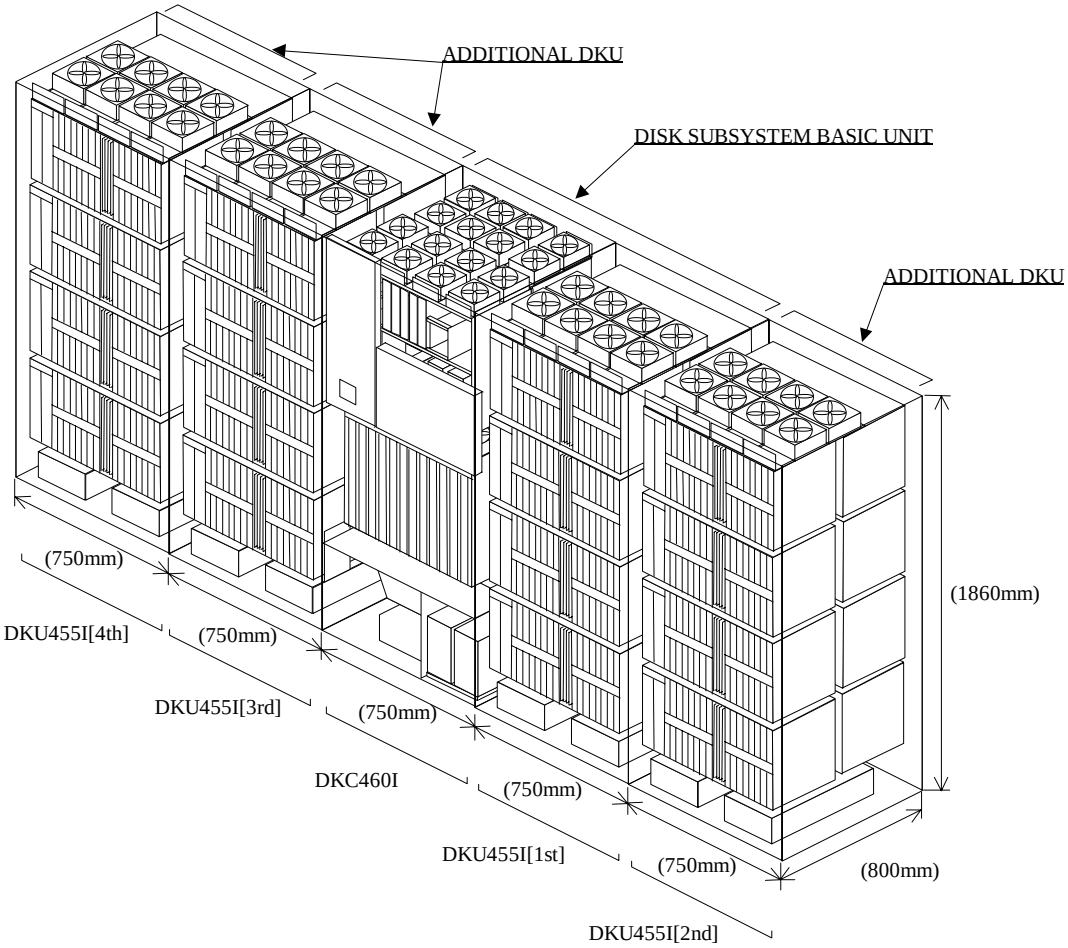
LOCATION SECTION

Contents

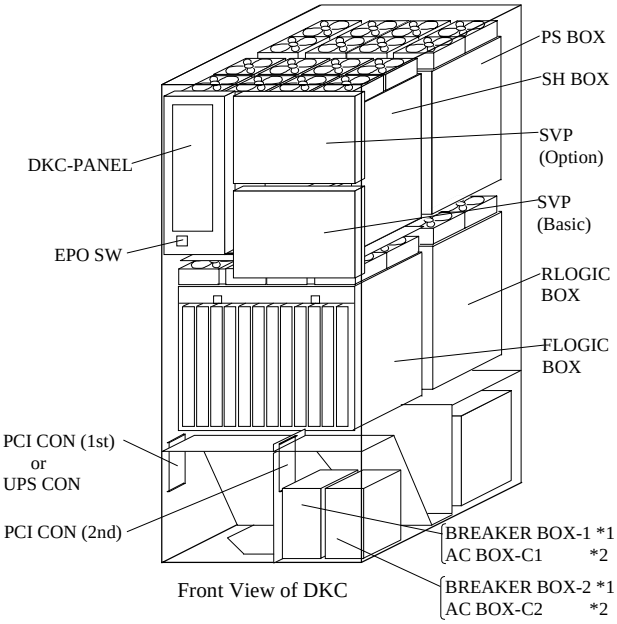
LOCATION

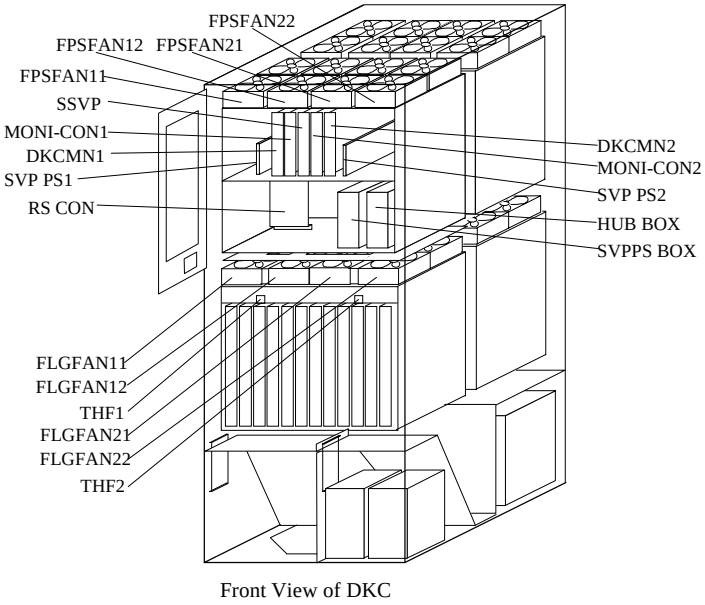
1 Overview of Disk Subsystem



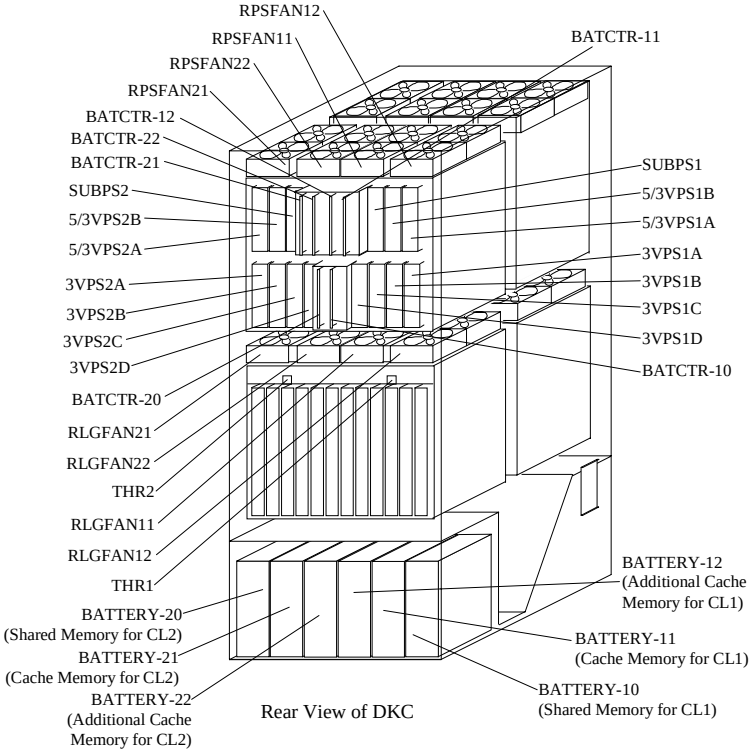
2 Parts Location

2.1 Disk Controller Unit

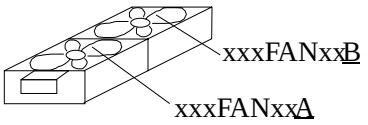




(Note) *1: DKC-F460I-3PS
***2: DKC-F460I-1PS/1PSD/3PSD**



FAN ASSY



(Note)
xxxFANxx : FAN ASSY Location

2.2 PCB and Power Supply Location

FRONT LOGIC BOX PCB LOCATION

CL1							CL2				
N	P	Q	R	S	T	U	V	W	X	Y	Z
WP4811|A	1st CHA *B	2nd CHA *B	3rd CHA *B	4th CHA *B	WP4900|A	WP4900|B *A	1st CHA *B	2nd CHA *B	3rd CHA *B	4th CHA *B	WP4811|B
CSW-1N	CHA-1P	CHA-1Q	CHA-1R	CHA-1S	CACHE-1T	CACHE-1U	CHA-2V	CHA-2W	CHA-2X	CHA-2Y	CSW-2Z
	Basic	Add.1	Add.2	Add.3	Basic (SM)	Add.	Basic	Add.1	Add.2	Add.3	

*A: DKC-F460I-41

*B: Description of CHA PCBs

CL1											
P, Q, R or S											
WP4621|Ax1 SH2811|Cx4	WP4611|Dx1 SH2811|Ax2	WP4611|Ex1 SH2811|Ax2	WP4611|Bx1 SH2811|Ax4	WP4611|Cx1 SH2811|Ax4	WP4651|Ax1 SH2811|Dx4	WP4651|Bx1 SH2811|Dx4	WP4611|Fx1 SH2811|Ax4	WP4611|Gx1 SH2811|Ax4	WP4611|Hx1 SH2811|Ax2	WP4611|Jx1 SH2811|Ax2	WP4631|Bx1 SH2811|Dx4
*1	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12

CL2											
V, W, X or Y											
WP4621|Ax1 SH2811|Cx4	WP4611|Dx1 SH2811|Ax2	WP4611|Ex1 SH2811|Ax2	WP4611|Bx1 SH2811|Ax4	WP4611|Cx1 SH2811|Ax4	WP4651|Ax1 SH2811|Dx4	WP4651|Bx1 SH2811|Dx4	WP4611|Fx1 SH2811|Ax4	WP4611|Gx1 SH2811|Ax4	WP4611|Hx1 SH2811|Ax2	WP4611|Jx1 SH2811|Ax2	WP4631|Bx1 SH2811|Dx4
*1	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12

*1: DKC-F460I-8S
*2: DKC-F460I-8GSE
*3: DKC-F460I-4HSE
*4: DKC-F460I-8HSE
*5: DKC-F460I-8HLE
*6: DKC-F460I-8MS
*7: DKC-F460I-8ML
*8: DKC-F460I-8HSF
*9: DKC-F460I-8HLF
*10: DKC-F460I-8GSF
*11: DKC-F460I-4HSF
*12: DKC-F460I-16HSF

REAR LOGIC BOX PCB LOCATION

CL2								CL1				
M	L	K	J	H	G	F	E	D	C	B	A
WP4811/A	WP4711/B×1 SH2811/B×4	WP4711/B×1 SH2811/B×4	WP4711/B×1 SH2811/B×4	WP4711/B×1 SH2811/B×4	WP4900/A	WP4900/B	WP4711/B×1 SH2811/B×4	WP4711/B×1 SH2811/B×4	WP4711/B×1 SH2811/B×4	WP4711/B×1 SH2811/B×4	WP4811/B
	*C	*B	*A			*D	*C	*B	*A		
CSW-2M	DKA-2L	DKA-2K	DKA-2J	DKA-2H	CACHE-2G	CACHE-2F	DKA-1E	DKA-1D	DKA-1C	DKA-1B	CSW-1A
	Add.3	Add.2	Add.1	Basic	Basic (SM)	Add.	Add.3	Add.2	Add.1	Basic	

*A: DKC-F460I-200 × 1 set
*B: DKC-F460I-200 × 2 sets
*C: DKC-F460I-200 × 3 sets
*D: DKC-F460I-41

FRONT SH BOX PCB LOCATION

CL1				CL1/CL2	CL2			
G	F		E	D	C	B		A
SVPPS1	DKCMN1		MONI-CON1	SSVP	MONI-CON2	DKCMN2		SVPPS2
SH1111-B	SH307-A	SH307-B *A	SH305-A	SH313-A	SH305-A	SH307-A	SH307-B *A	SH1111-B

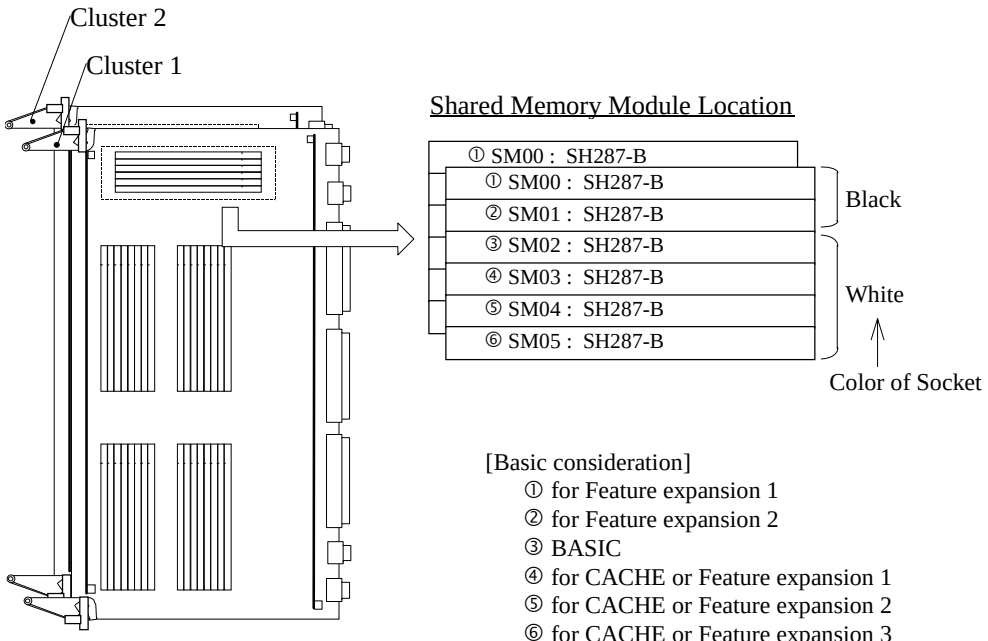
*A: DKC-F460I-UPS

REAR PS BOX PS LOCATION

CL2					CL1				
—	—	—	DU	CU	BU	AU	—	—	—
5/3VPS2A	5/3VPS2B	SUBPS2	BATCTR-21	BATCTR-22	BATCTR-12	BATCTR-11	SUBPS1	5/3VPS1B	5/3VPS1A
5/3VPS	5/3VPS	SUBPS	SH200-A	SH200-A *A	SH200-A *A	SH200-A	SUBPS	5/3VPS	5/3VPS
3VPS	3VPS	3VPS *B	3VPS *B	SH2000-A	SH2000-A	3VPS *B	3VPS *B	3VPS	3VPS
3VPS2A	3VPS2B	3VPS2C	3VPS2D	BATCTR-20	BATCTR-10	3VPS1D	3VPS1C	3VPS1B	3VPS1A
—	—	—	—	BL	AL	—	—	—	—
CL2					CL1				

*A: DKC-F460I-42
*B: DKC-F460I-80

2.3 Shared Memory Module Location

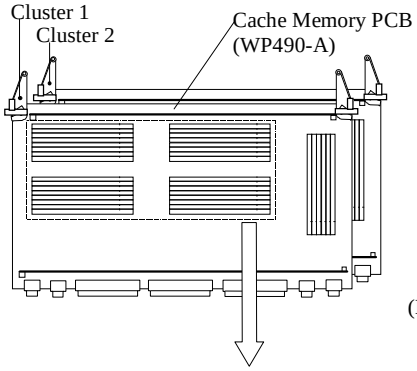


[Basic consideration]

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

2.4 Cache Memory Module Location

1. Standard Cache Memory PCB



(Note) The cache memory module location *1 through *G correspond to the CM Location listed in Table 2.4-1

Cache Memory Module Location

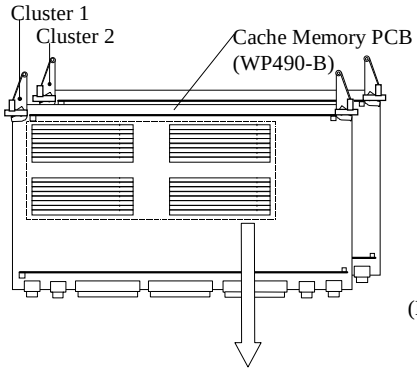
BCM007 : SH288-B	*G	ACM007 : SH288-B	*F

BCM007 (MG#15) : SH288-B	*G	ACM007 (MG#14) : SH288-B	*F
BCM006 (MG#13) : SH288-B	*E	ACM006 (MG#12) : SH288-B	*D
BCM005 (MG#11) : SH288-B	*C	ACM005 (MG#10) : SH288-B	*B
BCM004 (MG#9) : SH288-B	*A	ACM004 (MG#8) : SH288-B	*9
BCM003 (MG#7) : SH288-B	*8	ACM003 (MG#6) : SH288-B	*7
BCM002 (MG#5) : SH288-B	*6	ACM002 (MG#4) : SH288-B	*5
BCM001 (MG#3) : SH288-B	*4	ACM001 (MG#2) : SH288-B	*3
BCM000 (MG#1) : SH288-B	*2	ACM000 (MG#0) : SH288-B	*1

BCM107 (MG#15) : SH288-B	*G	ACM107 (MG#14) : SH288-B	*F
BCM106 (MG#13) : SH288-B	*E	ACM106 (MG#12) : SH288-B	*D
BCM105 (MG#11) : SH288-B	*C	ACM105 (MG#10) : SH288-B	*B
BCM104 (MG#9) : SH288-B	*A	ACM104 (MG#8) : SH288-B	*9
BCM103 (MG#7) : SH288-B	*8	ACM103 (MG#6) : SH288-B	*7
BCM102 (MG#5) : SH288-B	*6	ACM102 (MG#4) : SH288-B	*5
BCM101 (MG#3) : SH288-B	*4	ACM101 (MG#2) : SH288-B	*3
BCM100 (MG#1) : SH288-B	*2	ACM100 (MG#0) : SH288-B	*1

Fig. 2.4-1 Cache Memory Module Location

2. Additional Cache Memory PCB



(Note) The cache memory module location *H through *Y correspond to the CM Location listed in Table 2.4-1

Cache Memory Module Location

BCM007 : SH288-B	*Y	ACM007 : SH288-B	*X

BCM007 (MG#15) : SH288-B	*Y	ACM007 (MG#14) : SH288-B	*X
BCM006 (MG#13) : SH288-B	*W	ACM006 (MG#12) : SH288-B	*V
BCM005 (MG#11) : SH288-B	*U	ACM005 (MG#10) : SH288-B	*T
BCM004 (MG#9) : SH288-B	*S	ACM004 (MG#8) : SH288-B	*R
BCM003 (MG#7) : SH288-B	*Q	ACM003 (MG#6) : SH288-B	*P
BCM002 (MG#5) : SH288-B	*N	ACM002 (MG#4) : SH288-B	*M
BCM001 (MG#3) : SH288-B	*L	ACM001 (MG#2) : SH288-B	*K
BCM000 (MG#1) : SH288-B	*J	ACM000 (MG#0) : SH288-B	*H

BCM107 (MG#15) : SH288-B	*Y	ACM107 (MG#14) : SH288-B	*X
BCM106 (MG#13) : SH288-B	*W	ACM106 (MG#12) : SH288-B	*V
BCM105 (MG#11) : SH288-B	*U	ACM105 (MG#10) : SH288-B	*T
BCM104 (MG#9) : SH288-B	*S	ACM104 (MG#8) : SH288-B	*R
BCM103 (MG#7) : SH288-B	*Q	ACM103 (MG#6) : SH288-B	*P
BCM102 (MG#5) : SH288-B	*N	ACM102 (MG#4) : SH288-B	*M
BCM101 (MG#3) : SH288-B	*L	ACM101 (MG#2) : SH288-B	*K
BCM100 (MG#1) : SH288-B	*J	ACM100 (MG#0) : SH288-B	*H

Fig. 2.4-2 Cache Memory Module Location

Table 2.4-1 Cache memory capacity and number of necessary options

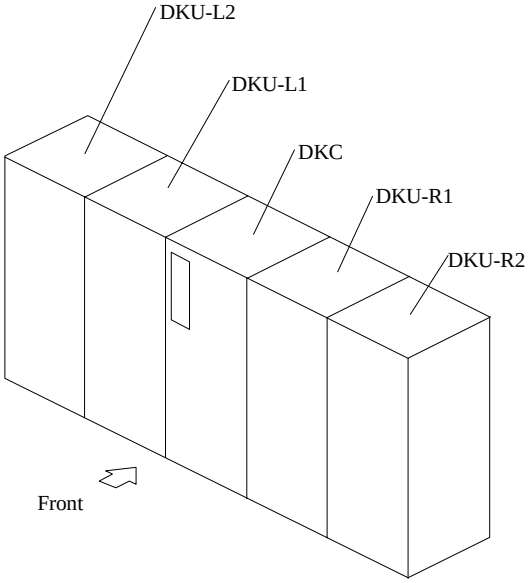
Cache Memory Capacity	Standard Model				High Performance Model				DKC-F460I-42 Additional Battery
	DKC-F460I-2048			DKC-F460I -41	DKC-F460I-2048			DKC-F460I -41	
	Install PCB		CM Location (Note 1)		Install PCB		CM Location (Note 1)		
	Basic PCB	Add. PCB			Basic PCB	Add. PCB			
2GB	1	0	*1	0	-	-	-	-	0
4GB	2	0	*2	0	1	1	*1,*H	1	0
6GB	3	0	*3	0	-	-	-	1	0
8GB	4	0	*4	0	2	2	*2,*J	1	0
10GB	5	0	*5	0	-	-	-	1	0
12GB	6	0	*6	0	3	3	*3,*K	1	0
14GB	7	0	*7	0	-	-	-	1	0
16GB	8	0	*8	0	4	4	*4,*L	1	0
18GB	9	0	*9	0	-	-	-	1	0
20GB	10	0	*A	0	5	5	*5,*M	1	0
22GB	11	0	*B	0	-	-	-	1	0
24GB	12	0	*C	0	6	6	*6,*N	1	0
26GB	13	0	*D	0	-	-	-	1	0
28GB	14	0	*E	0	7	7	*7,*P	1	0
30GB	15	0	*F	0	-	-	-	1	0
32GB	16	0	*G	0	8	8	*8,*Q	1	0
34GB	16	1	*H	1	-	-	-	1	1
36GB	16	2	*J	1	9	9	*9,*R	1	1
38GB	16	3	*K	1	-	-	-	1	1
40GB	16	4	*L	1	10	10	*A,*S	1	1
42GB	16	5	*M	1	-	-	-	1	1
44GB	16	6	*N	1	11	11	*B,*T	1	1
46GB	16	7	*P	1	-	-	-	1	1
48GB	16	8	*Q	1	12	12	*C,*U	1	1
50GB	16	9	*R	1	-	-	-	1	1
52GB	16	10	*S	1	13	13	*D,*V	1	1
54GB	16	11	*T	1	-	-	-	1	1
56GB	16	12	*U	1	14	14	*E,*W	1	1
58GB	16	13	*V	1	-	-	-	1	1
60GB	16	14	*W	1	15	15	*F,*X	1	1
62GB	16	15	*X	1	-	-	-	1	1
64GB	16	16	*Y	1	16	16	*G,*Y	1	1

Note 1: The above numbers (*1 through *Y) represent the Cache Memory Module locations shown in Fig 2.4-1 and Fig 2.4-2.

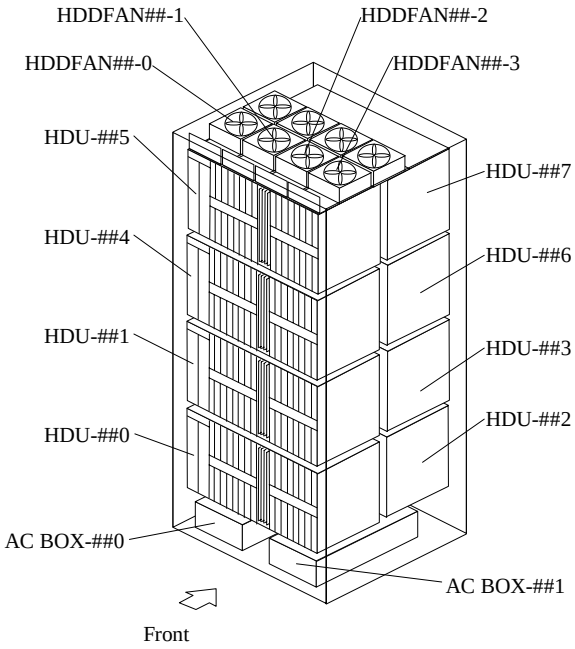
Note 2: A cache memory can't be set up in the ‘ – ‘ mark.

High performance model is effective when the cache memory is installed 8GB or more, and recommend the addition of 8GB.

2.5 Disk Unit

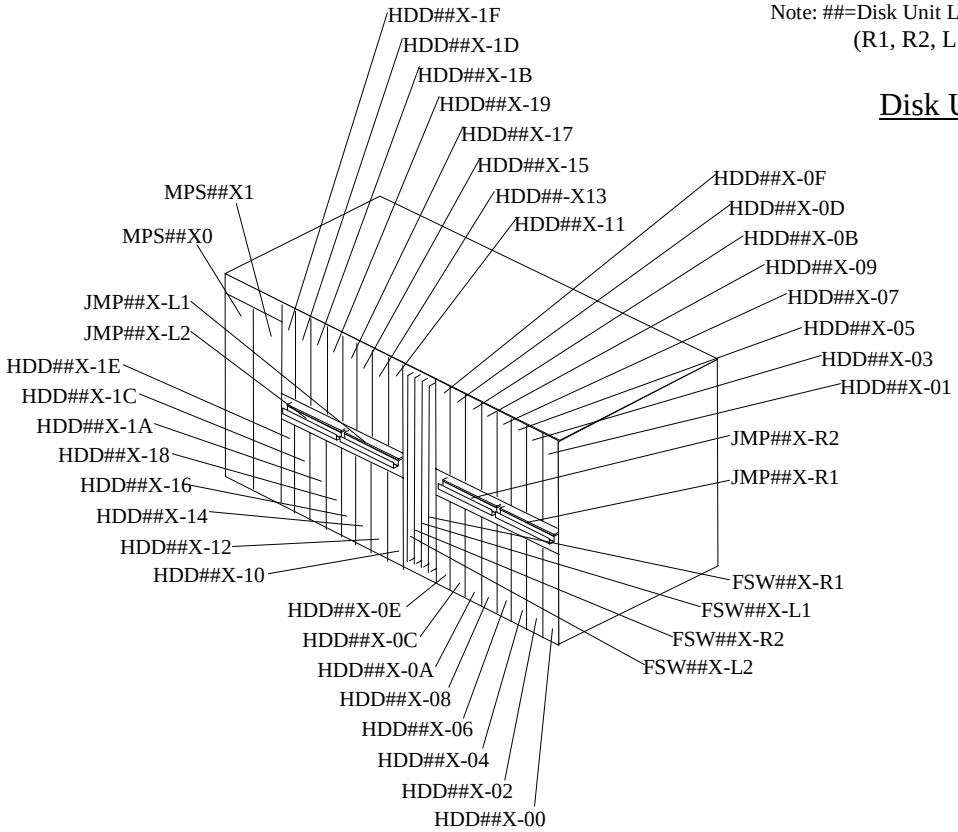


Disk Subsystem



Note: ##=Disk Unit Location
(R1, R2, L1, L2)

Disk Unit

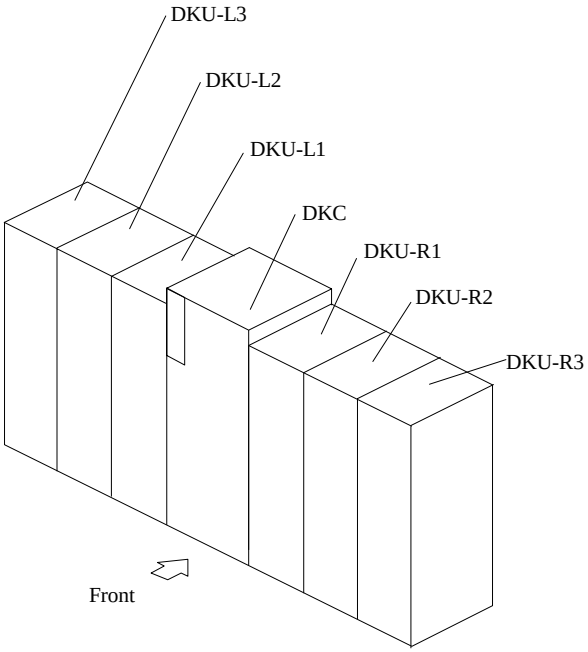


Note 1: ##X=HDU Box Location(R10, R11, …, L27)

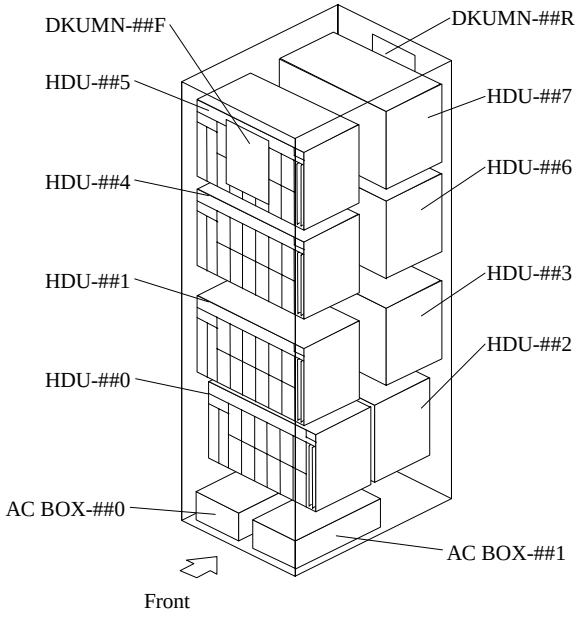
Note 2: The HDD canister location is expressed in the form "(Column/row)" in the SSB/SIM LOG.
Column No. : Last digit of the HDU Box location.
Row No. : 00, 01, 02, …, 1D, 1E, 1F

HDU BOX

2.6 Disk Unit (DKU405I)

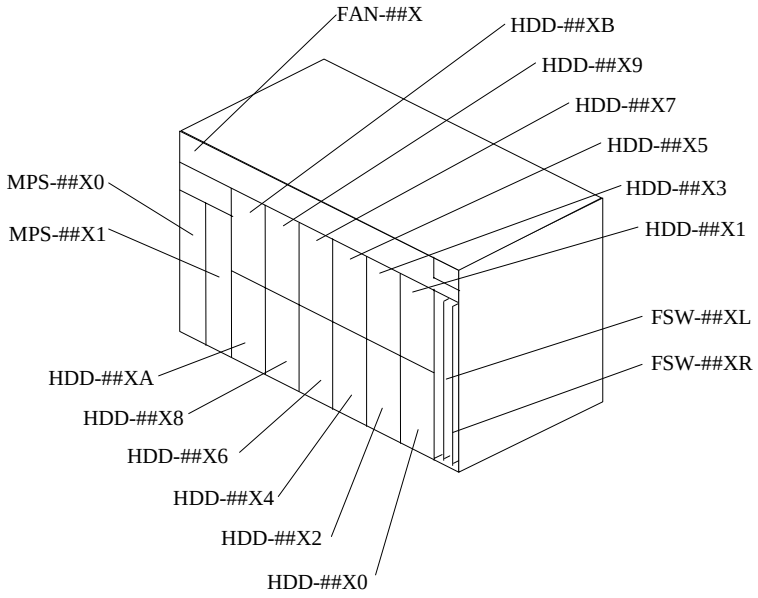


Disk Subsystem



Note: ##=Disk Unit Location
(R1, R2, R3, L1, L2, L3)

Disk Unit



Note 1: ##X=HDU Box Location(R10, R11, …, L37)

Note 2: The HDD canister location is expressed in the form "(Column/row)" in the SSB/SIM LOG.
Column No. : Last digit of the HDU Box location.
Row No. : 0, 1, 2, …, 9, A, B

HDU BOX

3 Panel

3.1 Operator Panel

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

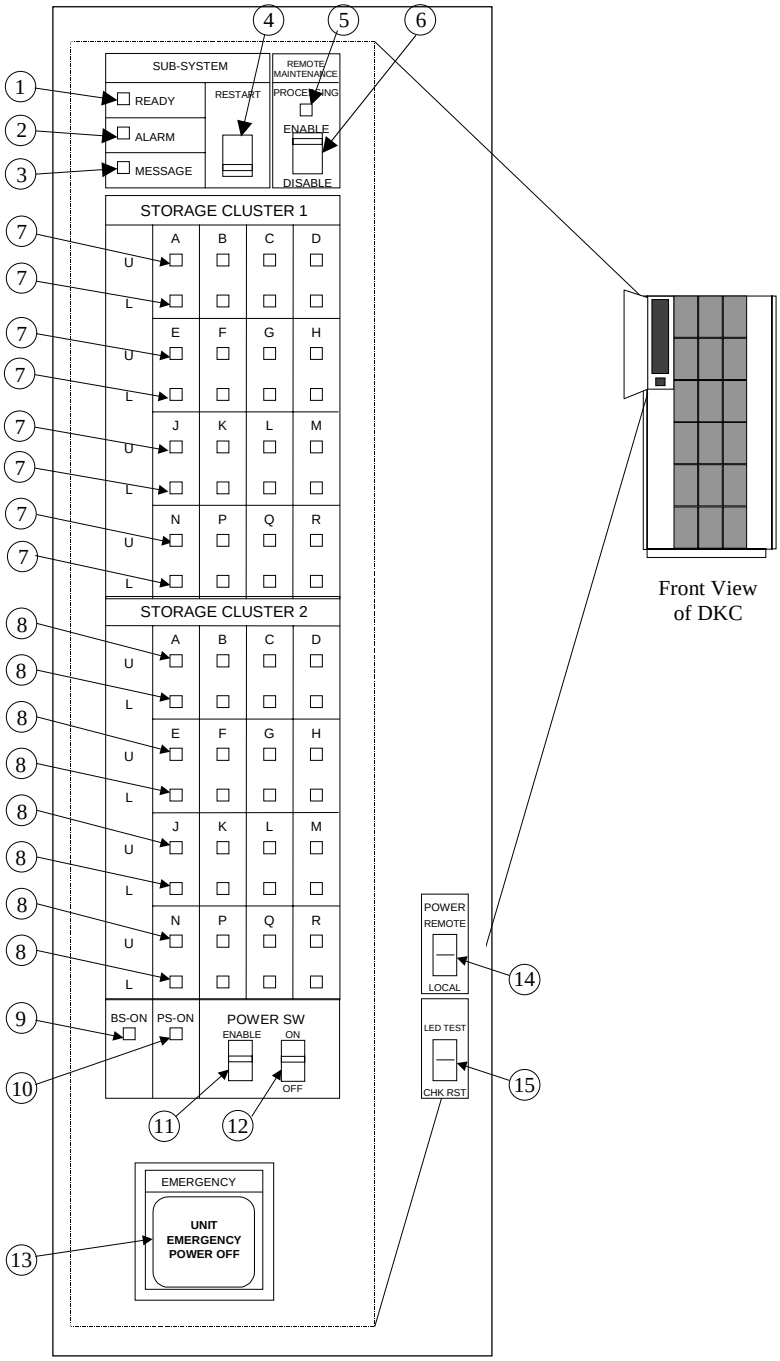


Fig. 3.1-1 Operator Panel

Table 3.1-1 Part Function on Operator Panel

No.	Parts Name	Class	Function
1	SUBSYSTEM READY	LED (Green)	Indicates that input/output operation on the channel interface is enabled.
2	SUBSYSTEM ALARM	LED (Red)	ON : Indicates DC under voltage of DKC part, DC over current, abnormally high temperature, or an unrecoverable failure occurred. Blinking : Indicates DC under voltage of DKU part.
3	SUBSYSTEM MESSAGE	LED (Amber)	ON : Indicates that a SIM (Message) was generated from either of the clusters. Applied to both storage clusters. Blinking : Indicates that the SVP failure has occurred.
4	SUBSYSTEM RESTART	Switch	Used to unfence the fenced drive path and to release Write Inhibit.
5	REMOTE MAINTENANCE PROCESSING	LED (Amber)	Indicates that remote maintenance is being processed.
6	REMOTE MAINTENANCE ENABLE/DISABLE	Switch	Used to permit remote maintenance.
7	STORAGE CLUSTER 1 CHANNEL A-R ENABLE U: Upper L: Lower	LED (Green)	Serial Channel/Fibre Channel: (1) On : Indicates some of the logical paths are established. (2) Fast blinking : Indicates that the corresponding channel route is executing the channel command. (Only Serial Channel) (3) Slow blinking : Indicates none of the logical path is established. (4) Off : Indicates that the corresponding channel route is not enabled. When the 16-port CHA is installed, LED of the L side is effective.
8	STORAGE CLUSTER 2 CHANNEL A-R ENABLE U: Upper L: Lower	LED (Green)	Serial Channel/Fibre Channel: (1) On : Indicates some of the logical paths are established. (2) Fast blinking : Indicates that the corresponding channel route is executing the channel command. (Only Serial Channel) (3) Slow blinking : Indicates none of the logical path is established. (4) Off : Indicates that the corresponding channel route is not enabled. When the 16-port CHA is installed, LED of the L side is effective.
9	BS ON	LED (Yellow)	Indicates that the Sub-PS is on.(CL 1 or CL 2)
10	PS ON	LED (Green)	Indicates that the subsystem is powered on.
11	PWR SW ENABLE	Switch	Used to enable the PWR on/off switch. To enable the PWR on/off switch, turn the PWR SW ENABLE switch to the ENABLE position.
12	PWR ON/PWR OFF	Switch	To switch on/off the subsystem, use this switch while turning the PWR SW ENABLE switch to the ENABLE position. This switch is valid when the REMOTE/LOCAL switch is set to the LOCAL position.
13	EMERGENCY POWER OFF	Switch	Used to power off the storage subsystem in an emergency situation.
14	PWR ON/PWR OFF REMOTE/LOCAL	Switch	REMOTE position : Subsystem is powered on/off by the instructions from the CPU. LOCAL position : Subsystem is powered on/off by PWR ON/PWR OFF switch.
15	LED TEST/CHK RESET	Switch	LED TEST position : The LEDs on DKC panel go on. CHK RESET position : The PS ALARM and TH ALARM is reset.

3.2 Other Switches and LEDs

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

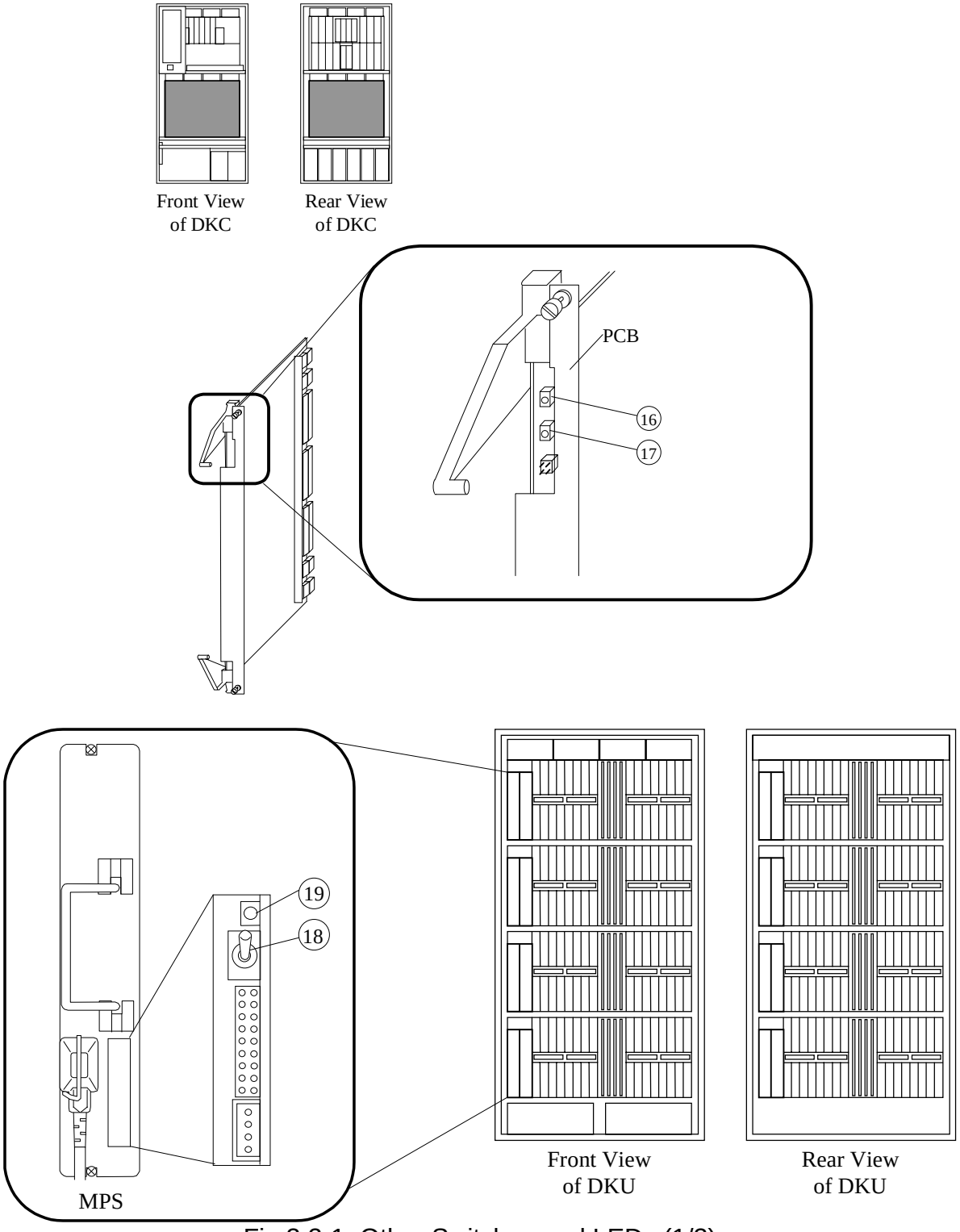
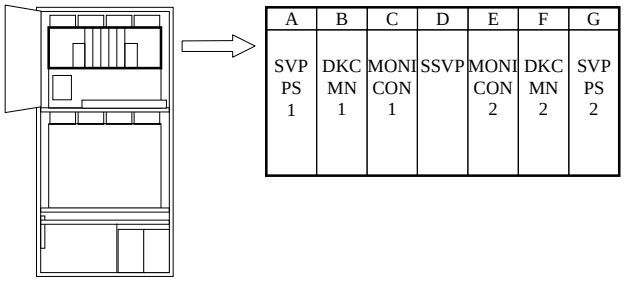
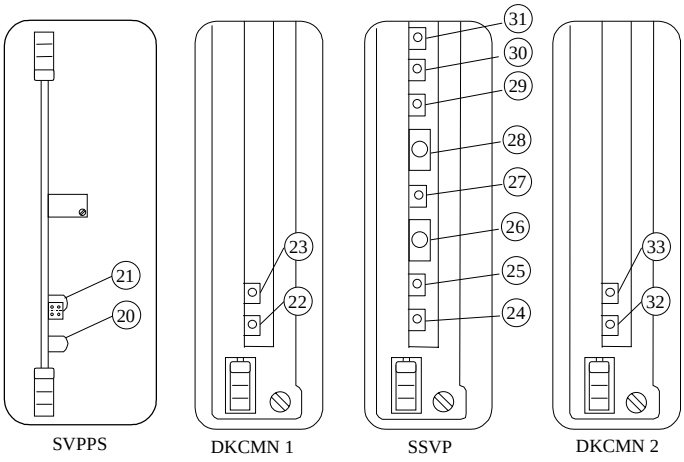


Fig 3.2-1 Other Switches and LEDs (1/3)

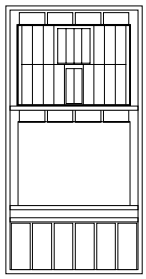


A	B	C	D	E	F	G
SVP PS 1	DKC MN 1	MONI CON 1	SSVP	MONI CON 2	DKC MN 2	SVP PS 2

Front View

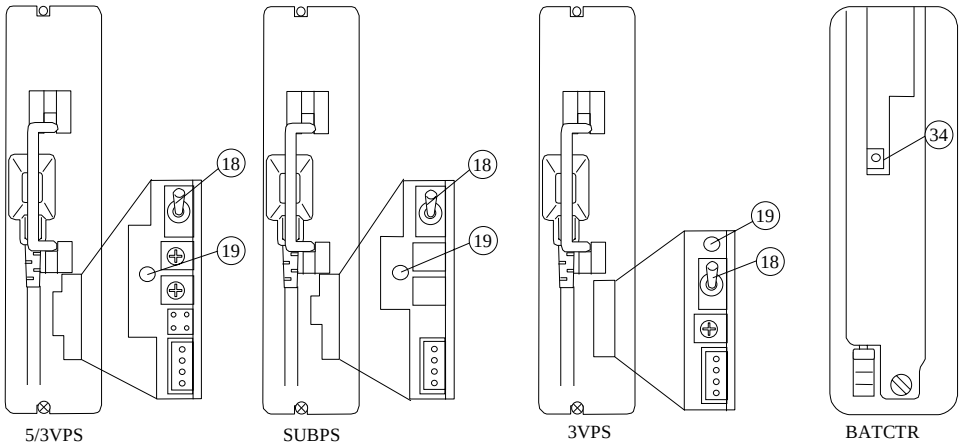


SVPPS DKCMN 1 SSVP DKCMN 2



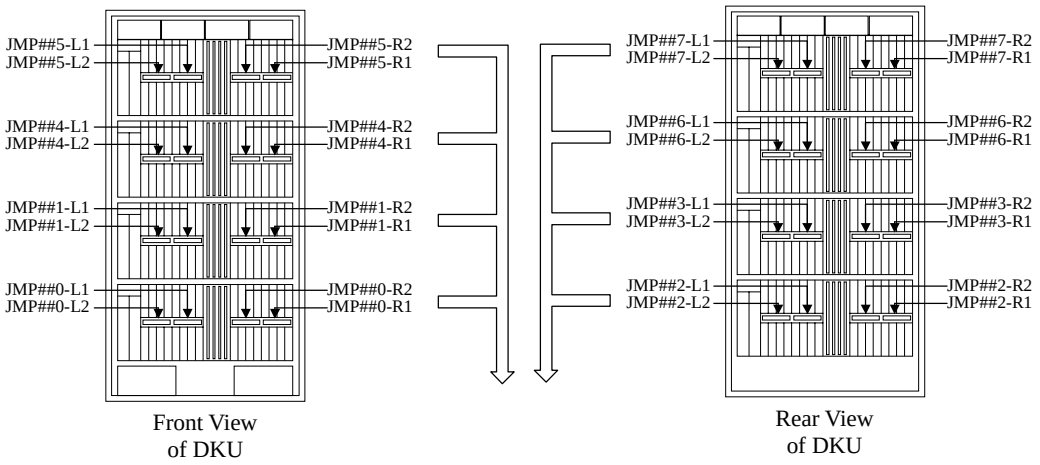
Rear View

–	–	–	DU	CU	BU	AU	–	–	–
5/3V PS 2A	5/3V PS 2B	SUB PS 2	BAT CTR -21	BAT CTR -22	BAT CTR -12	BAT CTR -11	SUB PS 1	5/3V PS 1B	5/3V PS 1A
3V PS 2A	3V PS 2B	3V PS 2C	3V PS 2D	BAT CTR -20	BAT CTR -10	3V PS 1D	3V PS 1C	3V PS 1B	3V PS 1A
–	–	–	–	BL	AL	–	–	–	–



5/3VPS SUBPS 3VPS BATCTR

Fig 3.2-1 Other Switches and LEDs (2/3)



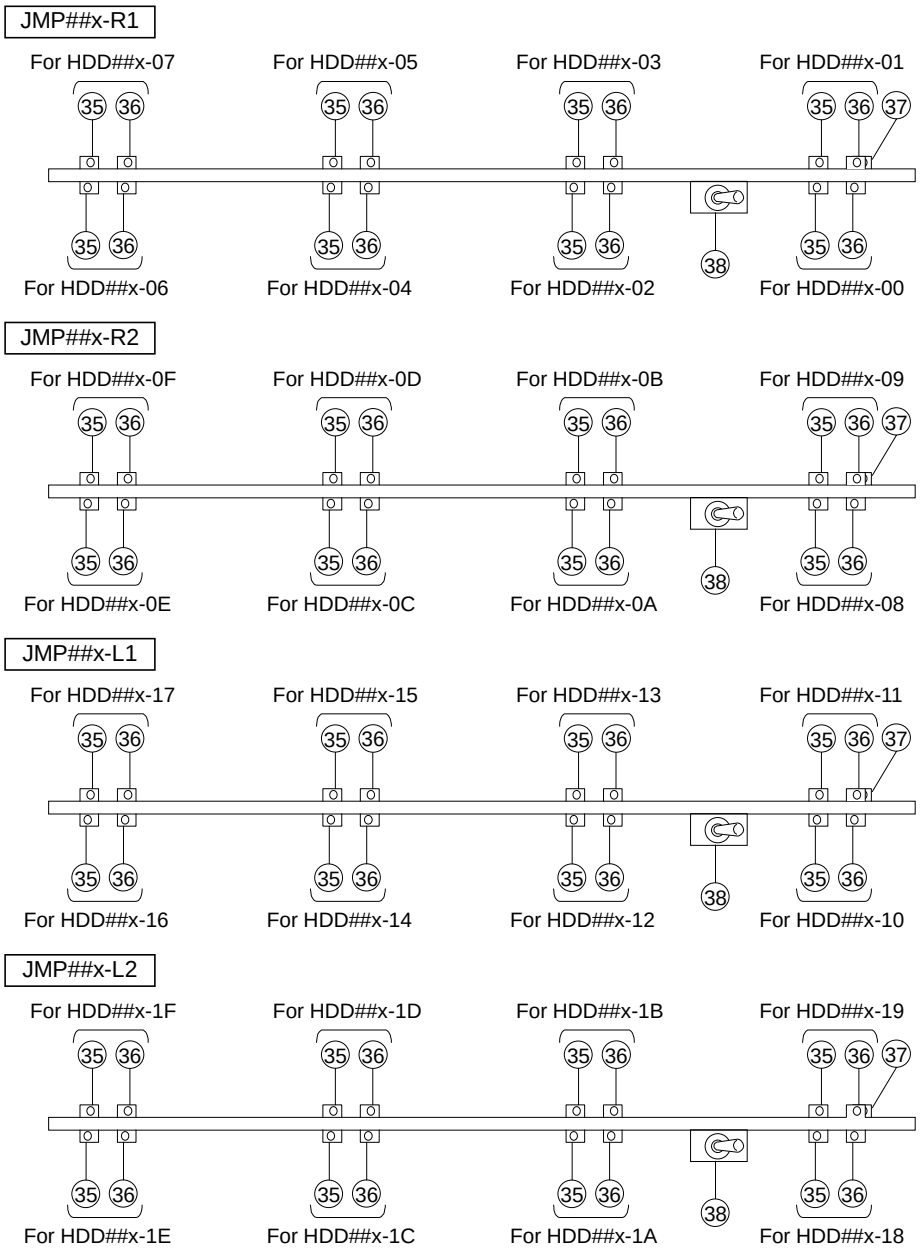


Fig 3.2-1 Other Switches and LEDs (3/3)

Table 3.2-1 Function of Other Switches and LEDs

No.	Parts Name	Class	Function
16	Shut Down LED	LED (Red)	Indicates that the removal of the PCB is possible when the subsystem is powered on.
17	PS Failure LED	LED (Amber)	Indicates that the voltage in the PCB is abnormal.
18	PS Enable/Disable	Switch	Used to power on/off the PS.
19	PS Enable	LED (Green)	Indicates that the PS is providing output voltage.
20	SVPPS Shut Down LED	LED (Red)	Indicates that the removal of the SVPPS is possible when the subsystem is powered on.
21	SVPPS Enable	LED (Green)	Indicates that the SVPPS is powered on.
22	DKCMN-1 ENABLE	LED (Green)	Indicates that the DKCMN-1 is powered on.
23	DKCMN-1 Shut Down LED	LED (Red)	Indicates that the removal of the DKCMN-1 is possible when the subsystem is powered on.
24	SSVP ENABLE	LED (Green)	Indicates that the SSVP is powered on.
25	SSVP Shut Down LED	LED (Red)	Indicates that the removal of the SSVP is possible when the subsystem is powered on.
26	SSVP DUMP	Switch	The data in SVP memory is written to the HDD.
27	SSVP ALARM	LED (Red)	This LED shows the state of SSVP. Lighting..... BOOT detected abnormality of hardware. Slow blinking.. The dump acquisition of SSVP ended. Fast blinking ... Micro Code of SSVP ended abnormally.
28	SSVP ALARM RESET	Switch	The SSVP detection alarm is reset. Then IMPL of the SVP is executed.
29	—	LED (Red)	Not used
30	—	LED (Red)	Not used
31	—	LED (Red)	Not used
32	DKCMN-2 ENABLE	LED (Green)	Indicates that the DKCMN-2 is powered on.
33	DKCMN-2 Shut Down LED	LED (Red)	Indicates that the removal of the DKCMN-2 is possible when the subsystem is powered on.
34	BATCTR Shut Down LED	LED (Red)	Indicates that the removal of the BATCTR is possible when the subsystem is powered on.
35	HDD ENABLE	LED (Green)	Indicates that the HDD is active.
36	HDD Shut Down LED	LED (Red)	Indicates that the removal of the HDD is possible when the subsystem is powered on.
37	JMP Shut Down LED	LED (Red)	Indicates that the removal of the JMP is possible when the subsystem is powered on.
38	DKU Frame ID	Switch	Set this switch according to the position in the DKU frame in which the JMP PCB is set. DKU-R1/L1….Set the switch to the right side position. DKU-R2/L2….Set the switch to the left side position.

Switch and LEDs of SVPPS BOX and HUB BOX

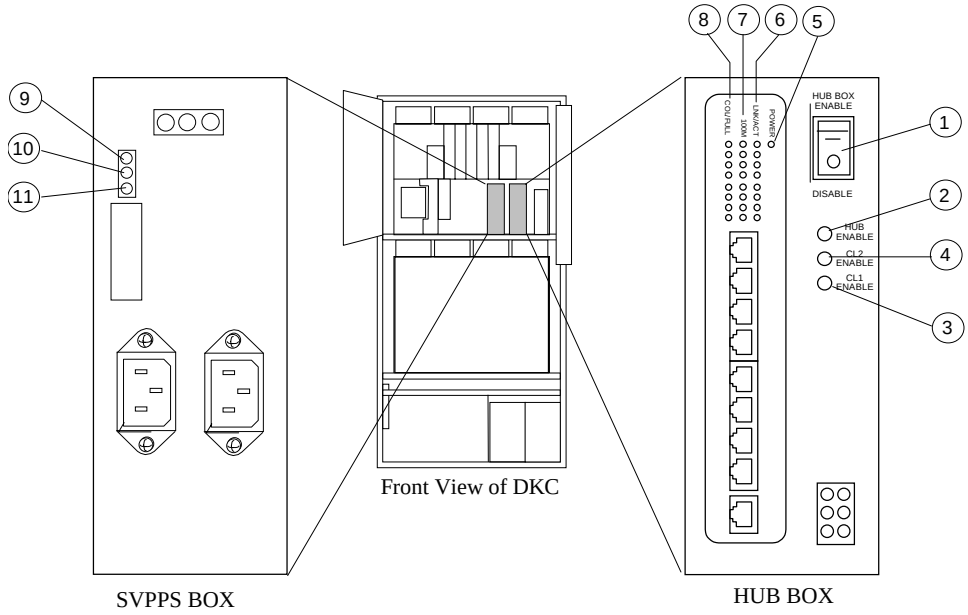


Fig.3.2-2 Switch and LEDs of SVPPS BOX and HUB BOX

Table 3.2-2 Function of Switch and LEDs of SVPPS BOX and HUB BOX

No.	Parts Name	Class	Function
1	HUB BOX ENABLE/DISABLE	Switch	Used to power on/off the HUB BOX
2	HUB BOX ENABLE	LED (Green)	Indicate that the HUB BOX is powered on.
3	CL1 ENABLE	LED (Green)	Indicate that the HUB BOX is powered on (Cluster1)
4	CL2 ENABLE	LED (Green)	Indicate that the HUB BOX is powered on (Cluster2)
5	HUB BOX POWER	LED (Green)	Indicate that the HUB BOX is powered on.
6	LNK/ACK	LED (Green)	This LED shows the state of HUB ports. Lighting ----- Link detected Blinking ----- Data transferred
7	100M	LED (Green)	Indicate that the 100Mbps mode of HUB port
8	COL/FULL	LED (Green)	This LED shows the state of HUB ports. Lighting ----- Full Duplex mode Blinking ----- Collision detected
9	CTL1-PS-READY	LED (Green)	Indicate that the SVPPS-BOX is powered on (Cluster1)
10	CTL2-PS-READY	LED (Green)	Indicate that the SVPPS-BOX is powered on (Cluster2)
11	OUTPUT	LED (Green)	Indicate that the SVPPS-BOX is powered on.

Switches and LEDs of DKU405I

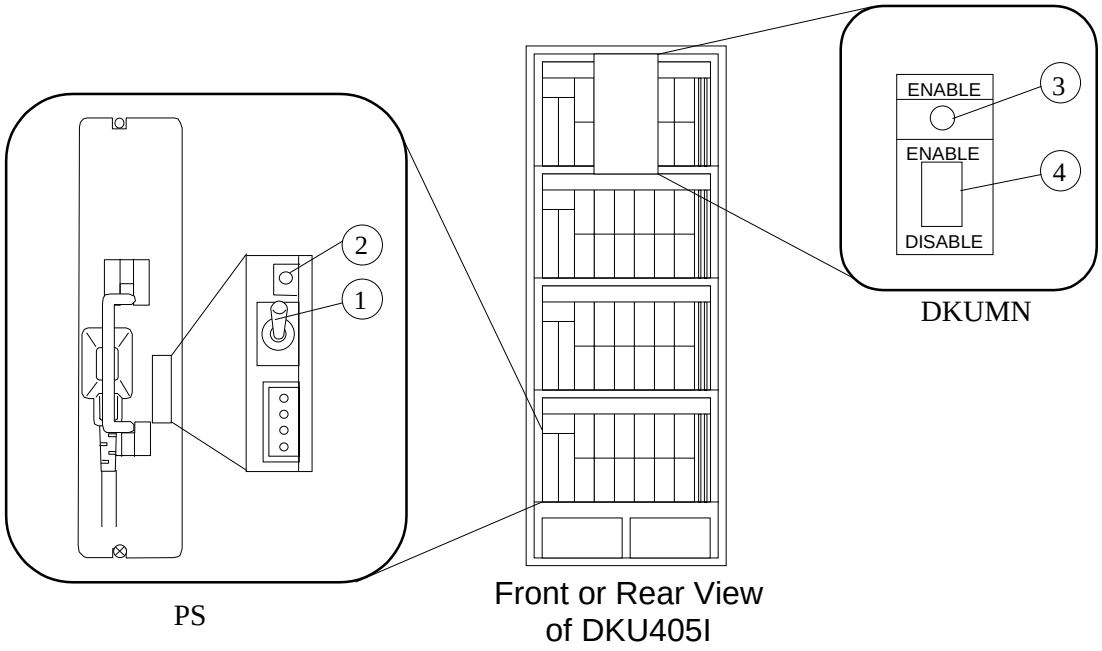


Fig 3.2-3 Switches and LEDs of DKU405I

Table 3.2-3 Function of Switches and LEDs

No.	Parts Name	Class	Function
1	PS Enable/Disable	Switch	Used to power on/off the PS.
2	PS Enable	LED (Green)	Indicates that the PS is providing output voltage.
3	DKUMN ENABLE	LED (Green)	Indicates that each DKUMN is powered on.
4	DKUMN ENABLE/DISABLE	Switch	Used to power on/off each DKUMN.

3.3 Circuit Breakers

3.3.1 3 Phase/60A Model

Fig. 3.3.1-1 show the locations of Circuit Breakers.
Fig. 3.3.1-2 and Fig. 3.3.1-3 show the connection of power supplies.

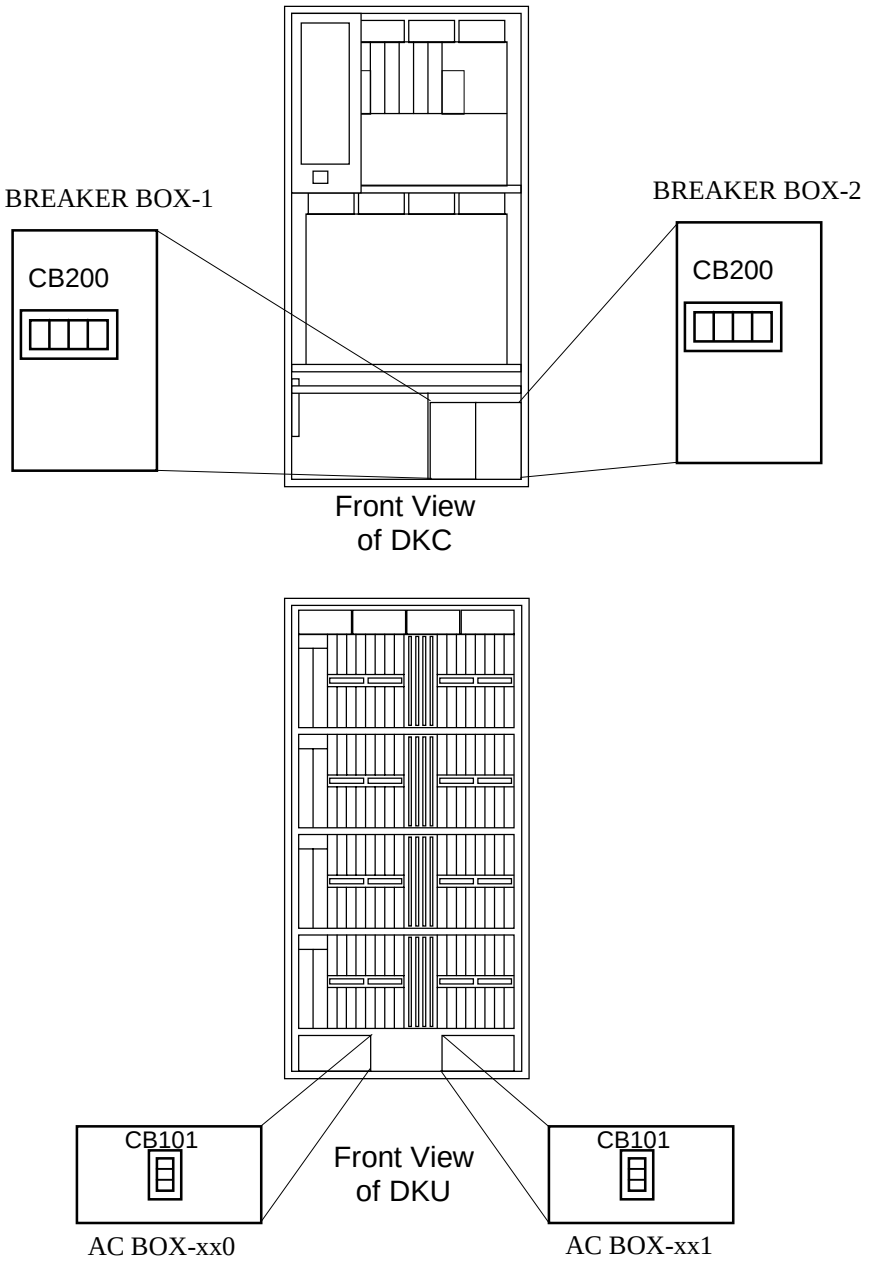


Fig. 3.3.1-1 Locations of Circuit Breakers

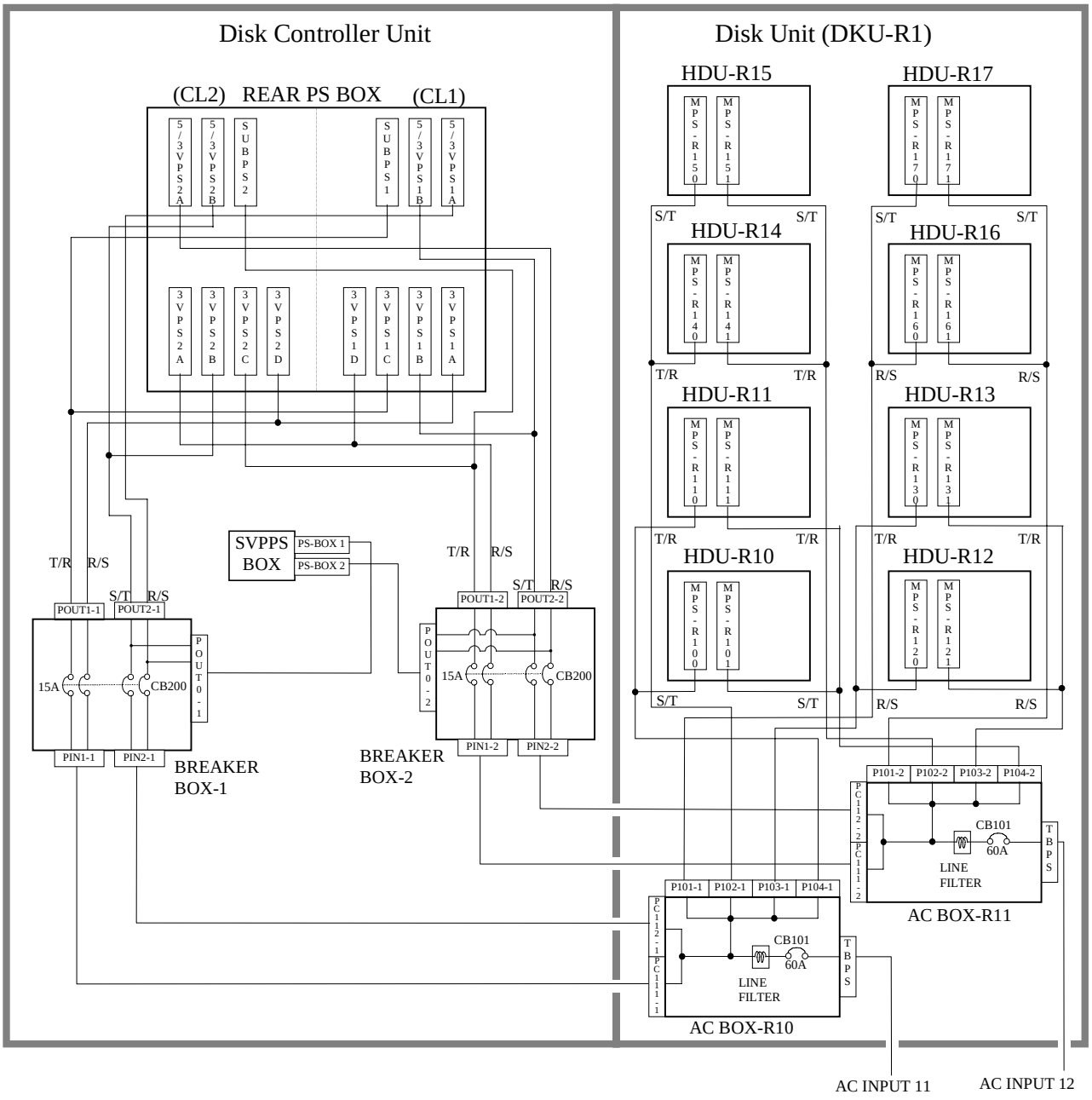


Fig. 3.3.1-2 Connection of POWER SUPPLIES (1/2)

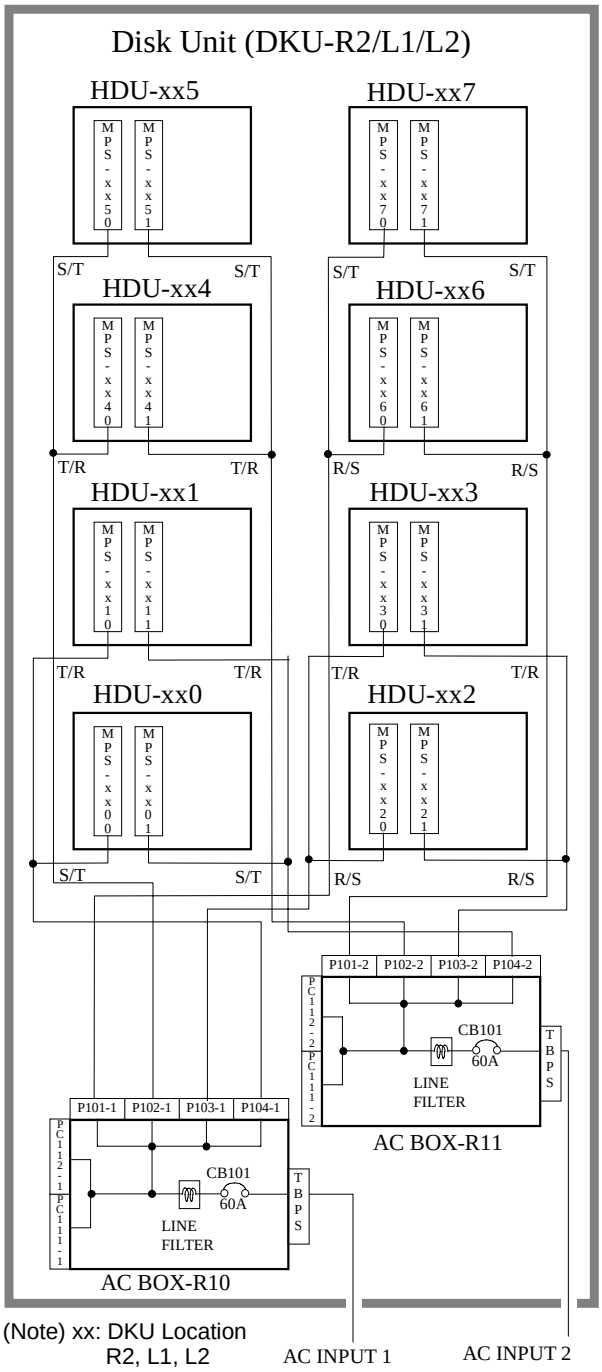


Fig. 3.3.1-3 Connection of POWER SUPPLIES (2/2)

3.3.2 Single Phase/50A Model

Fig. 3.3.2-1 show the locations of Circuit Breakers.
Fig. 3.3.2-2 and Fig. 3.3.2-3 show the connection of power supplies.

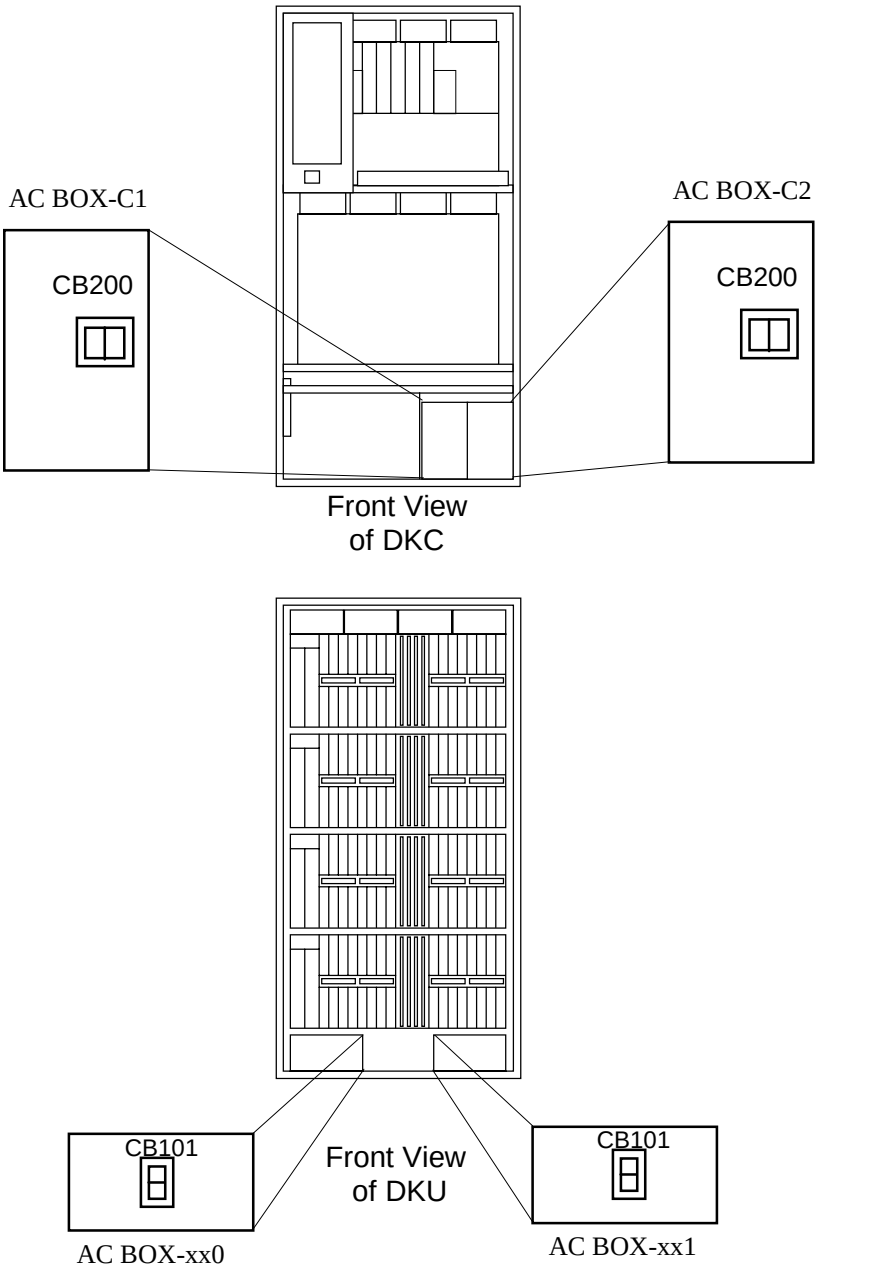


Fig. 3.3.2-1 Locations of Circuit Breakers

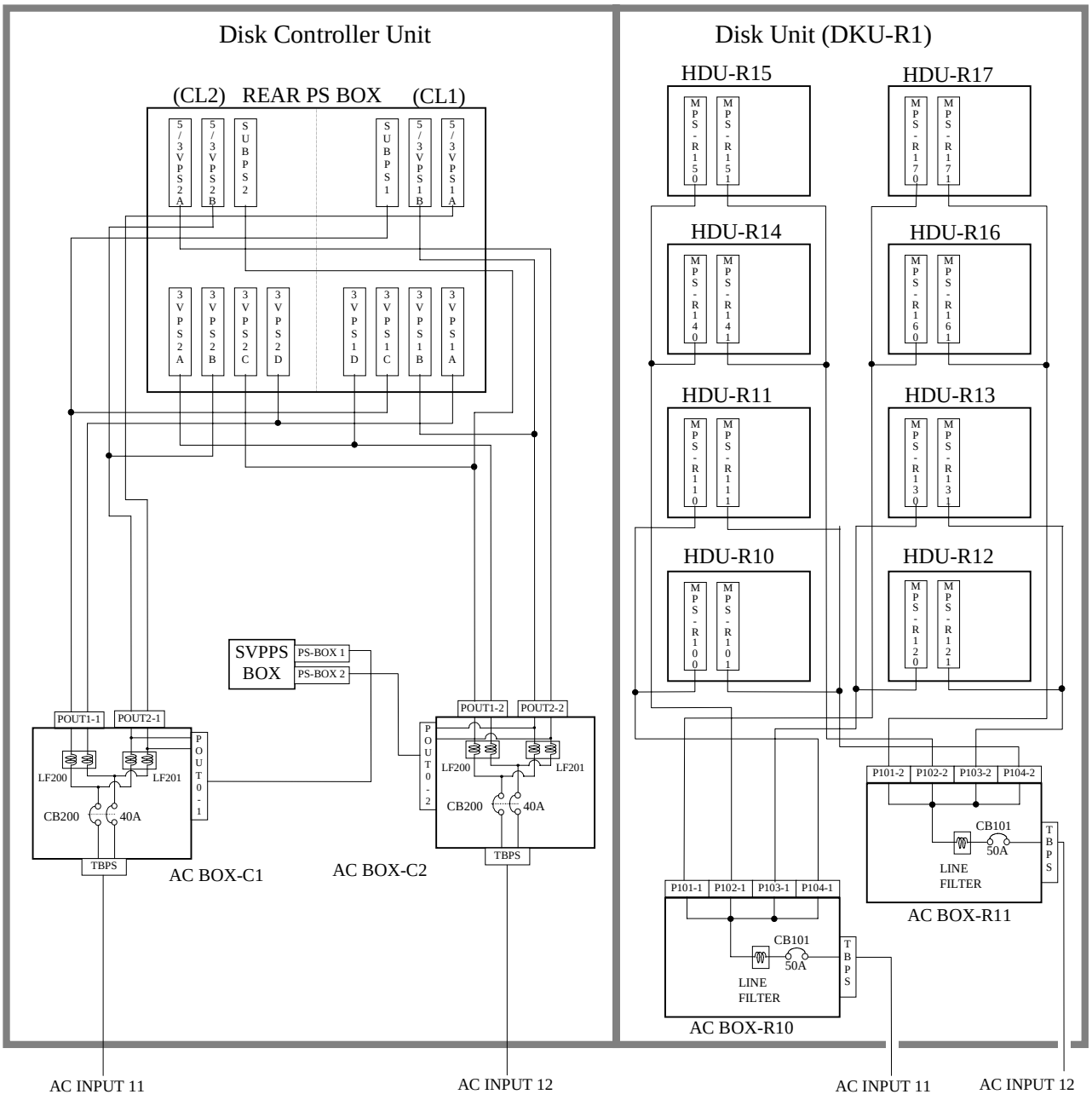


Fig. 3.3.2-2 Connection of POWER SUPPLIES (1/2)

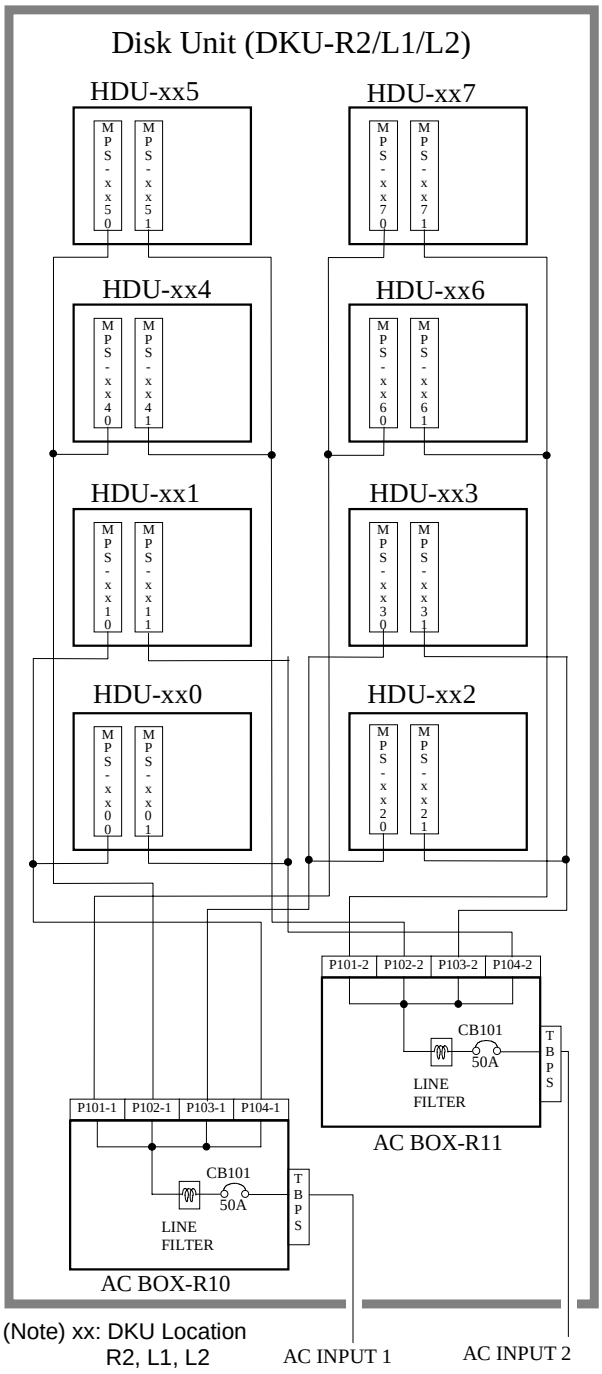


Fig. 3.3.2-3 Connection of POWER SUPPLIES (2/2)

3.3.3 3 Phase/30A Model

Fig. 3.3.3-1 shows the locations of Circuit Breakers.
Fig. 3.3.3-2 and Fig. 3.3.3-3 show the connection of power supplies.

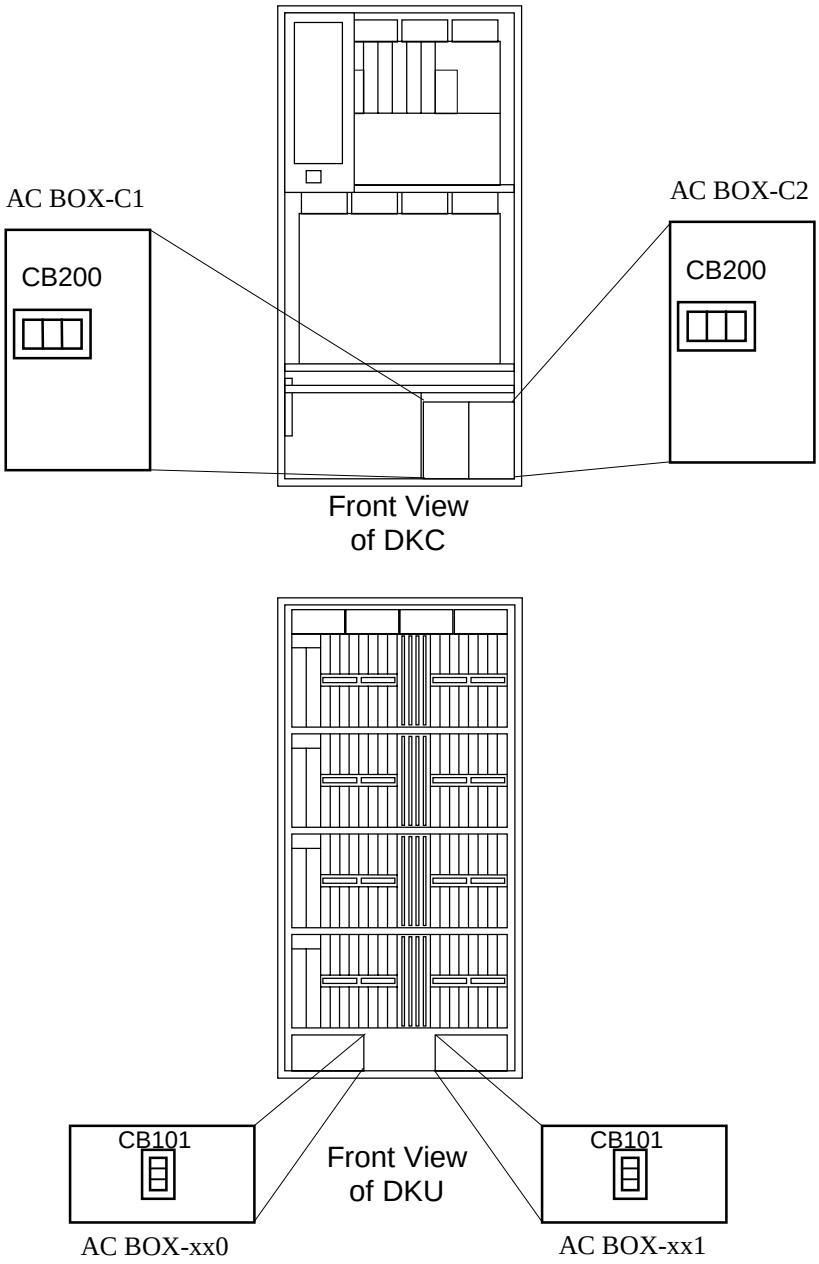


Fig. 3.3.3-1 Locations of Circuit Breakers

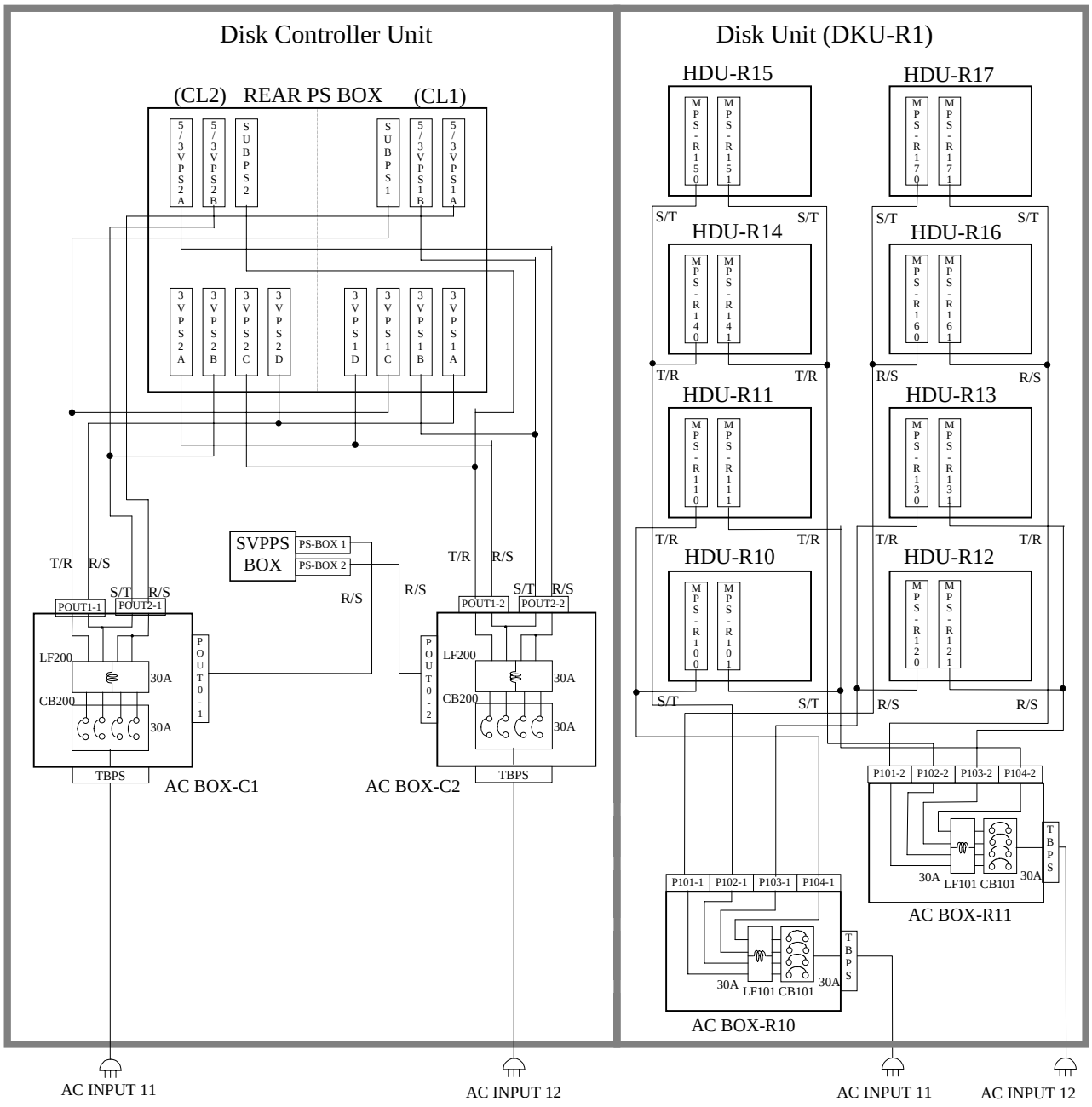


Fig. 3.3.3-2 Connection of POWER SUPPLIES (1/2)

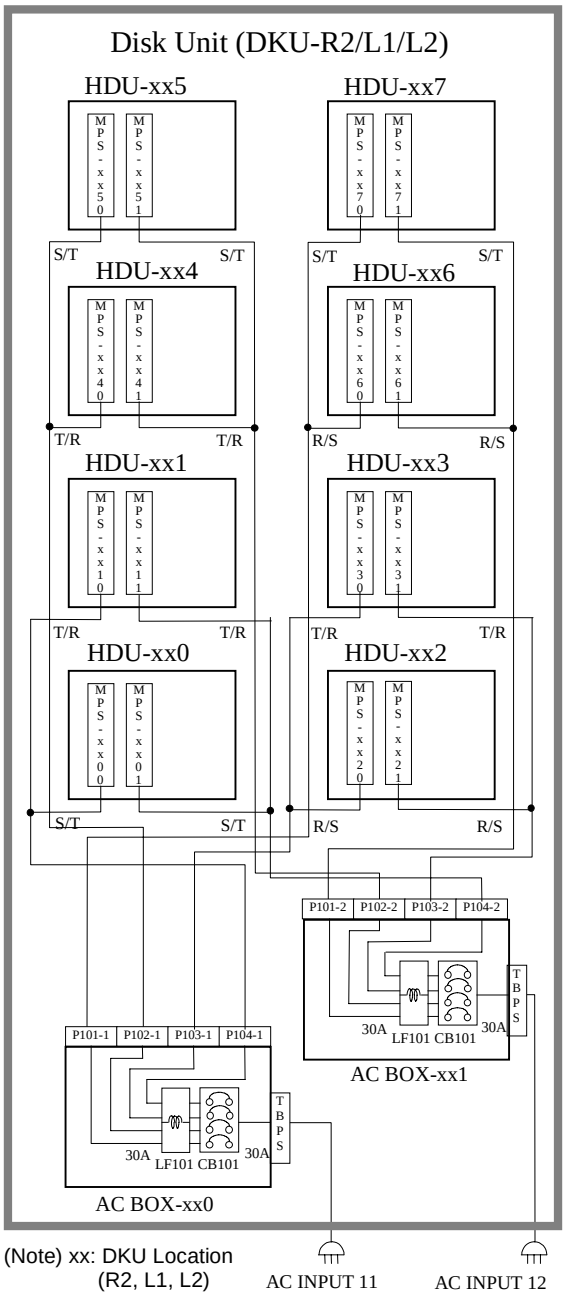


Fig. 3.3.3-3 Connection of POWER SUPPLIES (2/2)

3.3.4 Single Phase/30A Model

Fig. 3.3.4-1 shows the locations of Circuit Breakers.
Fig. 3.3.4-2 and Fig. 3.3.4-3 show the connection of power supplies.

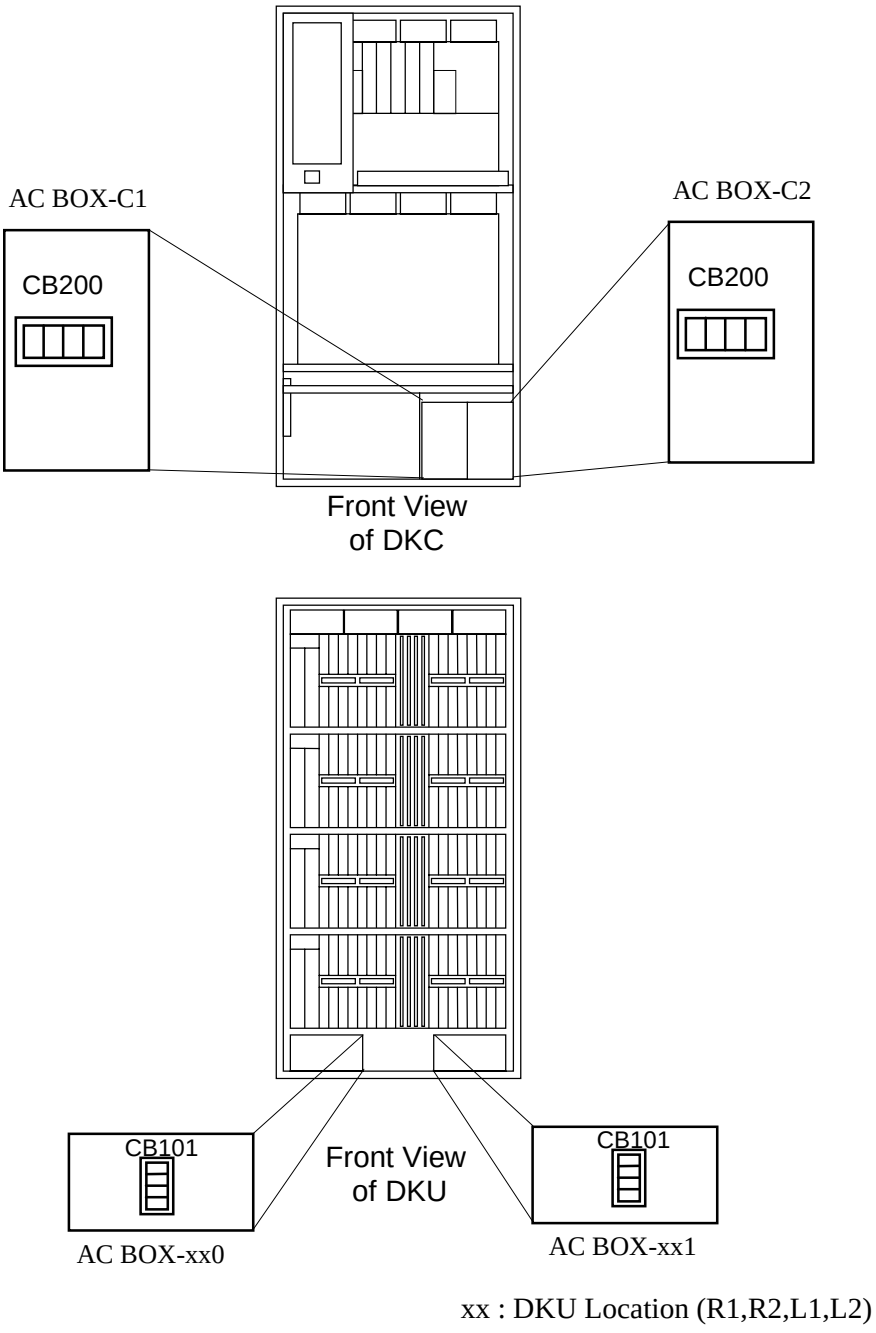


Fig. 3.3.4-1 Locations of Circuit Breakers

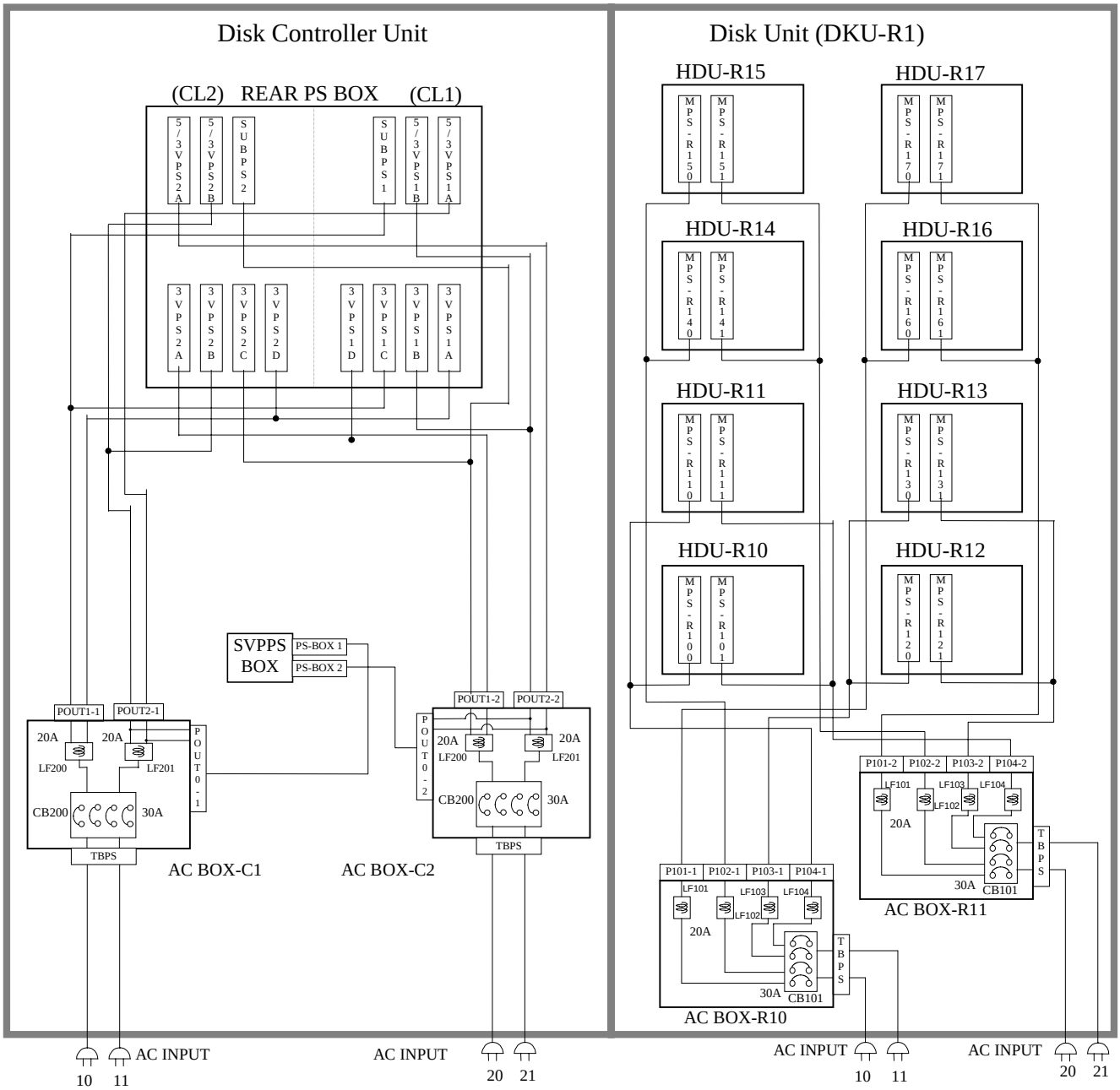


Fig. 3.3.4-2 Connection of POWER SUPPLIES (1/2)

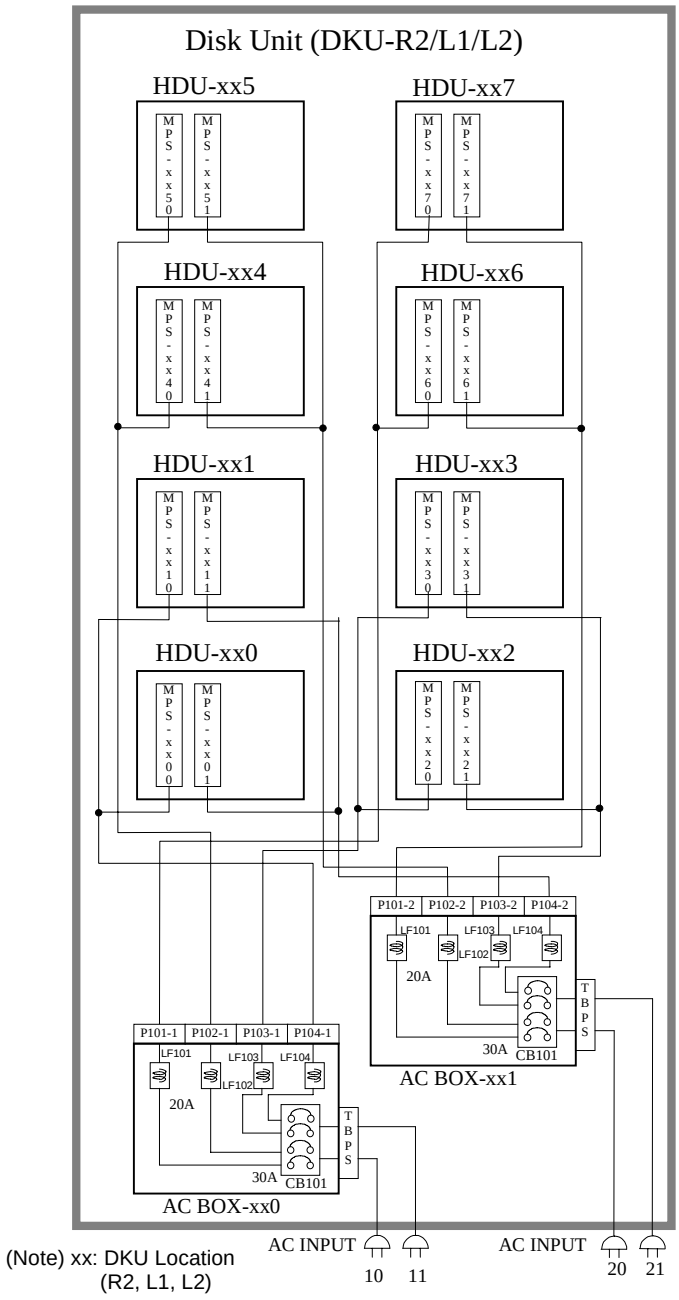


Fig. 3.3.4-3 Connection of POWER SUPPLIES (2/2)

3.3.5 3 Phase Model (DKU405I)

Fig. 3.3.5-1 show the locations of Circuit Breakers.
Fig. 3.3.5-2 show the connection of power supplies.

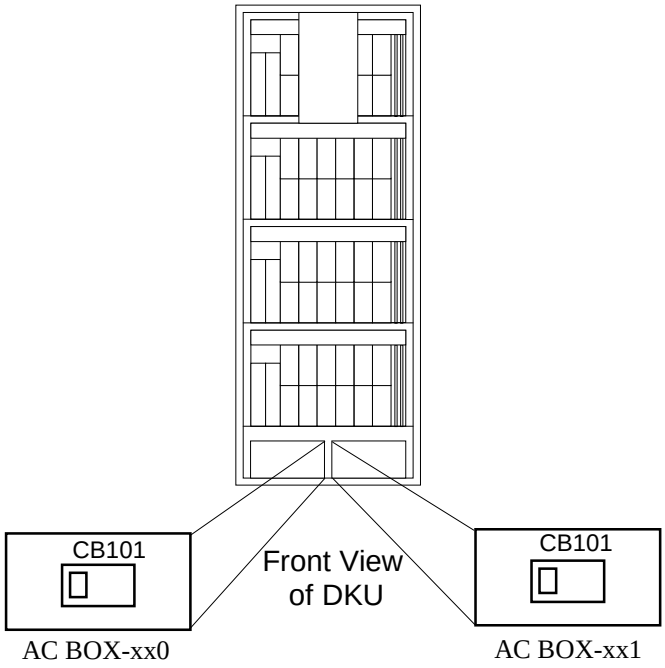
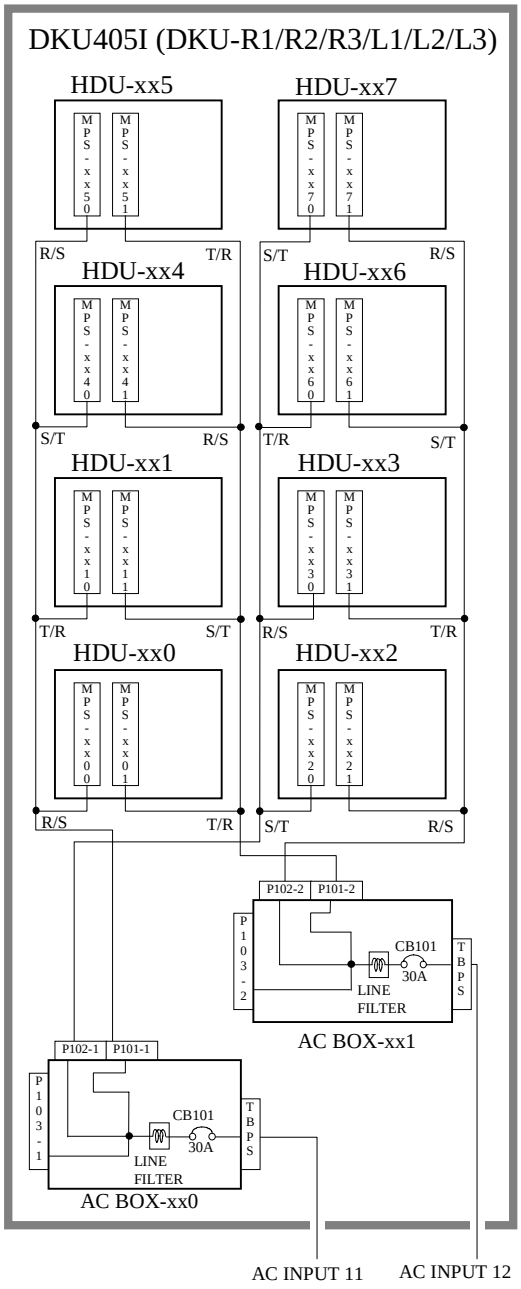


Fig. 3.3.5-1 Locations of Circuit Breakers

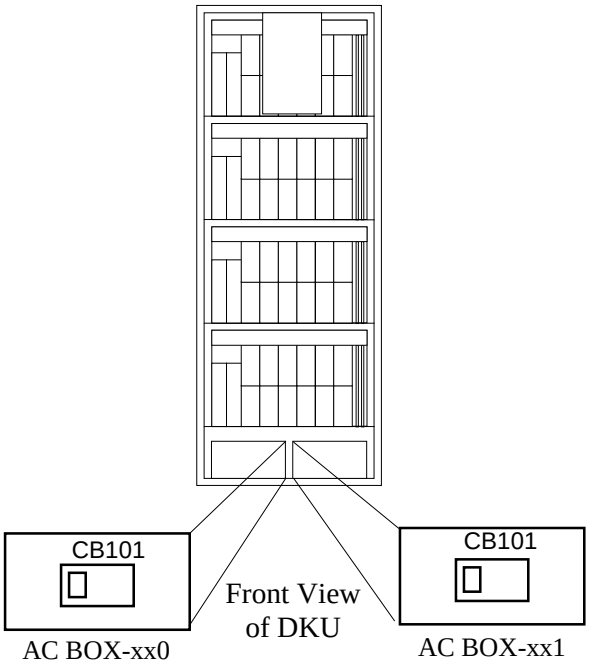


xx : DKU LOCATION (R1, R2, R3, L1, L2, L3)

Fig. 3.3.5-2 Connection of POWER SUPPLIES

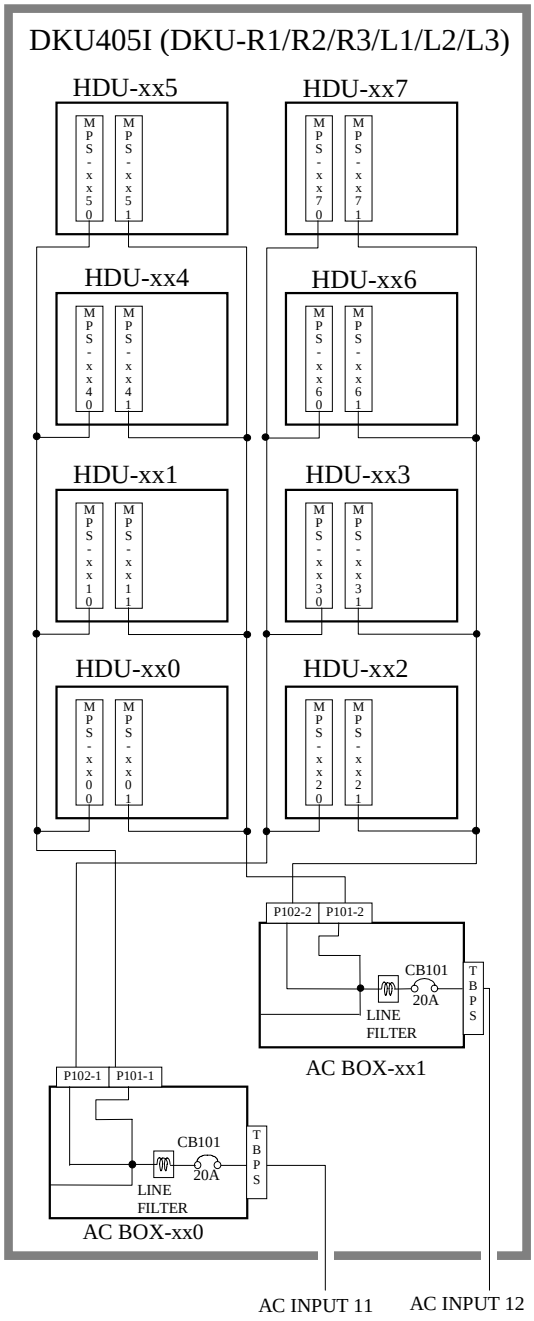
3.3.6 Single Phase Model (DKU405I)

Fig. 3.3.6-1 show the locations of Circuit Breakers.
Fig. 3.3.6-2 show the connection of power supplies.



xx : DKU Location (R1,R2,R3,L1,L2,L3)

Fig. 3.3.6-1 Locations of Circuit Breakers



xx : DKU LOCATION (R1, R2, R3, L1, L2, L3)

Fig. 3.3.6-2 Connection of POWER SUPPLIES

4 Connection of External Cable

4.1 AC Cabling

4.1.1 3 Phase/60A Model for USA

DANGER

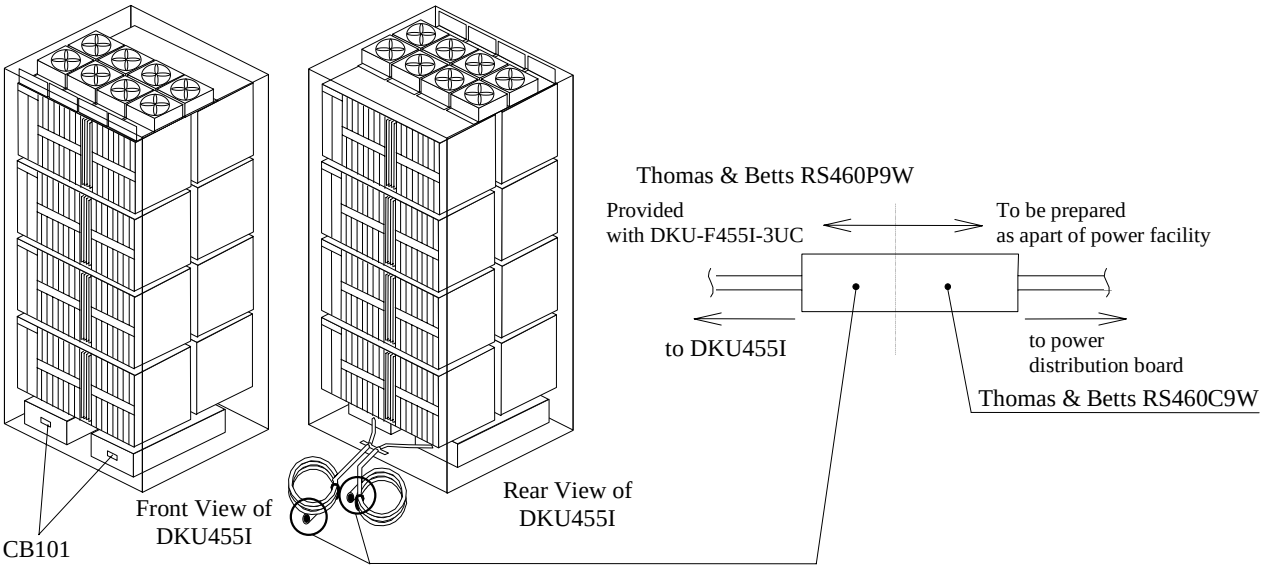
The DKC and the basic DKU commonly have Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Two Power Supply Cords. Similarly, each of the 2nd DKU, the 3rd DKU, and the 4th DKU also has Two Main Disconnect Devices. Refer to LOCATION03-70 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord
The unit has two power supply cords with attachment plug type Thomas & Betts RS460P9W. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the attachment plugs for the unit.

Socket Receptacle : Thomas & Betts RS460C9W
Power Cord : Type ST or equivalent, non-shielded type, with four min. #4 AWG conductors. Terminated at one end with an assembled on above socket receptacle cap.

B. Requirements to Branch Circuit
This unit relies on the building installation for protection of the internal components of the equipment. Each line (R/S/T line) should be protected by a short circuit protective device and by an over current protective device rated 60 amp on building installation.
The protective device on building installation shall comply with the NEC requirements (or CEC requirements when installed in Canada), and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is not required for the neutral line of this unit.

C. Disconnection from Power Supply
Each unit has Two Main Disconnect Device(Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB101s at the same time.



4.1.2 3 Phase/60A Model for Europe

DANGER

The DKC and the basic DKU commonly have Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Two Power Supply Cords. Similarly, each of the 2nd DKU, the 3rd DKU, and the 4th DKU also has Two Main Disconnect Devices. Refer to LOCATION03-70 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord
The unit has two power supply cords. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the power cords for the unit.

Socket Receptacle : As shown in the following figure.
Power Cord : Type H07RN-F or equivalent, with five 10 mm^2 conductors.

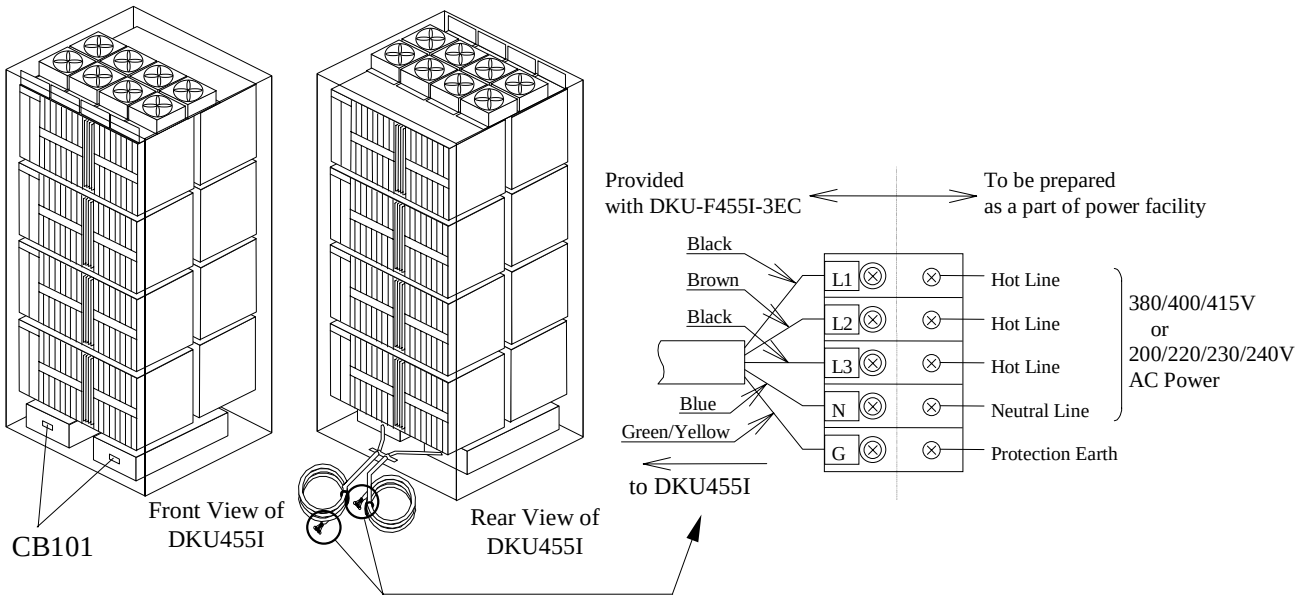
Be sure to connect a power cord to the distribution box as illustrated in the following figure. The wrong connection of neutral line may cause damages or fire of the equipment.
To reduce the risk of wrong connection, you should use approved type attachment plug and socket for power cord connection.
High leakage current may be caused between the power supply and this unit. To avoid an electric shock by high leakage current, perform the protective earthing connection before the supply connections and disconnect it after the supply connections.

B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (R/S/T line) should be protected by a short circuit protective device and by an overcurrent protective device rated 60 amp on building installation.
The protective device on building installation shall be comply with National Standards of the country where the units shall be installed, and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is also required for the neutral line of this unit.

C. Disconnection from Power Supply

Each unit has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB101s at the same time.



4.1.3 Single Phase/50A Model for USA

DANGER

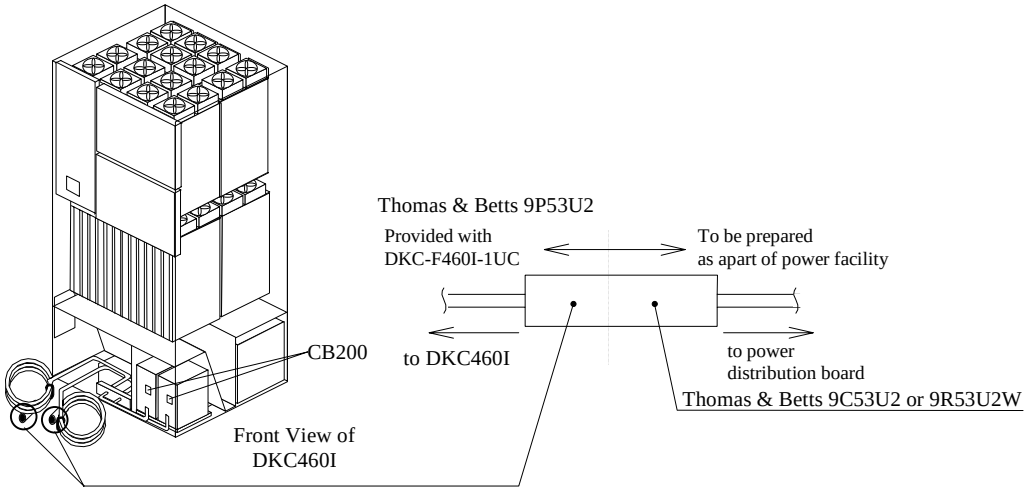
The DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Two Power Supply Cords. Similarly, each of the 1st DKU, the 2nd DKU, the 3rd DKU, and the 4th DKU also has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). Refer to LOCATION03-100 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

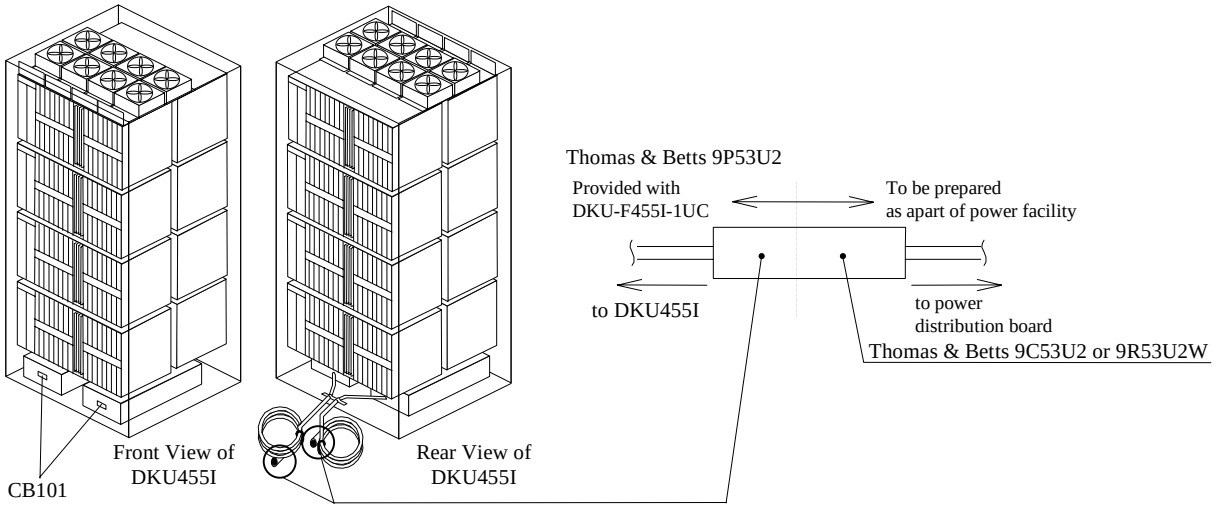
A. Connection of Power Supply Cord
The unit has two power supply cords with attachment plug type Thomas & Betts 9P53U2. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the attachment plugs for the unit.

Socket Receptacle : Thomas & Betts 9C53U2 or 9R53U2W
Power Cord : Type ST or equivalent, non-shielded type, with three min. #6 AWG conductors. Terminated at one end with an assembled on above socket receptacle cap.

B. Requirements to Branch Circuit
This unit relies on the building installation for protection of the internal components of the equipment. Each line (U/L1, V/L2 line) should be protected by a short circuit protective device and by an over current protective device rated 50 amp on building installation.
The protective device on building installation shall comply with the NEC requirements (or CEC requirements when installed in Canada), and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is not required for the neutral line of this unit.

C. Disconnection from Power Supply
DKC has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines). Each DKU has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB200s and CB101s at the same time.





4.1.4 Single Phase/50A Model for Europe

⚠ DANGER

The DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Two Power Supply Cords. Similarly, each of the 1st DKU, the 2nd DKU, the 3rd DKU, and the 4th DKU also has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). Refer to LOCATION03-100 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the power cords for the unit.

Socket Receptacle : As shown in the following figure.
Power Cord : Type H07RN-F or equivalent, with three 10 mm^2 conductors.

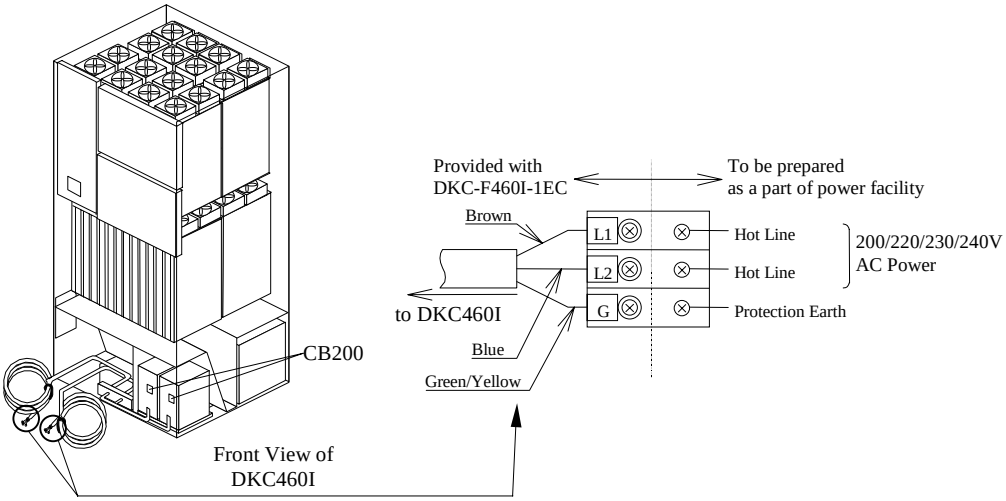
Be sure to connect a power cord to the distribution box as illustrated in the following figure. The wrong connection of neutral line may cause damages or fire of the equipment.
To reduce the risk of wrong connection, you should use approved type attachment plug and socket for power cord connection.
High leakage current may be caused between the power supply and this unit. To avoid an electric shock by high leakage current, perform the protective earth connection before the supply connections and disconnect it after the supply connections.

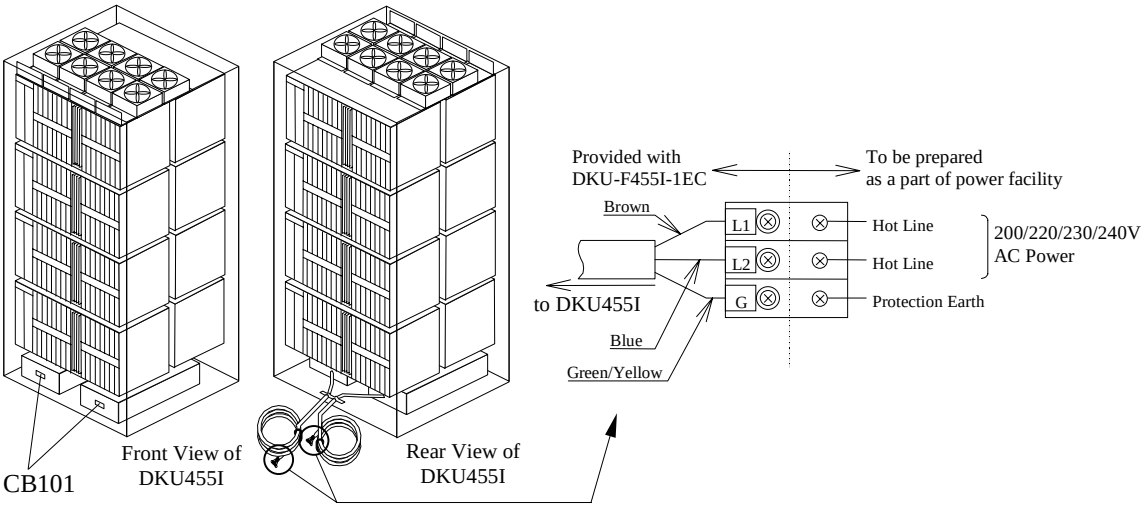
B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (U/L1, V/L2 line) should be protected by a short circuit protective device and by an over current protective device rated 50 amp on building installation.
The protective device on building installation shall be comply with National Standards of the country where the units shall be installed, and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is also required for the neutral line of this unit.

C. Disconnection from Power Supply

DKC has Two Main Disconnect Device (Two Main Breaker CB200s for Dual Power Lines).
Each DKU has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines).
To remove all utility power from the unit, turn off both main disconnect device CB200s and CB101s at the same time.





4.1.5 3 Phase/30A Model for USA

⚠ DANGER

The DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Two Power Supply Cords. Similarly, each of the DKU-R1, the DKU-R2, the DKU-L1 and the DKU-L2 also has Two Main Disconnect Devices. Refer to LOCATION03-130 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords with attachment plug type Thomas & Betts 3760PDG or DDK 115J-AP8508. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the attachment plugs for the unit.

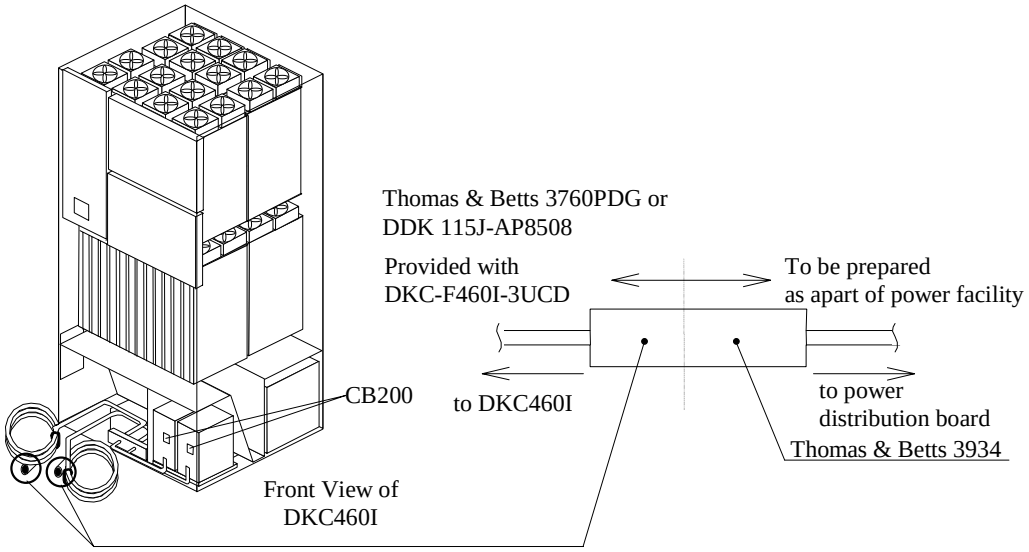
Socket Receptacle: Thomas & Betts 3934
Power Cord: Type ST or equivalent, non-shielded type, with four min. #8 AWG conductors. Terminated at one end with an assembled on above socket receptacle cap.

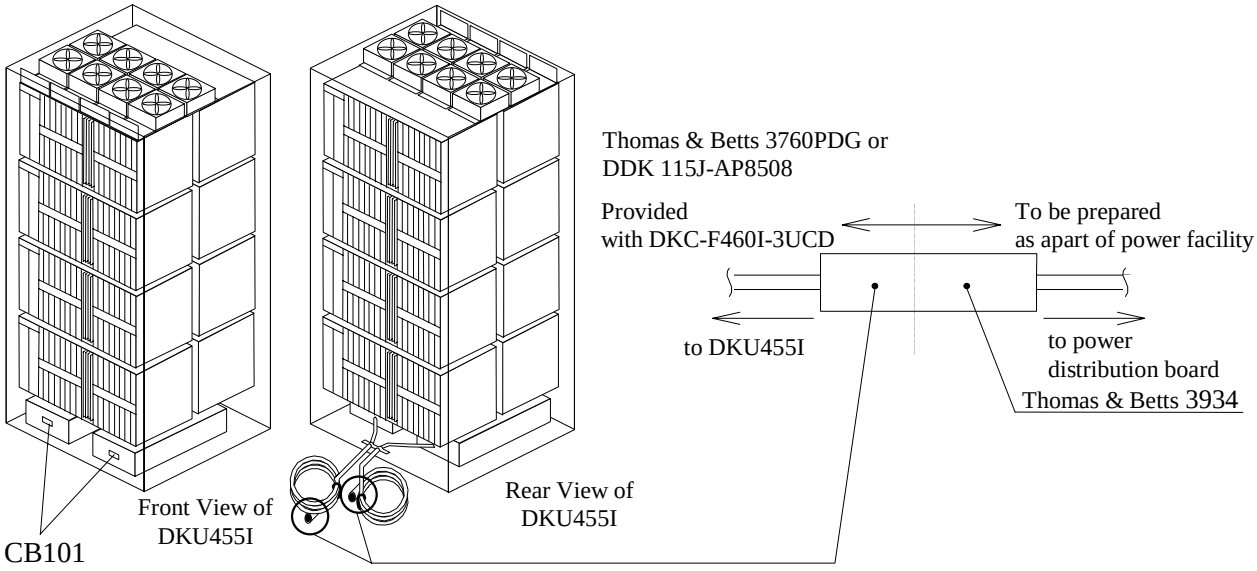
B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (R/S/T line) should be protected by a short circuit protective device and by an over current protective device rated 30 amp on building installation.
The protective device on building installation shall comply with the NEC requirements (or CEC requirements when installed in Canada), and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is not required for the neutral line of this unit.

C. Disconnection from Power Supply

DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines). Each DKU has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB200s and CB101s at the same time.





4.1.6 3 Phase/30A Model for Europe

⚠ DANGER

The DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Two Power Supply Cords. Similarly, each of the DKU-R1, the DKU-R2, the DKU-L1 and the DKU-L2 also has Two Main Disconnect Devices. Refer to LOCATION03-130 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the power cords for the unit.

Socket Receptacle : As shown in the following figure.
Power Cord : Type H07RN-F or equivalent, with five 6 mm^2 conductors.

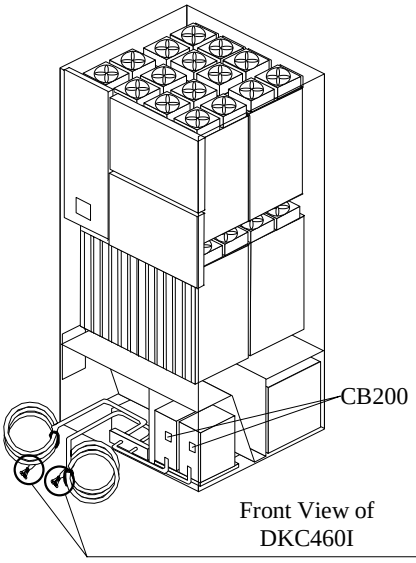
Be sure to connect a power cord to the distribution box as illustrated in the following figure. The wrong connection of neutral line may cause damages or fire of the equipment.
To reduce the risk of wrong connection, you should use approved type attachment plug and socket for power cord connection.
High leakage current may be caused between the power supply and this unit. To avoid an electric shock by high leakage current, perform the protective earth connection before the supply connections and disconnect it after the supply connections.

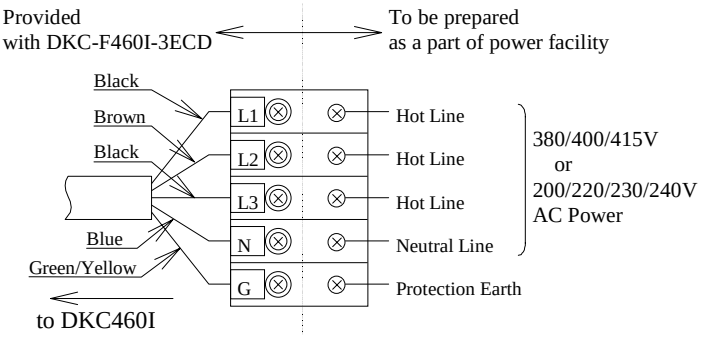
B. Requirements to Branch Circuit

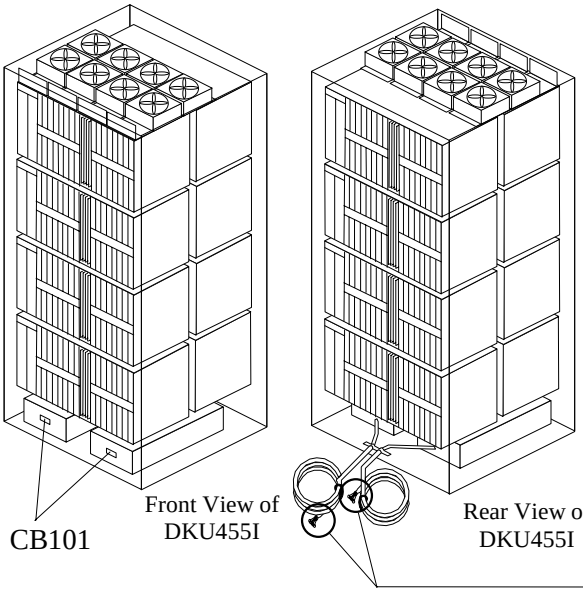
This unit relies on the building installation for protection of the internal components of the equipment. Each line (R/S/T line) should be protected by a short circuit protective device and by an over current protective device rated 30 amp on building installation.
The protective device on building installation shall be comply with National Standards of the country where the units shall be installed, and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is also required for the neutral line of this unit.

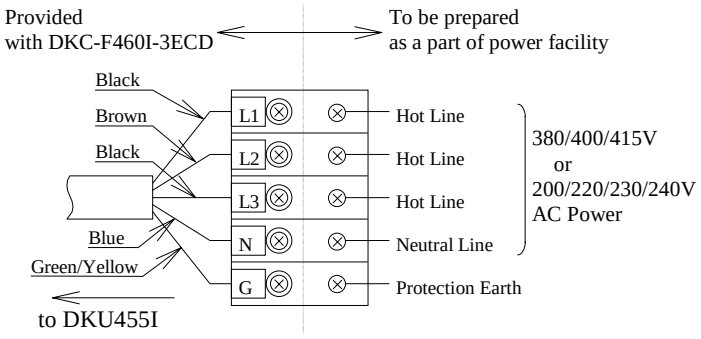
C. Disconnection from Power Supply

DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines).
Each unit has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines).
To remove all utility power from the unit, turn off both main disconnect device CB200s and CB101s at the same time.









4.1.7 Single Phase/30A Model for USA

⚠ DANGER

The DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Four Power Supply Cords. Similarly, each of the 1st DKU, the 2nd DKU, the 3rd DKU, and the 4th DKU also has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). Refer to LOCATION03-160 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has four power supply cords with attachment plug type Thomas & Betts 3750DP. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the attachment plugs for the unit.

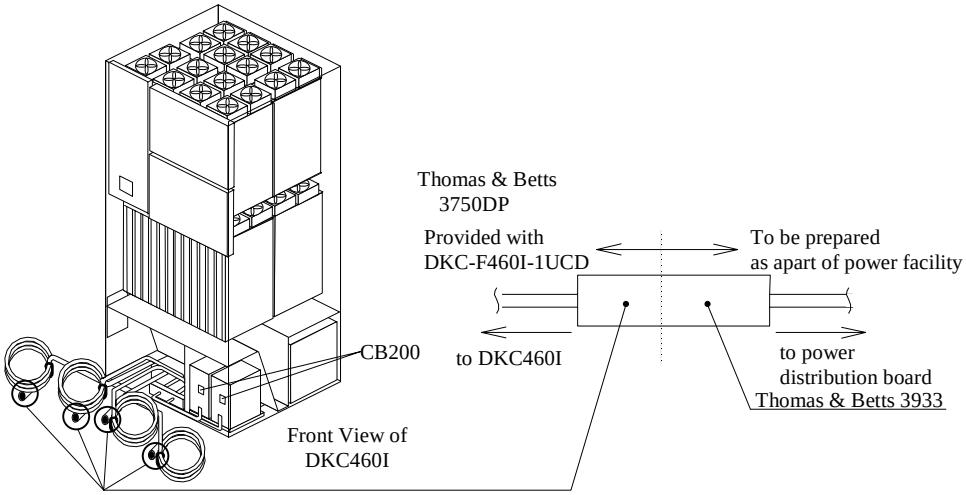
Socket Receptacle: Thomas & Betts 3933
Power Cord: Type ST or equivalent, non-shielded type, with three min. #10 AWG conductors. Terminated at one end with an assembled on above socket receptacle cap.

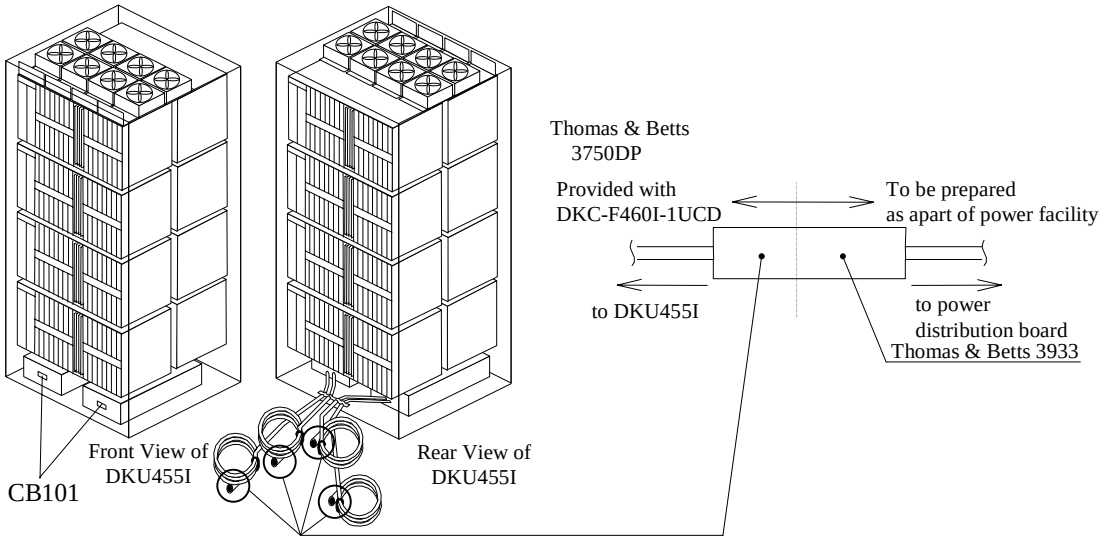
B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (U/L1, V/L2 line) should be protected by a short circuit protective device and by an over current protective device rated 30 amp on building installation.
The protective device on building installation shall comply with the NEC requirements (or CEC requirements when installed in Canada), and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is not required for the neutral line of this unit.

C. Disconnection from Power Supply

DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines). Each DKU has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB200s and CB101s at the same time.





4.1.8 Single Phase/30A Model for Europe

⚠ DANGER

The DKC has Two Main Disconnect Devices (Two Main Breaker CB200s for Dual Power Lines) so that AC Power of the unit can be supplied from the separate power distribution board with Four Power Supply Cords. Similarly, each of the 1st DKU, the 2nd DKU, the 3rd DKU, and the 4th DKU also has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). Refer to LOCATION03-160 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has four power supply cords. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the power cords for the unit.

Socket Receptacle : As shown in the following figure.
Power Cord : Type H07RN-F or equivalent, with three 6 mm^2 conductors.

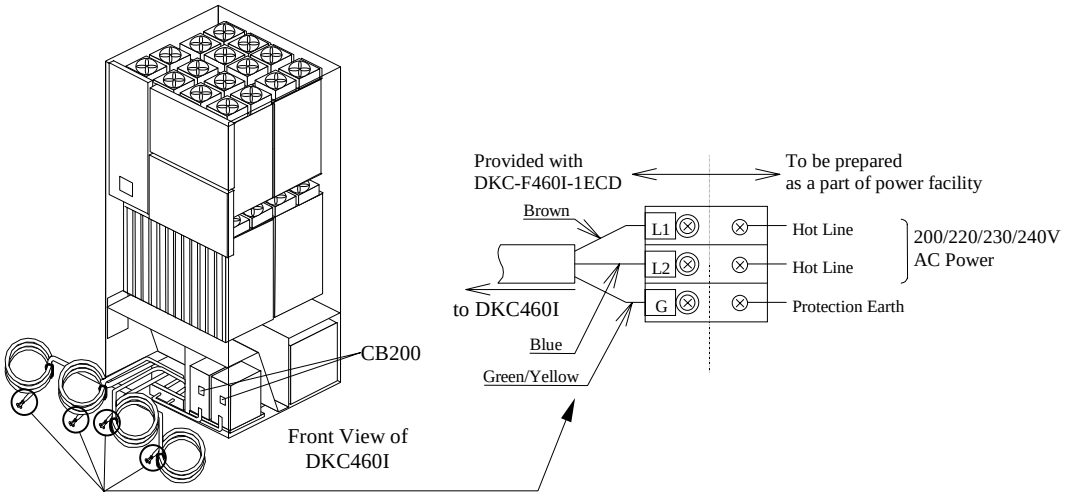
Be sure to connect a power cord to the distribution box as illustrated in the following figure. The wrong connection of neutral line may cause damages or fire of the equipment.
To reduce the risk of wrong connection, you should use approved type attachment plug and socket for power cord connection.
High leakage current may be caused between the power supply and this unit. To avoid an electric shock by high leakage current, perform the protective earth connection before the supply connections and disconnect it after the supply connections.

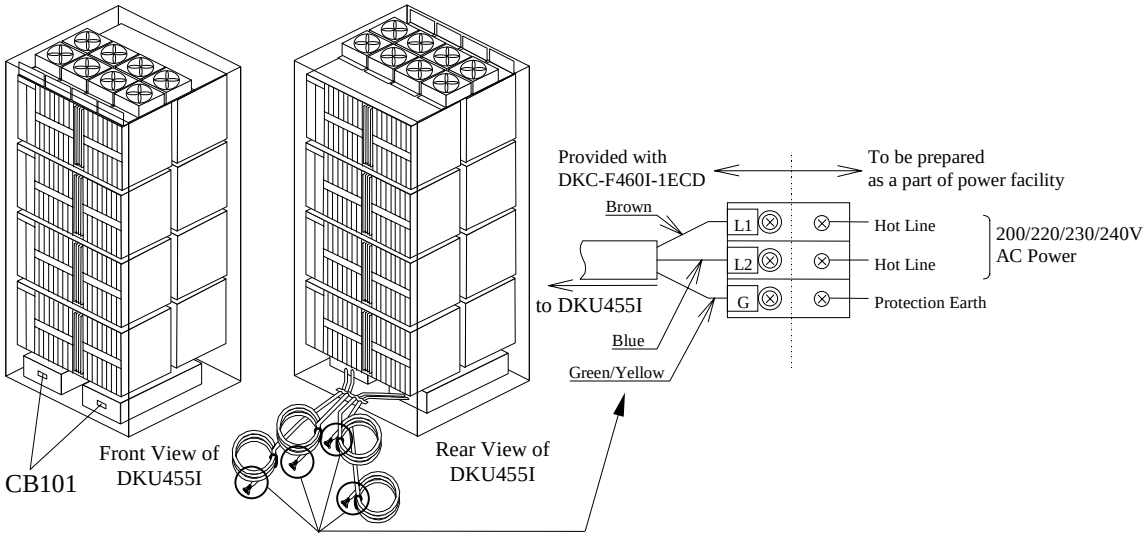
B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (U/L1, V/L2 line) should be protected by a short circuit protective device and by an over current protective device rated 30 amp on building installation.
The protective device on building installation shall be comply with National Standards of the country where the units shall be installed, and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is also required for the neutral line of this unit.

C. Disconnection from Power Supply

DKC has Two Main Disconnect Device (Two Main Breaker CB200s for Dual Power Lines).
Each DKU has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines).
To remove all utility power from the unit, turn off both main disconnect device CB200s and CB101s at the same time.





4.1.9 3 Phase Model for USA (DKU405I)

DANGER

Each of the DKU-R1, the DKU-R2, the DKU-R3, the DKU-L1, the DKU-L2, and the DKU-L3 has Two Main Disconnect Devices. Refer to LOCATION03-190 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords with attachment plug type Thomas & Betts 3760, 3760PDG or DDK 115J-AP8508. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the attachment plugs for the unit.

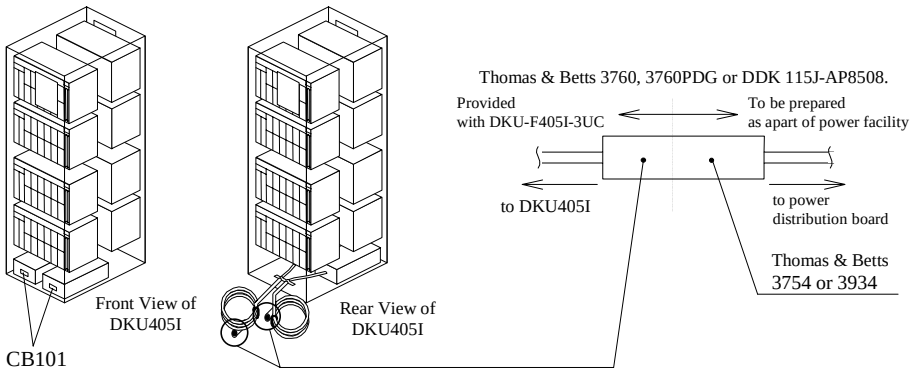
Socket Receptacle : Thomas & Betts 3754 or 3934
Power Cord : Type ST or equivalent, shielded type, with four min. #8 AWG conductors.
Terminated at one end with an assembled on above socket receptacle cap.

B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (R/S/T line) should be protected by a short circuit protective device and by an overcurrent protective device rated 30 amp on building installation.
The protective device on building installation shall comply with the NEC requirements (or CEC requirements when installed in Canada), and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is not required for the neutral line of this unit.

C. Disconnection from Power Supply

Each unit has Two Main Disconnect Device(Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB101s at the same time.



4.1.10 3 Phase Model for Europe (DKU405I)

DANGER

Each of the DKU-R1, the DKU-R2, the DKU-R3, the DKU-L1, the DKU-L2, and the DKU-L3 has Two Main Disconnect Devices. Refer to LOCATION03-190 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the power cords for the unit.

Socket Receptacle : As shown in the following figure.
Power Cord : Type H07RN-F or equivalent, with five 6.0 mm^2 conductors.

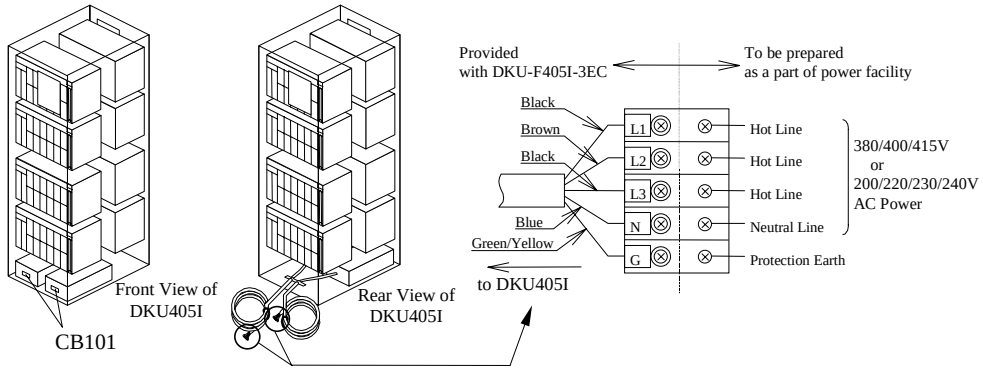
Be sure to connect a power cord to the distribution box as illustrated in the following figure. The wrong connection of neutral line may cause damages or fire of the equipment.
To reduce the risk of wrong connection, you should use approved type attachment plug and socket for power cord connection.
High leakage current may be caused between the power supply and this unit. To avoid an electric shock by high leakage current, perform the protective earthing connection before the supply connections and disconnect it after the supply connections.

B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (R/S/T line) should be protected by a short circuit protective device and by an overcurrent protective device rated 30 amp on building installation.
The protective device on building installation shall be comply with National Standards of the country where the units shall be installed, and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is also required for the neutral line of this unit.

C. Disconnection from Power Supply

Each unit has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB101s at the same time.



4.1.11 Single Phase Model for USA (DKU405I)

DANGER

Each of the DKU-R1, the DKU-R2, the DKU-R3, the DKU-L1, the DKU-L2, and the DKU-L3 has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). Refer to LOCATION03-210 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords with attachment plug type 3720DP. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the attachment plugs for the unit.

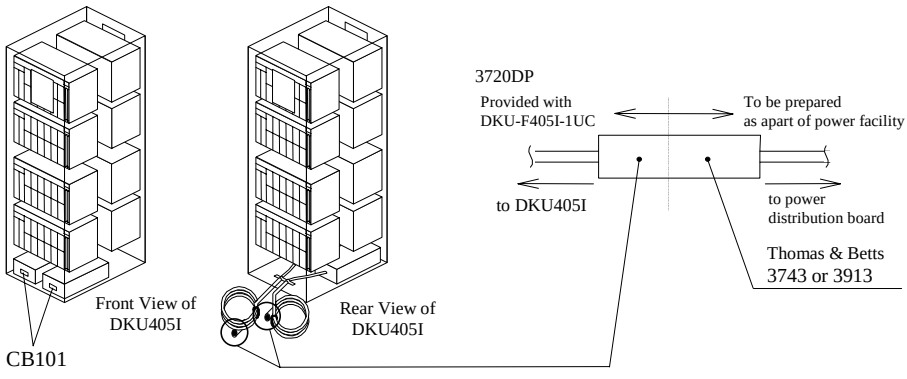
Socket Receptacle : Thomas & Betts 3743 or 3913
Power Cord : Type SJT or equivalent, non-shielded type, with three min. #10 AWG conductors. Terminated at one end with an assembled on above socket receptacle cap.

B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (U/L1, V/L2 line) should be protected by a short circuit protective device and by an overcurrent protective device rated 20 amp on building installation.
The protective device on building installation shall comply with the NEC requirements (or CEC requirements when installed in Canada), and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is not required for the neutral line of this unit.

C. Disconnection from Power Supply

Each DKU has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB101s at the same time.



4.1.12 Single Phase Model for Europe (DKU405I)

DANGER

Each of the DKU-R1, the DKU-R2, the DKU-R3, the DKU-L1, the DKU-L2, and the DKU-L3 has Two Main Disconnect Devices (Two Main Breaker CB101s for Dual Power Lines). Refer to LOCATION03-210 "Circuit Breakers".
Observe all instructions described in this manual before connecting the equipment to the power source and before servicing.

A. Connection of Power Supply Cord

The unit has two power supply cords. Be sure to prepare the following socket receptacles and power cords between the power distribution board of the building and the power cords for the unit.

Socket Receptacle : As shown in the following figure.
Power Cord : Type H07RN-F or equivalent, with five 2.5 mm^2 conductors.

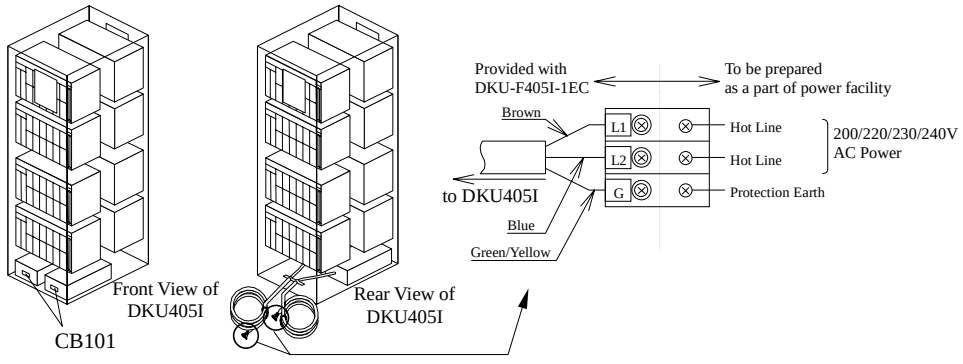
Be sure to connect a power cord to the distribution box as illustrated in the following figure. The wrong connection of neutral line may cause damages or fire of the equipment.
To reduce the risk of wrong connection, you should use approved type attachment plug and socket for power cord connection.
High leakage current may be caused between the power supply and this unit. To avoid an electric shock by high leakage current, perform the protective earthing connection before the supply connections and disconnect it after the supply connections.

B. Requirements to Branch Circuit

This unit relies on the building installation for protection of the internal components of the equipment. Each line (U/L1, V/L2 line) should be protected by a short circuit protective device and by an overcurrent protective device rated 20 amp on building installation.
The protective device on building installation shall be comply with National Standards of the country where the units shall be installed, and if a protective device interrupts a conductor, it shall also interrupt all other supply conductors.
This protection is also required for the neutral line of this unit.

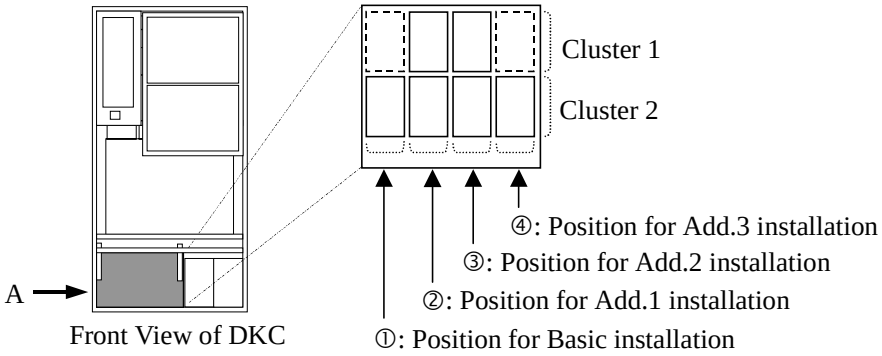
C. Disconnection from Power Supply

Each unit has Two Main Disconnect Device (Two Main Breaker CB101s for Dual Power Lines). To remove all utility power from the unit, turn off both main disconnect device CB101s at the same time.



4.2 Channel Interface

Table 4.2-1 shows the interface connector panel locations.



Refer to the following figure for how to attach the cable clamp and cable routing.

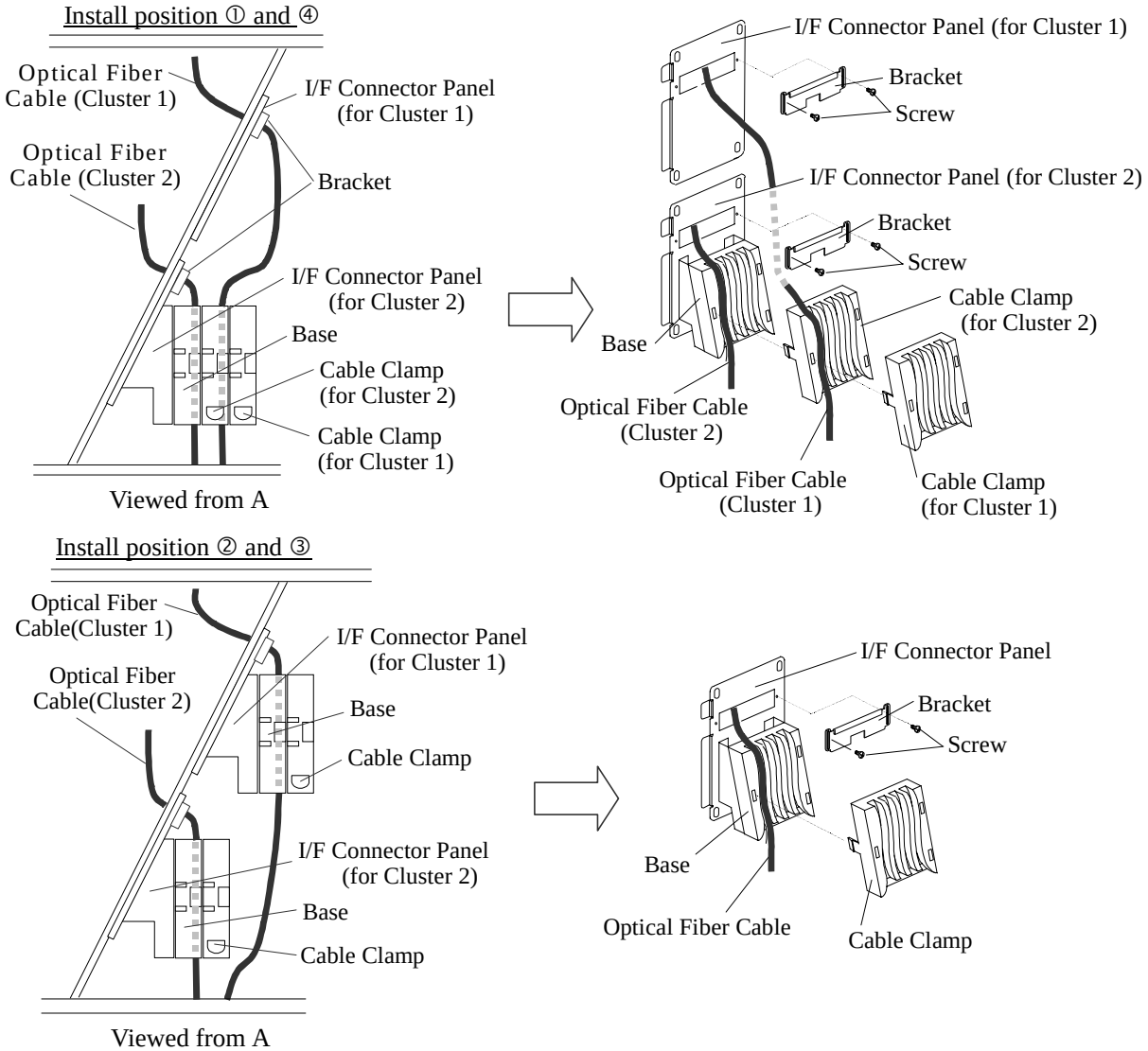
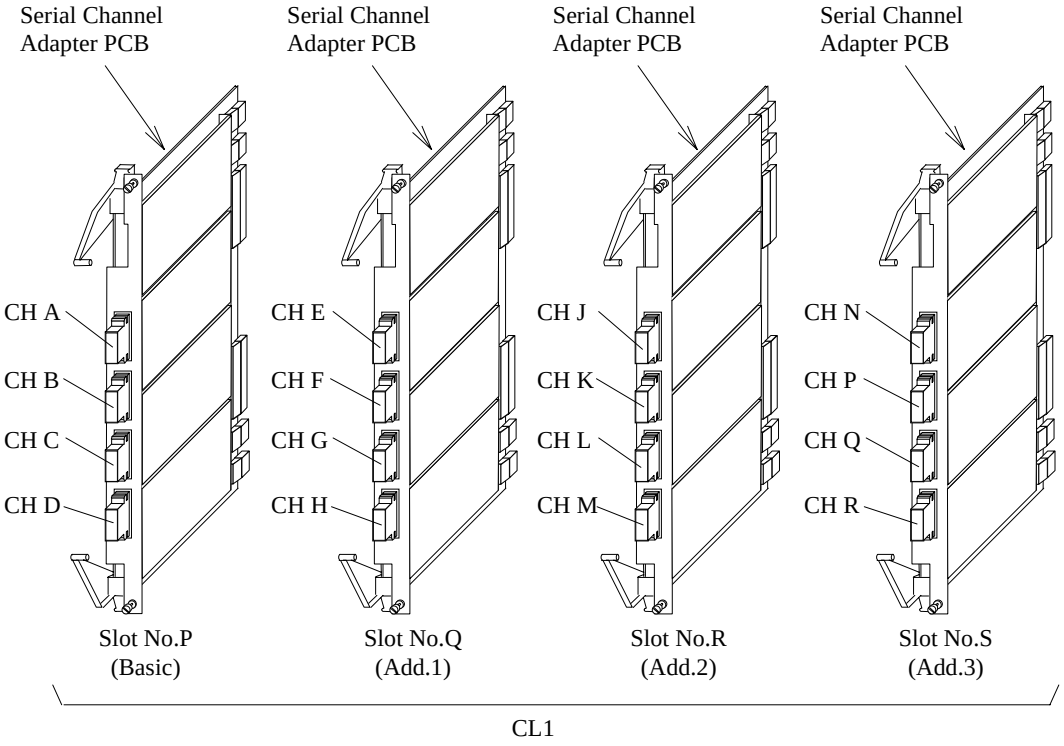
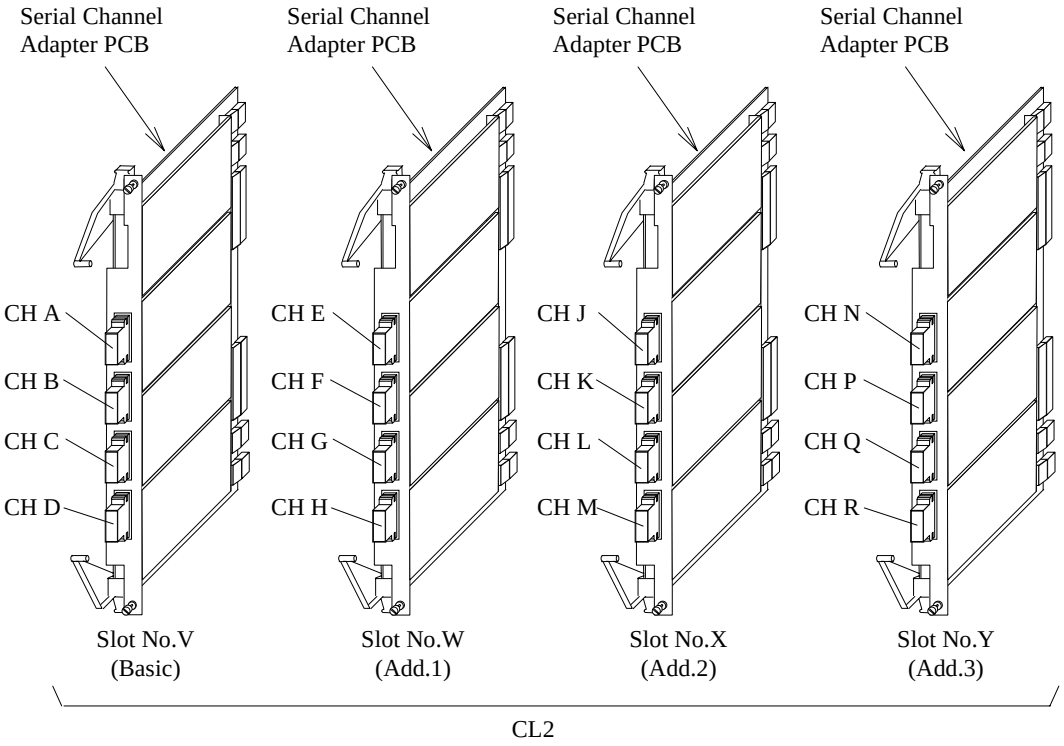


Table 4.2-1 The Mounting Location of Channel Options

[1] Serial Channel Interface

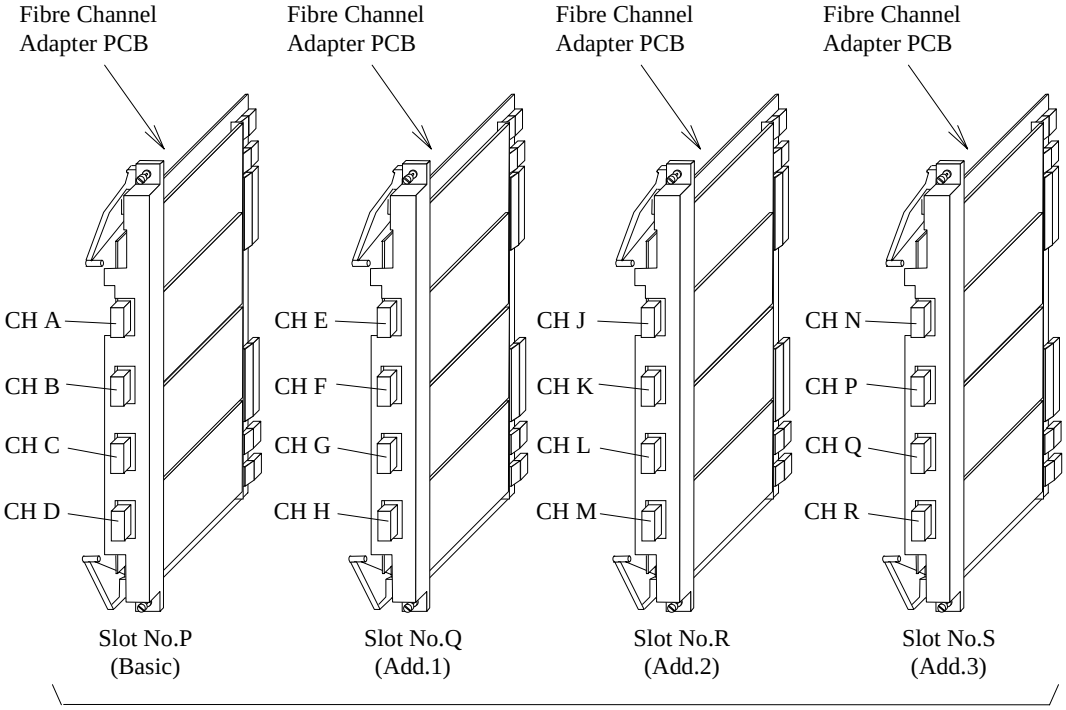
CH A to CH R are effective to LED by the side of U of STORAGE CLUSTER 1 and STORAGE CLUSTER 2 on the Operator Panel.

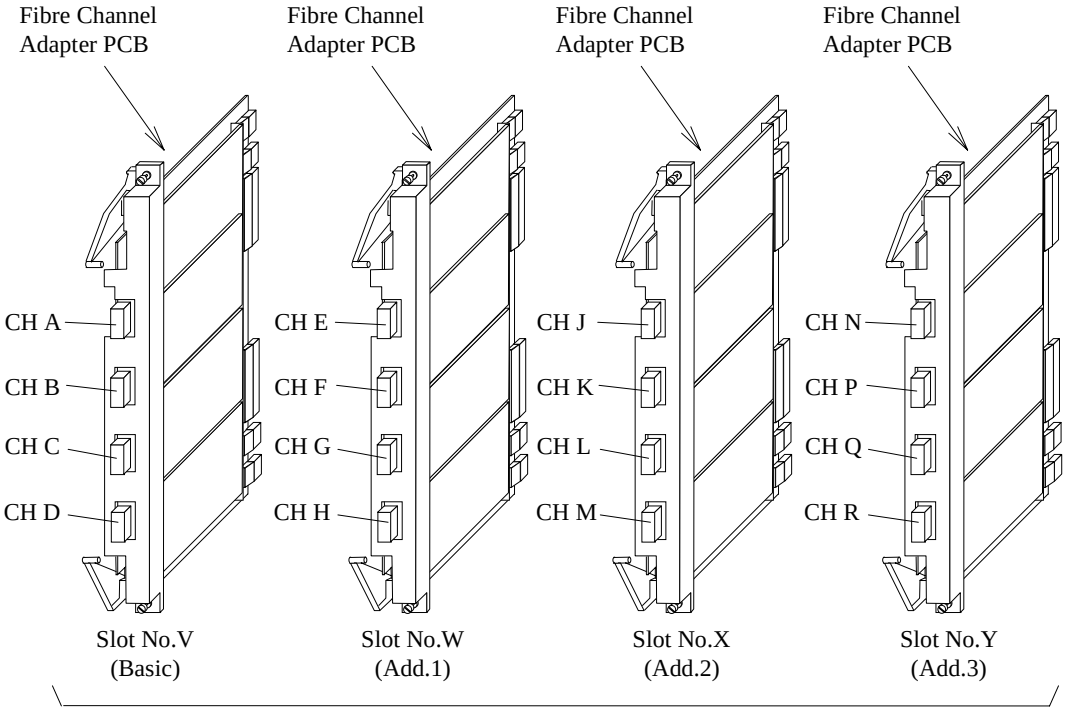




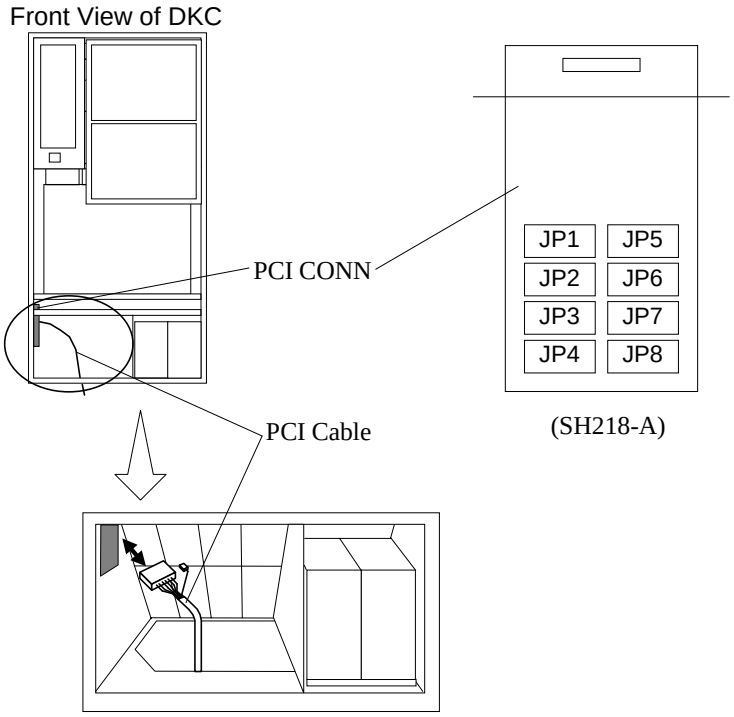
[2] Fibre Channel Interface

CH A to CH R are effective to LED by the side of U of STORAGE CLUSTER 1 and STORAGE CLUSTER 2 on the Operator Panel.





4.3 PCI Cabling



5 Internal Cabling Block Diagram

5.1 Internal Cable Connection of DKC

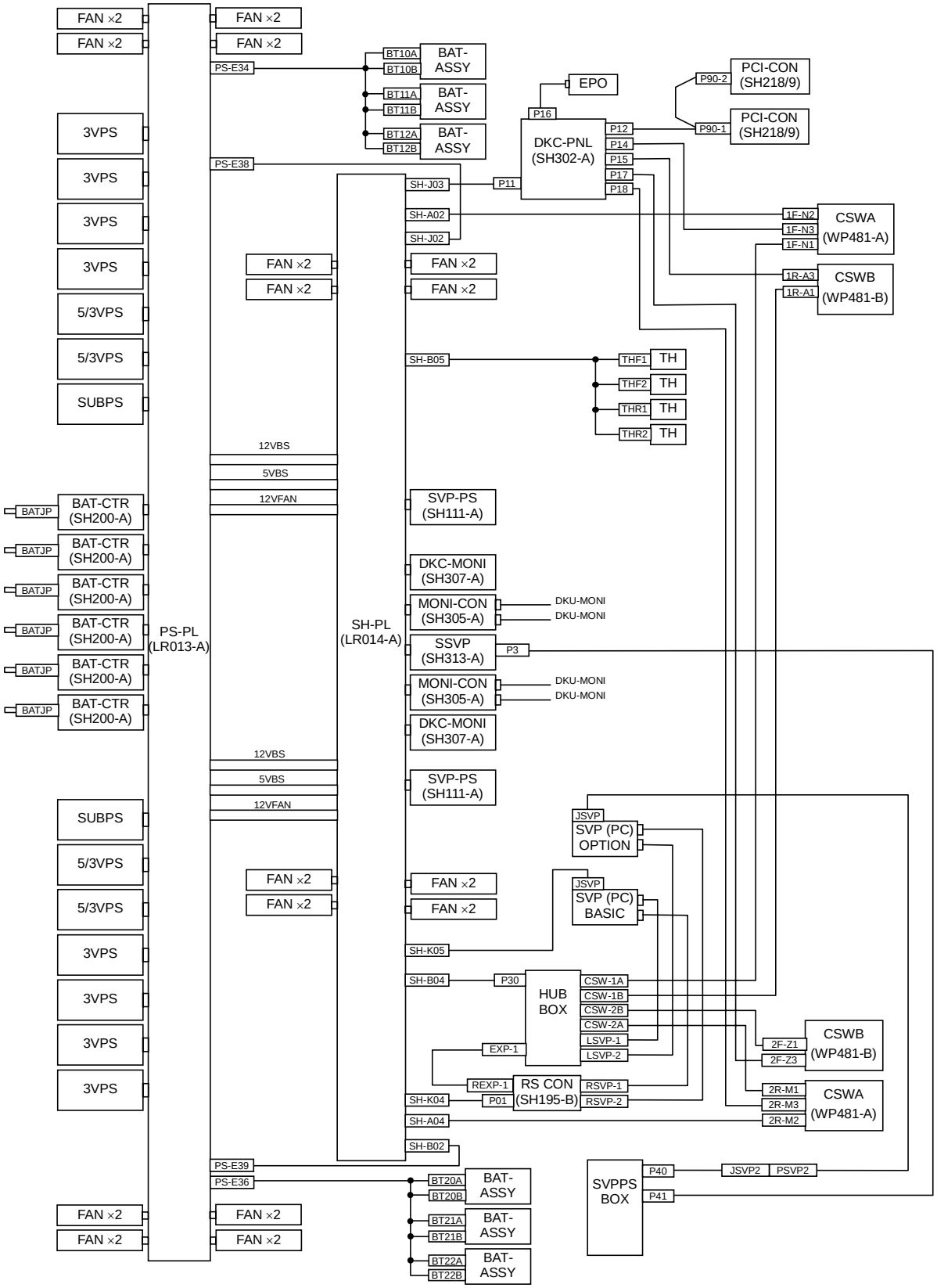


Fig. 5-1 DKC Internal Cabling Diagram

5.2 Cable Connection between DKC and DKU

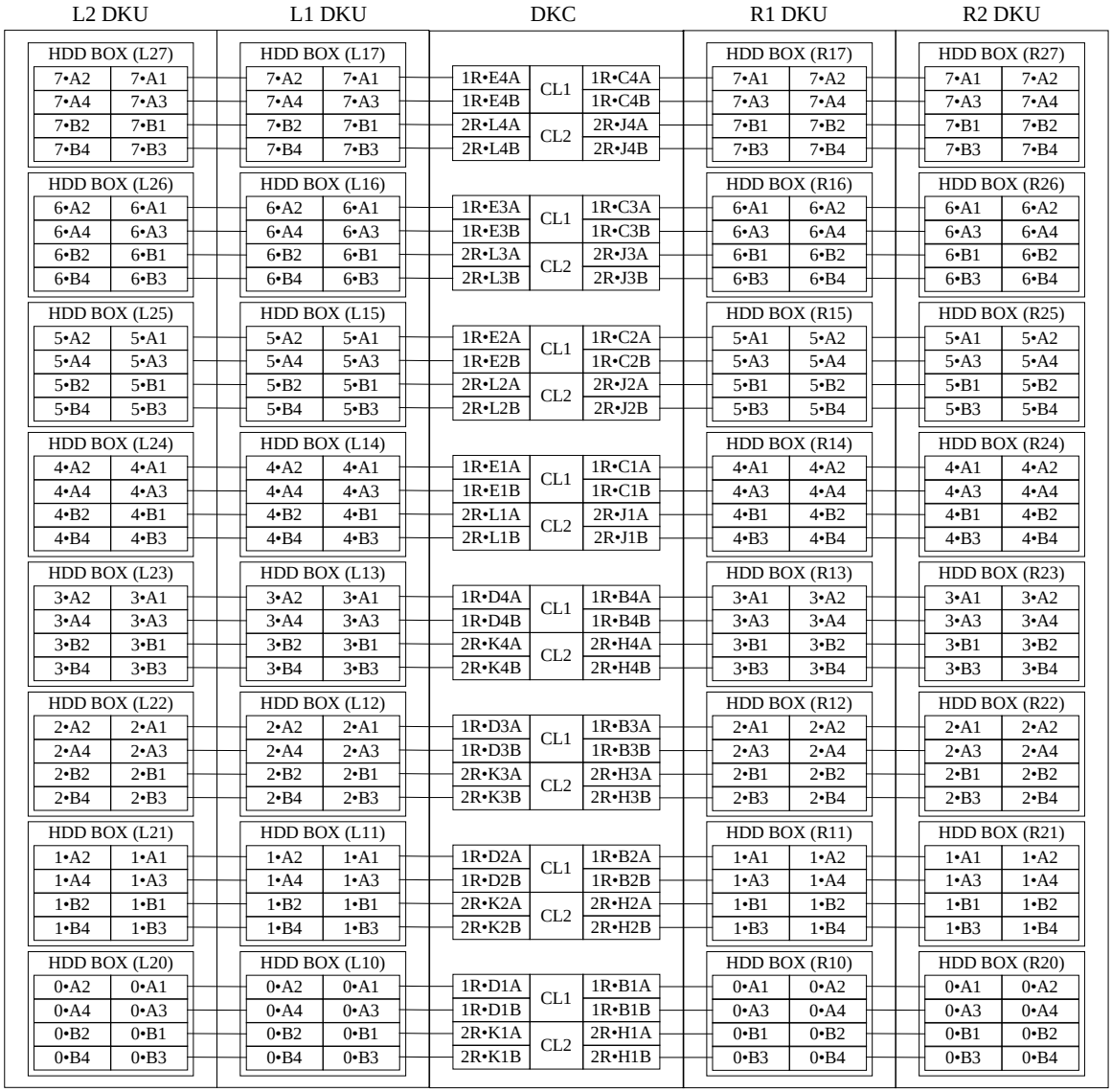


Fig. 5-2 Cable Connection Diagram between DKC and DKU

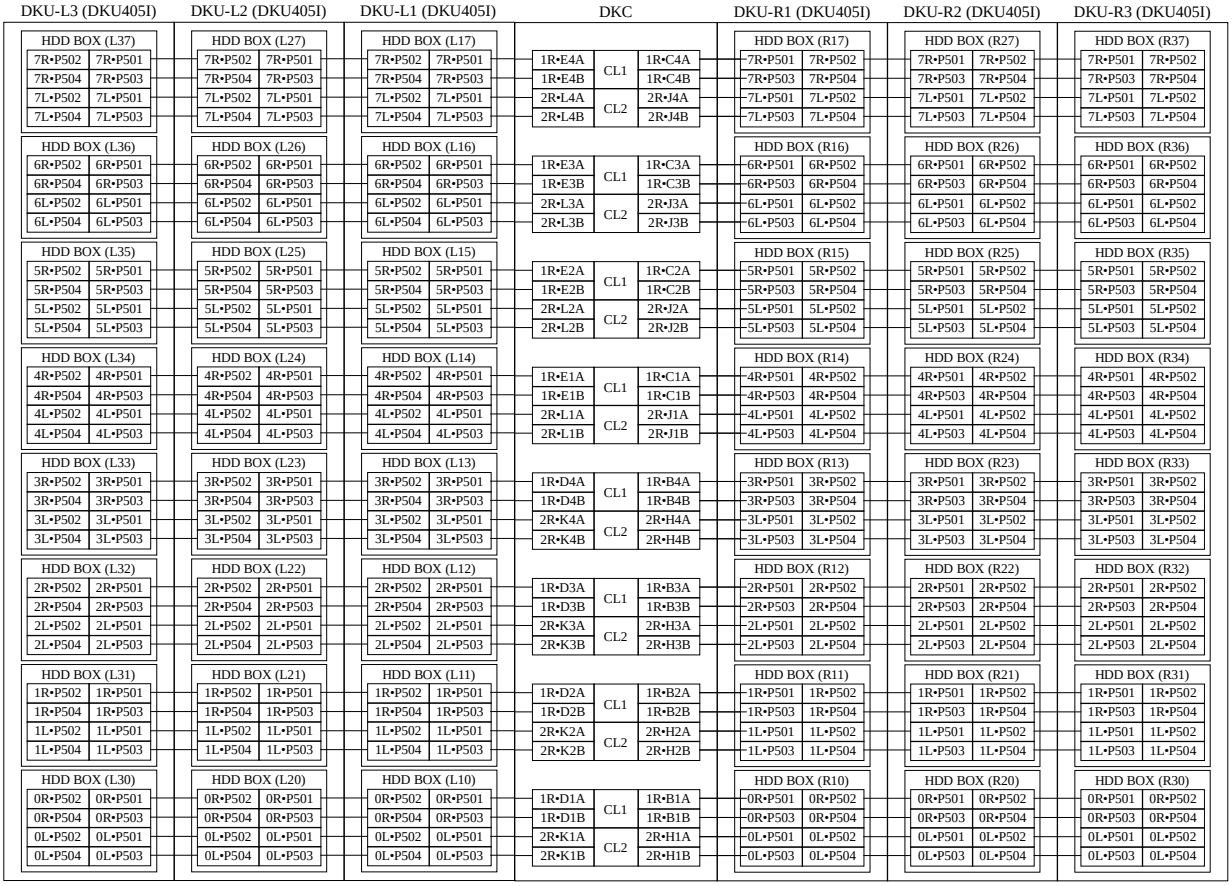


Fig. 5-2A Cable Connection Diagram between DKC and DKU405I

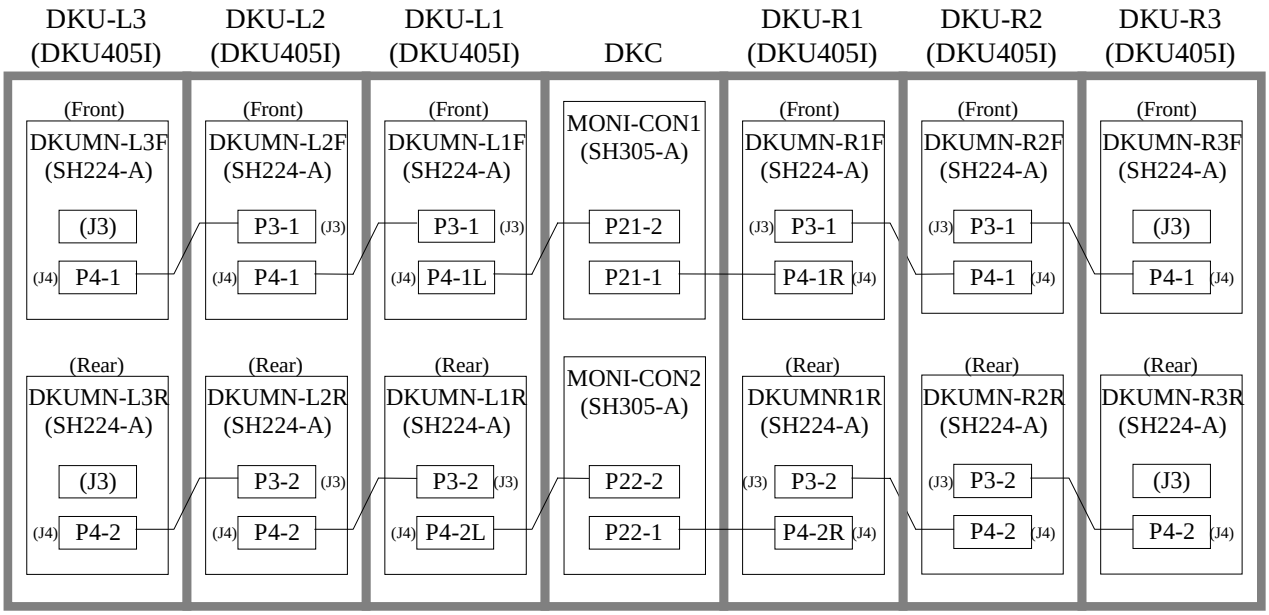


Fig. 5-3B Cable Connection Diagram between DKC and DKU405I

5.3 Internal Cable Connection of DKU

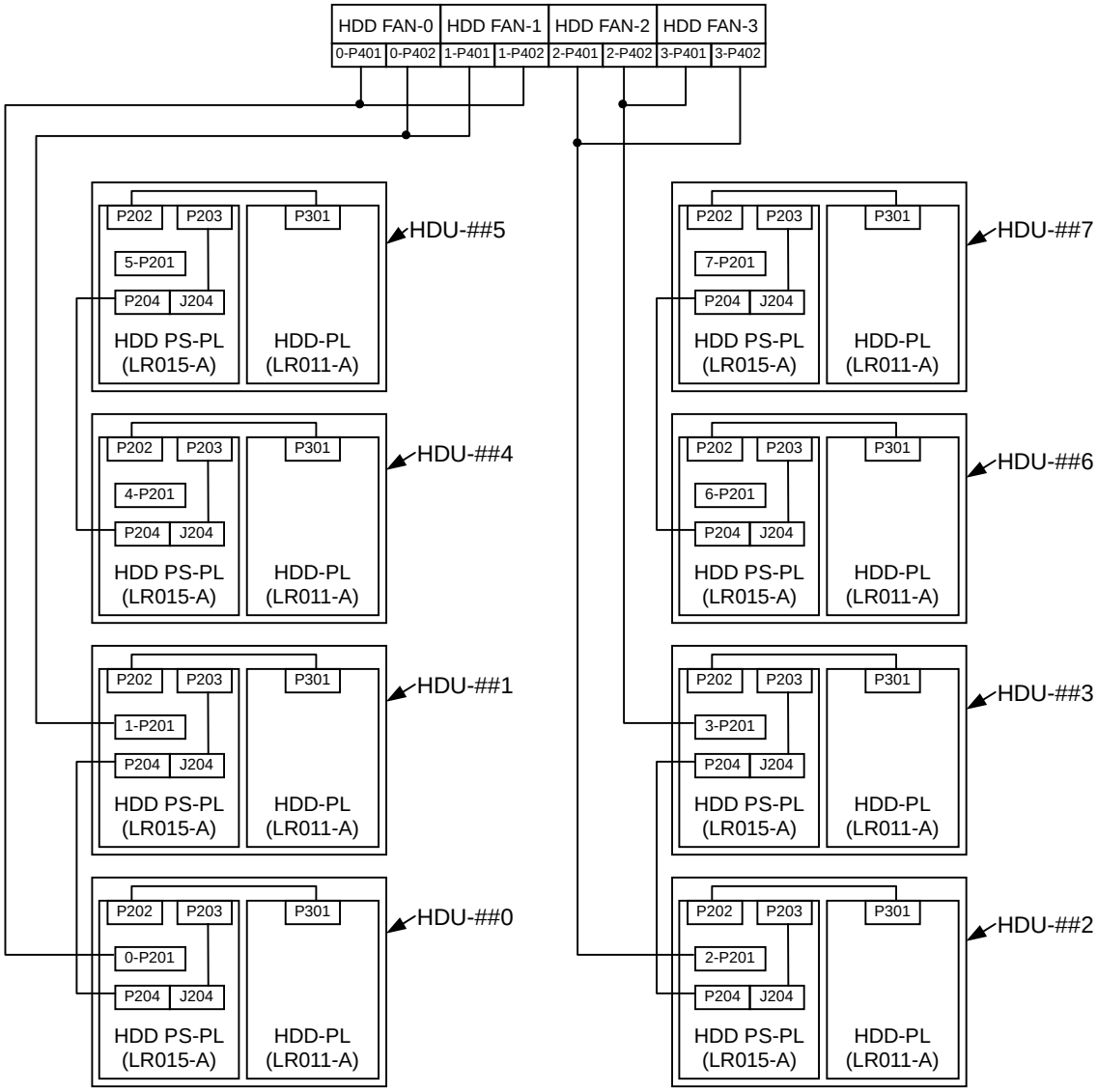


Fig. 5-3 DKU Internal Cabling Diagram

5.4 Channel Interface Cabling

DKC-F460I-8S

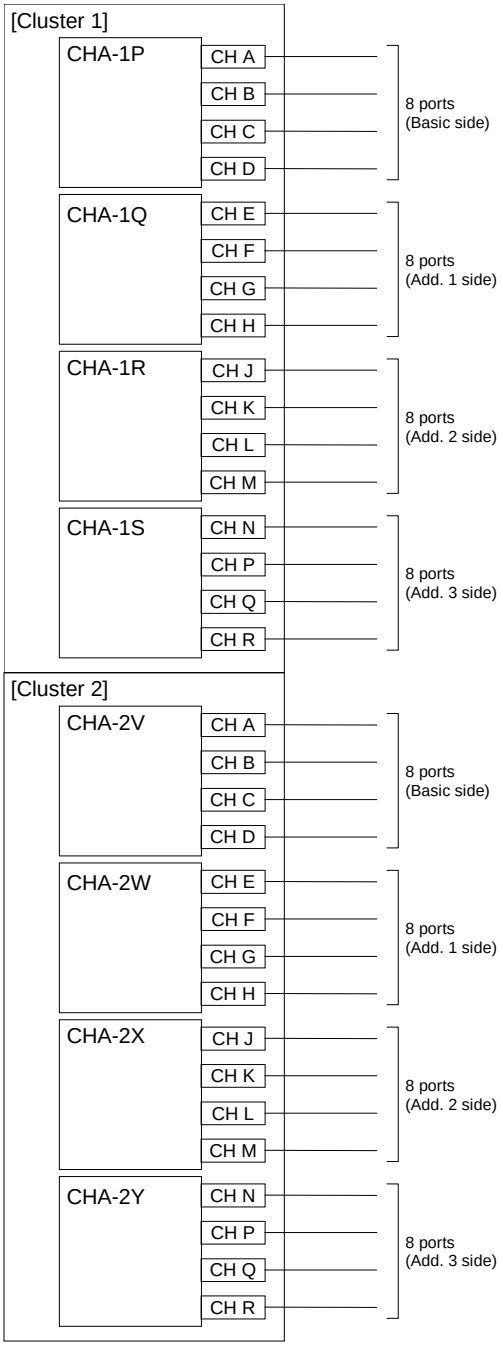


Fig. 5-4 Channel Interface Cabling Diagram ①

DKC-F460I-8GSE/4HSE/8HSE/8HLE

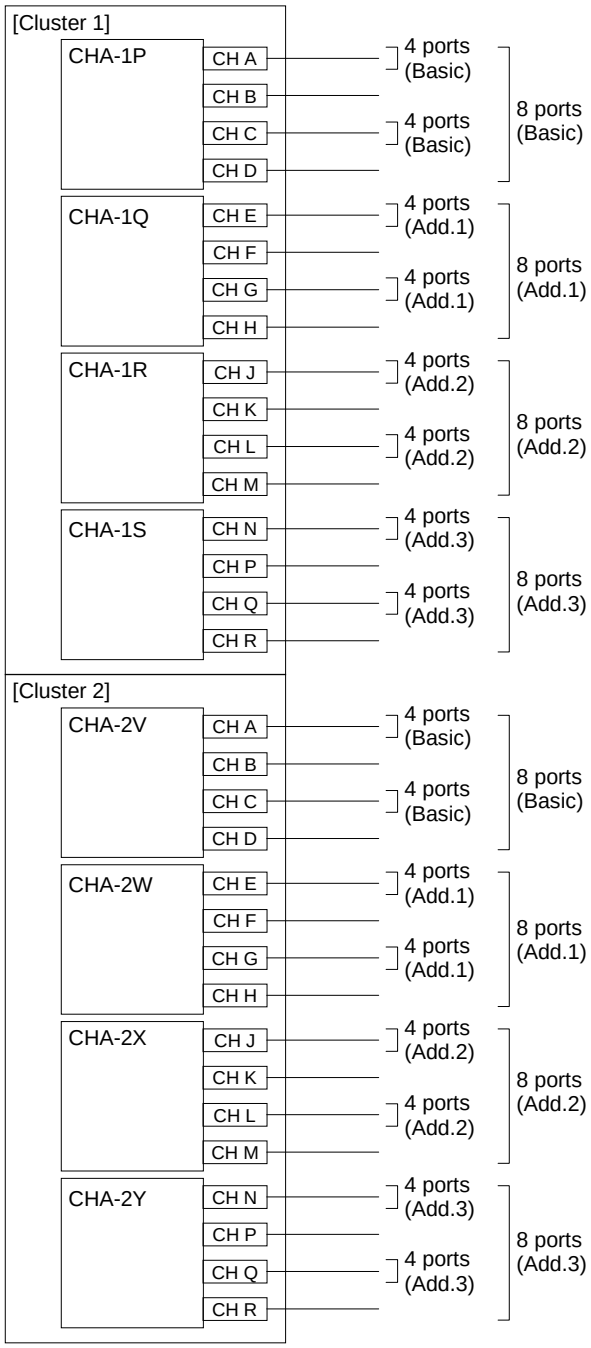


Fig. 5-4 Channel Interface Cabling Diagram ②

5.5 LAN Cabling

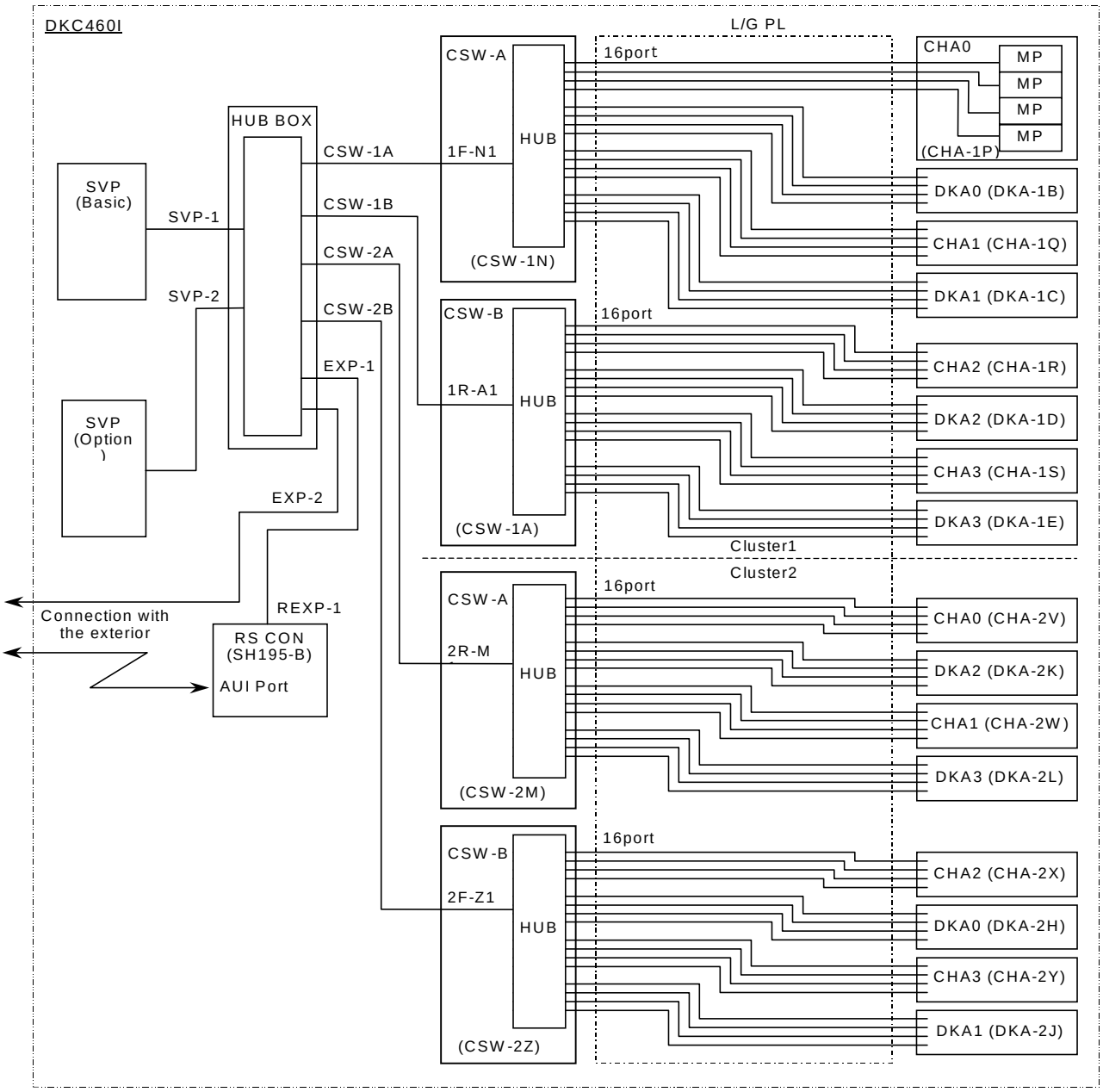


Fig.5-5 LAN Cabling Diagram

6 Jumper Setting

6.1 Shut Down Jumpers

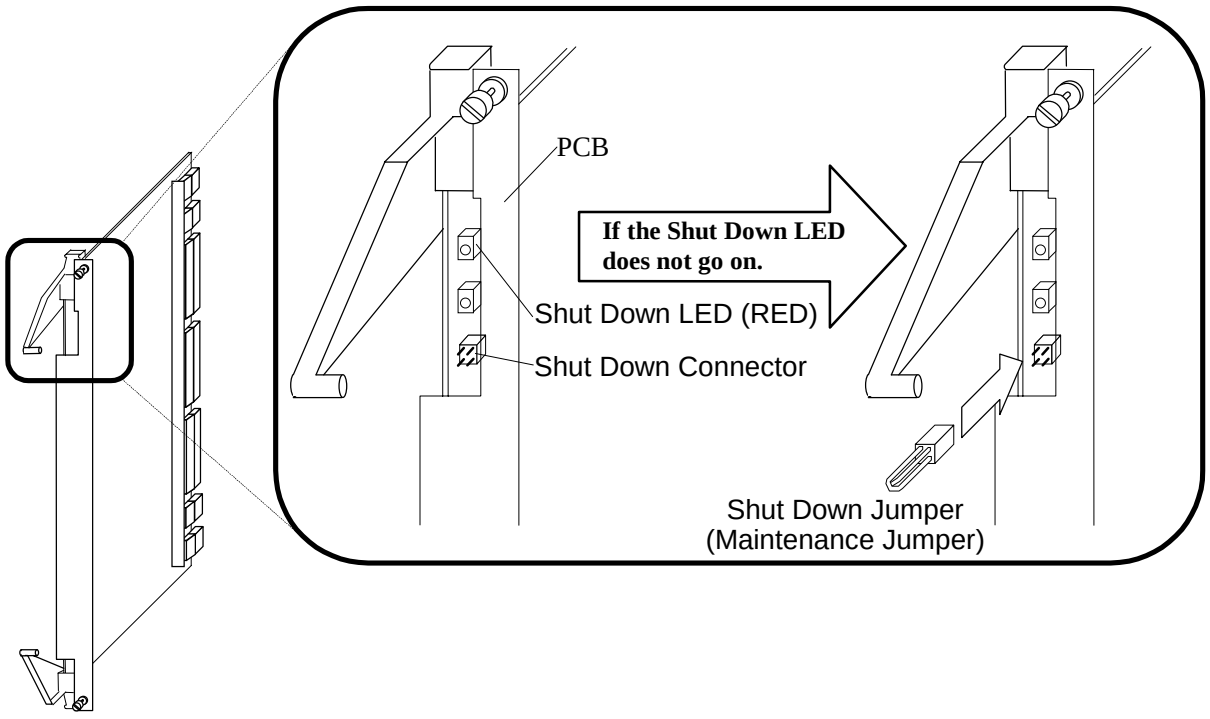
[1] Front or Rear Logic Box
Check that the Shut Down LED is turned on. If not, connect the Shut Down Jumper (Maintenance Jumper) to the Shut Down Connector. (Only hot replace procedure)

CAUTION

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

Table 6.1 Shut Down Jumpers List

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

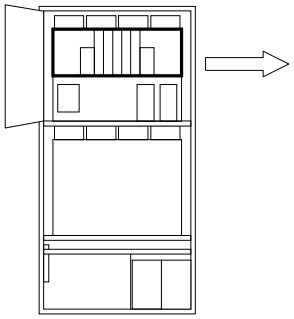


[2] SVPPS

When replacing the SVP PS PCB, perform the replacement after blocking it forcibly by inserting the Shut Down Jumper (Maintenance Jumper) regardless of turning on or off of the Shut Down LED.

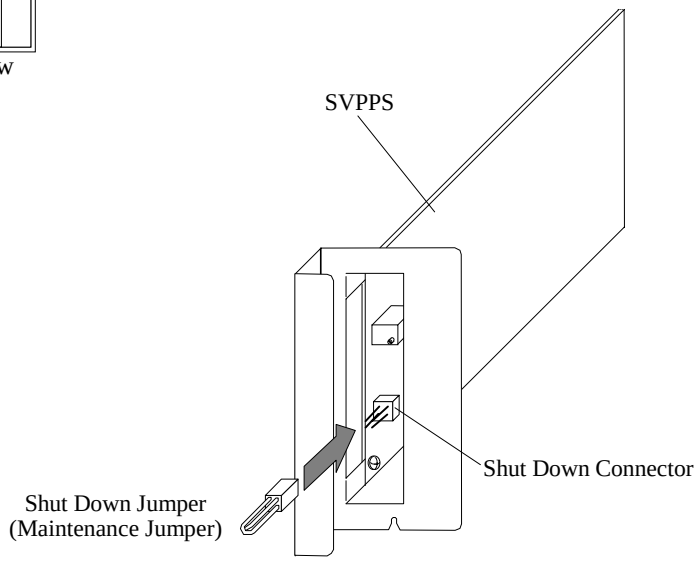
CAUTION

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



Front View of DKC

A	B	C	D	E	F	G
SVP PS 1	DKC MN 1	MONI CON 1	SSVP	MONI CON 2	DKC MN -2	SVP PS 2

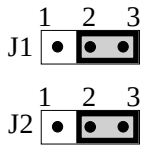
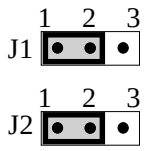


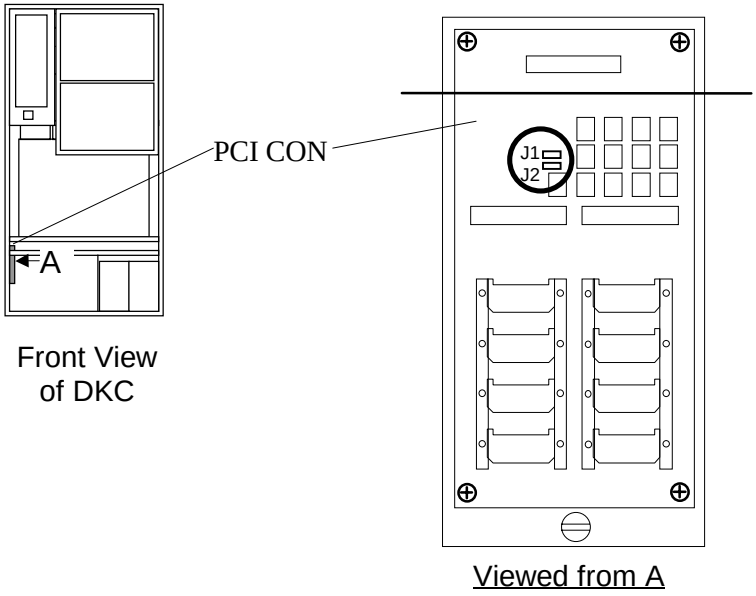
6.2 Other Jumpers

Table 6.2 Jumper Stetting List

No.	Function Name	Jumper No.	Settings	Remarks
1	PCI CON	J1	EPO signal	
		J2	EPO signal	
2	RS CON	JP1	Basic SVP PS Shutdown	
		JP2	Basic SVP PS ON/OFF Inhibition	
3	SVPPS BOX	PS SD	Additional SVP PS Shutdown	
		PS CTLINH	Additional SVP PS ON/OFF Inhibition	
4	BAT CTR	–	Jumper connector (BATJP)	
5	DKC PANEL	JP1	Not used	
		JP2	Alarm Inhibition	
		JP3	Not used	
		JP4	Not used	
6	DKCMN	JP1	DKC Panel Inhibition	
7	DKCMN for UPS	JPA2	Server Shutdown setup Jumper	
8	SVPPS	JP1	Output Voltage	
9	MPS	–	Specification of HDU Box ID	
		–	Specification of DKU Frame ID	
10	JMP	Switch	Specification of DKU Frame ID	
11	DKUMN for DKU405I	JP01	Specification of address number	
		JP02	Additional Platform for Canister Mount	
		JP05	Path Address for FSW PCB	
12	HDU Box for DKU405I	JP1,JP2,JP3	Specification of PL ID	

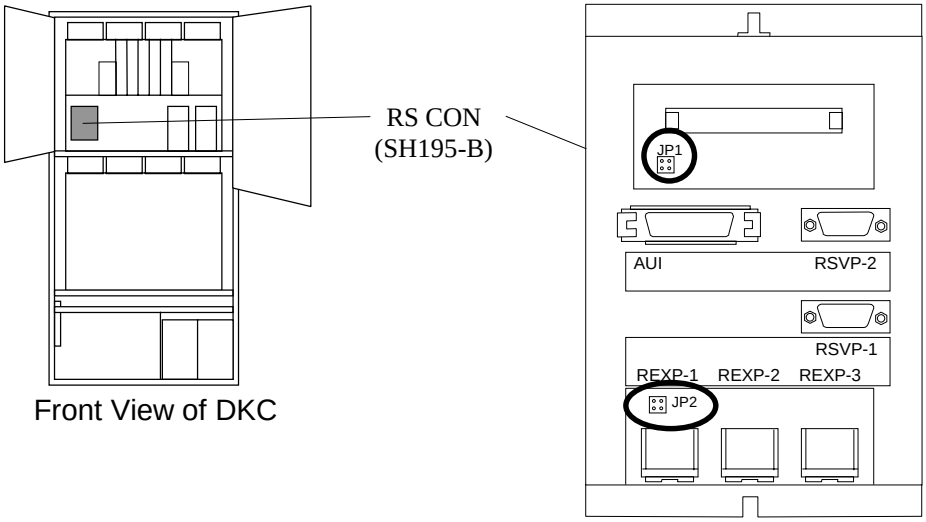
[1] PCI CON

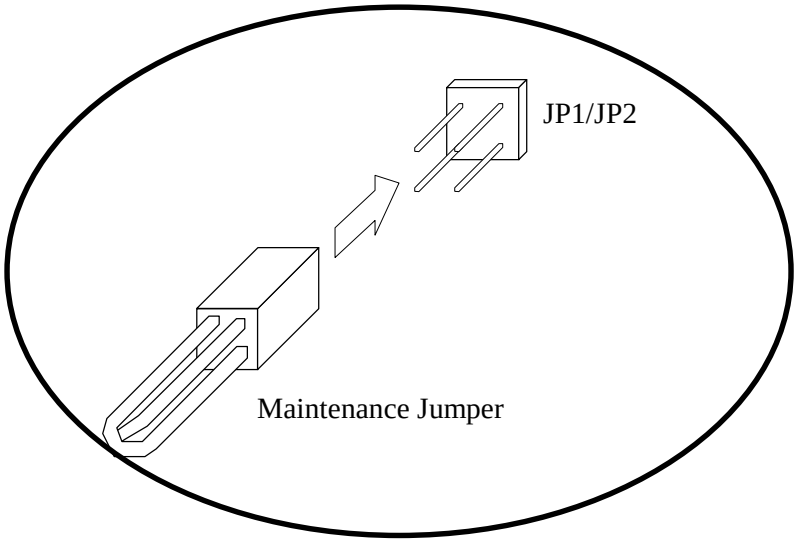
Function Name	Setting	J1 and J2 Setting
PCI CON	When power is controlled from the host (at least one PCI cable attached to JP1-JP8 on PCI CON PCB), set the jumpers as shown.	
	When power is not controlled from the host, no PCI Cable attached to JP1-JP8 PCI CON PCB or to disable the EPO of host, set the jumpers as shown.	



[2] RS CONN

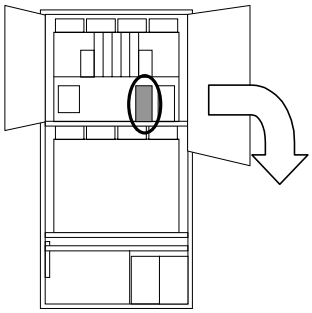
Function Name	Jumper No.	Setting	Remarks
RS CON	JP1	The basic SVP is powered off forcibly by inserting the Maintenance Jumper.	
	JP2	The basic SVP Power ON/OFF Function of SSVP is inhibited by inserting Maintenance Jumper.	



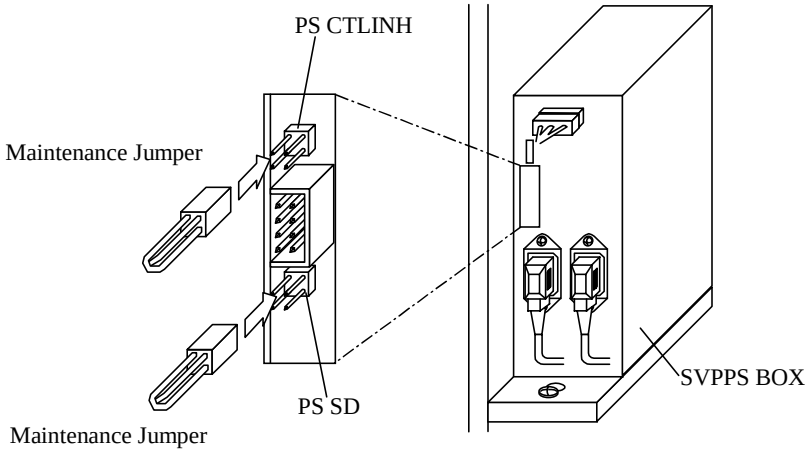


[3] SVPPS BOX

Function Name	Jumper No.	Setting	Remarks
SVPPS BOX	PS SD	The additional SVP is powered off forcibly by inserting the Maintenance Jumper.	
	PS CTLINH	The additional SVP Power ON/OFF Function of SSVP is inhibited by inserting Maintenance Jumper.	



Front View of DKC



[4] BAT CTR

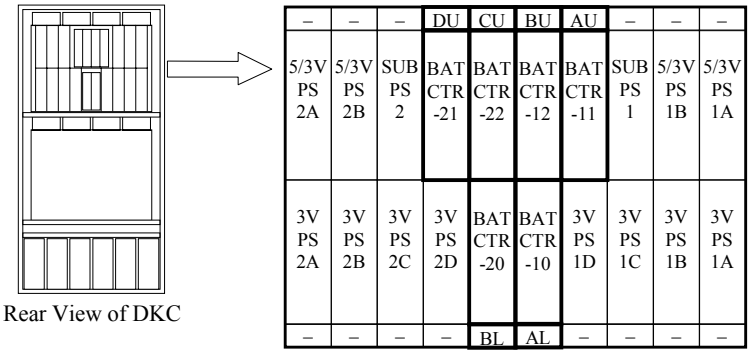
This jumper is set in order to validate the battery for backing up data on the cache memory and shared memory when an AC power failure occurs.

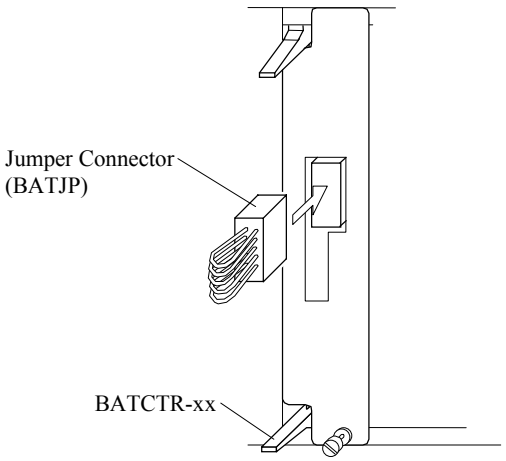
Table 6.3 Backup Duration Time for Each Memory

No.	Memory to be backed up	Maximum backup duration time
1	Shared Memory	168 hours (seven days)
2	Cache Memory	48 hours (two days)

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

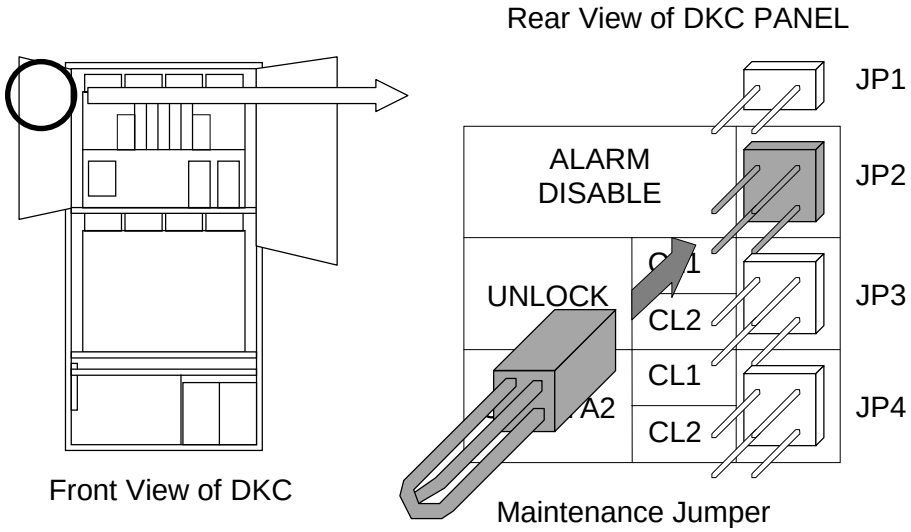
Notice: When the subsystem power is to be turned off for longer than 48 hours, the battery jumper must be removed to protect the battery from deterioration. In this case, remove the battery jumper after making sure that the powering off process of the subsystem has been completed normally.





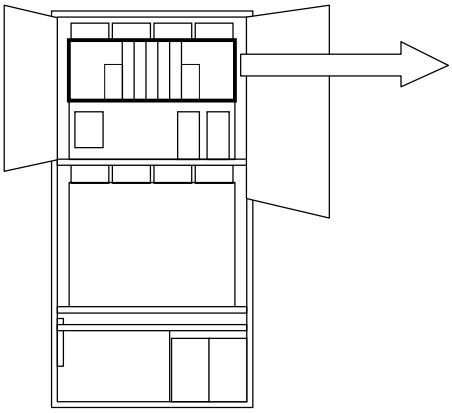
[5] DKC PANEL

Function Name	Jumper No.	Setting	Remarks
DKC PANEL	JP1	Not used	
	JP2	The voltage and thermal alarm signals are inhibited by inserting maintenance jumper.	
	JP3	Not used	
	JP4	Not used	



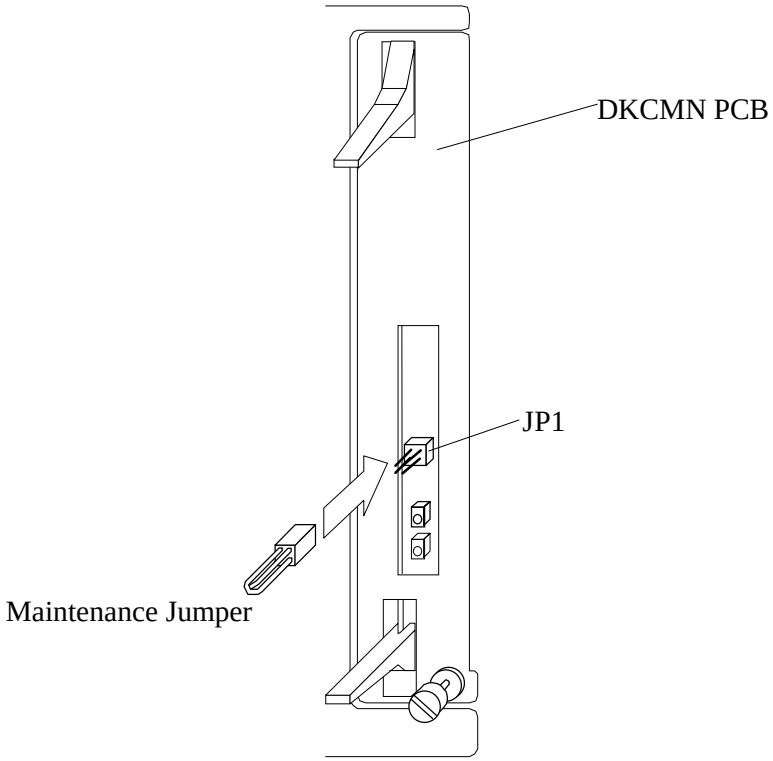
[6] DKCMN

Function Name	Jumper No.	Setting	Remarks
DKCMN1 or DKCMN2	JP1	The Power ON/OFF function of DKC Panel is inhibited by inserting maintenance jumper.	

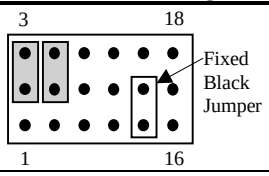
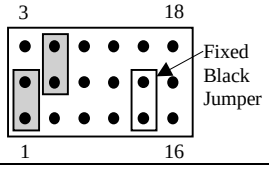
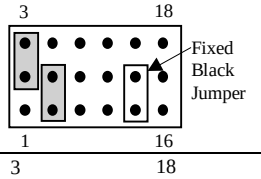
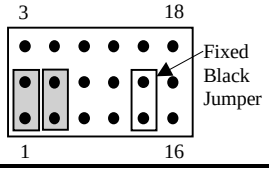


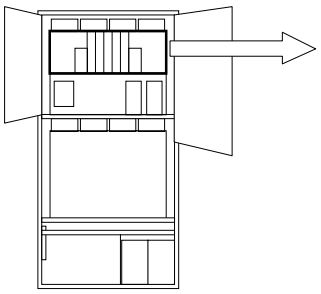
A	B	C	D	E	F	G
SVP PS 1	DKC MN 1	MONI CON 1	SSVP	MONI CON 2	DKC MN -2	SVP PS 2

Front View of DKC



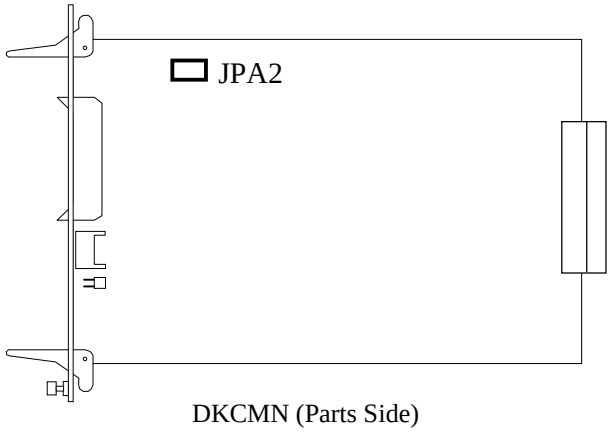
[7] DKCMN for UPS

Function Name	Jumper No.	Setting	Time	JPA2 Setting
DKCMN 1 or DKCMN 2	JPA2	Select the necessary time from four of right column and set it up to shutdown a server. When set time elapsed, a PS OFF sequence of a subsystem is started.	2.5 minutes	
			5 minutes	
			10 minutes	
			20 minutes	



A	B	C	D	E	F	G
SVP PS 1	DKC MN 1	MONI CON 1	SSVP	MONI CON 2	DKC MN -2	SVP PS 2

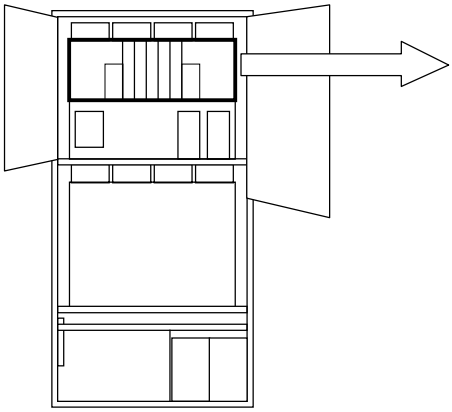
Front View of DKC



DKCMN (Parts Side)

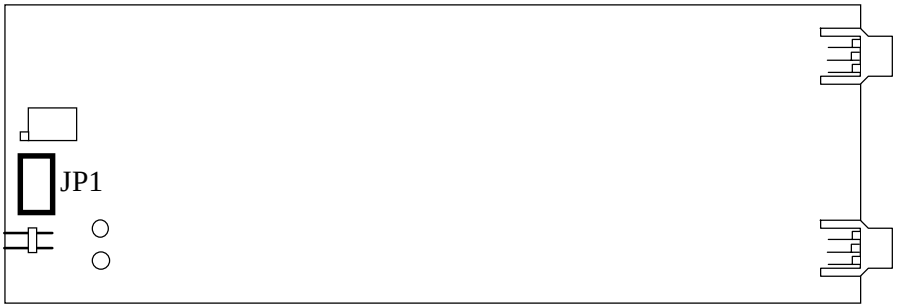
[8] SVPPS

Function Name	Jumper No.	Setting	JP1 Setting
SVPPS 1 or SVPPS 2	JP1	By setting these jumper pins output voltage of the SVPPS to be supplied to the SVP is determined.	JP1 3 1 6 4 9 7 12 10



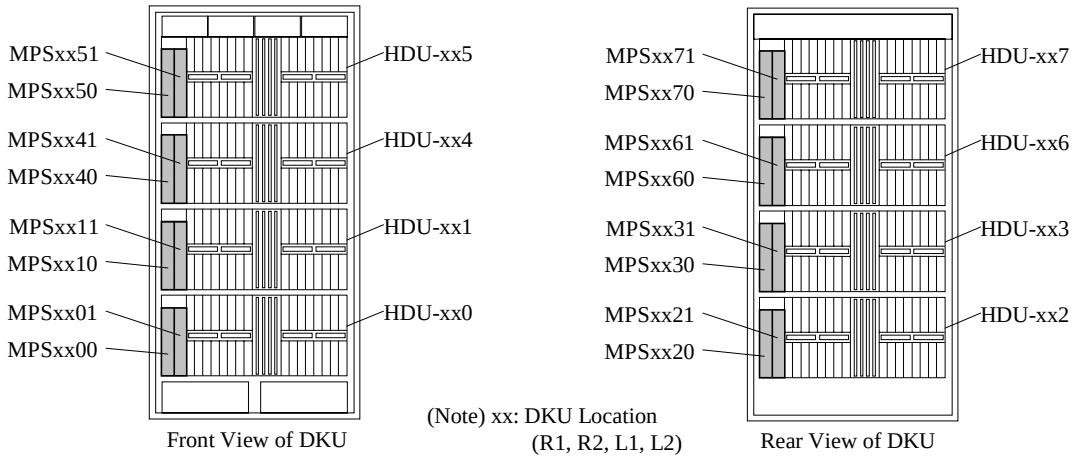
A	B	C	D	E	F	G
SVP PS 1	DKC MN 1	MONI CON 1	SSVP	MONI CON 2	DKC MN -2	SVP PS 2

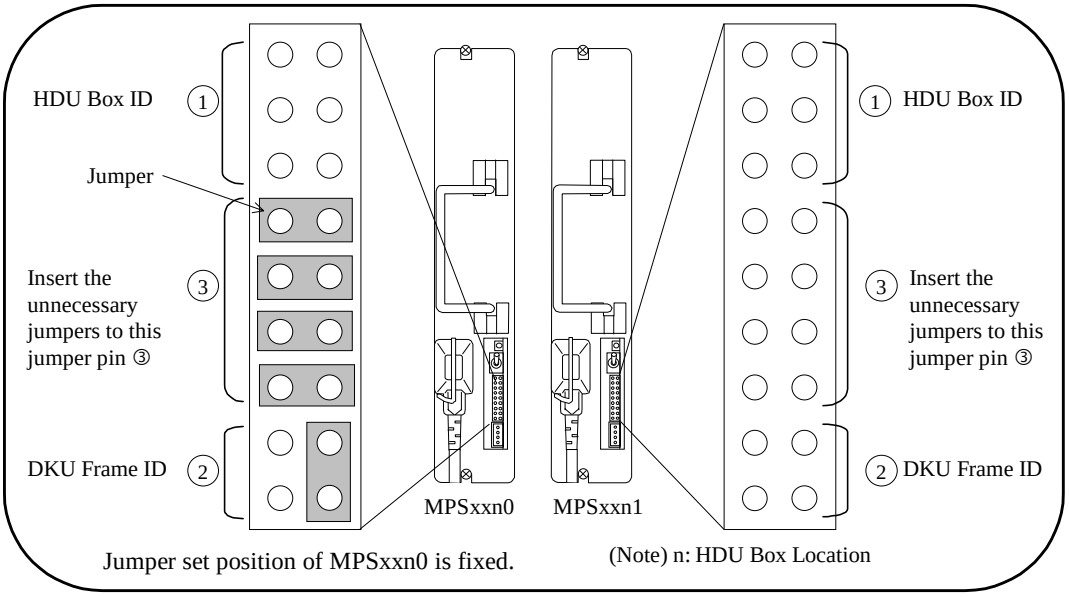
Rear View of DKC



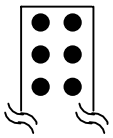
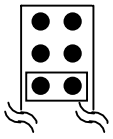
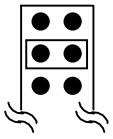
SVPPS1 or SVPPS 2 (Parts Side)

[9] MPS



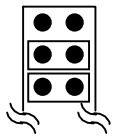
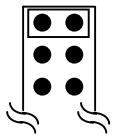
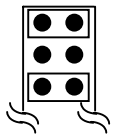
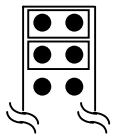
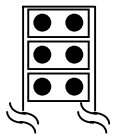


Specification of HDU Box ID

Setting	Function Name	Location	Setting
Specification of HDU Box ID	MPSxx01	HDU-xx0	
	MPSxx11	HDU-xx1	
	MPSxx21	HDU-xx2	

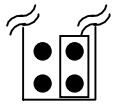
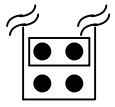
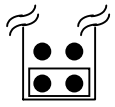
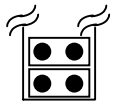
(To be continued)

(Continued from the preceding page)

Setting	Function Name	Location	Setting
Specification of HDU Box ID	MPSxx31	HDU-xx3	
	MPSxx41	HDU-xx4	
	MPSxx51	HDU-xx5	
	MPSxx61	HDU-xx6	
	MPSxx71	HDU-xx7	

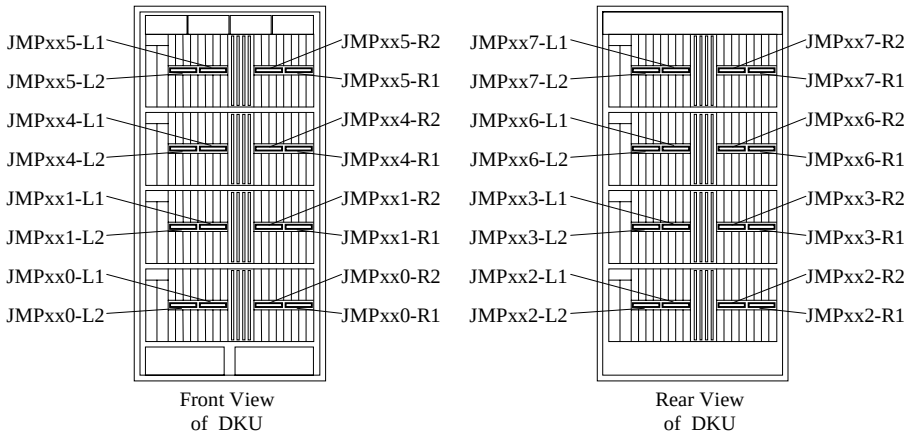
(Note) xx: DKU Location (R1, R2, L1, L2)

Specification of DKU Frame ID

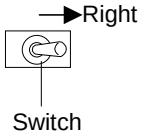
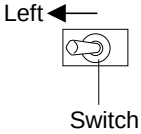
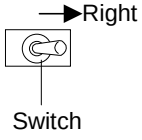
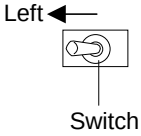
Setting	Function Name	Location	Setting
Specification of DKU Frame ID	MPSR1#1	R1 DKU	
	MPSR2#1	R2 DKU	
	MPSL1#1	L1 DKU	
	MPSL2#1	L2 DKU	

(Note) #: HDU Box Location (0, 1,……., 6, 7)

[10] HDU Box



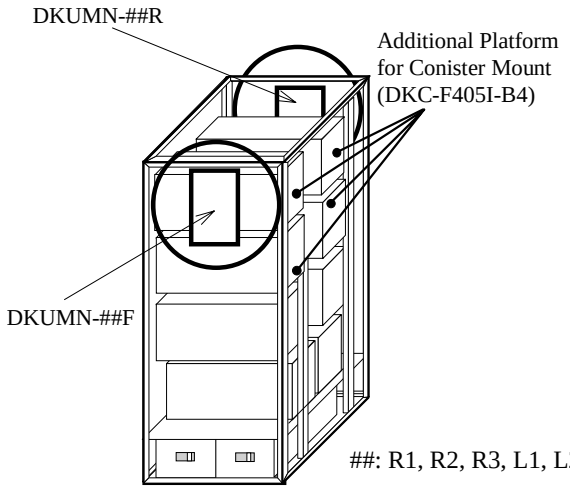
JMPxxx-xx

Setting	Function Name	Location	Switch Setting
Specification of DKU Frame ID	JMPR1#-xx	R1 DKU	Set the switch to the right side position. 
	JMPR2#-xx	R2 DKU	Set the switch to the left side position. 
	JMPL1#x-xx	L1 DKU	Set the switch to the right side position. 
	JMPL2#-xx	L2 DKU	Set the switch to the left side position. 

(Note) JMPR1#-xx

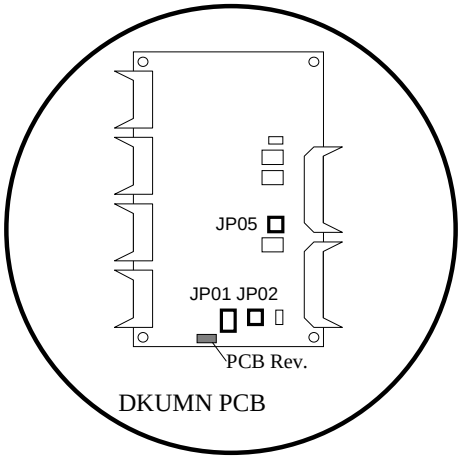
- JMP Location: R1, R2, L1, L2
- HDU Box Location: 0, 1, 2, …. 6, 7

[11] DKUMN for DKU405I



##: R1, R2, R3, L1, L2, L3

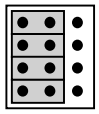
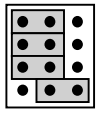
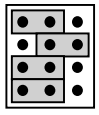
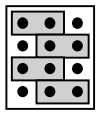
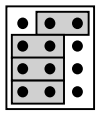
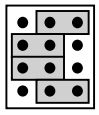
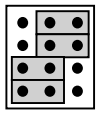
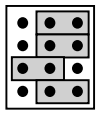
Front View of DKU



DKUMN PCB

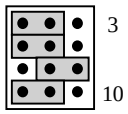
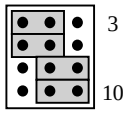
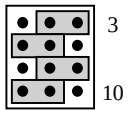
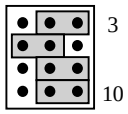
Note: In the DKUMN PCB Rev. A/E and later A/E, jumper plugs setting are not require, because jumper connector (JP05) is not located on the DKUMN PCB.

JP01: Specification of Address Number

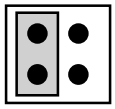
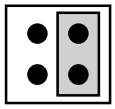
Setting	Function Name	Location	JP01 Setting
Specification of Address Number	DKUMN-R1F	Front of DKU-R1	
	DKUMN-R1R	Rear of DKU-R1	
	DKUMN-R2F	Front of DKU-R2	
	DKUMN-R2R	Rear of DKU-R2	
	DKUMN-L1F	Front of DKU-L1	
	DKUMN-L1R	Rear of DKU-L1	
	DKUMN-L2F	Front of DKU-L2	
	DKUMN-L2R	Rear of DKU-L2	

(To be continued)

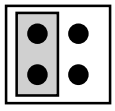
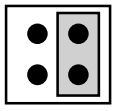
(Continued from the preceding page)

Setting	Function Name	Location	JP01 Setting
Specification of Address Number	DKUMN-R3F	Front of DKU-R3	
	DKUMN-R3R	Rear of DKU-R3	
	DKUMN-L3F	Front of DKU-L3	
	DKUMN-L3R	Rear of DKU-L3	

JP02: Additional Platform for Canister Mount

Function Name	Setting	Location	JP02 Setting
DKUMN-##F	No Additional Platform for Canister Mount (DKU-F405I-B4) Installed (Four HDU Boxes)	Front of DKU	
DKUMN-##R		Rear of DKU	
DKUMN-##F	Additional Platform for Canister Mount (DKU-F405I-B4) Installed (Eight HDU Boxes)	Front of DKU	
DKUMN-##R		Rear of DKU	

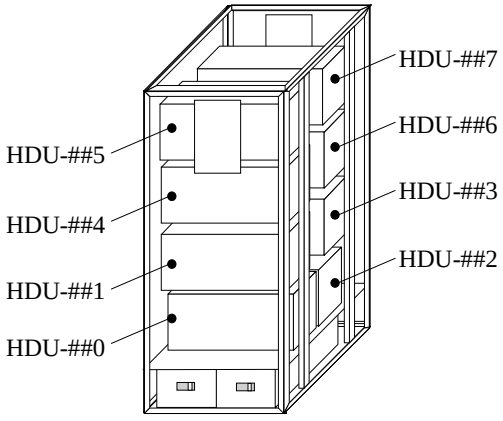
JP05: Path Address for FSW PCB

Function Name	Setting	Location	JP05 Setting
DKUMN-##F	Path Address for FSW PCB	Front of DKU	
DKUMN-##R		Rear of DKU	

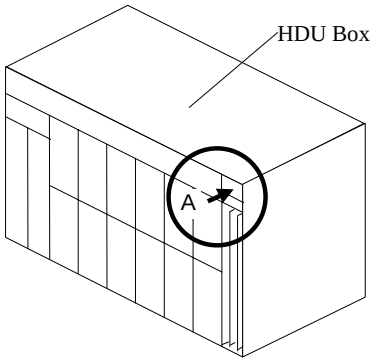
Note: In the DKUMN PCB Rev. A/E and later A/E, jumper plugs setting are not require, because jumper connector (JP05) is not located on the DKUMN PCB.

[12] HDU BOX for DKU405I

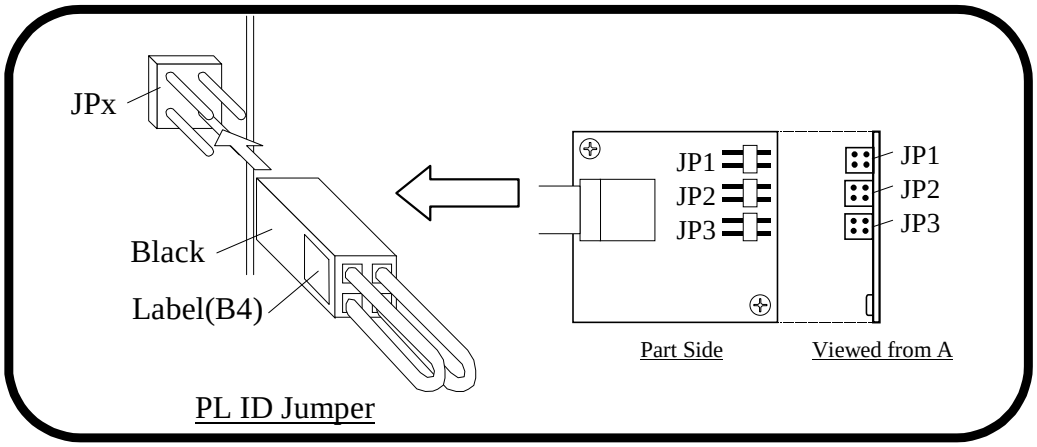
Setting	Function Name	Location	Jumper Setting	Remarks
Specification of PL ID	HDU-R10 ~ R17	DKU-R1	JP1 ●● JP2 ●● JP3 ●●	
	HDU-L10 ~ L17	DKU-L1		
	HDU-R20 ~ R27	DKU-R2	JP1 ●● JP2 ●● JP3 ●●	
	HDU-L20 ~ L27	DKU-L2		
	HDU-R30 ~ R37	DKU-R3	JP1 ●● JP2 ●● JP3 ●●	
	HDU-L30 ~ L37	DKU-L3		



Front View of DKU



##: R1, R2, R3, L1, L2, L3

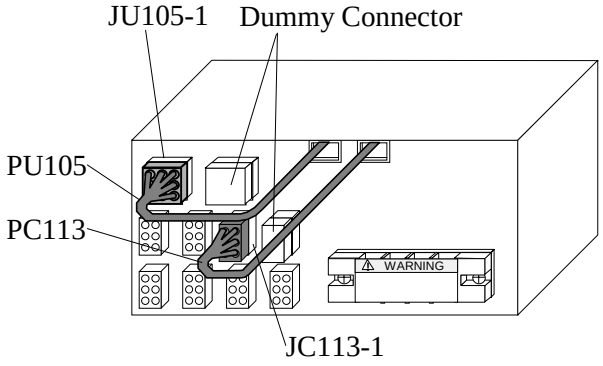
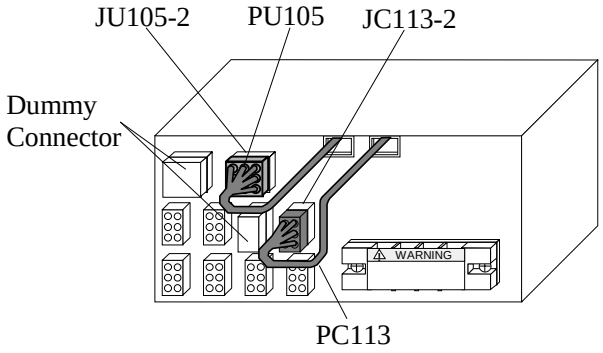


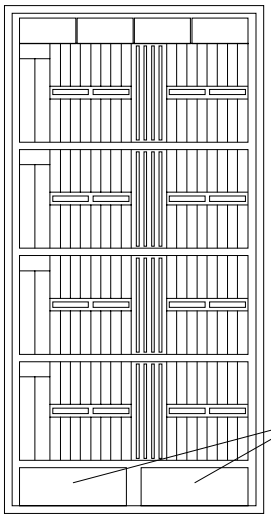
PL ID Jumper

6.3 Voltage Selector

[1] AC BOX (3 Phase/60A DKU)

PU105 and PC113: AC Input Voltage

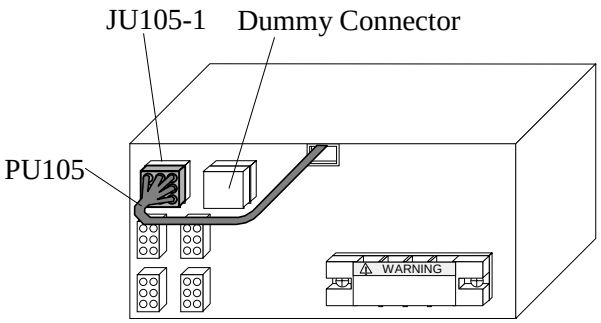
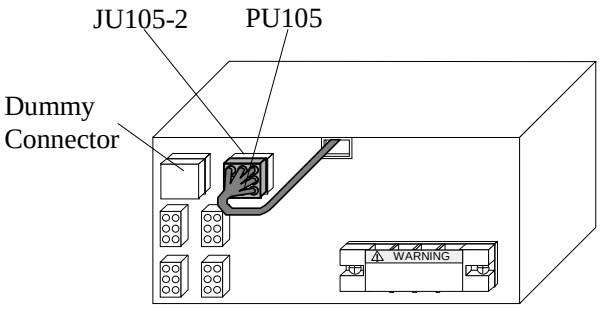
AC Input Voltage	Voltage Setting	Remarks
200 - 240 Vac		JU105-2 and JC113-2: dummy connectors
380 - 415 Vac		JU105-1 and JC113-1: dummy connectors

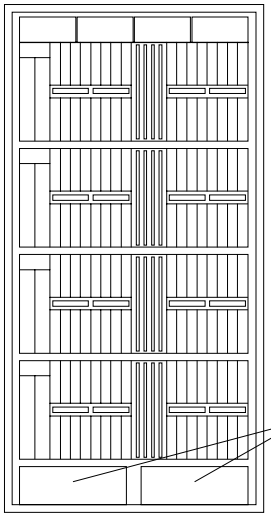


Front View
of DKU

[2] AC BOX (3 Phase/30A DKU)

PU105: AC Input Voltage

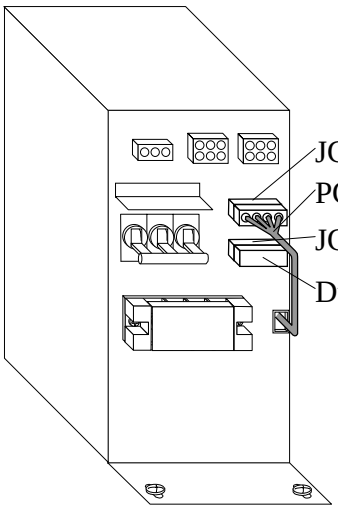
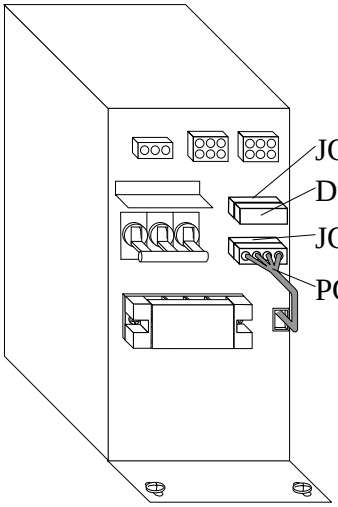
AC Input Voltage	Voltage Setting	Remarks
200 - 240 Vac		JU105-2: dummy connector
380 - 415 Vac		JU105-1: dummy connector

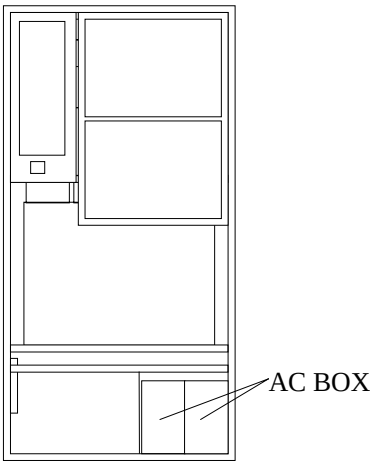


Front View of DKU

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

PCH: AC Input Voltage

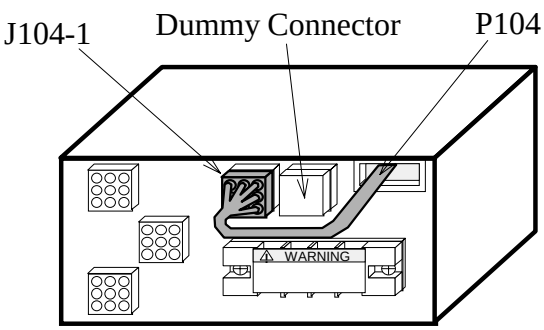
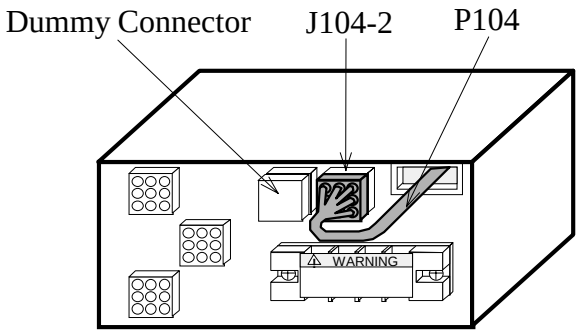
AC Input Voltage	Voltage Setting	Remarks
200 - 240 Vac		JCH-2: dummy connector
380 - 415 Vac		JCH-1: dummy connector

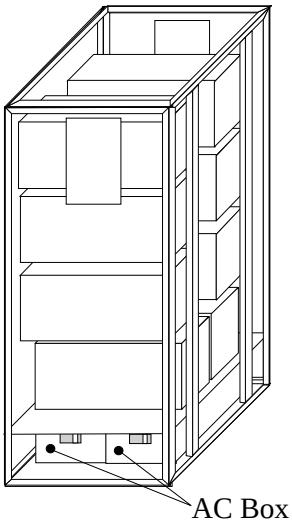


Front View of DKC

[4] AC BOX (DKU405I)

P104: AC Input Voltage

AC Input Voltage	200 - 240 Vac		J104-2: dummy connector
	380 - 415 Vac		J104-1: dummy connector



Rear View of DKU405I