00
5-23	5-22	5-21	5-20	5-19	5-18	5-17	5-16	5-15	5-14	5-13	5-12	5-11	5-10	5-09	5-08	5-07	5-06	5-05	5-04	5-03	5-02	5-01	5-00
4-23	4-22	4-21	4-20	4-19	4-18	4-17	4-16	4-15	4-14	4-13	4-12	4-11	4-10	4-09	4-08	4-07	4-06	4-05	4-04	4-03	4-02	4-01	4-00
3-23	3-22	3-21	3-20	3-19	3-18	3-17	3-16	3-15	3-14	3-13	3-12	3-11	3-10	3-09	3-08	3-07	3-06	3-05	3-04	3-03	3-02	3-01	3-00
2-23	2-22	2-21	2-20	2-19	2-18	2-17	2-16	2-15	2-14	2-13	2-12	2-11	2-10	2-09	2-08	2-07	2-06	2-05	2-04	2-03	2-02	2-01	2-00
1-23	1-22	1-21	1-20	1-19	1-18	1-17	1-16	1-15	1-14	1-13	1-12	1-11	1-10	1-09	1-08	1-07	1-06	1-05	1-04	1-03	1-02	1-01	1-00
0-23	0-22	0-21	0-20	0-19	0-18	0-17	0-16	0-15	0-14	0-13	0-12	0-11	0-10	0-09	0-08	0-07	0-06	0-05	0-04	0-03	0-02	0-01	0-00

SFF Drive Chassis (Front View)

Fig. 1.1.2.3.5-1 HDD Installation Order to the SFF Drive Chassis

(2) Order of HDD installation in LFF Drive Chassis

The HDDs are installed from the location of 00 to 11 in turn per HDU.

7-08	7-09	7-10	7-11	} HDU-007
7-04	7-05	7-06	7-07	
7-00	7-01	7-02	7-03	
6-08	6-09	6-10	6-11	} HDU-006
6-04	6-05	6-06	6-07	
6-00	6-01	6-02	6-03	
5-08	5-09	5-10	5-11	} HDU-005
5-04	5-05	5-06	5-07	
5-00	5-01	5-02	5-03	
4-08	4-09	4-10	4-11	} HDU-004
4-04	4-05	4-06	4-07	
4-00	4-01	4-02	4-03	
3-08	3-09	3-10	3-11	} HDU-003
3-04	3-05	3-06	3-07	
3-00	3-01	3-02	3-03	
2-08	2-09	2-10	2-11	} HDU-002
2-04	2-05	2-06	2-07	
2-00	2-01	2-02	2-03	
1-08	1-09	1-10	1-11	} HDU-001
1-04	1-05	1-06	1-07	
1-00	1-01	1-02	1-03	
0-08	0-09	0-10	0-11	} HDU-000
0-04	0-05	0-06	0-07	
0-00	0-01	0-02	0-03	

LFF Drive Chassis (Front View)

Fig. 1.1.2.3.5-2 HDD Installation Order to the LFF Drive Chassis

(3) Order of FMD installation in FMD Chassis

The FMDs are installed from the location of 00 to 05 in turn per FBX-Box.

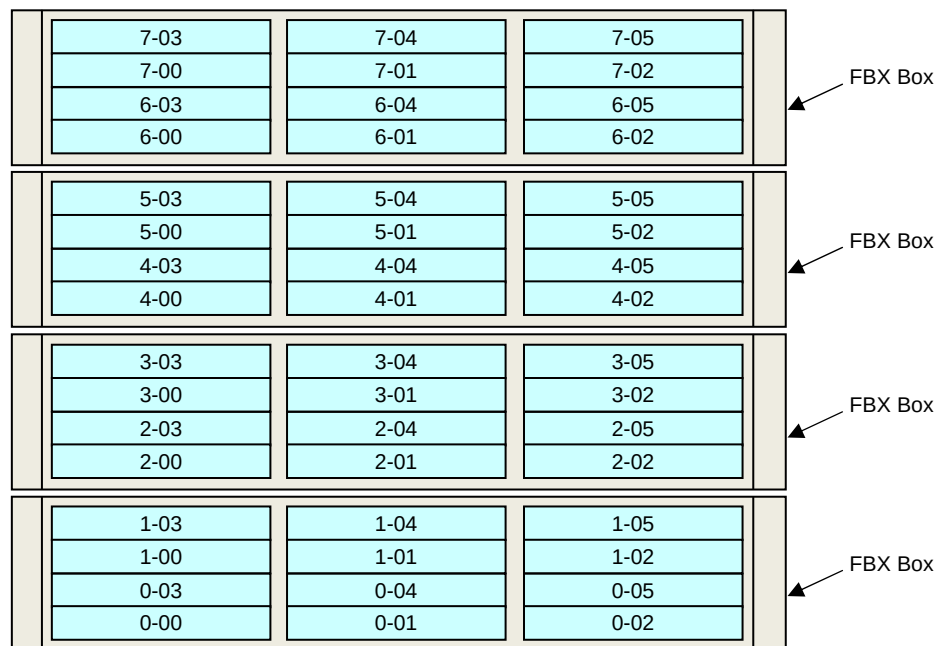


Fig. 1.1.2.3.5-3 FMD Installation Order to the FMD Chassis

1.1.2.4 Notes for Installing Flash Drives

The flash-drive that can be controlled with the single DKC model is 192 drives or less. (exclusive of the spare drive)

However, the flash-drive that can be controlled with one port of the disk adapter (DKA) is 48 drives or less.

The flash-drive that can be controlled with the twin DKC model is 384 drives or less. (exclusive of the spare drive)

However, the flash-drive that can be controlled with one port of the DKA is 48 drives or less.

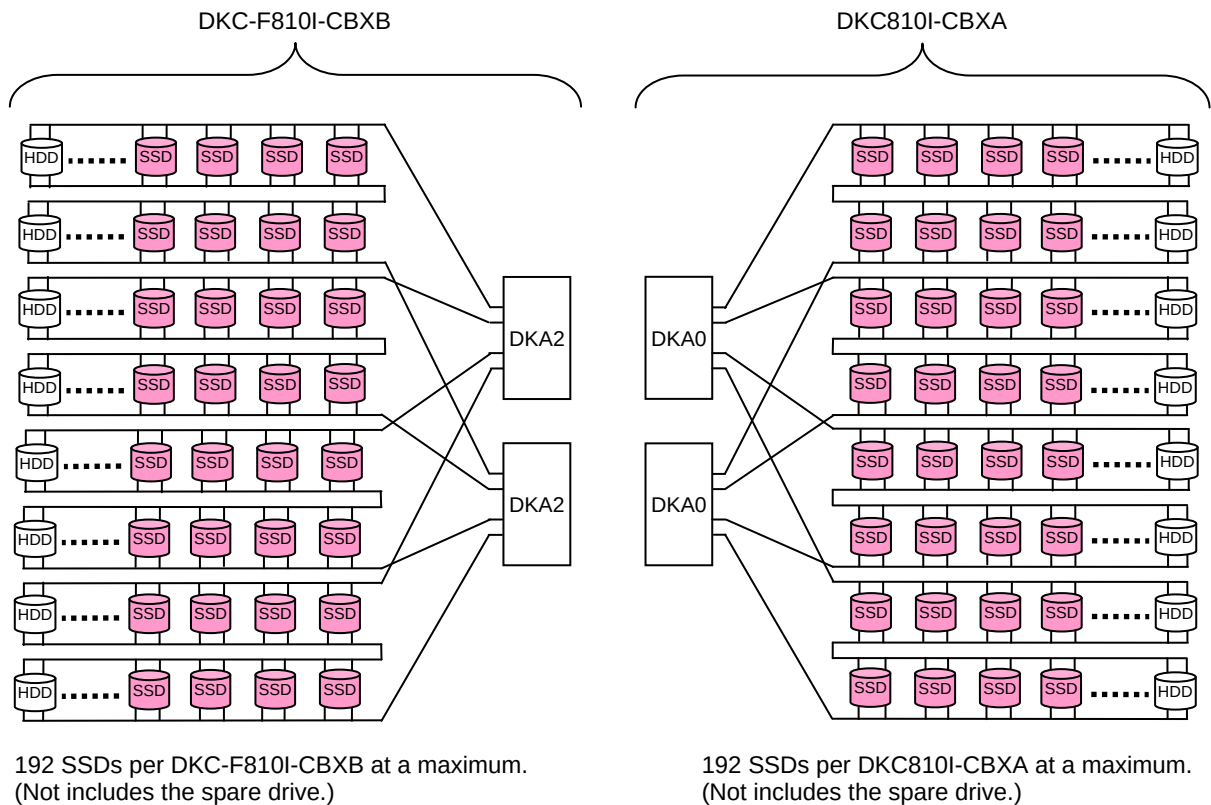


Fig. 1.1.2.4-1 Flash Drive Install Specifications

1.1.2.5 Notes for Installing Flash Module Drive Chassis

Up to two DKC-F810I-FBX (Flash Module Drive Chassis) can be connected to the DKC-0. Similarly, up to two DKC-F810I-FBX (Flash Module Drive Chassis) can be connected to the DKC-1.

Table 1.1.2.5-1 Maximum Number of Installable DKC-F810I-FBX and FMD

DKC type	Maximum number of connectable DKC-F810I-FBX	Maximum number of installable FMD (including spare drives)
DKC-0 (CBXA)	2	96
DKC-1 (CBXB)	2	96

INST01-680**1.1.3 Specifications****(1) Physical Specifications**

The DKC810I physical specifications are shown in the following table:

Table 1.1.3-1 DKC810I Physical Specifications

No.	Model Number	Weight (kg)	Heat Output (W)	Power Consumption (VA)	Dimension (mm)			Air Flow (m ³ /min.)
					Width	Depth	Height	
1	DKC810I-CBXA	141.7	483 *1	508 *1	445	823	436	16.7
2	DKC-F810I-CBXB	140.0	413 *1	435 *1	445	823	436	16.2
3	DKC-F810I-SBX	142.9	640 *1	674 *1	446	536	86 × 8 unit	9.4
4	DKC-F810I-UBX	135.8	640 *1	674 *1	446	536	86 × 8 unit	6.2
5	DKC-F810I-FBX	76.7	600 *1	640 *1	445	720	89 × 4 unit	8.4
6	DKC-F810I-RK42	110.0	—	—	600	1,070	2,005	—
7	DKC-F810I-SCOV	33.6	—	—	—	—	—	—
8	DKC-F810I-SCOVH	33.6	—	—	—	—	—	—
9	DKC-F810I-DECO	4.4	—	—	—	—	—	—
10	DKC-F810I-DECOP	4.4	—	—	—	—	—	—
11	DKC-F810I-KYH	0.5	—	—	—	—	—	—
12	DKC-F810I-KYP	0.4	—	—	—	—	—	—
13	DKC-F810I-FDR	12.6	—	—	594	51	1,927	—
14	DKC-F810I-FDH42	0.4	—	—	—	—	—	—
15	DKC-F810I-TR42	1.8	—	—	—	—	—	—
16	DKC-F810I-PDBP	5.0	—	—	—	—	—	—
17	DKC-F810I-BCH	3.7	—	—	483	45	443	—
18	DKC-F810I-BCP	3.7	—	—	483	42	443	—
19	DKC-F810I-BUH	5.3	—	—	483	45	354 × 2 unit	—
20	DKC-F810I-BUP	5.3	—	—	483	42	354 × 2 unit	—
21	DKC-F810I-BFH	5.3	—	—	483	45	354	—
22	DKC-F810I-BFP	5.3	—	—	483	42	354	—
23	DKC-F810I-FIHT	0.2	—	—	—	—	—	—
24	DKC-F810I-CRF42	3.6	—	—	—	—	—	—
25	DKC-F810I-CRF3R	6.3	—	—	—	—	—	—
26	DKC-F810I-SBBRAL	17.6	—	—	—	—	—	—
27	DKC-F810I-FMDRAL	5.2	—	—	—	—	—	—

(To be continued)

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No.	Model Number	Weight (kg)	Heat Output (W)	Power Consumption (VA)	Dimension (mm)			Air Flow (m ³ /min.)
					Width	Depth	Height	
28	DKC-F810I-PLUC	1.0	—	—	—	—	—	—
29	DKC-F810I-PHUC	4.5	—	—	—	—	—	—
30	DKC-F810I-PFUC	2.0	—	—	—	—	—	—
31	DKC-F810I-PLEC	0.7	—	—	—	—	—	—
32	DKC-F810I-PHEC	3.1	—	—	—	—	—	—
33	DKC-F810I-PFEC	1.4	—	—	—	—	—	—
34	DKC-F810I-PLCC	0.7	—	—	—	—	—	—
35	DKC-F810I-PHCC	3.0	—	—	—	—	—	—
36	DKC-F810I-PFCC	1.3	—	—	—	—	—	—
37	DKC-F810I-SVP	4.0	75	79	—	—	—	0.54
38	DKC-F810I-HUB	2.3	10	11	—	—	—	—
39	DKC-F810I-MOD5	2.0	1	1	—	—	—	—
40	DKC-F810I-MOD30	3.5	1	1	—	—	—	—
41	DKC-F810I-MOD1J	7.8	1	1	—	—	—	—
42	DKC-F810I-MFC5	0.8	—	—	—	—	—	—
43	DKC-F810I-MFC30	2.3	—	—	—	—	—	—
44	DKC-F810I-MFC1J	6.5	—	—	—	—	—	—
45	DKC-F810I-CC1	1.1	—	—	—	—	—	—
46	DKC-F810I-CC2	1.7	—	—	—	—	—	—
47	DKC-F810I-CC4	2.9	—	—	—	—	—	—
48	DKC-F810I-FC5		—	—	—	—	—	—
49	DKC-F810I-FC30		—	—	—	—	—	—
50	DKC-F810I-FC1J		—	—	—	—	—	—
51	DKC-F810I-SCA	1.9	100	105	—	—	—	—
52	DKC-F810I-ESCA	1.9	100	105	—	—	—	—
53	DKC-F810I-MP	2.7	170	179	—	—	—	—
54	DKC-F810I-CPEX	2.8	80	84	—	—	—	—
55	DKC-F810I-CM16G	0.022	4	4	—	—	—	—
56	DKC-F810I-CM32G	0.054	7	7	—	—	—	—
57	DKC-F810I-BKMS	1.9	40 *2	42 *2	—	—	—	—
58	DKC-F810I-BKML	2.3	50 *2	53 *2	—	—	—	—
59	DKC-F810I-BMM128	0.08	4 *3	4 *3	—	—	—	—
60	DKC-F810I-BMM256	0.07	4 *3	4 *3	—	—	—	—
61	DKC-F810I-16FC8	2.0	110	116	—	—	—	—
62	DKC-F810I-8FC16	2.4	110	116	—	—	—	—
63	DKC-F810I-16MS8	2.4	120	126	—	—	—	—
64	DKC-F810I-16ML8	2.4	120	126	—	—	—	—

(To be continued)

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No.	Model Number	Weight (kg)	Heat Output (W)	Power Consumption (VA)	Dimension (mm)			Air Flow (m ³ /min.)
					Width	Depth	Height	
65	DKC-F810I-1PL8	0.02	—	—	—	—	—	—
66	DKC-F810I-1PS8	0.02	—	—	—	—	—	—
67	DKC-F810I-1PL16	0.02	—	—	—	—	—	—
68	DKC-F810I-1PS16	0.02	—	—	—	—	—	—
69	DKC-F810I-300KCM	0.3	8.6 *4	9.0 *4	—	—	—	—
70	DKC-F810I-600JCM	0.3	8.0 *4	8.5 *4	—	—	—	—
71	DKC-F810I-600J5M	0.775	8.0 *4	8.5 *4	—	—	—	—
72	DKC-F810I-900JCM	0.3	9.0 *4	9.5 *4	—	—	—	—
73	DKC-F810I-1R2JCM	0.3	8.3 *4	8.7 *4	—	—	—	—
74	DKC-F810I-3R0H3M	0.83	14.0 *4	14.7 *4	—	—	—	—
75	DKC-F810I-4R0H3M	0.83	14.1 *4	14.8 *4	—	—	—	—
76	DKC-F810I-400MCM	0.23	6.7 *4	7.1 *4	—	—	—	—
77	DKC-F810I-400M5M	0.71	6.7 *4	7.1 *4	—	—	—	—
78	DKC-F810I-800MCM	0.23	6.7 *4	7.1 *4	—	—	—	—
79	DKC-F810I-1R6FM	1.4	17.0 *4	18.0 *4	—	—	—	—
80	DKC-F810I-3R2FM	1.4	18.0 *4	19.0 *4	—	—	—	—

*1: Maximum values in case all the fans rotate at maximum.

*2: Maximum values in case the battery charge.

*3: Power is consumed during the battery backup time only.

*4: Actual values at a typical I/O condition. (Random Read and Write, 50 IOPSs for HDD, 2500 IOPSs for SSD/FMD, Data Length: 8Kbytes)

These values may increase for future compatible drives.

NOTE: The maximum power of the drive that DKC810I assumed is as follows.

SFF-Drive: 0.013kW/0.014kVA, LFF-Drive: 0.020kW/0.021kVA,

FMD: 0.034kW/0.036kVA.

INST01-710**1.1.4 Environmental Specifications**

The environmental specifications are shown in the following table.

Item	Condition		
	Operating (*1)	Non-operation (*2)	Shipping & Storage (*3)
Temperature (°C)	16 to 32	-10 to 43 -10 to 35 (*10)	-25 to 60
Relative Humidity (%) (*4)	20 to 80	8 to 90	5 to 95
Max. Wet Bulb (°C)	26	27	29
Temperature Deviation (°C/hour)	10	10	20
Vibration (*5)	5 to 10Hz: 0.25mm 10 to 300Hz: 0.49m/s ²	5 to 10Hz: 2.5mm 10 to 70Hz: 4.9m/s ² 70 to 99Hz: 0.05mm 99 to 300Hz: 9.8m/s ²	Sine Vibration: 4.9m/s ² , 5min. At the resonant frequency with the highest displacement found between 3 to 100Hz (*6)
			Random Vibration: 0.147m ² /s ³ , 30min, 5 to 100Hz (*7)
Earthquake resistance (m/s ²)	up to 2.5 (*11)	—	—
Shock	—	78.4m/s ² , 15ms	Horizontal: Incline Impact 1.22m/s (*8)
			Vertical: Rotational Edge 0.15m (*9)
Altitude	-60 to 3,000m		—
Noise Level (*12)	80dB or less (requisite) 70dB or less (recommended)	—	—

- *1: The requirements for operating condition should be satisfied before the storage system is powered on. Maximum temperature of 32°C should be strictly satisfied at air inlet portion. The recommended operational room temperature is 21°C to 24°C.
- *2: Non-operating condition includes both packing and unpacking conditions unless otherwise specified.
- *3: For shipping and storage, the product should be packed with factory packing.
- *4: No condensation in and around the drive should be observed under any conditions.
- *5: The vibration specifications apply to all three axes.
- *6: See ASTM D999-01 The Methods for Vibration Testing of Shipping Containers.
- *7: See ASTM D4728-01 Test Method for Random Vibration Testing of Shipping Containers.
- *8: See ASTM D5277-92 Test Method for Performing Programmed Horizontal Impacts Using an Inclined Impact Tester.
- *9: See ASTM D6055-96 Test Methods for Mechanical Handling of Unitized Loads and Large Shipping Cases and Crates.
- *10: When FMDs (DKC-F810I-1R6FM/3R2FM) are installed.
- *11: Time is 5 seconds or less in case of the testing with device resonance point (6 to 7Hz).
- *12: Noise exceeding the specified level may cause an error in the storage system.
 - Be sure to place the system at 6 or more meters distance from a noise source such as an emergency bell.
 - For example, the noise level of an emergency bell that generates noise of 93dB will be :
 - Approximately 80dB at 6 meters distance from the emergency bell.
 - Approximately 70dB at 15 meters distance from the emergency bell.

1.1.5 Power requirement

Specifications of the power facilities necessary to supply power to the storage system are shown below.

1. Input Voltage and Input Frequency Requirements

The input voltage and input frequency are as follows.

Table 1.1.5-1 Requirements for Input Voltage and Input Frequency

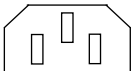
Frequency	Input Voltages (AC)	Conditions	Tolerance (%)
60Hz $\pm$ 2Hz	200V - 240V	1 Phase 2 Wire + Ground	+6% or -8%
50Hz $\pm$ 3Hz	200V - 240V	1 Phase 2 Wire + Ground	+6% or -8%

This unit does not apply to IT power system.

2. Circuit Breaker and Plug

Select a circuit breaker and a plug for the system configuration according to the specification of following table.

Table 1.1.5-2 Input Power Specifications

Item	Input Power	Input Current* ¹	Steady Current* ²	Leakage Current	Inrush Current			Power Cord Plug Type
					1st (0-p)	2nd (0-p)	1st (0-p) Time (-25%)	
DKC PS	1-phase, AC200V to AC240V	7.18A	3.59A	0.28mA	20A	15A	80ms	IEC60320 C14 
UBX PS		2.07A	1.04A	1.75mA	25A	20A	150ms	
SBX PS		2.61A	1.31A	1.75mA	25A	20A	150ms	
FBX PS		2.83A	1.42A	0.28mA	20A	10A	80ms	

*1: The maximum current in case AC input is not a redundant configuration (in case of 184V [200V -8%]).

*2: The maximum current in case AC input is a redundant configuration (in case of 184V [200V -8%]).

3. Choice of PDU

Use the PDU with the circuit breaker.

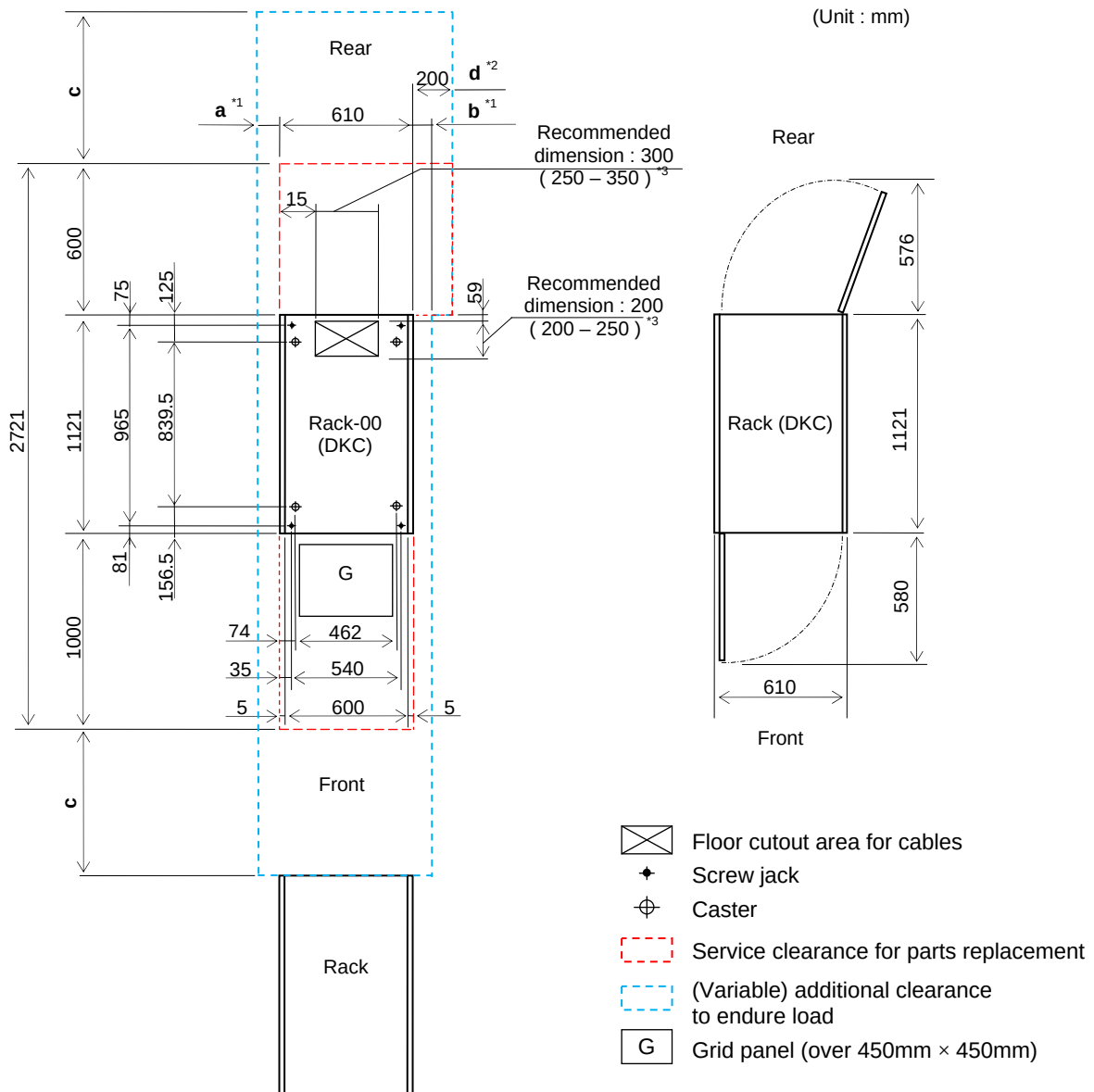
When using the PDU without a circuit breaker, the current specification of the PDU must be the same as the circuit breaker rating of PDP.

1.1.6 Service Clearance and Floor Cutout

Make sure that the service clearance is secured. Never utilize this space for the storage of any article.

The service clearances and floor cutouts shown in this section are for the DKC-F810I-RK42 Rack.

(1) Single Rack Configuration



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-1.

*2: Clearance (d) is required over 200mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

*3: Dimensions in parentheses show allowable range of the floor cutout dimensions. Basically, position the floor cutout in the center of the rack. However, the position may be off-center as long as the cutout allows smooth entrance of an external cable (check the relation between the positions of the cutout and the opening on the bottom plate of the rack) and it is within the allowable range.

Fig. 1.1.6-1 Service Clearance and Floor Cutouts for Single Rack Configuration

Table 1.1.6-1 Floor Load Rating and Required Clearances for Single Rack Configuration

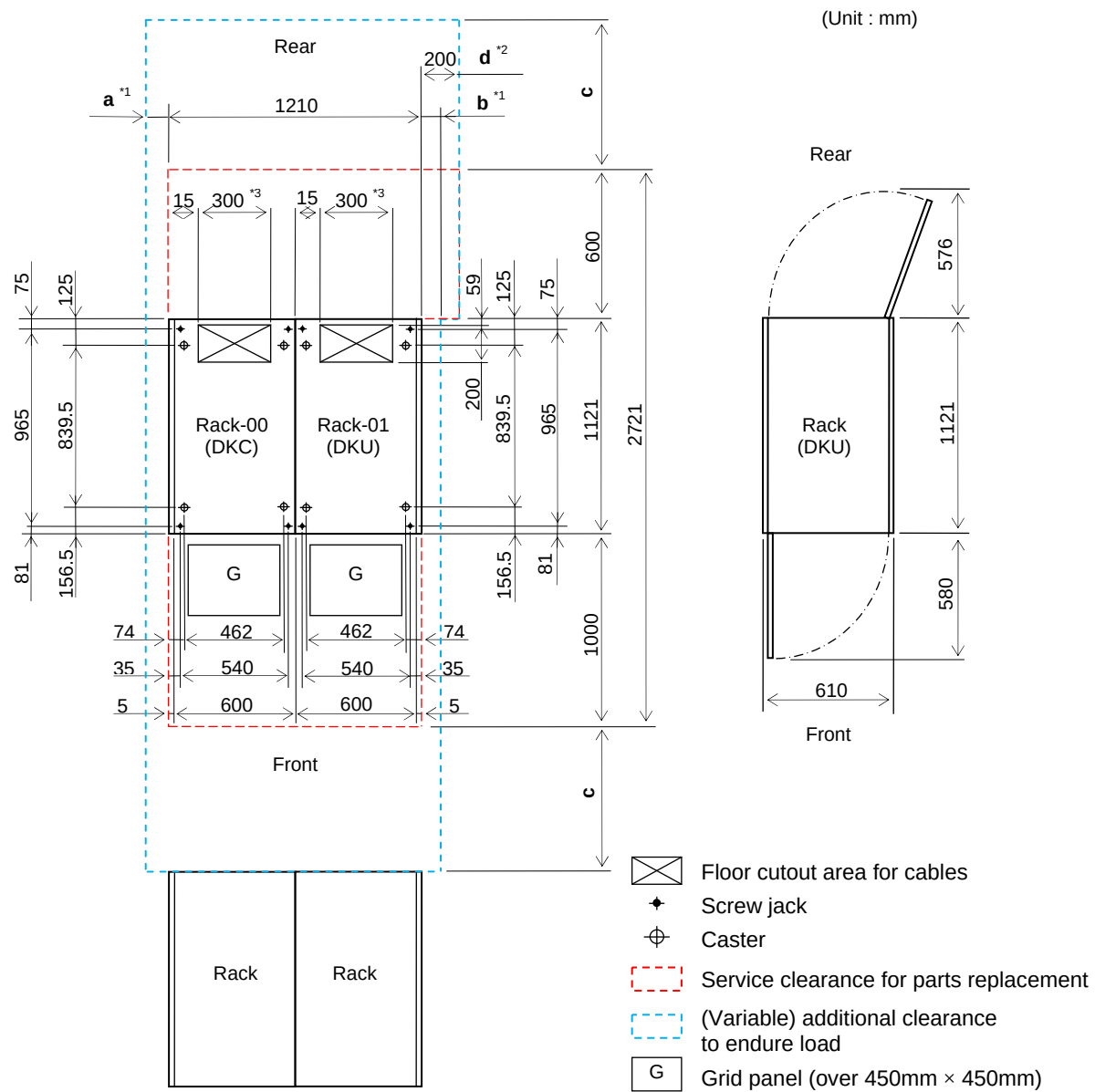
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0.1	0	0	0	0	0	0	0
500	0.3	0.2	0.1	0.1	0	0	0	0
450	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0
400	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
350	0.9	0.7	0.6	0.6	0.5	0.4	0.4	0.3
300	1.4	1.1	1.0	0.9	0.8	0.7	0.6	0.5

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(2) Twin Rack Configuration (Single DKC Model)



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-2.

*2: Clearance (d) is required over 200mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-2 Service Clearances and Floor Cutouts for Twin Rack Configuration-1

Table 1.1.6-2 Floor Load Rating and Required Clearances for Two Rack Configuration-1

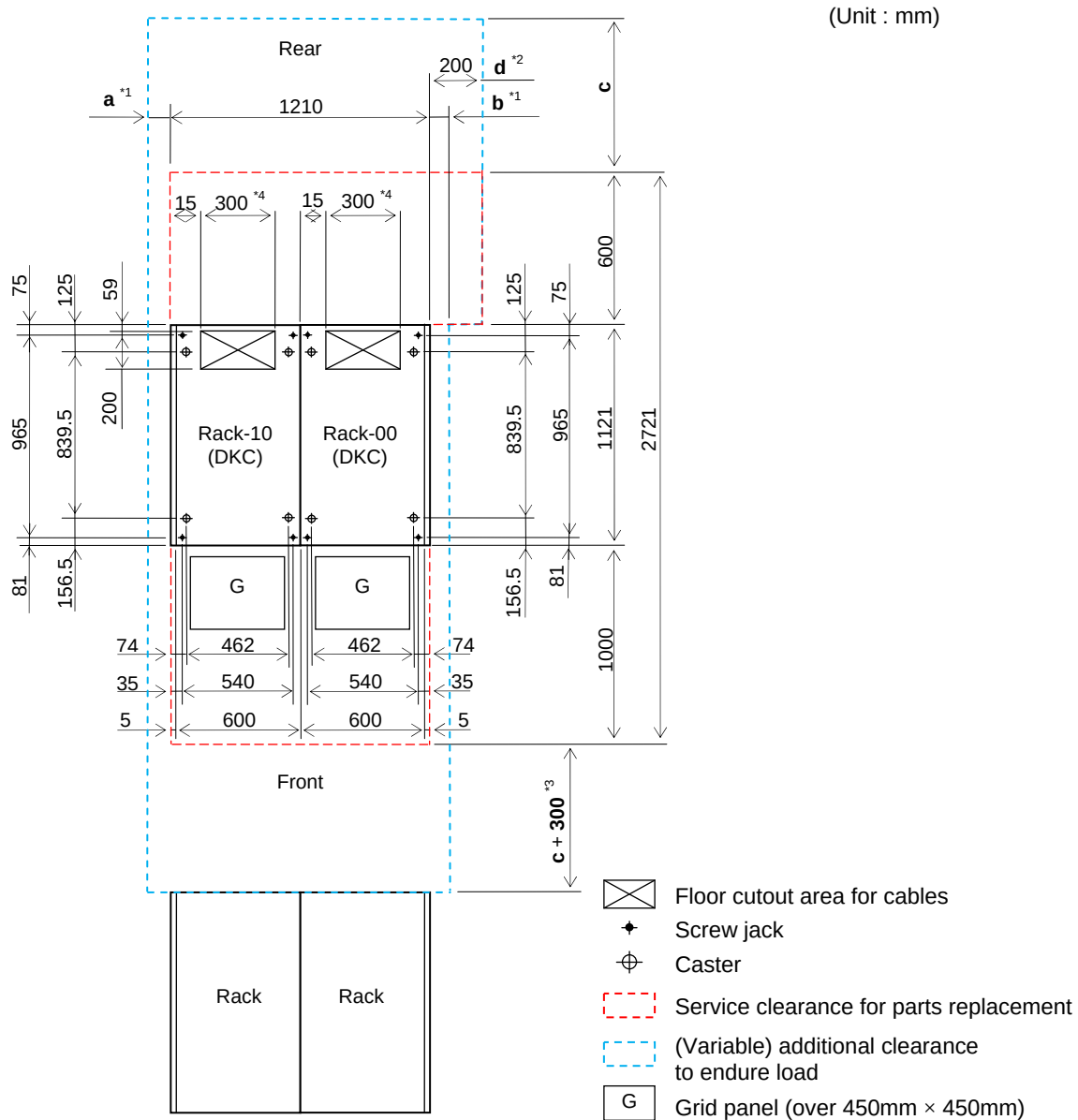
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0.1	0	0	0	0	0	0	0
500	0.4	0.2	0.1	0	0	0	0	0
450	0.6	0.4	0.3	0.2	0.1	0	0	0
400	1.0	0.7	0.6	0.5	0.4	0.3	0.2	0
350	1.5	1.2	1.0	0.8	0.7	0.6	0.5	0.3
300	2.2	1.8	1.6	1.4	1.3	1.1	1.0	0.8

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(3) Twin Rack Configuration (Twin DKC Model)



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-3.

*2: Clearance (d) is required over 200mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-3 Service Clearances and Floor Cutouts for Twin Rack Configuration-2

Table 1.1.6-3 Floor Load Rating and Required Clearances for Twin Rack Configuration-2

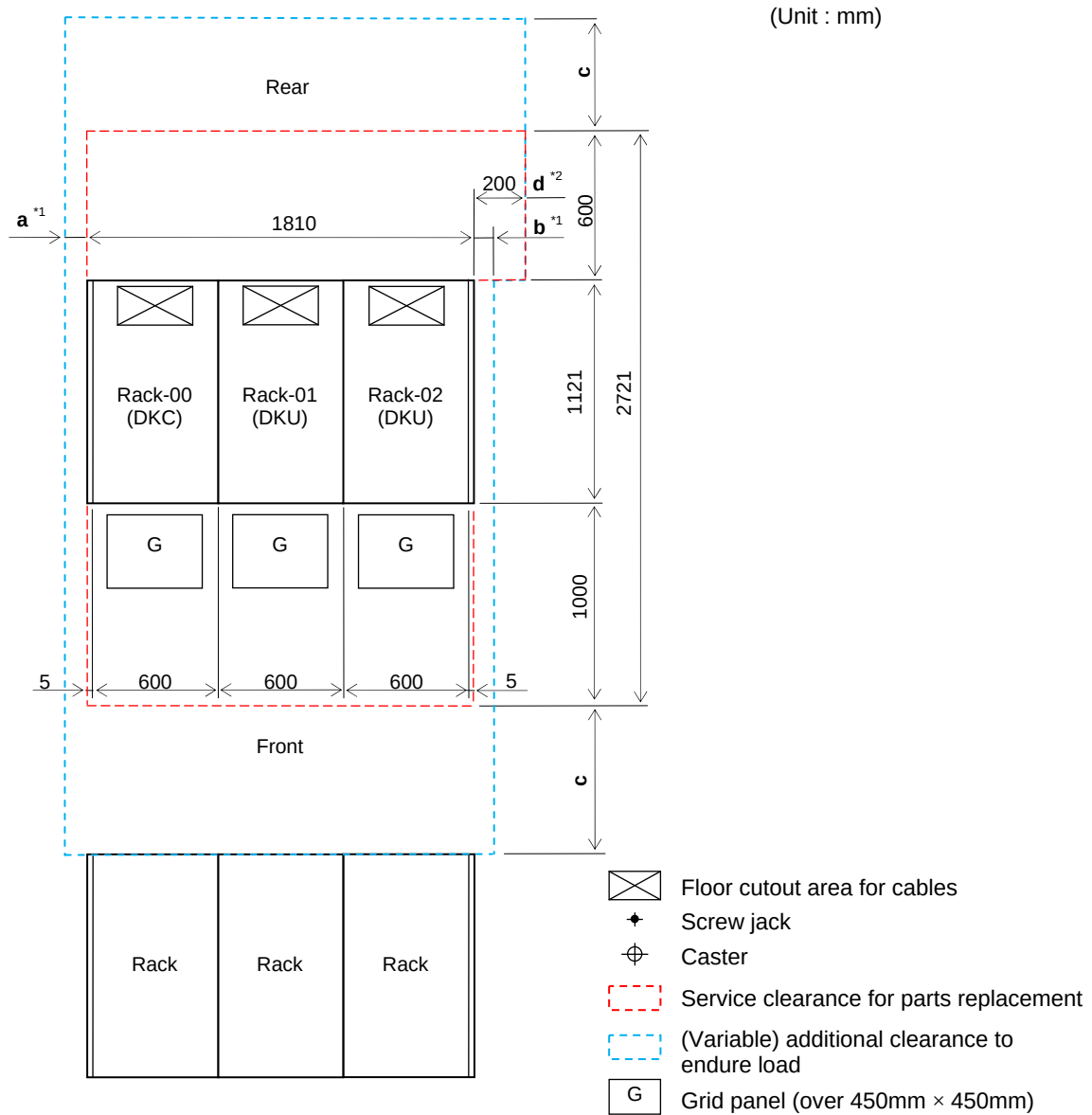
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0.2	0	0	0	0	0	0	0
500	0.6	0.4	0.2	0.1	0.1	0	0	0
450	0.8	0.6	0.5	0.4	0.3	0.2	0.1	0
400	1.2	0.9	0.8	0.6	0.5	0.4	0.3	0.2
350	1.8	1.4	1.2	1.1	0.9	0.8	0.7	0.5
300	2.6	2.2	1.9	1.7	1.5	1.4	1.2	1.0

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(4) Three Rack Configuration (Single DKC Model)



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-4.

*2: Clearance (d) is required over 300mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-4 Service Clearance and Floor Cutouts for Three Rack Configuration-1

Table 1.1.6-4 Floor Load Rating and Required Clearances for Three Rack Configuration-1

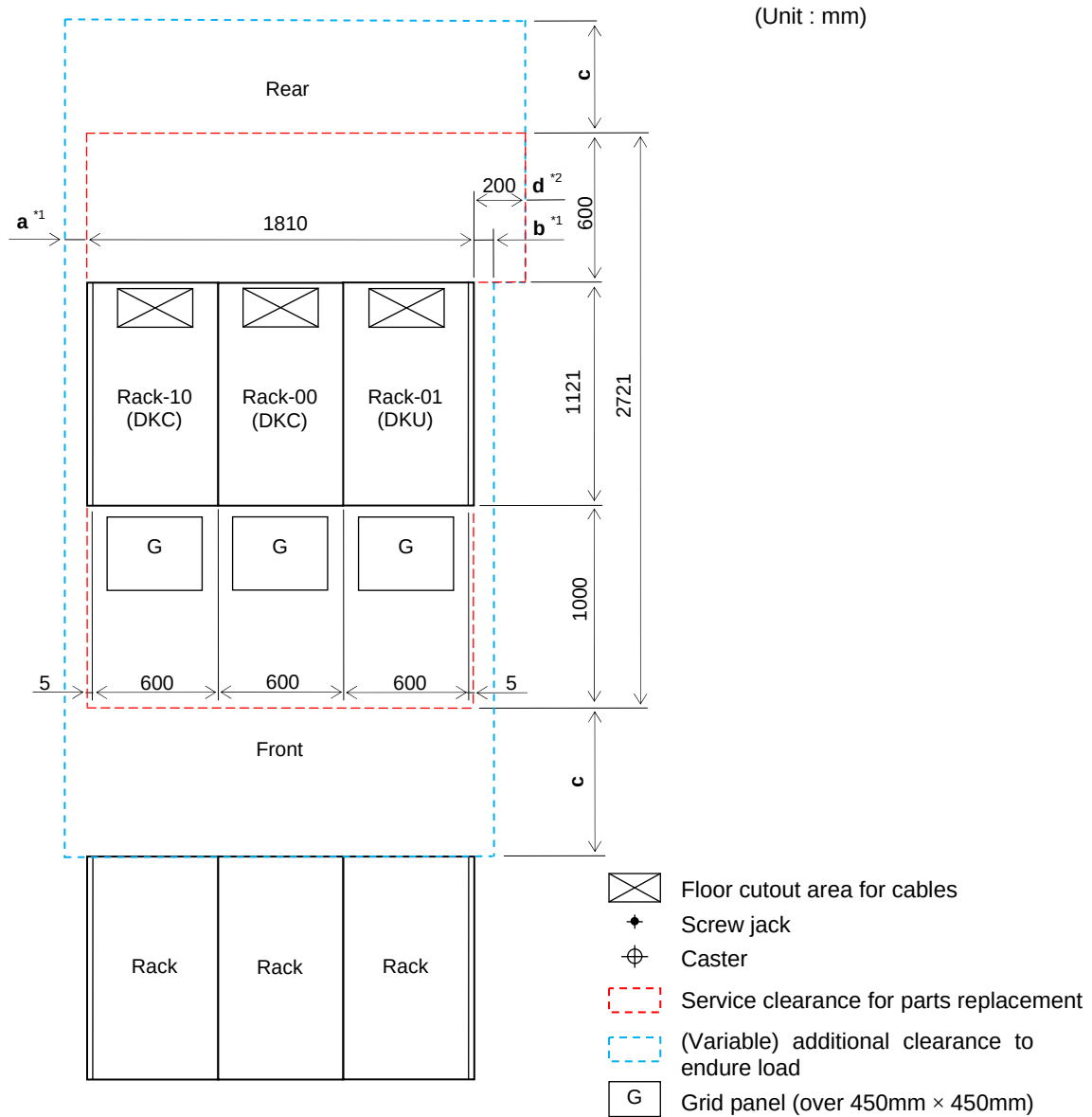
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0	0	0	0	0	0	0	0
500	0.5	0.2	0.1	0	0	0	0	0
450	0.9	0.5	0.4	0.2	0.1	0	0	0
400	1.3	1.0	0.8	0.6	0.4	0.3	0.2	0
350	2.0	1.6	1.3	1.1	0.9	0.8	0.6	0.4
300	3.1	2.6	2.2	2.0	1.7	1.5	1.3	1.0

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(5) Three Rack Configuration (Twin DKC Model)



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-5.

*2: Clearance (d) is required over 200mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-5 Service Clearance and Floor Cutouts for Three Rack Configuration-2

Table 1.1.6-5 Floor Load Rating and Required Clearances for Three Rack Configuration-2

Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0.2	0	0	0	0	0	0	0
500	0.7	0.4	0.2	0.1	0	0	0	0
450	1.1	0.7	0.5	0.4	0.2	0.1	0	0
400	1.6	1.2	1.0	0.8	0.6	0.5	0.3	0.1
350	2.3	1.8	1.6	1.3	1.1	1.0	0.8	0.5
300	3.5	2.9	2.5	2.2	2.0	1.8	1.6	1.2

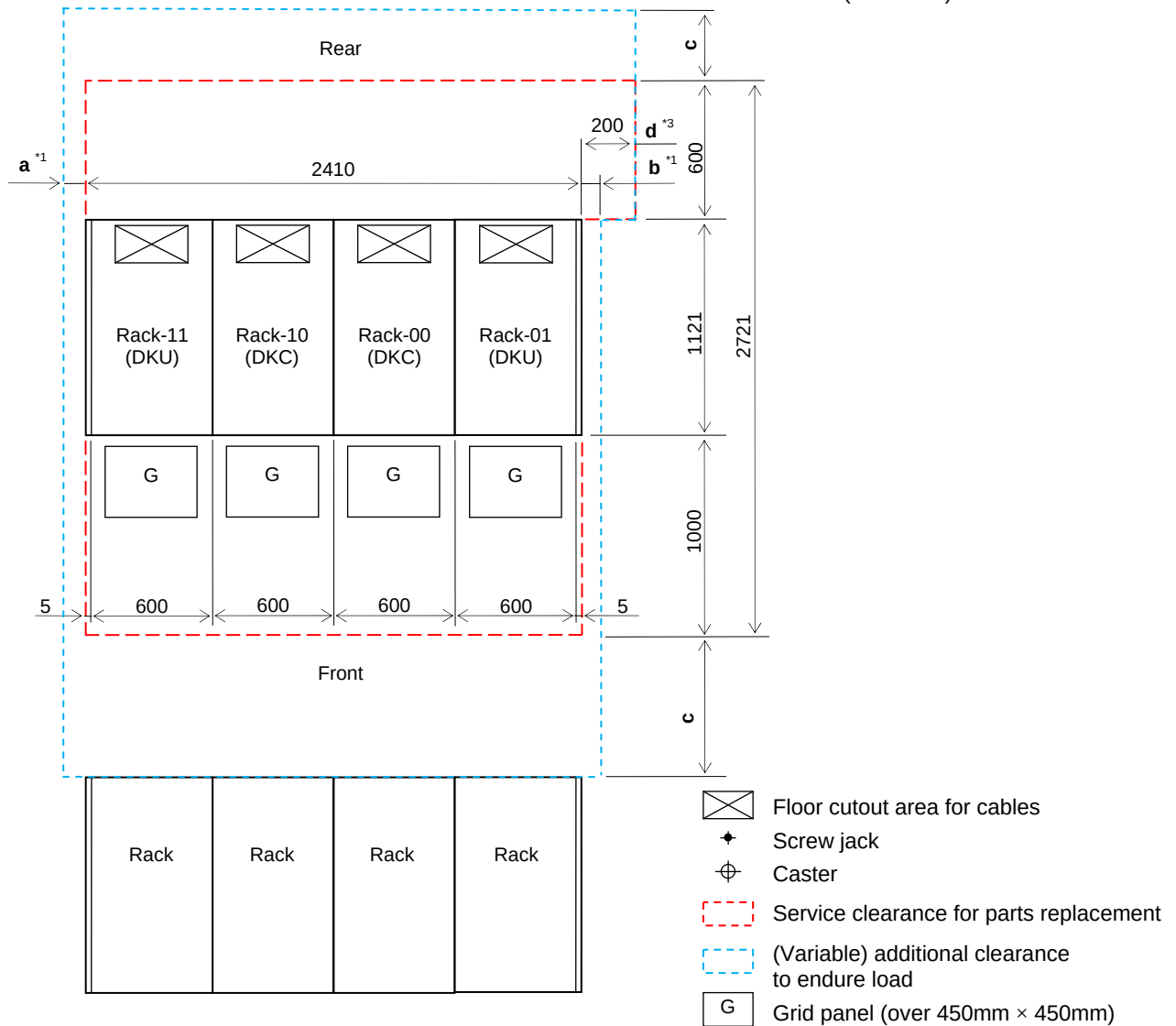
NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(6) Four Rack Configuration (When Setting up DKC Racks in the Center)

(Unit : mm)



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-6.

*2: Clearance (d) is required over 300mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-6 Service Clearance and Floor Cutouts for Four Rack Configuration-1

Table 1.1.6-6 Floor Load Rating and Required Clearances for Four Rack Configuration-1

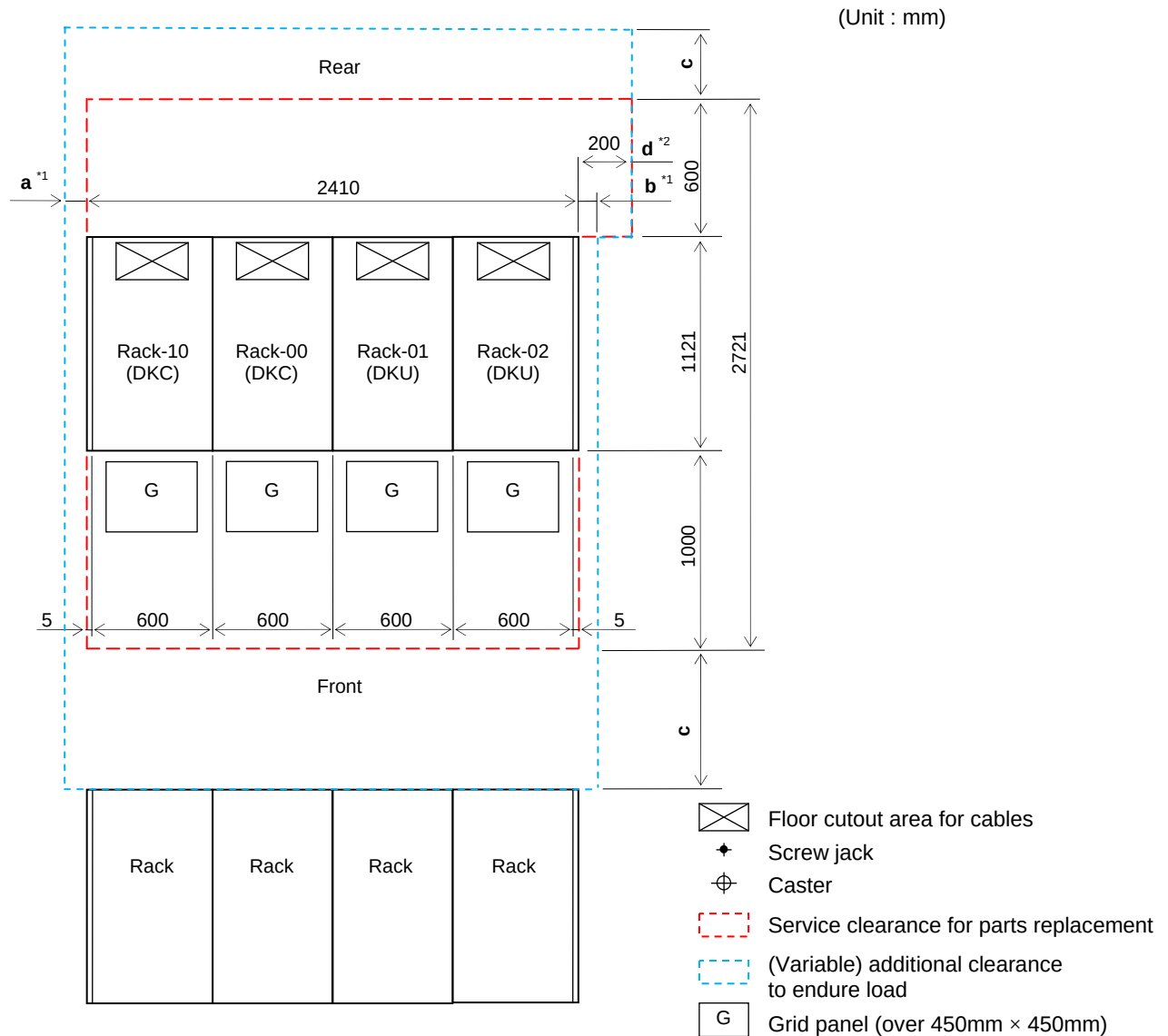
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0.1	0	0	0	0	0	0	0
500	0.8	0.4	0.2	0	0	0	0	0
450	1.3	0.8	0.6	0.4	0.2	0.1	0	0
400	1.9	1.4	1.1	0.9	0.7	0.5	0.3	0.1
350	2.9	2.3	1.9	1.6	1.4	1.2	0.9	0.6
300	4.4	3.6	3.2	2.8	2.5	2.2	1.9	1.5

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(7) Four Rack Configuration (When Setting up DKC Racks on the Left)



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-7.

*2: Clearance (d) is required over 300mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-7 Service Clearance and Floor Cutouts for Four Rack Configuration-2

Table 1.1.6-7 Floor Load Rating and Required Clearances for Four Rack Configuration-2

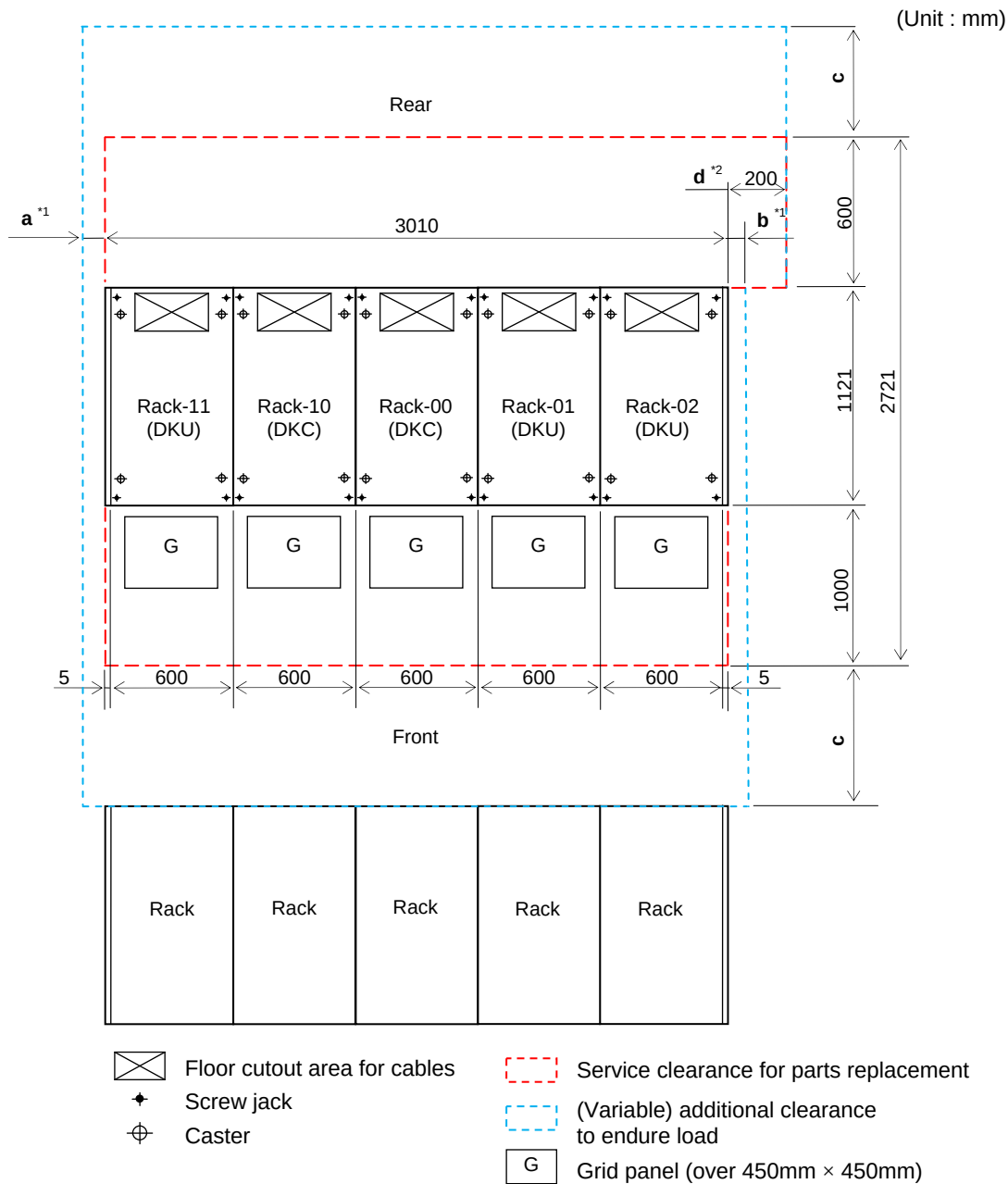
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0.1	0	0	0	0	0	0	0
500	0.8	0.4	0.2	0	0	0	0	0
450	1.3	0.8	0.6	0.4	0.2	0.1	0	0
400	1.9	1.4	1.1	0.9	0.7	0.5	0.3	0.1
350	2.9	2.3	1.9	1.6	1.4	1.2	0.9	0.6
300	4.4	3.6	3.2	2.8	2.5	2.2	1.9	1.5

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(8) Five Rack Configuration



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-8.

*2: Clearance (d) is required over 300mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-8 Service Clearance and Floor Cutouts for Five Rack Configuration

Table 1.1.6-8 Floor Load Rating and Required Clearances for Five Rack Configuration

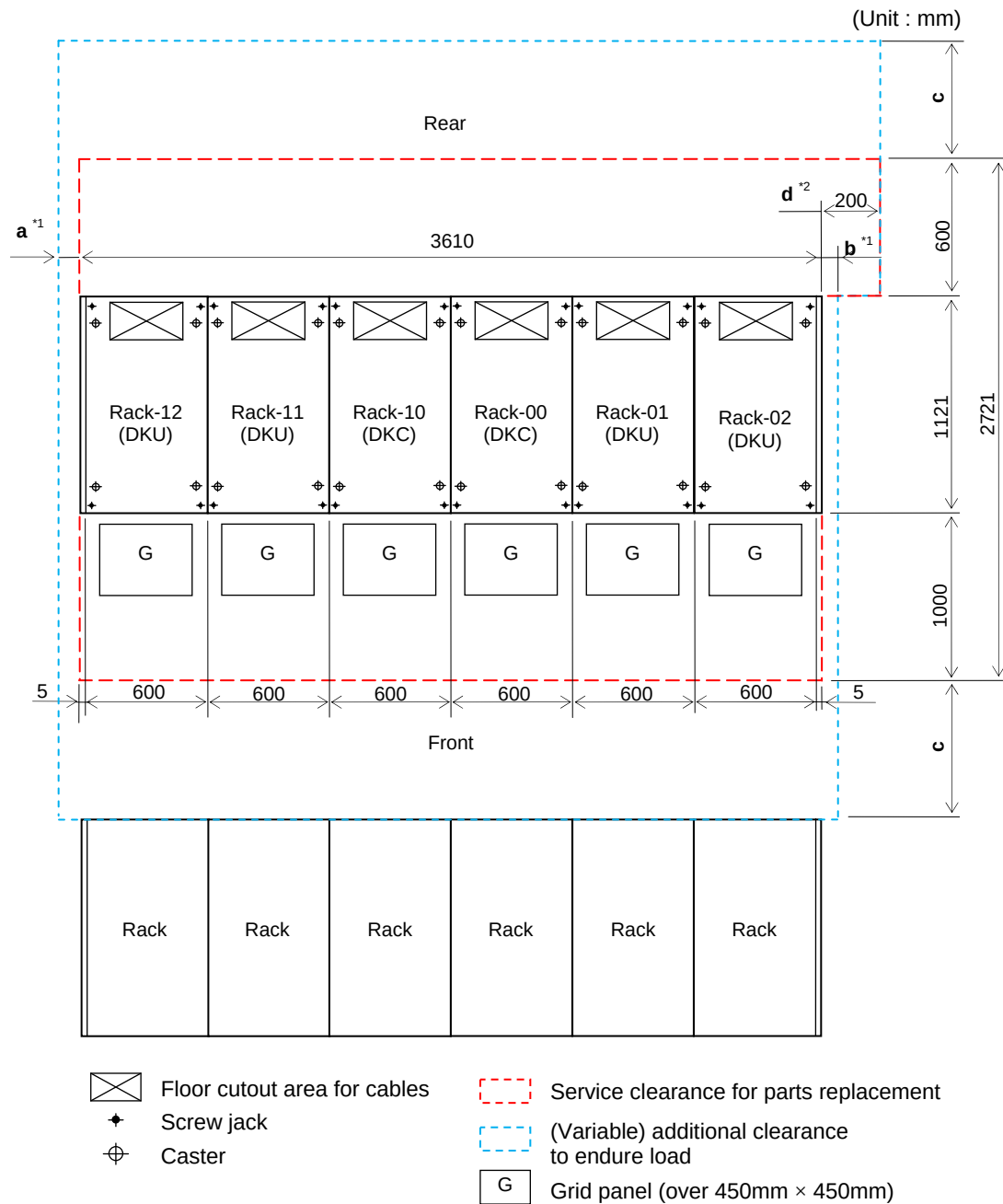
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0	0	0	0	0	0	0	0
500	0.8	0.3	0.1	0	0	0	0	0
450	1.4	0.9	0.6	0.3	0.1	0	0	0
400	2.2	1.6	1.2	0.9	0.7	0.5	0.3	0
350	3.3	2.6	2.2	1.8	1.5	1.2	1.0	0.6
300	5.2	4.2	3.7	3.2	2.8	2.5	2.2	1.6

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(9) Six Rack Configuration



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).

Floor load rating and required clearances are shown in Table 1.1.6-9.

*2: Clearance (d) is required over 300mm so as to open the rear door.

In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-9 Service Clearance and Floor Cutouts for Six Rack Configuration

Table 1.1.6-9 Floor Load Rating and Required Clearances for Six Rack Configuration

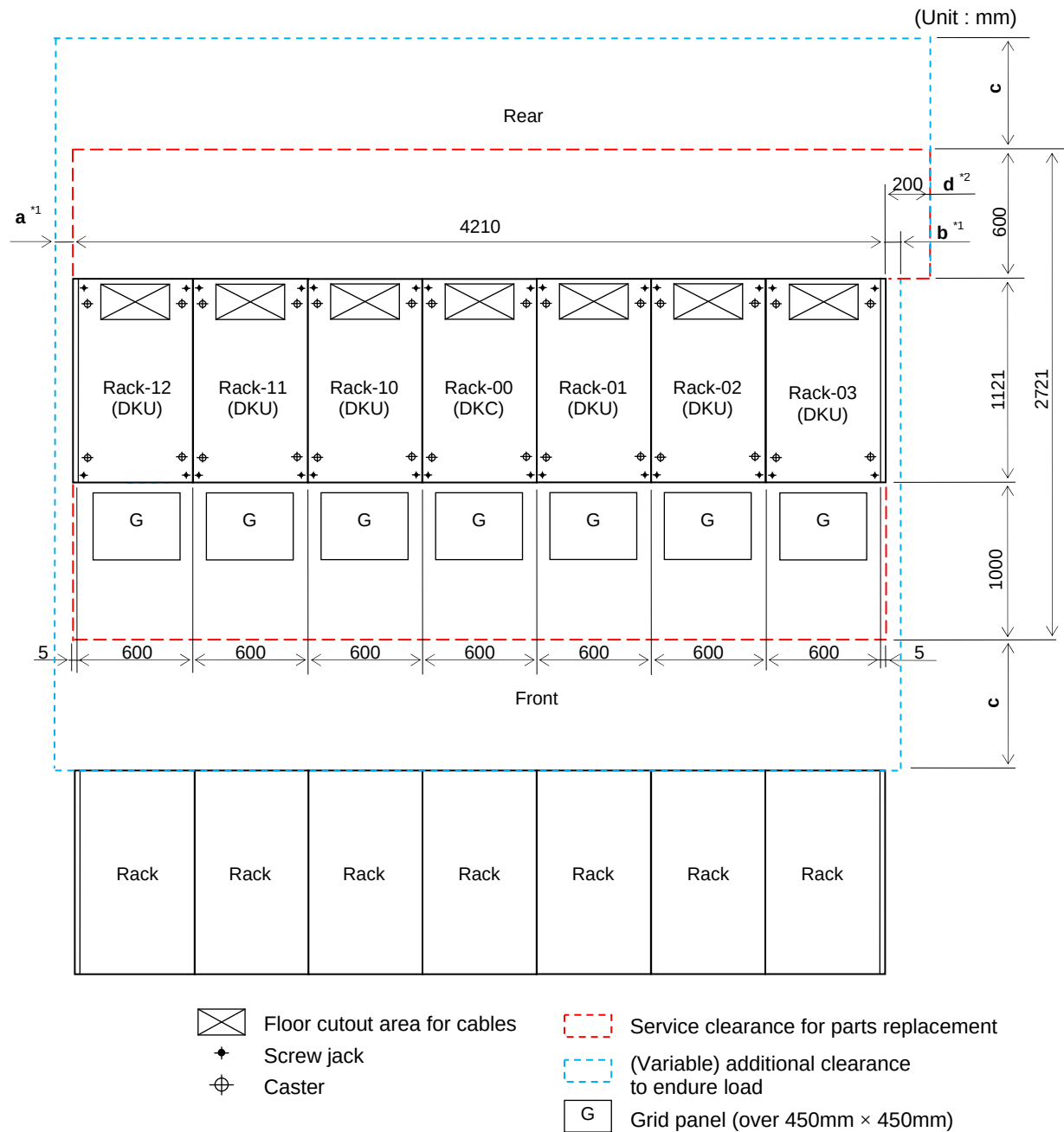
Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0	0	0	0	0	0	0	0
600	0	0	0	0	0	0	0	0
500	1.0	0.4	0.1	0	0	0	0	0
450	1.7	1.1	0.7	0.4	0.2	0	0	0
400	2.6	1.9	1.5	1.2	0.9	0.6	0.3	0
350	4.0	3.1	2.6	2.2	1.8	1.5	1.2	0.7
300	6.2	5.1	4.4	3.9	3.4	3.0	2.6	2.0

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

(10) Seven Rack Configuration



*1: Clearance (a+b) is based on the floor load rating and the clearance (c).
Floor load rating and required clearances are shown in Table 1.1.6-10.

*2: Clearance (d) is required over 200mm so as to open the rear door.
In case that clearance (d) is less than clearance (b), give priority to clearance (b).

Fig. 1.1.6-10 Service Clearance and Floor Cutouts for Seven Rack Configuration

Table 1.1.6-10 Floor Load Rating and Required Clearances for Seven Rack Configuration

Floor Load Rating (kg/m ²)	Required Clearance (a+b) m							
	Clearance (c) m							
	C = -0.3	C = 0	C = 0.2	C = 0.4	C = 0.6	C = 0.8	C = 1.0	C = 1.4
Over 700	0.3	0	0	0	0	0	0	0
600	1.1	0.6	0.3	0.1	0	0	0	0
500	2.1	1.5	1.2	0.9	0.7	0.4	0.2	0
450	2.9	2.2	1.8	1.5	1.2	1.0	0.7	0.4
400	4.0	3.2	2.7	2.3	2.0	1.7	1.4	1.0
350	5.6	4.6	4.0	3.5	3.1	2.7	2.4	1.9
300	8.0	6.7	6.0	5.4	4.9	4.4	4.0	3.3

NOTE1: Actual clearances for installation should be determined after consulting with construction specialist responsible for installations in the building, as they could vary depending on the size/layout of the system and building conditions.

NOTE2: When various configurations of storage systems are arranged in a row, clearance values based on the largest storage system configuration should be used.

NOTE3: From the viewpoint of maintenance operations, it is suggested that Clearance (c) be made as large as possible.

1.1.7 Dimensions

(1) DKC Rack

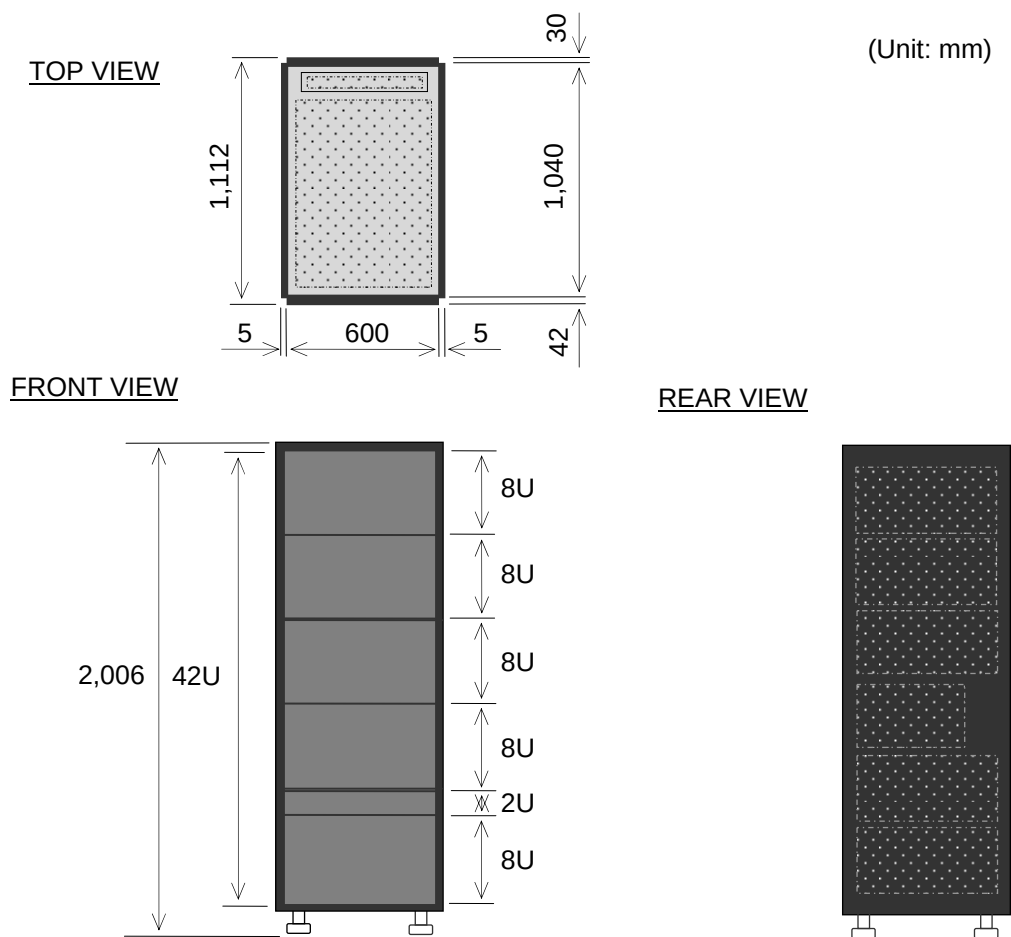


Fig. 1.1.7-1 Physical Dimensions of the DKC Rack

(2) DKU Rack

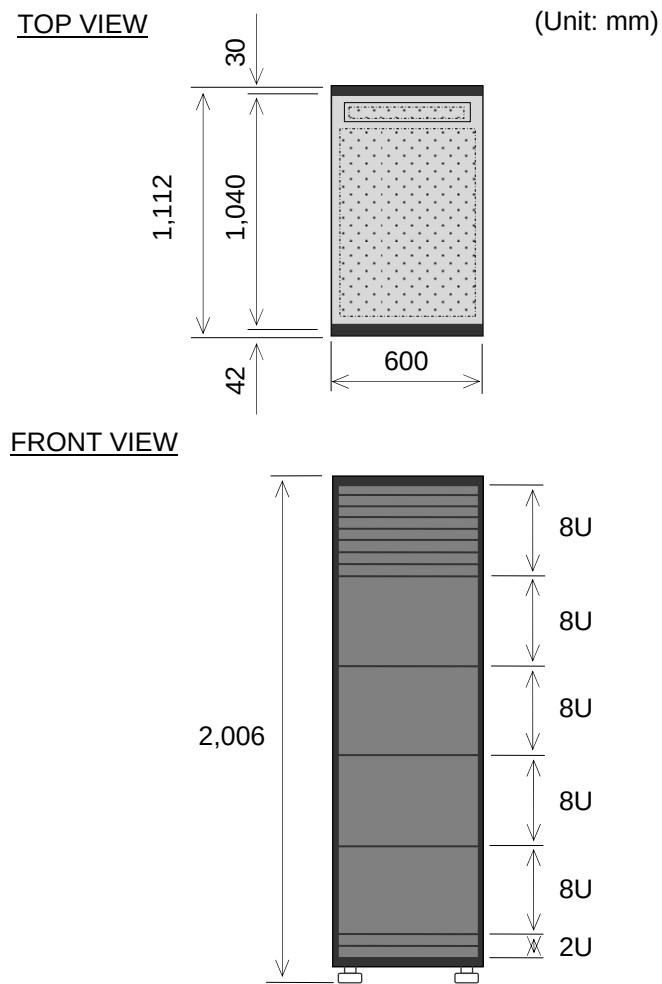
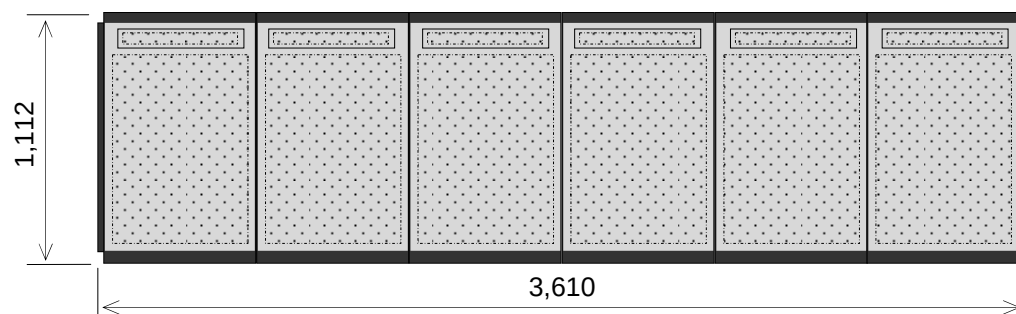


Fig. 1.1.7-2 Physical Dimensions of the DKU Rack

(3) Six Rack Configuration

TOP VIEW

(Unit: mm)



FRONT VIEW

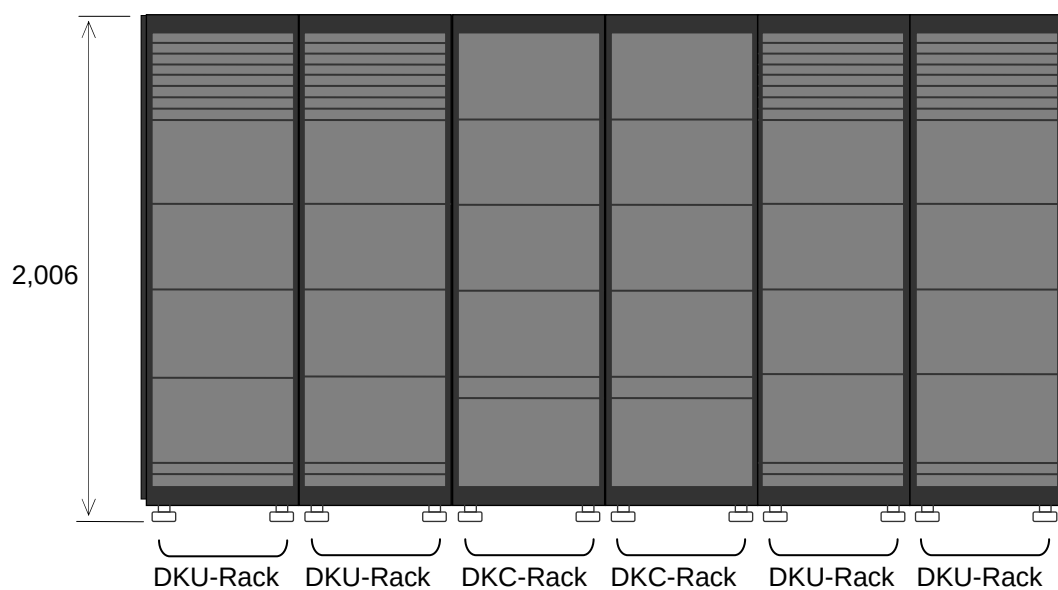


Fig. 1.1.7-3 Dimensions of the Six Rack Configuration

1.1.8 Facility grounding check

The storage system 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.

2. Installation and De-installation procedure

2.1 New Installation Procedure Table

NOTE: Perform the new installation in numerical order shown in the following table. Proceed to the next work neglecting unnecessary ones.

When installing Storage system for the first time, perform all hardware installation procedures before initiating the installation through SVP procedure. 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.

Table 2.1-1 New Installation Procedure Table

No.	Working Item	Model Number	Page
1	Unpacking and Inspection	—	INST03-02-10
2	Rack and Side Cover Installation (DKC-F810I-RK42/SCOV/SCOVH)	←	INST03-03-10 through 120
3	PDU Bracket Installation (DKC-F810I-PDBP)	←	INST03-19-10 through 130
4	Decoration Panel, Key Kit, Front Door, Front Door Hinge Kit and PC Tray for RK42 Installation (DKC-F810I-DECO/DECOP/KYH/KYP/FDR/FDH42/TR42)	←	INST03-18-10 through 160
5	Controller Chassis Installation (DKC810I-CBXA, DKC-F810I-CBXB/CRF42/CRF3R/BCH/BCP)	←	INST03-04-10 through 230
6	DKC Power Cord Kit Installation (DKC-F810I-PLUC/PLEC/PLCC)	←	INST03-06-10 through 150
7	Drive Chassis Installation (DKC-F810I-UBX/SBX/FBX/SBBRAL/BUH/BUP/FMDRAL/BFH/BFP)	←	INST03-05-10 through 670
8	DKU Power Cord Kit Installation (DKC-F810I-PHUC/PHEC/PHCC/PFUC/PFEC/PFCC)	←	INST03-06-160 through 550
9	Processor Blade, HUB, Cache Memory, Cache Backup Module kit and Cache Flash Memory, Inter-Controller Connecting Kit and Inter-Controller Connecting Cable Installation (DKC-F810I-MP/HUB/CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MOD5/MOD30/MOD1J/MFC5/MFC30/MFC1J)	← (Module)	INST03-07-10 through 1030
		MP/HUB	INST03-07A-10 through 150

(To be continued)

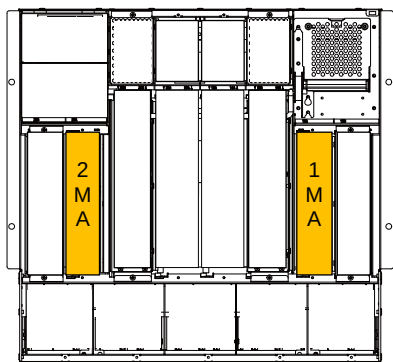
INST02-20

(Continued from the preceding page)

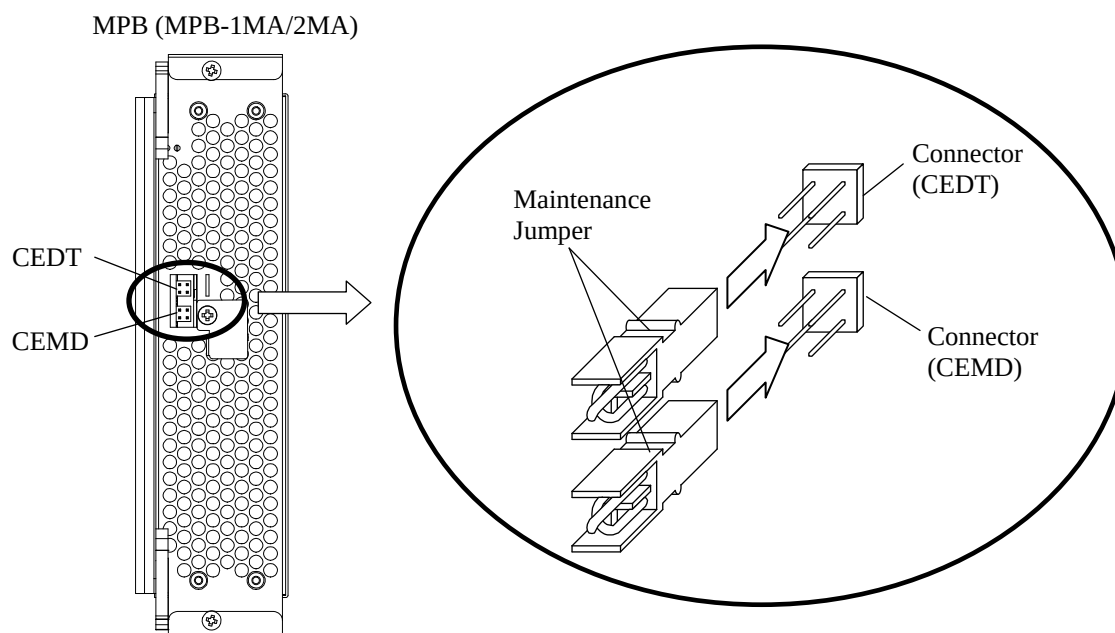
No.	Working Item	Model Number	Page
10	Channel Adapter Installation (DKC-F810I-16FC8/8FC16/16MS8/16ML8)	16FC8/8FC16	INST03-08A-10 through 180 (Only Hardware Procedure)
		16MS8/16ML8	INST03-08B-10 through 190 (Only Hardware Procedure)
11	Changing of Fibre SFP Transceiver (DKC-F810I-1PL8/1PS8/1PL16/1PS16)	←	INST03-09-10 through 70
12	Cache Memory, Cache Backup Module kit, Cache Flash Memory and Inter-Controller Connecting Cable (DKC-F810I-CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MFC5/MFC30/MFC1J)	←	INST03-10-10 through 920 (Only Hardware Procedure)
13	Disk Adapter, Drive and DEV Interface Cable Installation (DKC-F810I-SCA/ESCA/CC1/CC2/CC4/300KCM/600JCM/600J5M/900JCM/1R2JCM/3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/3R2FM) (*1)	←	INST03-11-10 through 03-11C-1850 (Only Hardware Procedure)
14	Service Processor Installation (DKC-F810I-SVP)	←	INST03-12-10 through 690 (Only Hardware Procedure)
15	Filler Panel Installation (DKC-F810I-FIHT)	←	INST03-13-10 through 30
16	SVP "New Installation" Procedure	—	INST02-300
17	END	—	—

*1: DKC-F810I-SCA and DKC-F810I-ESCA cannot be mixed in the same storage system.

NOTE: The Maintenance Jumpers of the CE Mode Connectors (CEDT and CEMD).



Front View of DKC-0



2.2 Non-Disruptive Installation Procedure Table

NOTE: A serious failure will occur if the works are not done in numerical order shown in the table.

Perform the non-disruptive addition of the options in numerical order (from No.1 to No.18) shown in the table below. Neglect a unnecessary work and proceed to the next work.

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.

If a fault occurs during or after additional installation, see [INST02-110](#) 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 storage system is connected to the host (OS). Non-Disruptive Installation shall be done with the storage system power ON. However, the storage system may be disconnected from the host (OS).

Table 2.2-1 Non-Disruptive Installation Procedure Table

No.	Working Item	Model Number	Page
1	Display the SVP initial screen	←	SVP01-10 through
2	Confirm the micro-version	—	OPTVER01-10
3	Rack and Side Cover Installation (DKC-F810I-RK42/SCOV/SCOVH)	←	INST03-03-10 through 120
4	PDU Bracket Installation (DKC-F810I-PDBP)	←	INST03-19-10 through 130
5	Decoration Panel, Key Kit, Front Door, Front Door Hinge Kit and PC Tray for RK42 Installation (DKC-F810I-DECO/DECOP/KYH/KYP/FDR/FDH42/TR42)	←	INST03-18-10 through 160
6	Controller Chassis Installation (DKC810I-CBXA, DKC-F810I-CBXB/CRF42/CRF3R/BCH/BCP)	←	INST03-04-10 through 230
NOTE	When adding DKC-1 in No.6, do not connect the power cord with DKCPS-10, DKCPS-11, DKCPS-12 and DKCPS-13 in the procedure No.7. The installation work will fail when the Inter-Controller Connecting kit (DKC-F810I-MOD5/MOD1J) of No.8 is installed with the power of DKC-1 is on. Consequently, connect the power cable of the DKCPS following the instructions of installation procedure for No. 8.		
7	DKC Power Cord Kit Installation (DKC-F810I-PLUC/PLEC/PLCC)	←	INST03-06-10 through 150

(To be continued)

INST02-50

(Continued from the preceding page)

No.	Working Item	Model Number	Page
8	Processor Blade, HUB, Cache Memory, Cache Backup Module kit and Cache Flash Memory, Inter-Controller Connecting Kit and Inter-Controller Connecting Cable Installation (DKC-F810I-MP/HUB/CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MOD5/MOD30/MOD1J/MFC5/MFC30/MFC1J)	← (Module)	INST03-07-10 through 1030
		MP/HUB	INST03-07A-10 through 150
9	Cache Memory, Cache Backup Module kit, Cache Flash Memory and Inter-Controller Connecting Cable (DKC-F810I-CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MFC5/MFC30/MFC1J)	←	INST03-10-10 through 930
10	Installation of SM Size without adding Cache Memory (*1)	←	INST03-17-10 through 50
11	Channel Adapter Installation (DKC-F810I-16FC8/8FC16/16MS8/16ML8)	16FC8/8FC16	INST03-08A-10 through 180
		16MS8/16ML8	INST03-08B-10 through 190
12	Changing of Fibre SFP Transceiver (DKC-F810I-1PL8/1PS8/1PL16/1PS16)	←	INST03-09-10 through 70
13	Drive Chassis Installation (DKC-F810I-UBX/SBX/FBX/SBBRAL/BUH/BUP/FMDRAL/BFH/BFP) Perform the installation of the Extension Rack, setting of the SSW switch, and connection of the power cable.	←	INST03-05-10 through 670
14	DKU Power Cord Kit Installation (DKC-F810I-PHUC/PHEC/PHCC/PFUC/PFEC/PFCC)	←	INST03-06-160 through 550
15	Turn on the PDU breaker installed in the increased RACK.	—	INST03-14-30
NOTE	Caution: When performing addition of the data/spare Drive and Device Interface Cable that accompanies the addition of the DKU, perform the works No. 4, 5, 8, 13, 14, and 15 beforehand.		
16	Disk Adapter, Drive and DEV Interface Cable Installation (DKC-F810I-SCA/ESCA/CC1/CC2/CC4/300KCM/600JCM/600J5M/900JCM/1R2JCM/3R0H3M/4R0H3M/400MCM/400M5M/800MCM/1R6FM/3R2FM) (*2)	←	INST03-11-10 through 03-11C-1850
17	Service Processor Installation (DKC-F810I-SVP)	←	INST03-12-10 through 690
18	Filler Panel Installation (DKC-F810I-FIHT)	←	INST03-13-10 through 30
19	END	—	—

- *1: The function is only available when CM is in full configuration as follows.
 - ① Module 0 configuration:
 - 1 set of CPEXs and 32 sets of CM16Gs or/and CM32Gs are installed.
 - ② Module 0 & 1 configuration:
 - 2 sets of CPEXs and 64 sets of CM16Gs or/and CM32Gs are installed.
- *2: DKC-F810I-SCA and DKC-F810I-ESCA cannot be mixed in the same storage system.

2.3 Non-Disruptive De-installation Procedure Table

NOTE: A serious failure occurs if the works are not done in numerical order shown in the table.

Perform the non-disruptive removal of the options in numerical order (from No.1 to No.16) shown in the table below. Neglect an unnecessary work and proceed to the next work.

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 [INST02-200](#) 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 storage system is connected to the host (OS). Non-Disruptive De-Installation shall be done with the storage system power ON. However, the storage system may be disconnected from the host (OS).

Table 2.3-1 Non-Disruptive De-installation Procedure Table

No.	Working Item	Model Number	Page
1	Display the SVP initial screen	←	SVP01-10 through
2	Filler Panel De-Installation (DKC-F810I-FIHT)	←	INST04-10-10 through 30
3	Disk Adapter, Drive and DEV Interface Cable De-Installation (DKC-F810I-SCA/ESCA/CC1/CC2/CC4/300KCM/ 600JCM/600J5M/900JCM/1R2JCM/3R0H3M/ 4R0H3M/400MCM/400M5M/800MCM/1R6FM/ 3R2FM)	←	INST04-01-10 through 04-01C-1690
NOTE	Proceed to the work No.4 after performing the work No.3. The system goes down if the power supply of the Drive Chassis to be removed in the work No.4 is turned off without performing an option removal work, that is, the work No.3.		
4	Drive Chassis De-Installation (DKC-F810I-UBX/SBX/FBX/SBBRAL/BUH/BUP/ FMDRAL/BFH/BFP) Turn off the power supply of the Drive Chassis.	←	INST04-02-10 through 360
5	DKU Power Cord Kit De-Installation (DKC-F810I-PHUC/PHEC/PHCC/PFUC/PFEC/ PFCC)	←	INST04-09-160 through 550

(To be continued)

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No.	Working Item	Model Number	Page
6	Channel Adapter De-Installation (DKC-F810I-16FC8/8FC16/16MS8/16ML8)	16FC8/8FC16	INST04-04A-10 through 160
		16MS8/16ML8	INST04-04B-10 through 160
7	Changing of Fibre SFP Transceiver (DKC-F810I-1PL/1PS/1PL16/1PS16)	←	INST03-09-10 through 70
8	Cache Memory, Cache Backup Module kit, Cache Flash Memory and Inter-Controller Connecting Cable (DKC-F810I-CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MFC5/MFC30/MFC1J)	←	INST04-03-10 through 800
9	De-Installation of SM Size without removing Cache Memory (*1)	←	INST04-11-10 through 60
10	Processor Blade, HUB, Cache Memory, Cache Backup Module kit and Cache Flash Memory, Inter-Controller Connecting Kit and Inter-Controller Connecting Cable De-Installation (DKC-F810I-MP/HUB/CM16G/CM32G/CPEX/BKMS/BKML/BMM128/BMM256/MOD5/MOD30/MOD1J/MFC5/MFC30/MFC1J)	← (Module)	INST04-05-10 through 730
		MP/HUB	INST04-05A-10 through 150
11	Service Processor De-Installation (DKC-F810I-SVP)	←	INST04-08-10 through 210
12	DKC Power Cord Kit De-Installation (DKC-F810I-PLUC/PLEC/PLCC)	←	INST04-09-10 through 80
13	Controller Chassis De-Installation (DKC810I-CBXA, DKC-F810I-CBXB/CRF42/CRF3R/BCH/BCP)	←	INST04-06-10 through 180
14	Decoration Panel, Key Kit, Front Door, Front Door Hinge Kit and PC Tray for RK42 De-Installation (DKC-F810I-DECO/DECOP/KYH/KYP/FDR/FDH42/TR42)	←	INST04-12-10 through 160
15	PDU Bracket De-Installation (DKC-F810I-PDBP)	←	INST04-13-10 through 130
16	PDU Bracket De-Installation (DKC-F810I-RK42/SCOV/SCOVH) Turn off the main breaker of the Extension Rack.	—	INST04-07-10 through 90
17	END	—	—

*1: The function is only available when CM is in full configuration as follows.

① Module 0 configuration:

1 set of CPEXs and 32 sets of CM16Gs or/and CM32Gs are installed.

② Module 0 & 1 configuration:

2 sets of CPEXs and 64 sets of CM16Gs or/and CM32Gs are installed.

2.4 Disruptive Installation Procedure Table

NOTE: Perform the disruptive de-installation of options in numerical order shown in the following table. Proceed to the next work neglecting unnecessary ones.

If a fault occurs during or after additional installation, see [INST02-110](#) 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 storage system is disconnected from the host (OS). Disruptive Installation shall be done with the storage system power OFF.

Table 2.4-1 Disruptive Installation Procedure Table

No.	Working Item	Model Number	Page
1	Display the SVP initial screen	←	SVP01-10 through
2	Confirm the micro-version	—	OPTVER01-10
3	POWER OFF of Storage system	—	INST03-14-50 through 60
4	POWER ON of Storage system	—	INST03-14-10 through 20
5	END	—	—

2.5 Disruptive De-installation Procedure Table

NOTE: Perform the disruptive de-installation of options in numerical order shown in the following table. Proceed to the next work neglecting unnecessary ones.

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 SVP SECTION.)

If a fault occurs during or after removal, see [INST02-200](#) 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

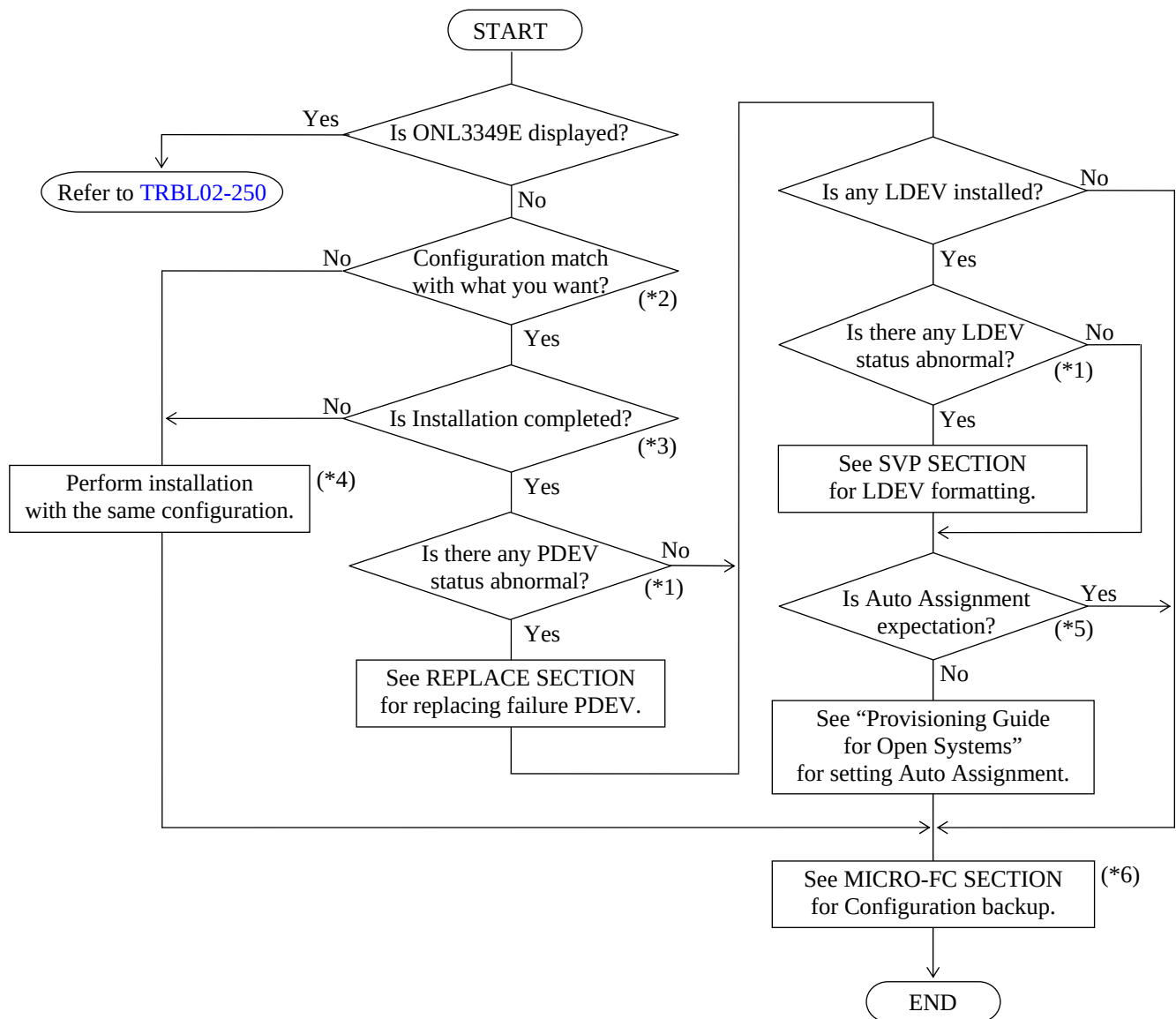
- “Disruptive” means that the storage system is disconnected from the host (OS). Disruptive De-installation shall be done with the storage system power OFF.

Table 2.5-1 Disruptive De-installation Procedure Table

No.	Working Item	Model Number	Page
1	Display the SVP initial screen	←	SVP01-10 through
2	POWER OFF of Storage system	—	INST03-14-50 through 60
3	POWER ON of Storage system	—	INST03-14-10 through 20
4	END	—	—

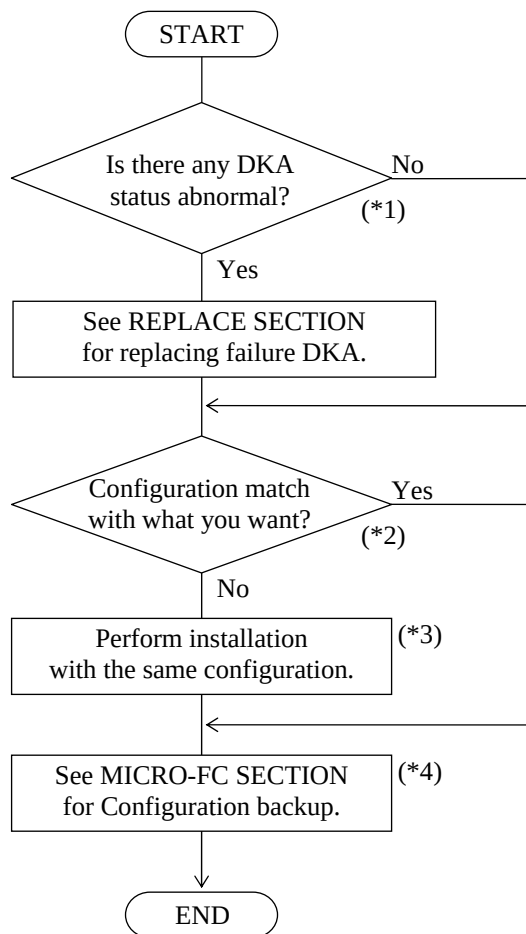
2.6 Trouble shooting for errors in install SVP procedure

2.6.1 ECC group + LDEV



- *1: Select (CL) [Maintenance] in the 'SVP' window.
- *2: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.
- *3: Wasn't INS2450E displayed when select (CL) [Install]-[Change Configuration] in the 'SVP' window?
- *4: There may be a case that you cannot change the type of spare drive.
In that case, install again with the same configuration except for the spare drive.
After completing the installation, uninstall the spare drive and install the spare drive again.
- *5: Select (CL) [Components] in the 'Storage Navigator' window.
- *6: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.6.2 DKA



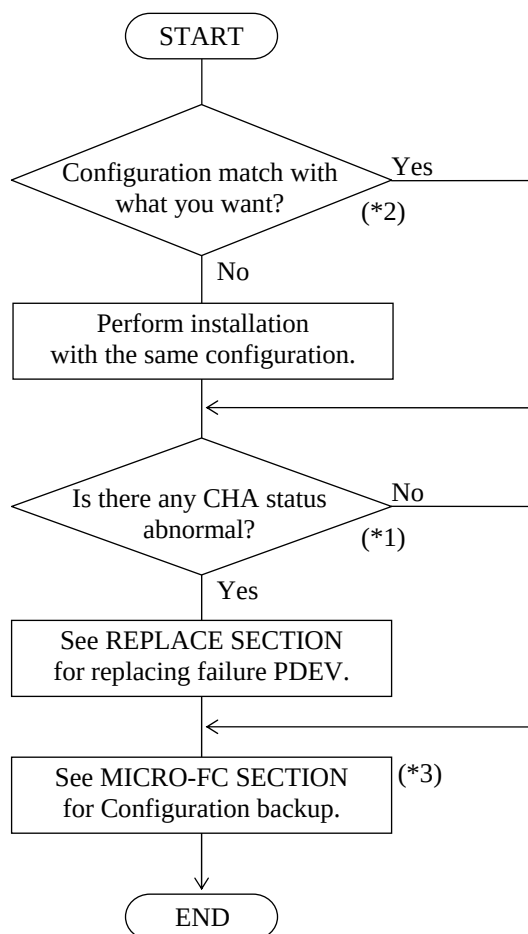
*1: Select (CL) [Maintenance] in the 'SVP' window.

*2: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

*3: The installation of the cluster 1 may be completed depending on the contents of the installation failure. In this case, if the installation is performed again, processing will begin from the cluster 2.

*4: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.6.3 Number of Channel

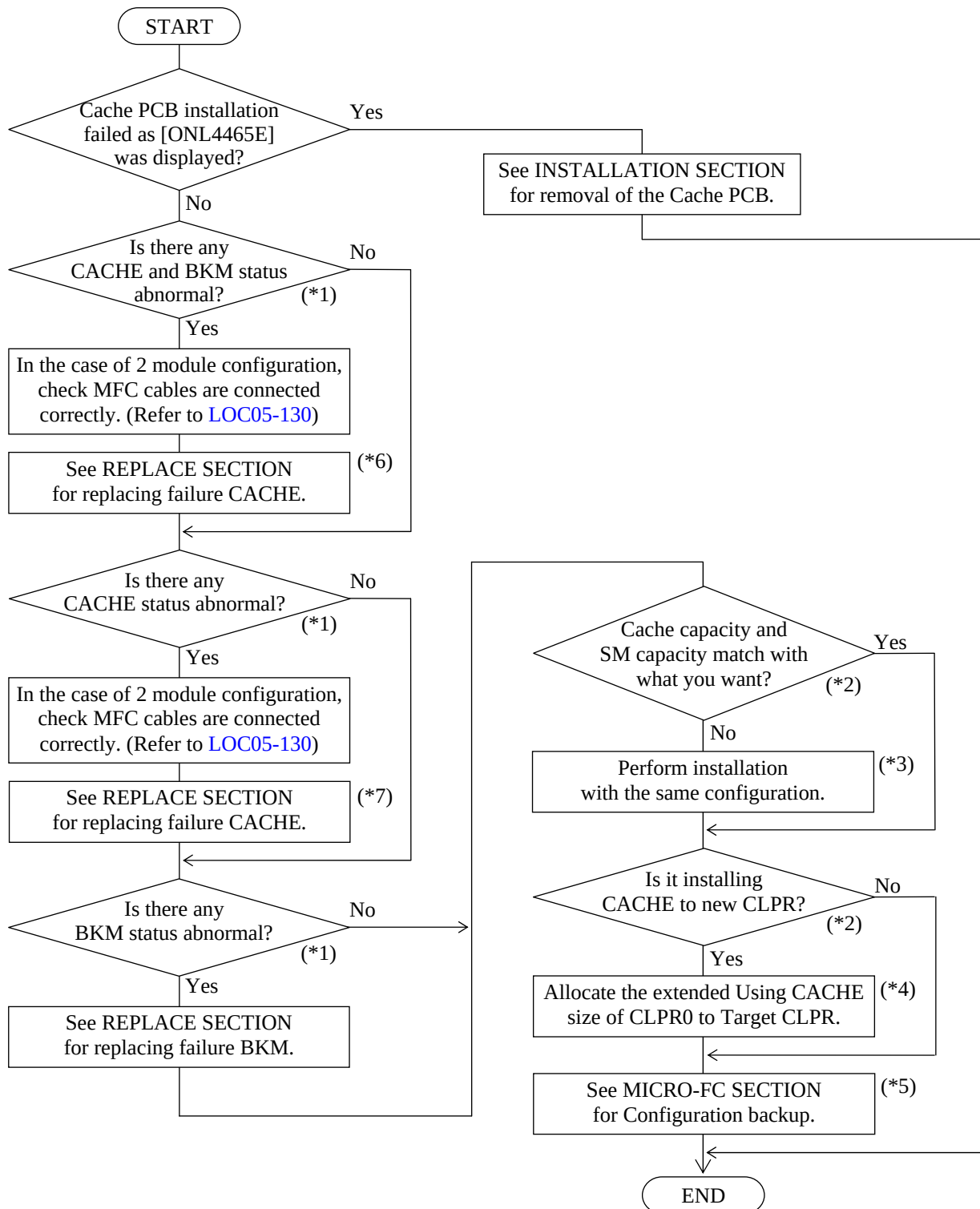


*1: Select (CL) [Maintenance] in the 'SVP' window.

*2: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

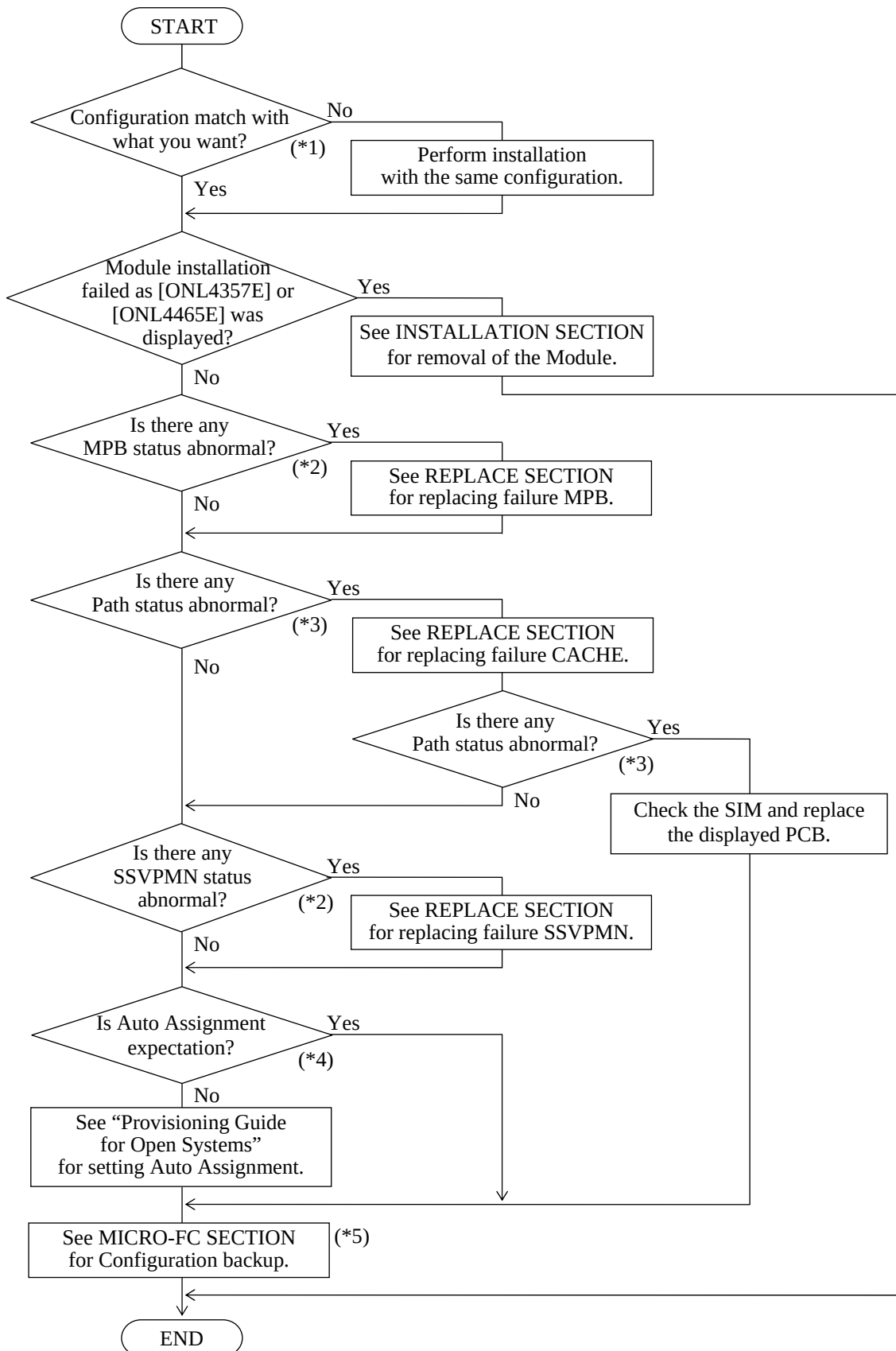
*3: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.6.4 Cache Capacity



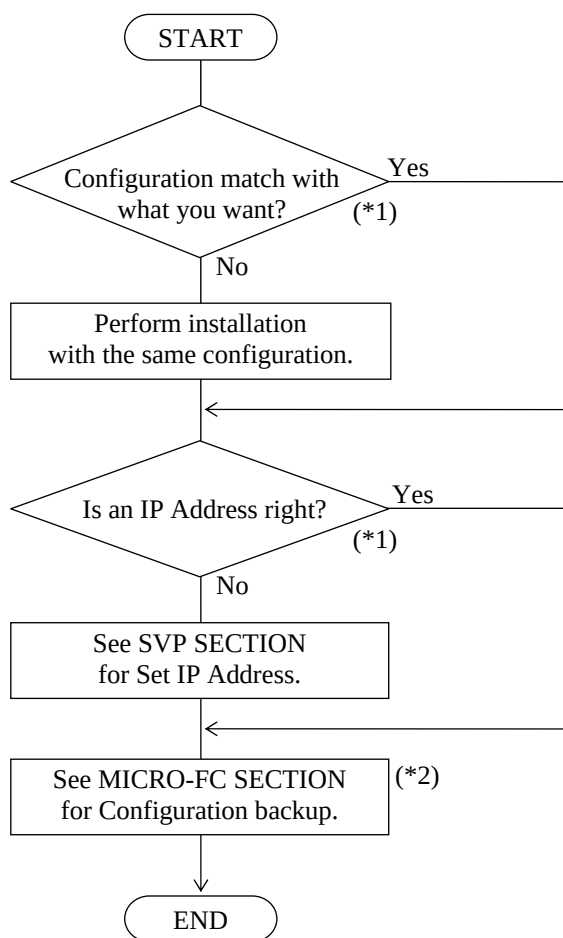
- *1: Select (CL) [Maintenance] in the ‘SVP’ window.
- *2: Select (CL) [Install]-[Refer Configuration] in the ‘SVP’ window.
- *3: The installation of the cluster 1 may be completed depending on the contents of the installation failure. In this case, if the installation is performed again, processing will begin from the cluster 2.
- *4: Select (CL) [Settings]-[Environmental Setting]-[Partition Definition...] in the ‘Storage Navigator’ window. Extend Cache memory reference to “Performance Guide” - “Creating a CLPR”.
- *5: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the ‘SVP’ window.
- *6: When diagnosis error of BKM occurs, see DIAGNOSIS SECTION “5.1.3 INLINE CUDG Trouble shooting”.
- *7: When work stops it by SVP reboot, please perform self-replacement of CACHE-1CA/2CA.

2.6.5 MPB + Module



- *1: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.
- *2: Select (CL) [Maintenance] in the 'SVP' window.
- *3: Select (CL) [Maintenance]-[Inter-PCB Logical Path Status] in the 'SVP' window.
- *4: Select (CL) [Components] in the 'Storage Navigator' window.
- *5: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.6.6 SVP

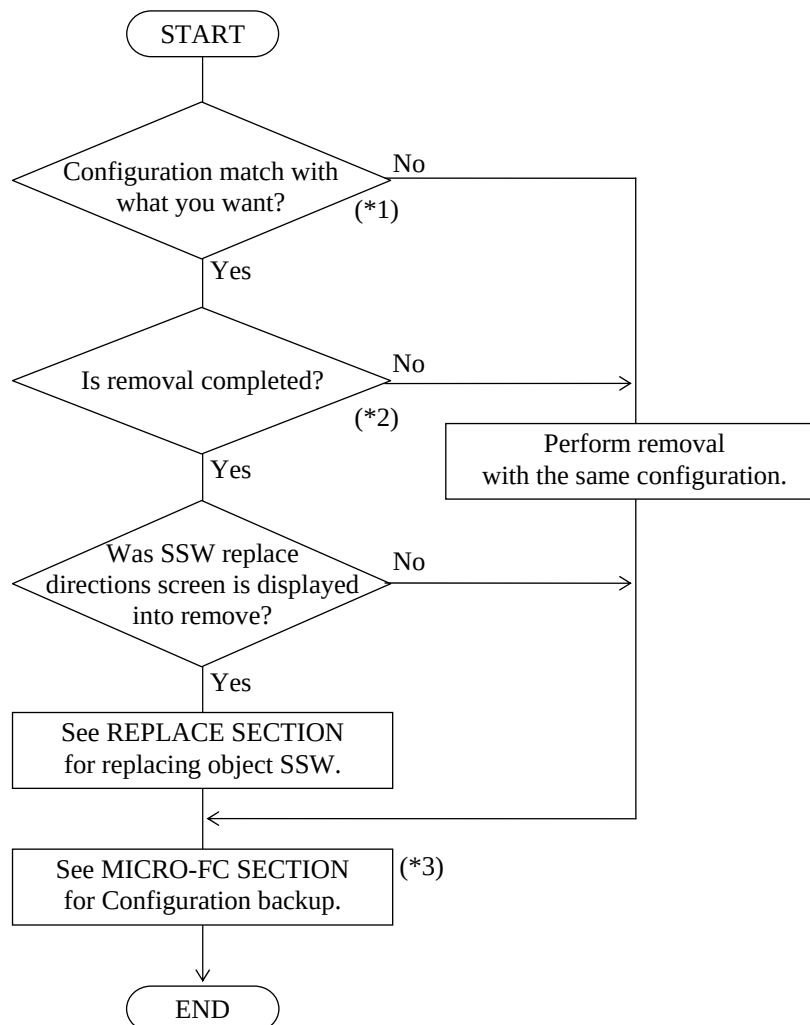


*1: Select (CL) [Install]-[Set IP Address] in the 'SVP' window.

*2: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.7 Trouble shooting for errors in remove SVP procedure

2.7.1 ECC group + LDEV

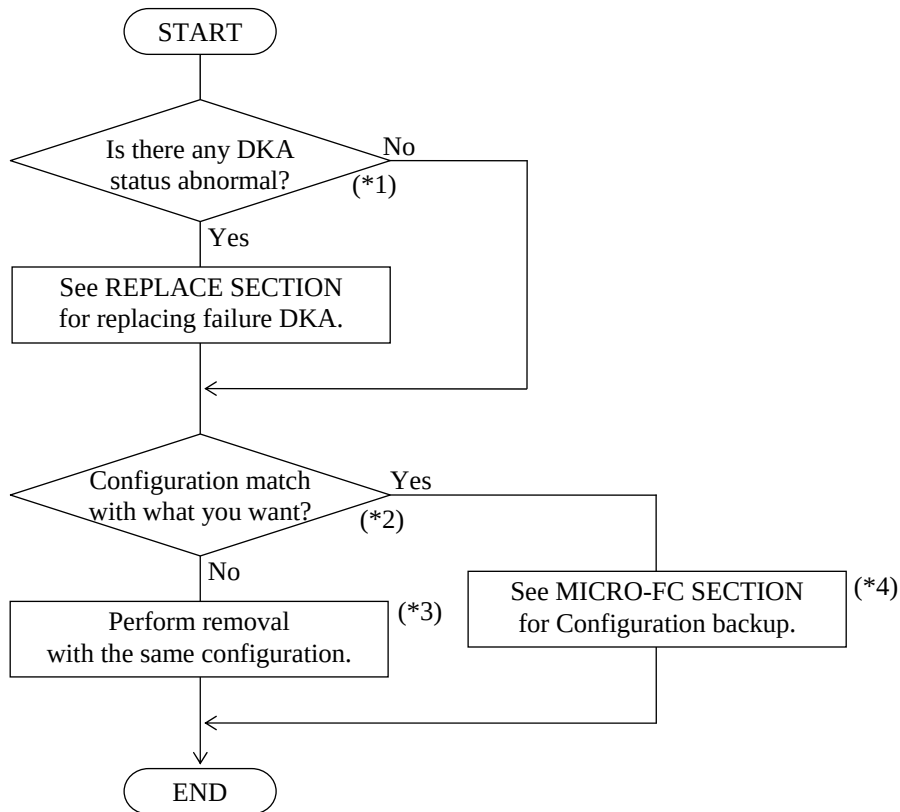


*1: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

*2: Wasn't INS2450E displayed when select (CL) [Install]-[Change Configuration] in the 'SVP' window?

*3: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.7.2 DKA



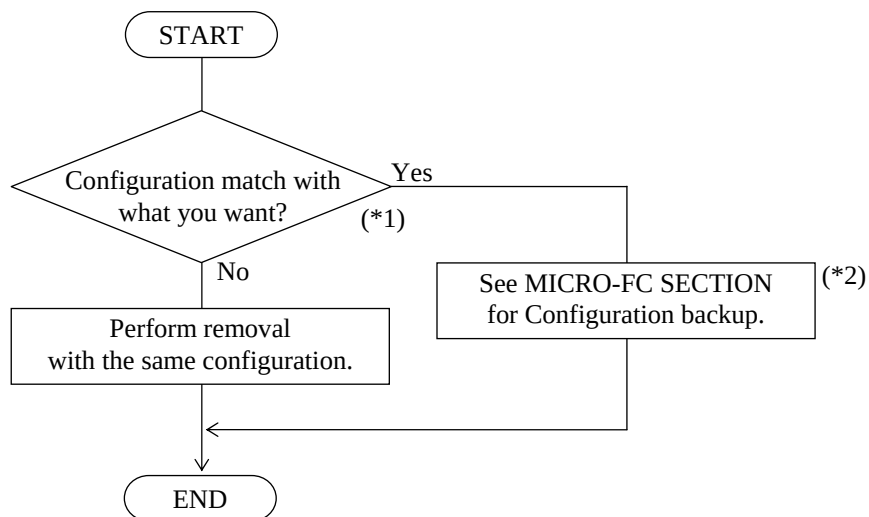
*1: Select (CL) [Maintenance] in the 'SVP' window.

*2: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

*3: The removal of the cluster 1 may be completed depending on the contents of the de-installation failure. In this case, if the de-installation is performed again, processing will begin from the cluster 2.

*4: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

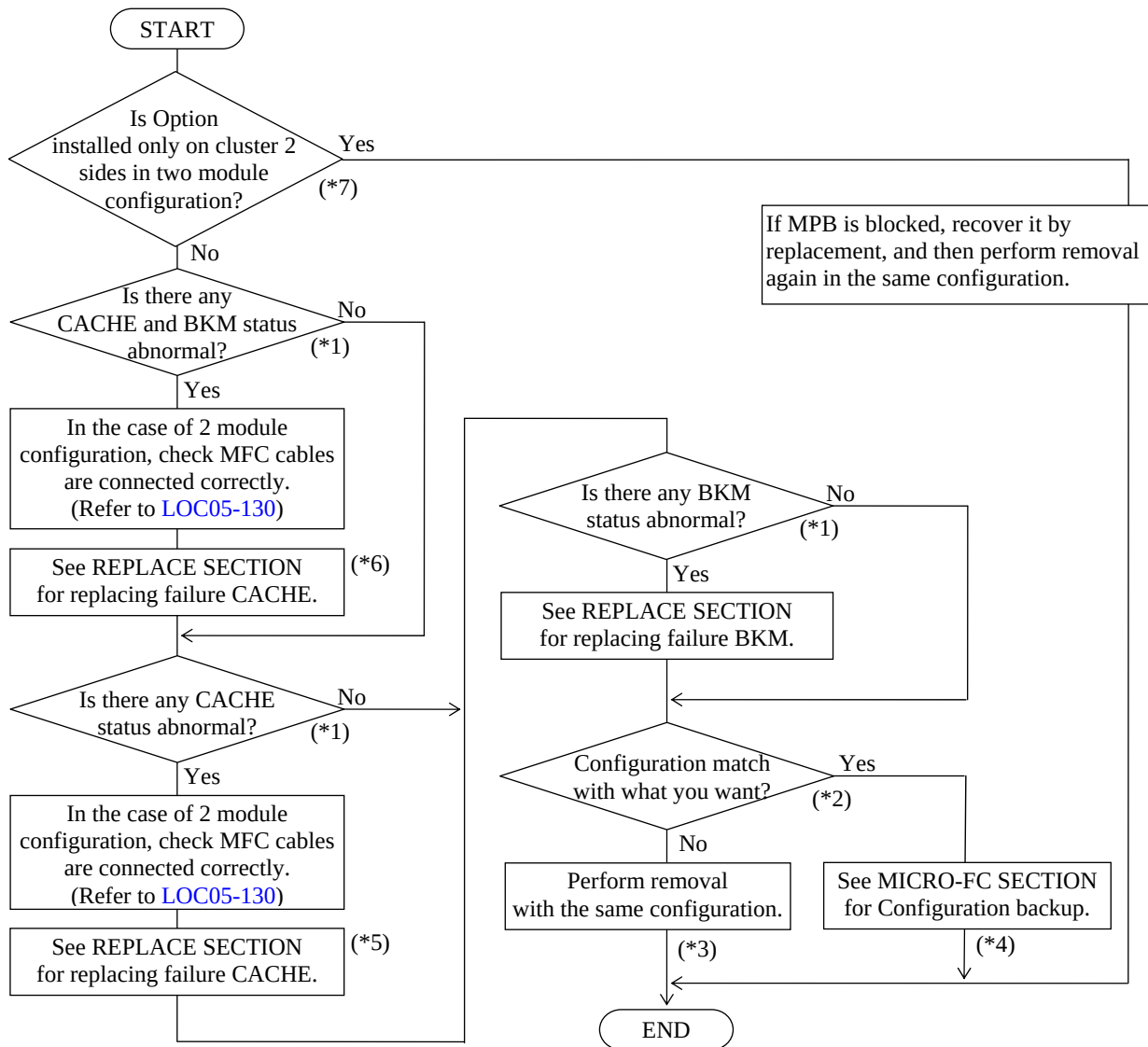
2.7.3 Number of Channel



*1: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

*2: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.7.4 Cache Capacity



*1: Select (CL) [Maintenance] in the 'SVP' window.

*2: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

*3: The removal of the cluster 1 may be completed depending on the contents of the de-installation failure. In this case, if the de-installation is performed again, processing will begin from the cluster 2.

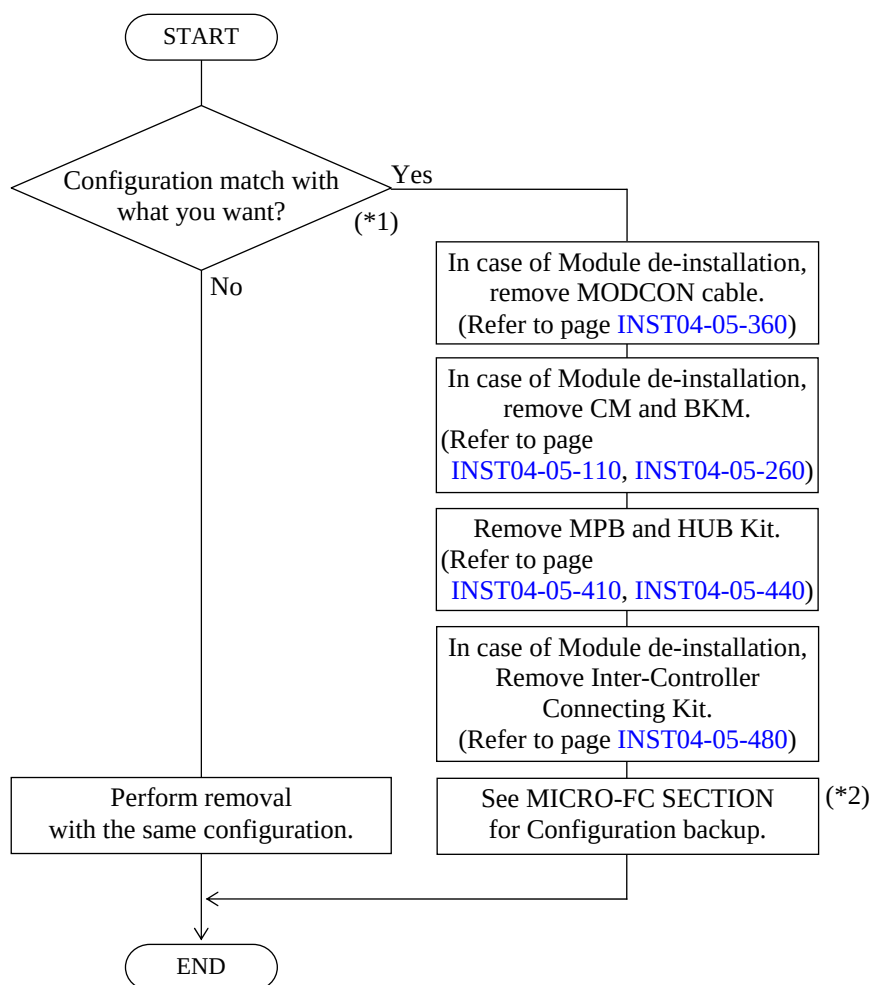
*4: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

*5: When the procedure is interrupted by a SVP reboot, perform self-replacement for both 1CA and 2CA.

*6: When diagnosis error of BKM occurs, see DIAGNOSIS SECTION "5.1.3 INLINE CUDG Trouble shooting".

*7: CACHE-2CB/2CD are installed, but CACHE-1CB/1CD are not.

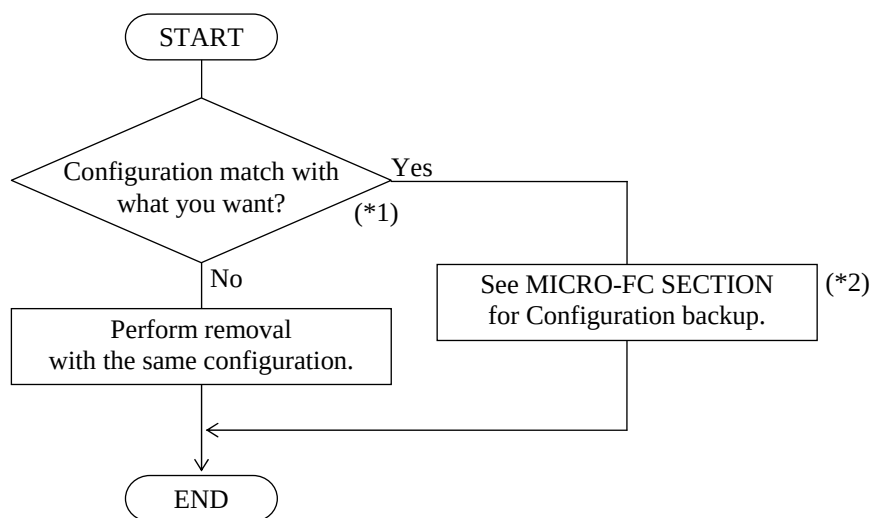
2.7.5 MPB + Module



*1: Select (CL) [Install]-[Refer Configuration] in the 'SVP' window.

*2: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.7.6 SVP



*1: Select (CL) [Install]-[Set IP Address] in the 'SVP' window.

*2: Select (CL) [Install]-[Copy Config Files]-[Create Configuration Backup] in the 'SVP' window.

2.8 Availability of Installation and De-installation

The pair can be suspended if the ESTPAIR or paircreate (pairesync) command is issued during the HDD Canister or the Cache PCB installation/de-installation. Please ask your customer before the online maintenance operation.

P.P.	Status		HDD Canister			Cache PCB	CHA		DKA	MP
			DATA		SPARE					
			Installation	De-installation	Installation/De-installation		Installation/De-installation	Installation	De-installation	Installation/De-installation
TC-MF/ TC (*5)	TC-MF path established	MCU	×	×	×	×	×	SVP4280W	×	×
		RCU	×	×	×	×	×	×	×	×
	During initial copy	MCU	×	SVP2031W (*1)	×	SVP2059W	×	SVP4280W	×	×
		RCU	×	SVP2034W	×	SVP2079W	×	SVP2038W	×	×
	After completing initial copy	MCU	×	SVP2031W (*1)	×	×	×	SVP4280W	×	×
		RCU	×	SVP2034W	×	×	×	SVP2038W	×	×
	Suspend	MCU	×	SVP2031W (*1)	×	×	×	SVP4280W	×	×
		RCU	×	SVP2034W	×	×	×	SVP2038W	×	×
UR (JNL-GROUP)	TC-MF path established	MCU	×	×	×	×	×	×	×	×
		RCU								
	Initial	MCU	×	SVP3825W	×	×	×	×	×	×
		RCU								
	Active	MCU	×	SVP3825W	×	×	×	×	×	×
		RCU								
	Halting	MCU	×	SVP3825W	×	×	×	×	×	×
		RCU								
	Stop	MCU	×	SVP3825W	×	×	×	×	×	×
		RCU								
	Stopping	MCU	×	SVP3825W	×	×	×	×	×	×
		RCU								

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P.P.	Status		HDD Canister			Cache PCB	CHA		DKA	MP	
			DATA		SPARE		Installation	De-installation			
			Installation	De-installation							Installation/ De-installation
SI-MF	Pending/ Resync/ SP-Pend	S-VOL	×	SVP2485W	×	×	×	×	×	×	
		T-VOL									
	Duplex	S-VOL	×	SVP2485W	×	×	×	×	×	×	
		T-VOL									
	Split	S-VOL	×	SVP2485W	×	×	×	×	×	×	
		T-VOL									
	Suspend	S-VOL	×	SVP2485W	×	×	×	×	×	×	
		T-VOL									
	FCv2	During copy	S-VOL	×	SVP2485W	×	×	×		×	×
			T-VOL								
NOCOPY		S-VOL	×	SVP2485W	×	×	×		×	×	
		T-VOL									
Incremental FlashCopy		S-VOL	×	SVP2485W	×	×	×		×	×	
		T-VOL									
XRC	During initial copy	Primary	×	(*3)	×	(*4)	×		×	(*4)	
		Secondary	×	(*3)	×	×	×		×	×	
	Established	Primary	×	(*3)	×	(*4)	×		×	(*4)	
		Secondary	×	(*3)	×	×	×		×	×	
	Suspend	Primary	×	(*3)	×	(*4)	×		×	(*4)	
		Secondary	×	(*3)	×	×	×		×	×	

(To be continued)

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P.P.	Status		HDD Canister			Cache PCB	CHF		CHM		DKA	MP
			DATA		SPARE							
			Installation	De-installation	Installation/ De-installation		Installation	De-installation	Installation	De-installation	Installation/ De-installation	Installation/ De-installation
UR (DATA-VOL)	TC-MF path established	MCU	×	×	×	×	×	×	×	×	×	×
		RCU	×	×	×	×	×	SVP4280W	×	×	×	×
	During initial copy	MCU	×	SVP2031W	×	SVP2059W	×	SVP3848W	×	×	×	×
		RCU	×	SVP2034W	×	SVP2079W	×	SVP4280W	×	SVP4291W (*6)	×	×
	After completing initial copy	MCU	×	SVP2031W	×	×	×	SVP3848W	×	×	×	×
		RCU	×	SVP2034W	×	×	×	SVP4280W	×	SVP4291W (*6)	×	×
	Suspend	MCU	×	SVP2031W	×	×	×	SVP3848W	×	×	×	×
		RCU	×	SVP2034W	×	×	×	SVP4280W	×	×	×	×
	Suspending	MCU	×	SVP2031W	×	×	×	SVP3848W	×	×	×	×
		RCU	×	SVP2034W	×	×	×	SVP4280W	×	SVP4291W (*6)	×	×
	Deleting	MCU	×	SVP2031W	×	×	×	SVP3848W	×	×	×	×
		RCU	×	SVP2034W	×	×	×	SVP4280W	×	SVP4291W (*6)	×	×

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P.P.	Status		HDD Canister			Cache PCB	CHA				DKA	MP
			DATA		SPARE							
			Installation	De-installation	Installation/ De-installation	Installation/ De-installation	Installation	De-installation			Installation/ De-installation	Installation/ De-installation
								Initiator	RCU-Target			
						With alternate path	Without alternate path					
GAD (*5)	Path established (Without GAD pair)	M-DKC	×	×	×	×	×	SVP4280E	×	×	×	×
		R-DKC	×	×	×	×	×	SVP4280E	×	×	×	×
	Quorum established (Without GAD pair, with path)	M-DKC	×	SVP4197E	×	×	×	SVP4280E	×	×	×	×
		R-DKC	×	SVP4197E	×	×	×	SVP4280E	×	×	×	×
	COPY	P-VOL	×	SVP4482E	×	SVP4484W	×	SVP4280E	×	SVP4485W	×	×
		S-VOL	×	SVP4483W	×	SVP4488W	×	SVP4280E	×	SVP4485W	×	×
	PAIR	P-VOL	×	SVP4482E	×	×	×	SVP4280E	×	SVP4485W	×	×
		S-VOL	×	SVP4483W	×	×	×	SVP4280E	×	SVP4485W	×	×
	PSUS/ PSUE (Local)	P-VOL	×	SVP4482E	×	×	×	SVP4280E	×	SVP4485W	×	×
	SSWS (Local)	S-VOL	×	SVP4483W	×	×	×	SVP4280E	×	SVP4485W	×	×
	PSUS/ PSUE (Block)	P-VOL	×	SVP4482E	×	×	×	SVP4280E	×	SVP4485W	×	×
	SSUS/ PSUE (Block)	S-VOL	×	SVP4483W	×	×	×	SVP4280E	×	SVP4485W	×	×

× : Maintenance is available.

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

- *1: If CU which all HDEV's are deleted from by this operation exists and there is registration of RCU in this CU, SVP will display a warning message with SVP2466W.
- *2: When the different 'DKC – Emulation – Type' of CHA is installed, SVP displays a warning message with SVP3289W.
- *3: When a maintenance operation is needed while XRC is being used, XRC should be stopped before the maintenance operation.
- *4: When a maintenance operation is needed while XRC is being used, I/O's for XRC pair volumes or XRC itself should be stopped before the maintenance operation.
If the maintenance operation must be done while XRC is being used, you must confirm that the usage of Sidefile monitor is less than 20% of total Cache capacity by monitoring each combination of MPPK and CLPR usage 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 SVP SECTION "2.4 Monitoring" ([SVP02-04-10](#)) about Sidefile monitor.
Select the [Monitor] 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].
- *5: It is impossible to change the DKC No, SSID, or DKC Emulation type by system tuning when TrueCopy for Mainframe, TrueCopy, or global-active device is used.
- *6: In this operation, when all of CHM were set down, the warning message of 'SVP4291W' will be outputted.
- *7: In the case of SI-MF, when all CHM is specified to de-install with pair includes 3390-A volume, the alert message of 'SVP4313W' is shown.

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

2.9.1 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 storage system. 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.

2.9.2 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 Table” ([INST02-10](#) ~ [INST02-20](#)))
- ② The PC (SVP) is installed and can be used. (For the SVP installation, refer to [REP03-21-210](#) ~ [REP03-21-670](#))

2.9.3 Procedures

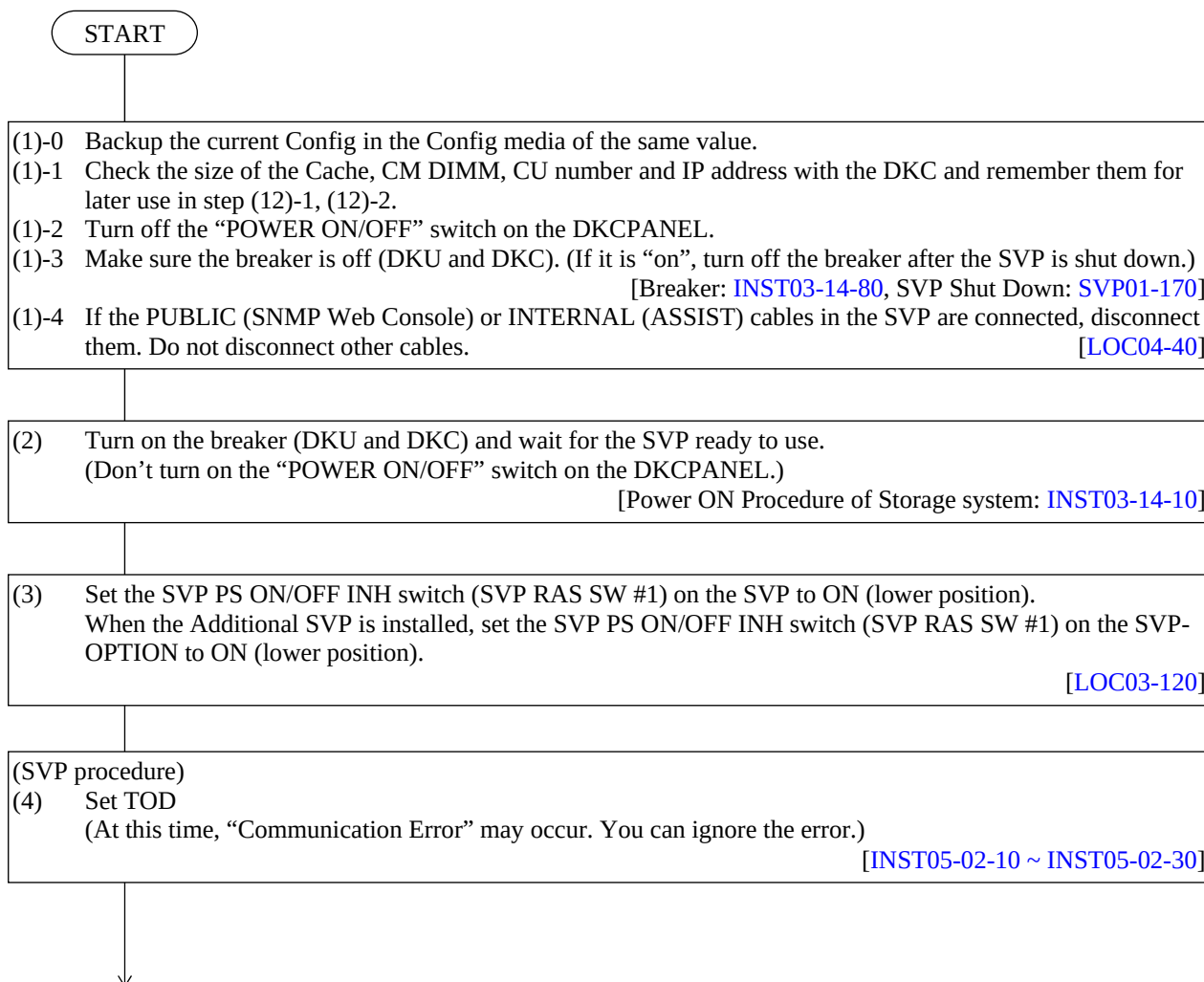
(1) Summary

The procedures are divided roughly into 3 processes.

- ① Pre-processing (the installation of the micro-programs into the SVP HD : (1)-(8) in the following flow)
- ② Execution of “Define Configuration and Install” by the SVP.(By this procedure, the customer’s configurations are defined, and the micro-programs are installed.) : ((9)-(12) in the following flow)
- ③ Others ((13)-(33) in the following flow)

(2) Processing Flow

The processing flow of the new installation is as follow:



(SVP procedure)

(5) Execute the following procedures: (*9)

[Install micro-programs and configuration to the HD to the SVP]

[REP03-21-240 ~ REP03-21-510]

step0: Connect to the SVP display from the Maintenance PC by the remote desktop.

step1: Prepare the 1st and 2nd CD-ROM. (*1)

step2: Uninstall any additional software installed on the SVP such as Hi-Track/C-Track and Anti-Virus client.

step3: Click "START" on the task bar and select "Control Panel"- "Programs and Features".
Uninstall Apache, Tomcat, JRE:Java(TM) + Java(TM) SE Development Kit, Perl and Flash. Do not reboot after each uninstall. Stop any services that are coming out in the Warning messages.

REP03-21-250 1. Apache (launch the uninstallation batch)
Select "Start"- "All Programs"- "Accessories"-
"Command Prompt (right click to administrator)"
and enter the following command:
\\tsclient\JavaAp\Apache\ApacheUnInst.bat (enter)
Remove CD-ROM from Maintenance PC's drive.

REP03-21-260 2. Apache Tomcat uninstall from "Control Panel"- "Programs and Features".
During uninstall the following message is displayed:
"Remove all files in your Tomcat directory?"
If you have anything you created you want to keep, click No."
Select Yes.
Do NOT allow Reboot!

REP03-21-310 3. Java SE Development Kit uninstall from "Control Panel"-
"Programs and Features".
Do NOT allow Reboot!

4. Java Update uninstall from "Control Panel"- "Programs and Features".
Do NOT allow Reboot!

REP03-21-360 5. Perl uninstall from "Control Panel"- "Programs and Features".
Do NOT allow Reboot!

REP03-21-380 6. Flash uninstall from "Control Panel"- "Programs and Features".
Do NOT allow Reboot!

step4: Insert the 1st CD-ROM disk into the Maintenance PC's drive.

step5: Enter the following command: \\tsclient\E\setup.exe (enter).

* In the case Maintenance PC's CD-ROM drive is "E:".

Message is displayed:

"(SUP4186W) Initializing the SVP that is currently operating. Do you want to continue?"

Select Yes.

The following message is displayed:

"The SVP is running. The PC will be rebooted to stop the SVP. Please retry the setup after the PC reboots."

Select Finish after check Yes in radio buttons.

SVP reboots....

After reboot 2 icons are displayed (RAID ADMIN and OTHER USER) Switch to OTHER USER icon and enter "Administrator" (user) and "r41d-administrate-admin" (password). Follow the process on the screen.

Select [CD-R] to install configuration information from CD-R, when the message CNF4061i.

Enter the key code of the configuration information when the message CNF4055i, and then click [OK]. (*11)

Insert the second CD-R (OSS), when requested and select [OK].

Java, Perl, Apache Tomcat and Flash is being installed at this step.

Do not change any parameters during install (leave unchanged values).

step6: Remove the CD-ROM from the Maintenance PC's drive.

This operation causes the "SVP Reboot". Then wait few minutes and reconnect by the remote desktop.

(SVP procedure)

(6) Set IP Address

IP Address must be 126.255.254.15 and Subnet mask must be 255.0.0.0. Also, "Target" must be "SVP".

(Don't select "SVP and DKC" as the "Target".

[INST05-02-40 ~ INST05-02-70] (*2)

Besides, do not select "Use Duplex SVP" in the "External IP Address" box.

Config BackUp is accompanies.

INST02-360

(SVP procedure)

(7) Delete LOGs.

[Log Delete: [SVP02-03-10 ~ SVP02-03-20](#), SIM Log Complete: [SVP02-08-10 ~ SVP02-08-20](#)] (*3)

(8) Set the SVP PS ON/OFF INH switch on the SVP to OFF (upper position).

When the Additional SVP is installed, set the SVP PS ON/OFF INH switch on the SVP-OPTION to OFF (upper position).

(9) Set all packages to be installed.

Set the packages (CHA, DKA, MPB 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).

[[LOC02-90 ~ LOC02-120](#)] (*3-1)

(10) Set the Maintenance Jumpers to CE Mode connectors (CEMD) and (CEDT) on the only MPB-1MA and MPB-2MA. (*4) For two Modules, insert Jumpers in the MPB-1MC and MPB-2MC of Module 1 too.

NOTE: Don't pull out these Jumpers until (14).

[[INST02-30](#)]

(11) Turn on the "POWER ON/OFF" switch on the DKCPANEL.

[[INST03-14-20](#)]

NOTE: When MODCON-0 is installed in DKC-0 in single DKC configuration, remove the MODCON-0.
(When MODCON-0 is installed and DKC-0 and DKC-1 are not connected to each other, the storage system is not powered on.)



Change the SVP mode to “Initial Setting”. (*5)

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

(12)-1 Execution of Config Exchange Procedure.

Select the “Install” in the “SVP” window and select “Copy Config Files” in the “Install” window. And select “All Configuration Files” in the “Copy Config Files” window.

[[MICRO07-60 ~ MICRO07-70](#)]

(12)-2 Define the configuration information that you want to install now for this storage system.

Then, the defined size of the Cache and CM DIMM must be equal to ones of the Cache and CM DIMM equipped for the storage system. (*6) (*10)

The configuration information must be defined according to the SVP guidance. Especially, you must not forget the definition of the following information.

① DKC Serial No., IP Address.

③ Host Interface Configuration:

② Cache Configuration

④ PDEVs, LDEVs, etc.

[[INST05-02-80 ~ INST05-02-470](#)]

(13) Turn off the “POWER ON/OFF” switch on the DKCPANEL.

[[INST03-14-50 ~ INST03-14-60](#)]

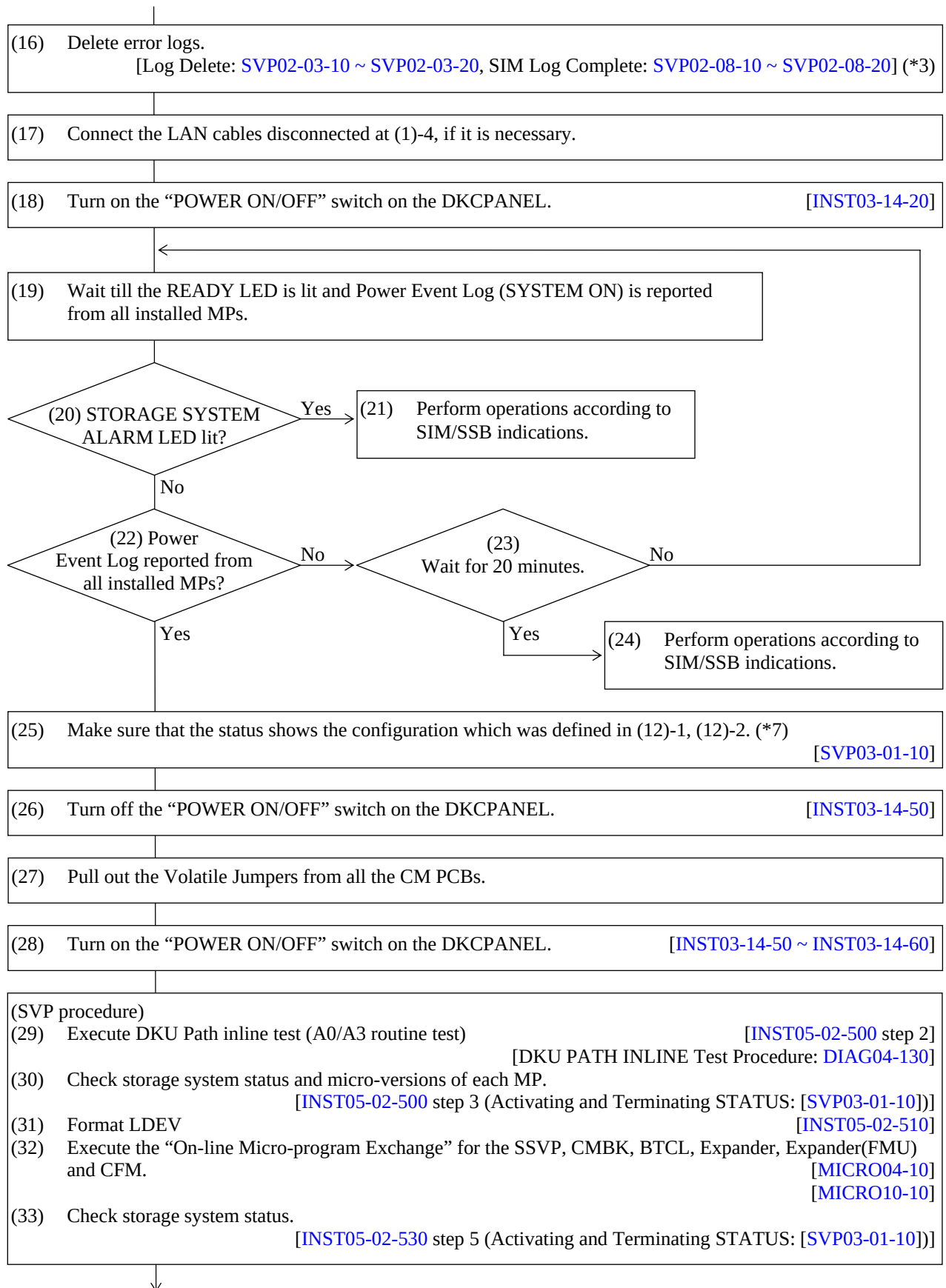
(14) Pull out the Maintenance Jumpers from all the MP PCBs.

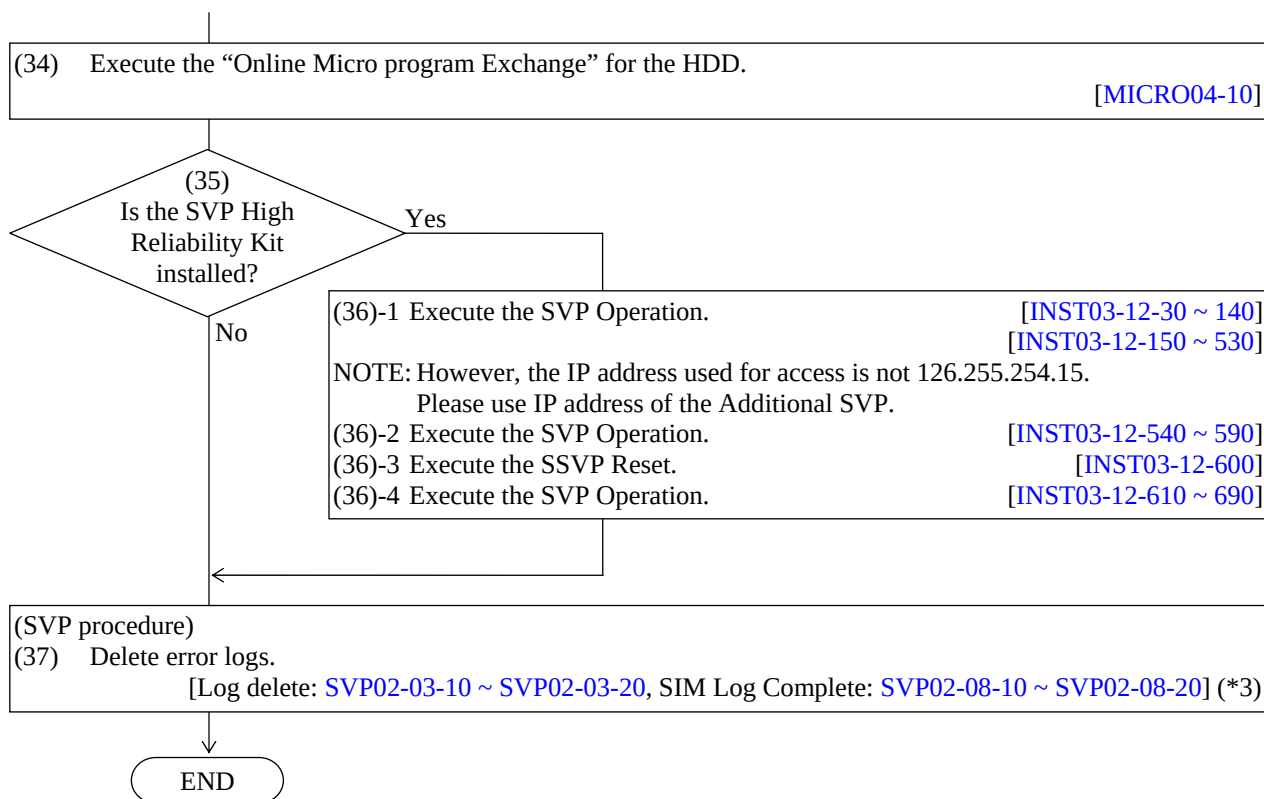
(*4)

(15) Set the Volatile Jumpers on all the CM PCBs.

NOTE: Don't pull out these Jumpers until (27).

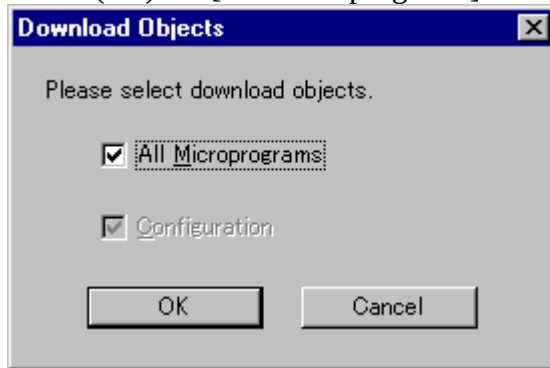


INST02-380

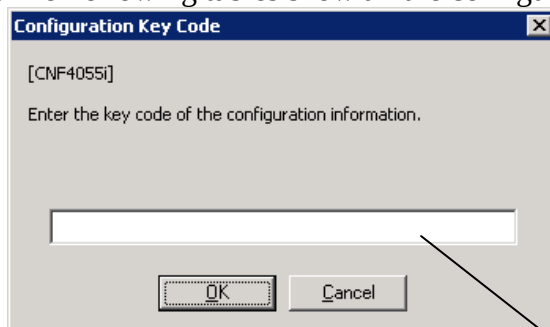


- *1 : The 1st CD-ROM includes the micro-programs and configuration information and Storage Navigator to be installed into the storage system.
The 2nd CD-ROM (OSS) includes Apache, Perl, Java and Tomcat.
- *2 : Even if the “IP Address” is “126.255.254.15” and the “Subnet Mask” is “255.0.0.0” on the screen of “Set IP Address”, be sure to select “OK” and reply “OK” to the message “This will reboot SVP.”.
- *3 : It’s necessary to execute the procedure of “SIM Log Complete” before deleting the SIM data.
- *3-1: At least, a pair of MP PCBs must be installed in the CL1 and CL2 PCB locations.
- *4 : Refer to the following about the Maintenance Jumpers.
 - [INST02-30](#) “NOTE”
- *5: Press the following keys at the same time to change the mode to “Initial Setting”.
[SHIFT], [CTRL], [I]
And input the password. (*8)
- *6: In this definition, specify the actual DKC Serial Number.
Also, “IP Address” should be specified as follows:
 - ① Specifying the IP Address according to the DKC Serial Number Select “Based on Serial Number”, and the IP Address will be assigned automatically.
 - ② 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 CM DIMM should be equal to the value that was confirmed at (1) in the processing flow. After the configuration information is defined, Turn on the “POWER ON/OFF” switch of the DKCPANEL and the reboot of the SVP will be executed.
- *7: Surely, check the following status:
 - (1) the condition of each PCB status.----- PCB Kind/Normal or not/etc
 - (2) the micro-program version
- *8: For the password, ask the technical support division. And use it with their approval.

- *9: The SIM = BF85A3 (Basic SVP: SVP RAS Switch#1 remains (SVP PS ON/OFF INH SW)) may be reported. When the SVP high-reliability kit is installed, the SIM = BF86A3 (Optional SVP: SVP RAS Switch#1 remains (SVP PS ON/OFF INH SW)), BFE3A2 (SVP duplication setting defect) and 7FF201 (standby SVP failure detection) may occur but there is no problem because they occur in process of the SVP replacement.
- *10: Select (CL) the [All Microprograms] and select (CL) the [OK] button. (INST05-02-440)



- *11: The Following tables show all the configuration key codes.



Type	Configuration key code
/00	VSPG
/10	XP7

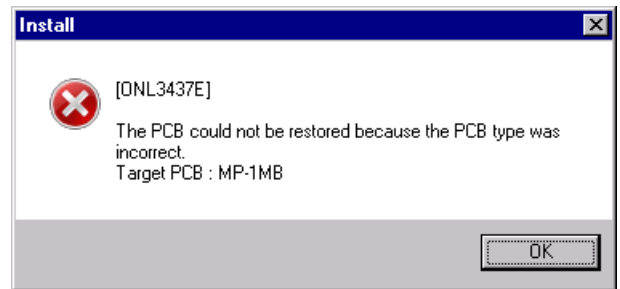
2.10 Obstacle part replacement procedure in install

2.10.1 Replacement procedure when PCB could not be restoring

(1)

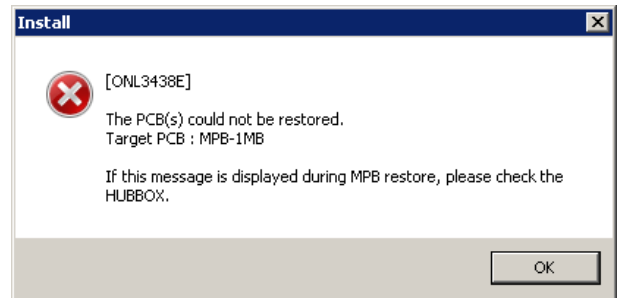
The following messages are displayed when PCB could not be restoring.

When “The PCB could not be restored because the PCB type was incorrect. Target PCB : ****” is displayed, please check the PCB type. (The target PCB location is displayed on Target PCB : ****.)



Please select(CL) [OK] after a check.

When “The PCB(s) could not be restored. Target PCB : **** If this message is displayed during MPB restore, please check the HUBBOX” is displayed, please check the PCB. (The target PCB location is displayed on Target PCB : ****.)



Please select(CL) [OK] after a check.

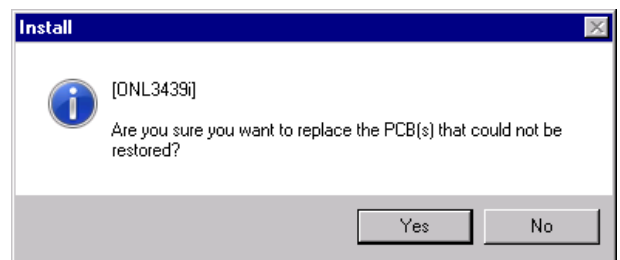
NOTE: When “ONL4356E”, “ONL4357E” are displayed after the message, please remove the Module according to the message.

(2)

“Are you sure you want to replace the PCB(s) that could not be restored?” is displayed.

When the maintenance parts to replace exist, please select (CL) [Yes]. → Go to (3).

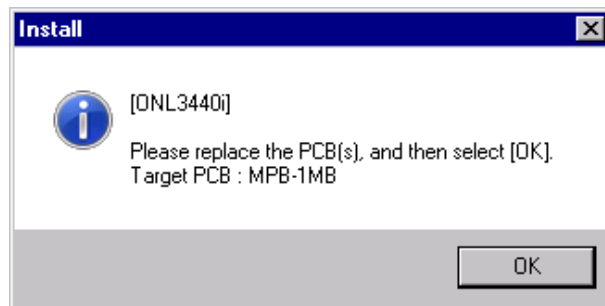
When the maintenance parts to replace do not exist, please select (CL) [No] and refer to trouble shooting for errors in install. ([INST02-110](#), [INST02-150](#))



(3)

“Please replace the PCB(s), and then select [OK]. Target PCB : *****” is displayed.
(The target PCB location is displayed on Target PCB : *****.)

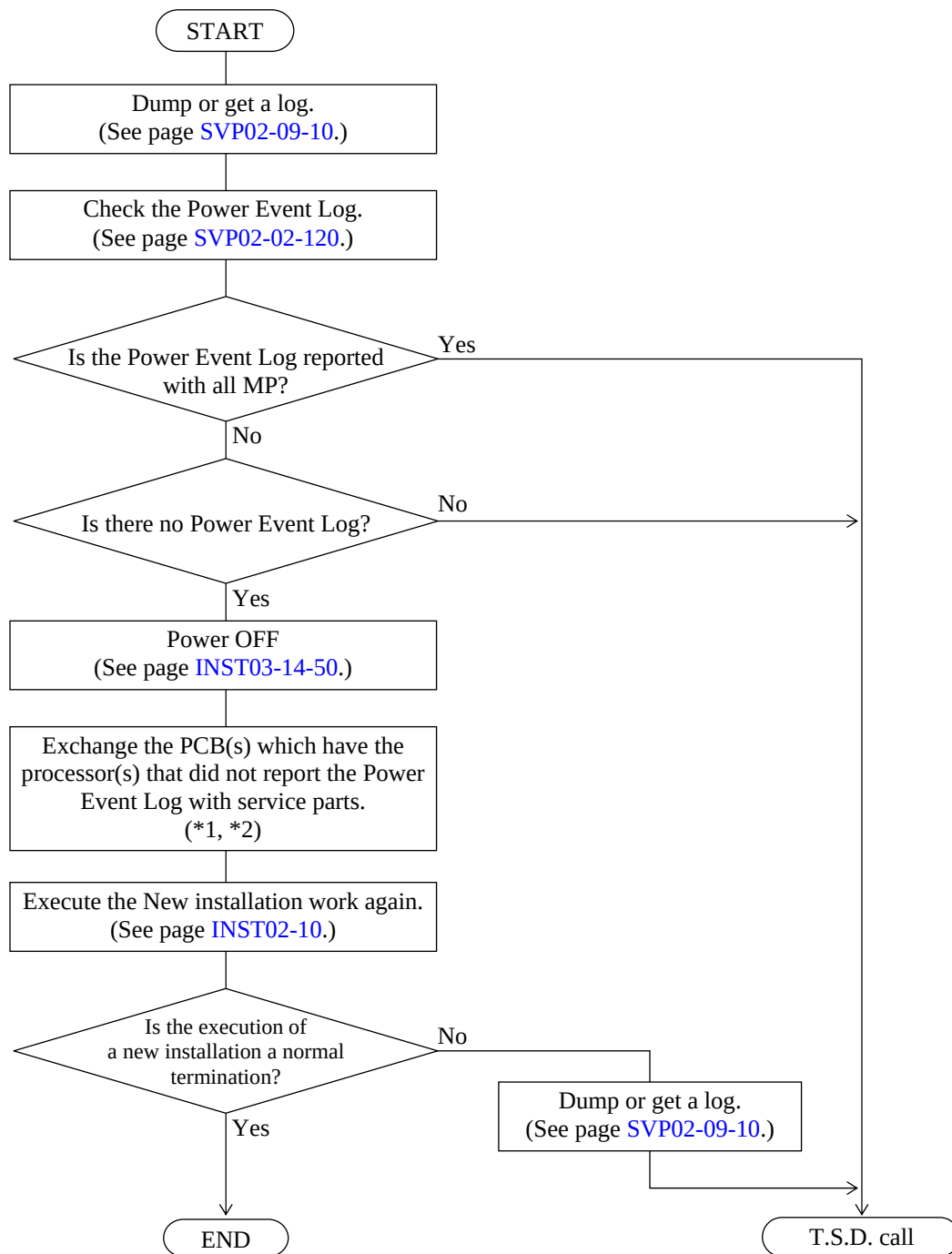
Please select (CL) [OK], after replacing the target PCB.



It returns to the former INSTALLATION SECTION.

2.11 Trouble shooting at the time of new installation

(1) When the ALARM LED comes on



*1: Pulling out of the processor PCB
Refer to page [INST04-05-410](#).

*2: Insertion of the processor PCB
Refer to page [INST03-07-980](#).

(2) When the Logical path is detached

