

3.4 Hardware De-installation

3.4.1 De-Installation of Additional Cache Memory and Additional Shared Memory

3.4.1.1 Summary

Table 3.4.1.1-1 Number of Features Necessary to Extend Cache Capacity

Cache Capacity	Required Quantity of Features									
	DKC-F210I-20	DKC-F210I-256 or DKC-F310I-256	DKC-F210I-40	DKC-F210I-2048	DK306-35/45 DK308-45	DKC-F210I-32/DKC-F310I-32				
						DK308-90				RAID1 TPF
						RAID 5		RAID1		
						Except 3390-9 and OPEN-9 TPF	3390-9 or OPEN-9			
256 MB	0	0	0	0	0	0	1	1	1	2
512 MB	0	1	0	0	0	0	1	1	1	2
768 MB	0	2	0	0	0	0	1	1	1	2
1024 MB	0	3	0	0	0	0	1	1	1	2
1280 MB	0	4	0	0	1	1	2	2	2	3
1536 MB	0	5	0	0	1	1	2	2	2	3
1792 MB	0	6	0	0	1	1	2	2	2	3
2048 MB	0	7	0	0	1	1	2	2	2	3
2304 MB	1	8	0	0	1	1	2	2	2	3
2560 MB	1	9	0	0	1	1	2	2	2	3
2816 MB	1	10	0	0	1	1	2	2	2	3
3072 MB	1	11	0	0	1	1	2	2	2	3
3328 MB	1	12	0	0	2	2	3	3	3	4
3584 MB	1	13	0	0	2	2	3	3	3	4
3840 MB	1	14	0	0	2	2	3	3	3	4
4096 MB	1	15	0	0	2	2	3	3	3	4
6 GB	1	15	1	1	2	2	3	3	3	4
8 GB	1	15	1	2	3	3	4	4	4	5
10 GB	1	15	1	3	4	4	5	5	5	6
12 GB	1	15	1	4	5	5	6	6	6	7
14 GB	1	15	1	5	6	6	—	7	7	—
16 GB	1	15	1	6	7	7	—	7	7	—

Note1 : Additional Shared Memory (DKC-F210I-32) for 3390-9 and OPEN-9.

OPEN-9 can be considered as 3390-9 about shared memory capacity.

Example to show Additional Shared Memory capacity for 3390-9 and OPEN-9.

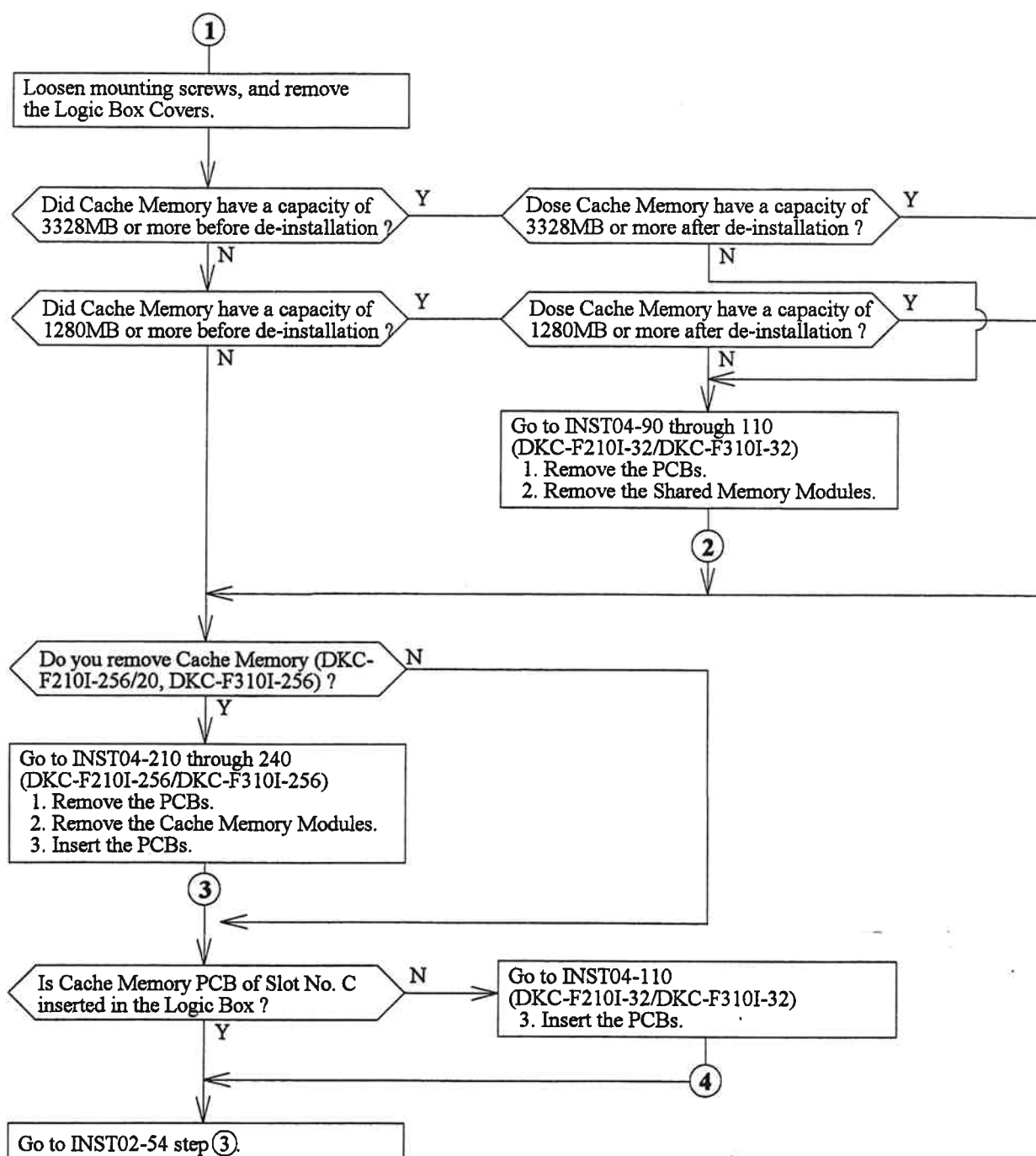
Configuration example	3390-9	OPEN-9	DKC-F210I-32
Cache Capacity=256MB	-	-	0
DK308-90	○	-	1
RAID5	-	○	1
without TPF	○	○	1

3.4.1.2 Flowchart

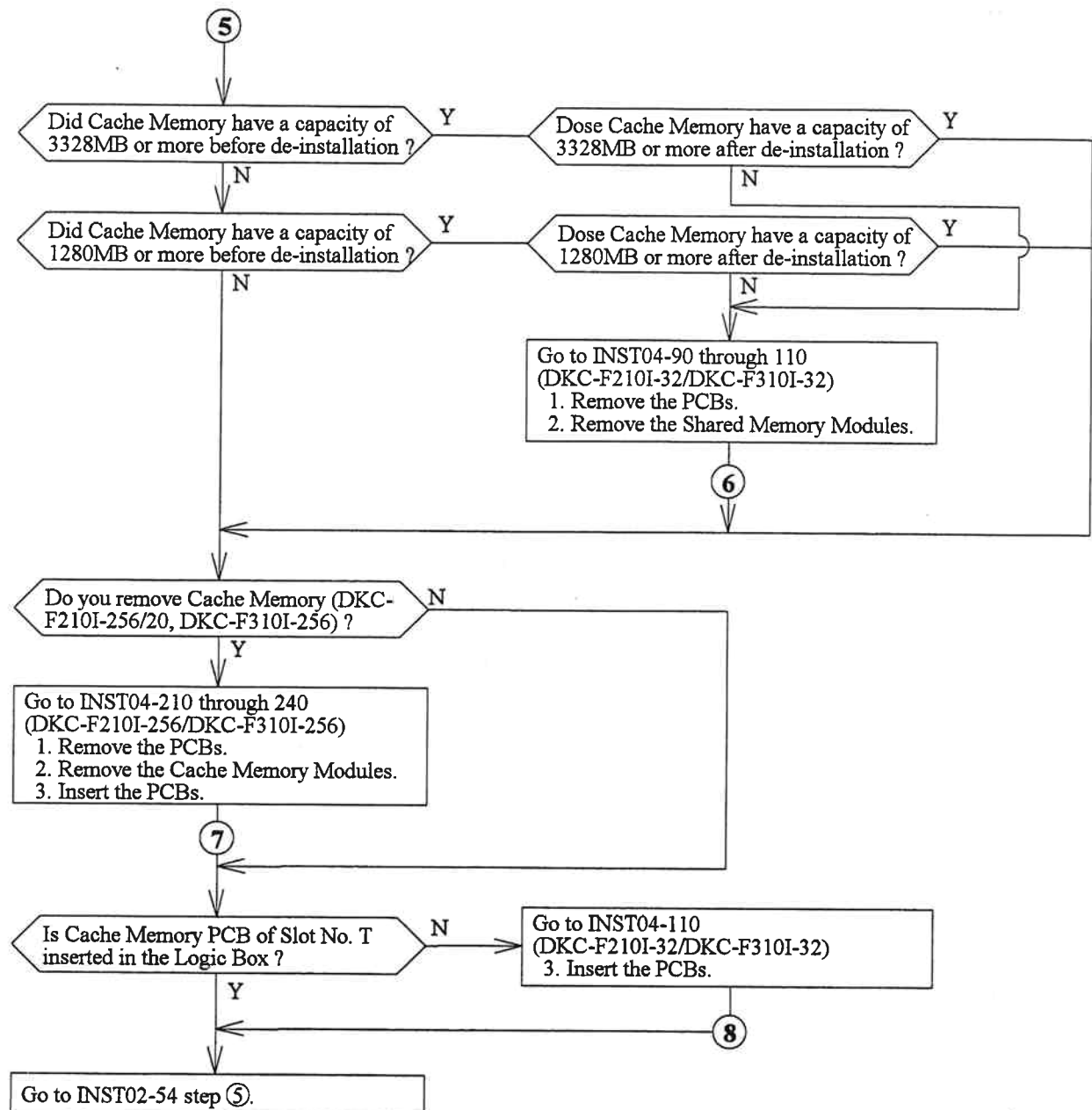
3.4.1.2.1 De-Installation

When decreasing the capacity of Cache Memory to 3840 MB or less (DKC-F210I-40 not installed.)

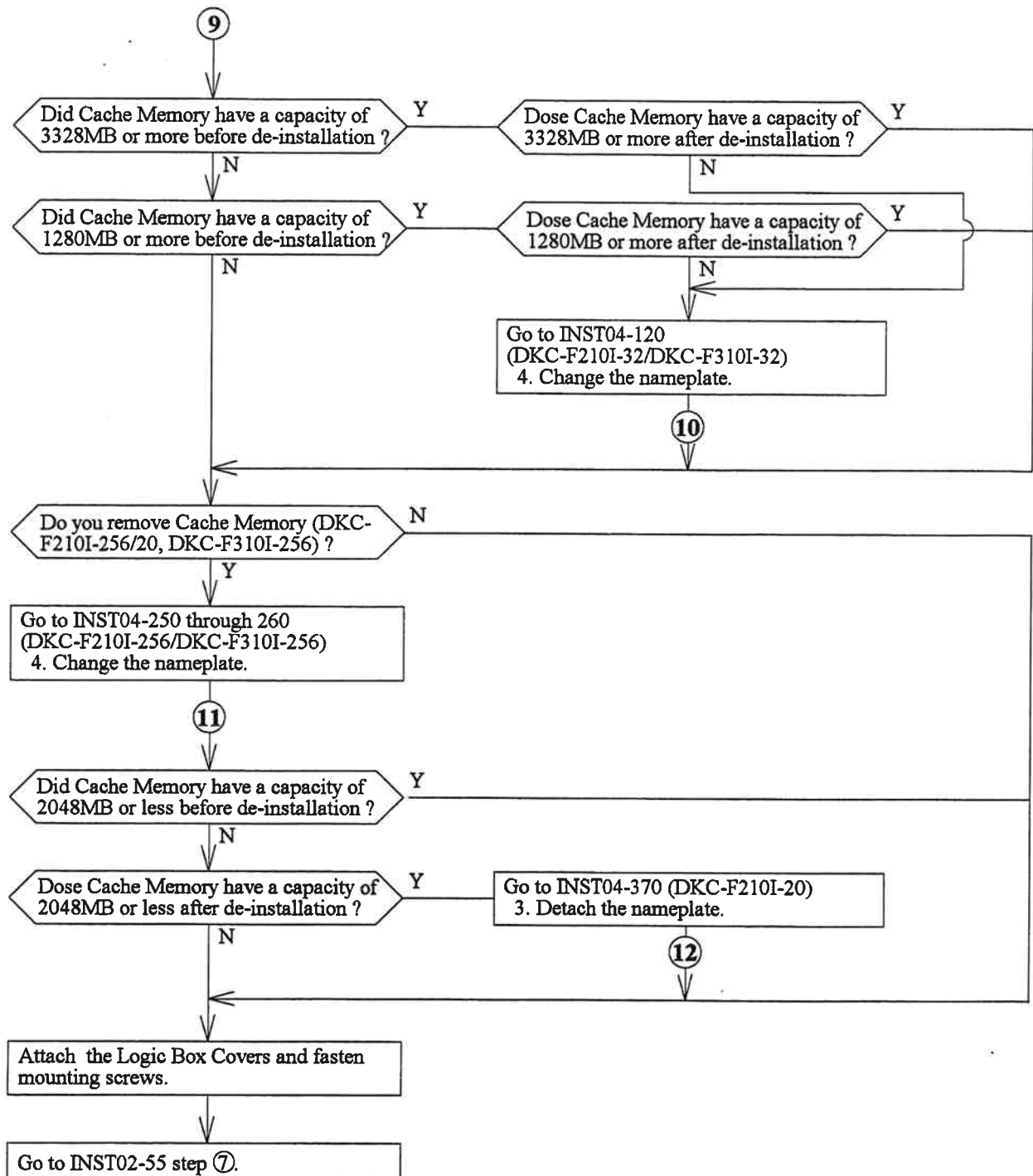
1. Hardware De-Installation on the Cluster 1 side



2. Hardware De-Installation on the Cluster 2 side

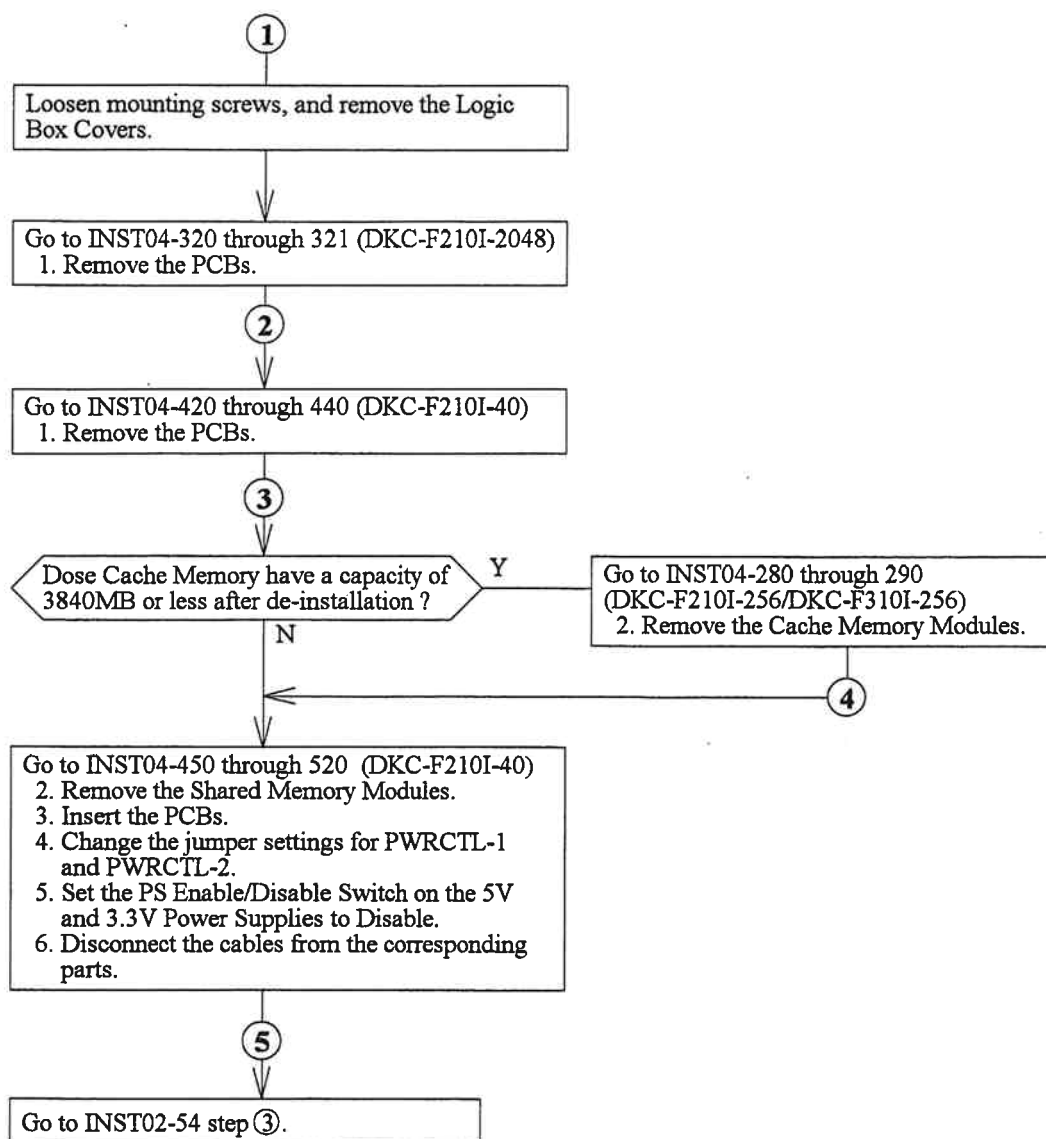


3. Attachment of Nameplate

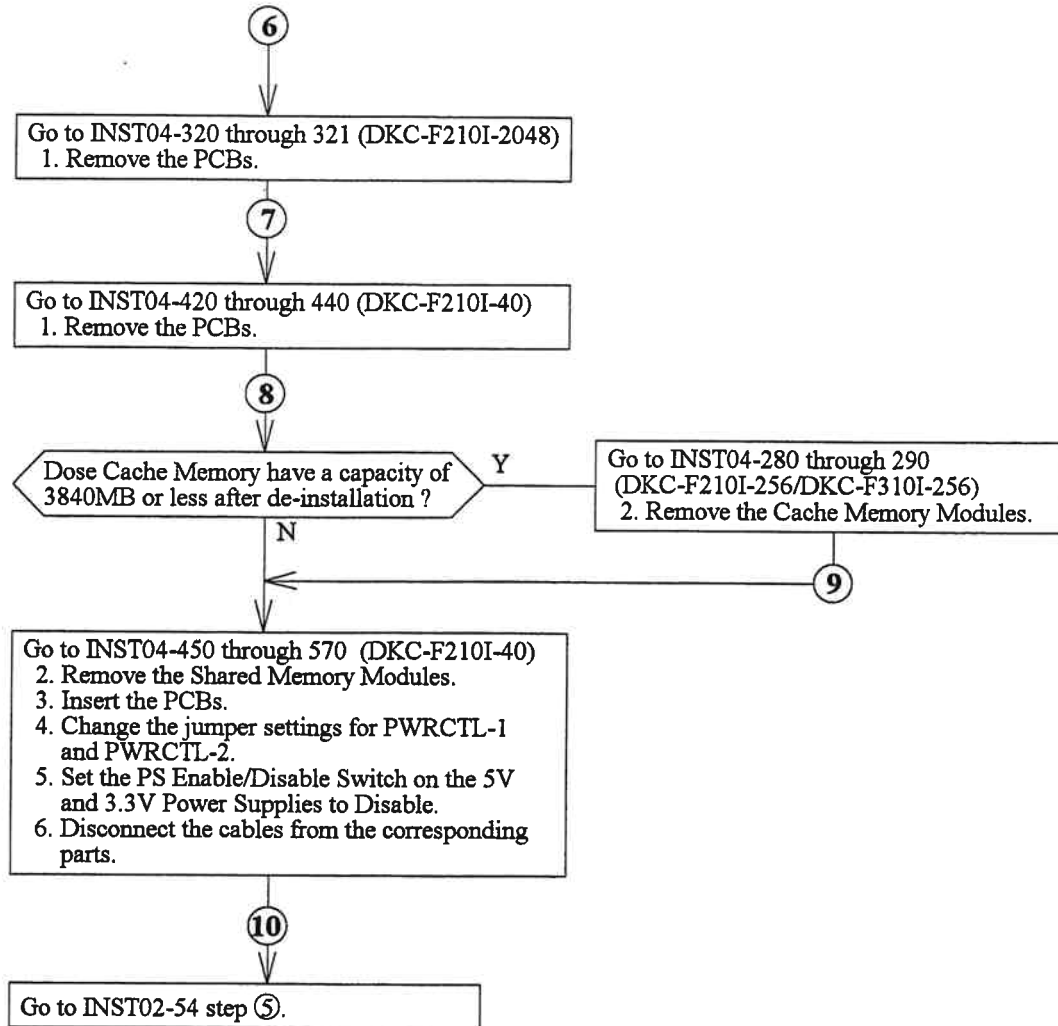


When decreasing the capacity of Cache Memory to 4096 MB or less (DKC-F210I-40 installed.)

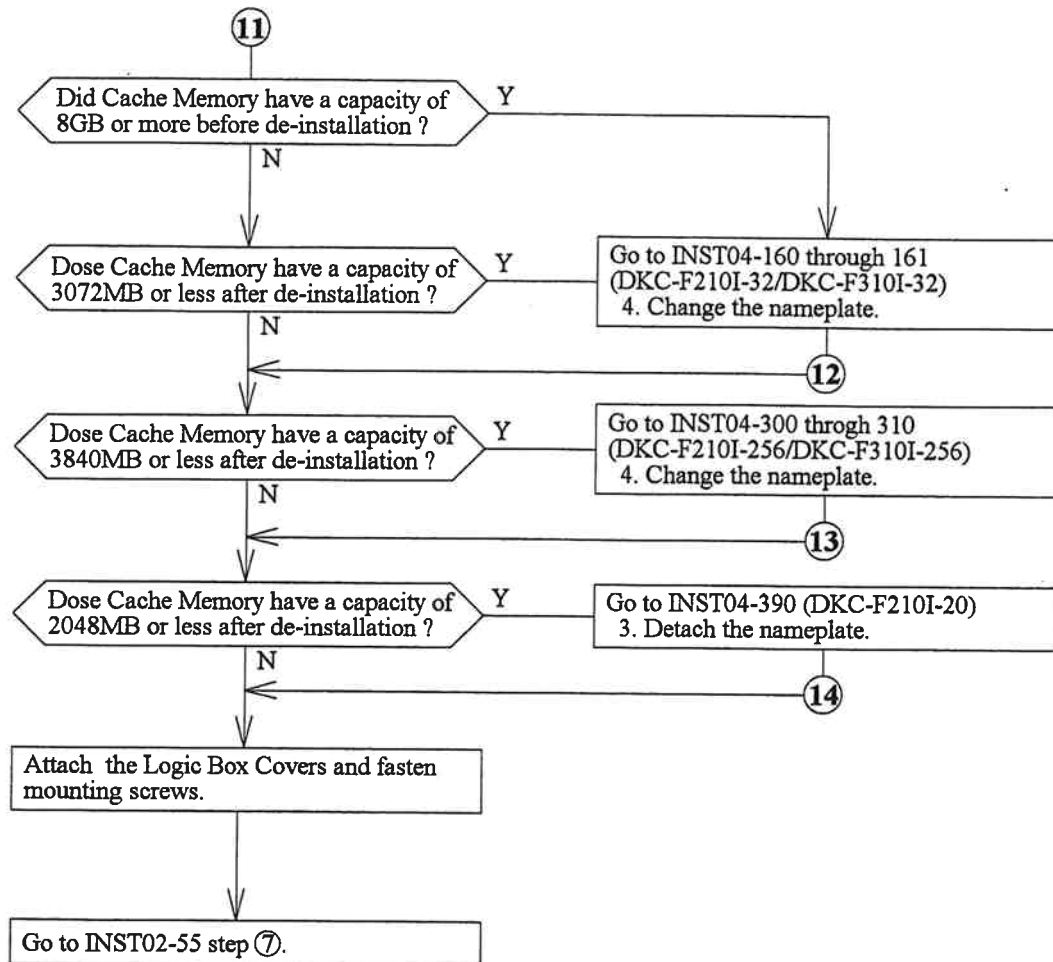
1. Hardware De-Installation on the Cluster 1 side



2. Hardware De-Installation on the Cluster 2 side

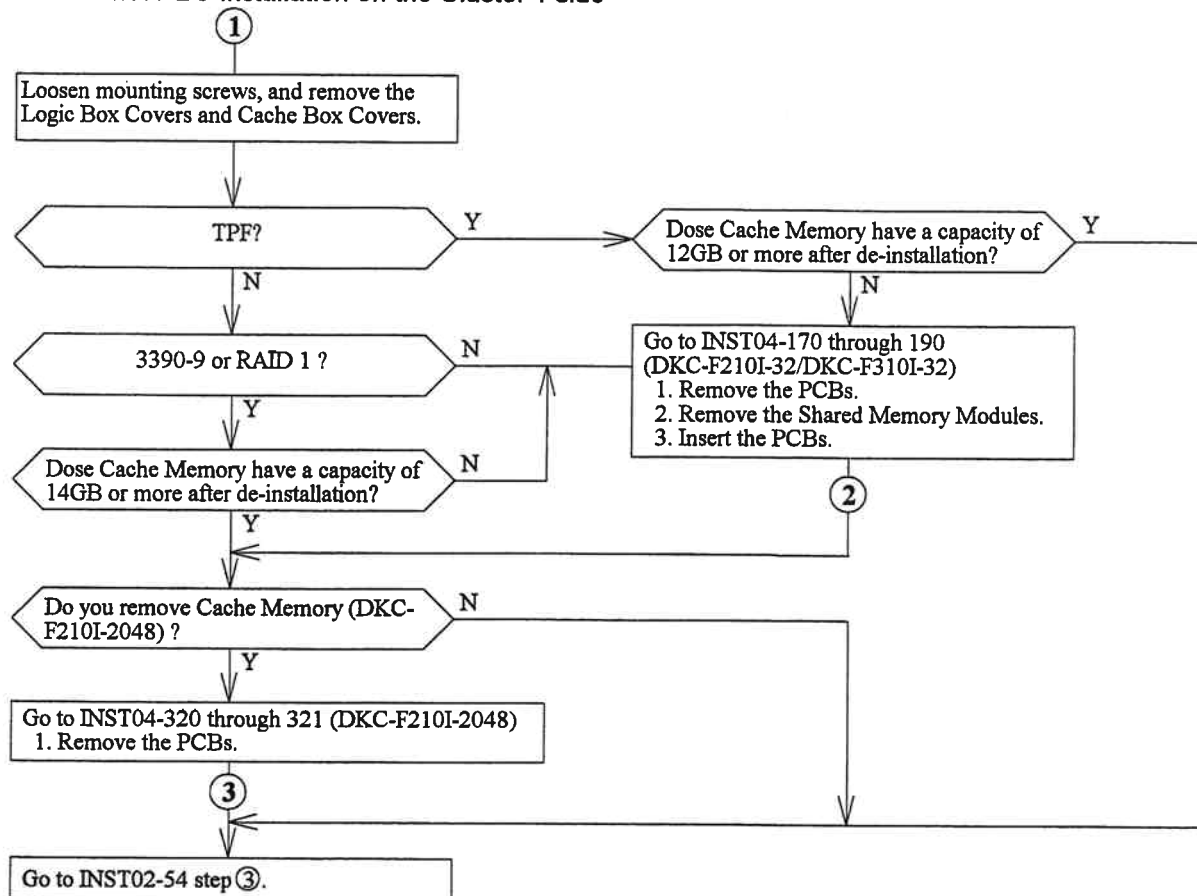


3. Attachment of the nameplate

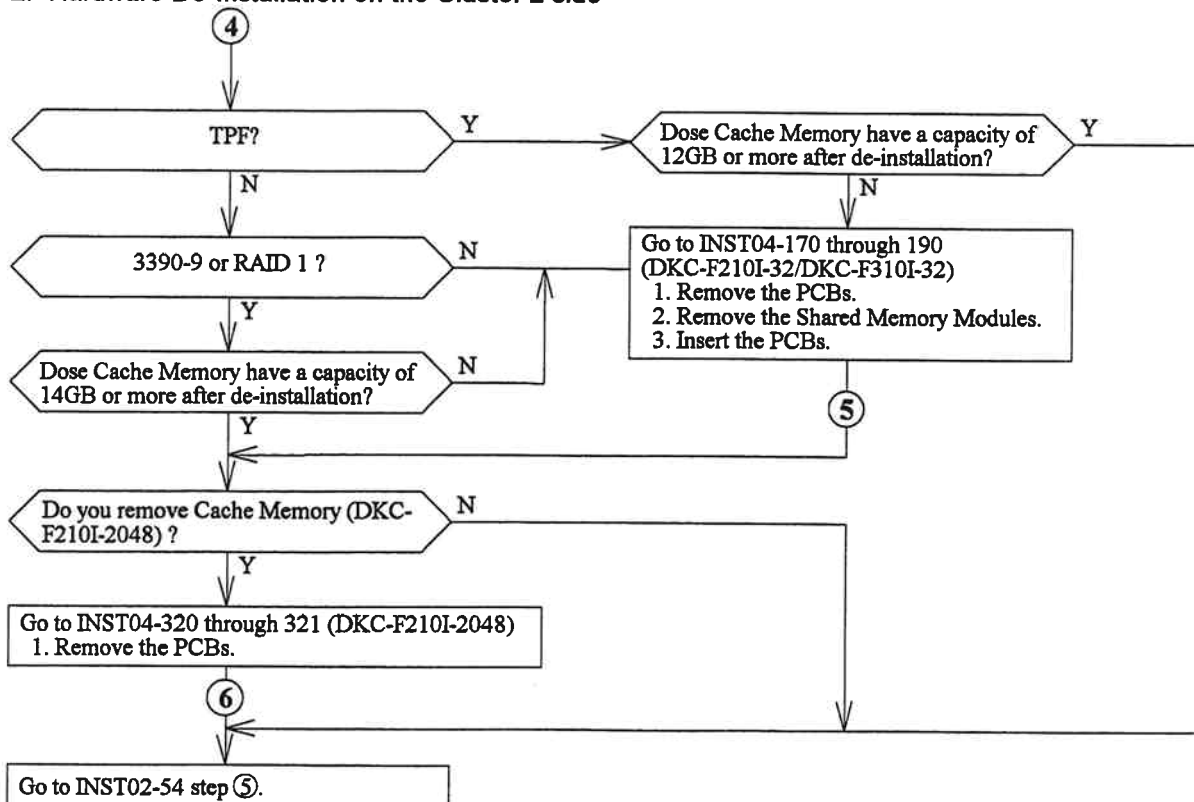


When decreasing the capacity of Cache Memory to 6 GB or more

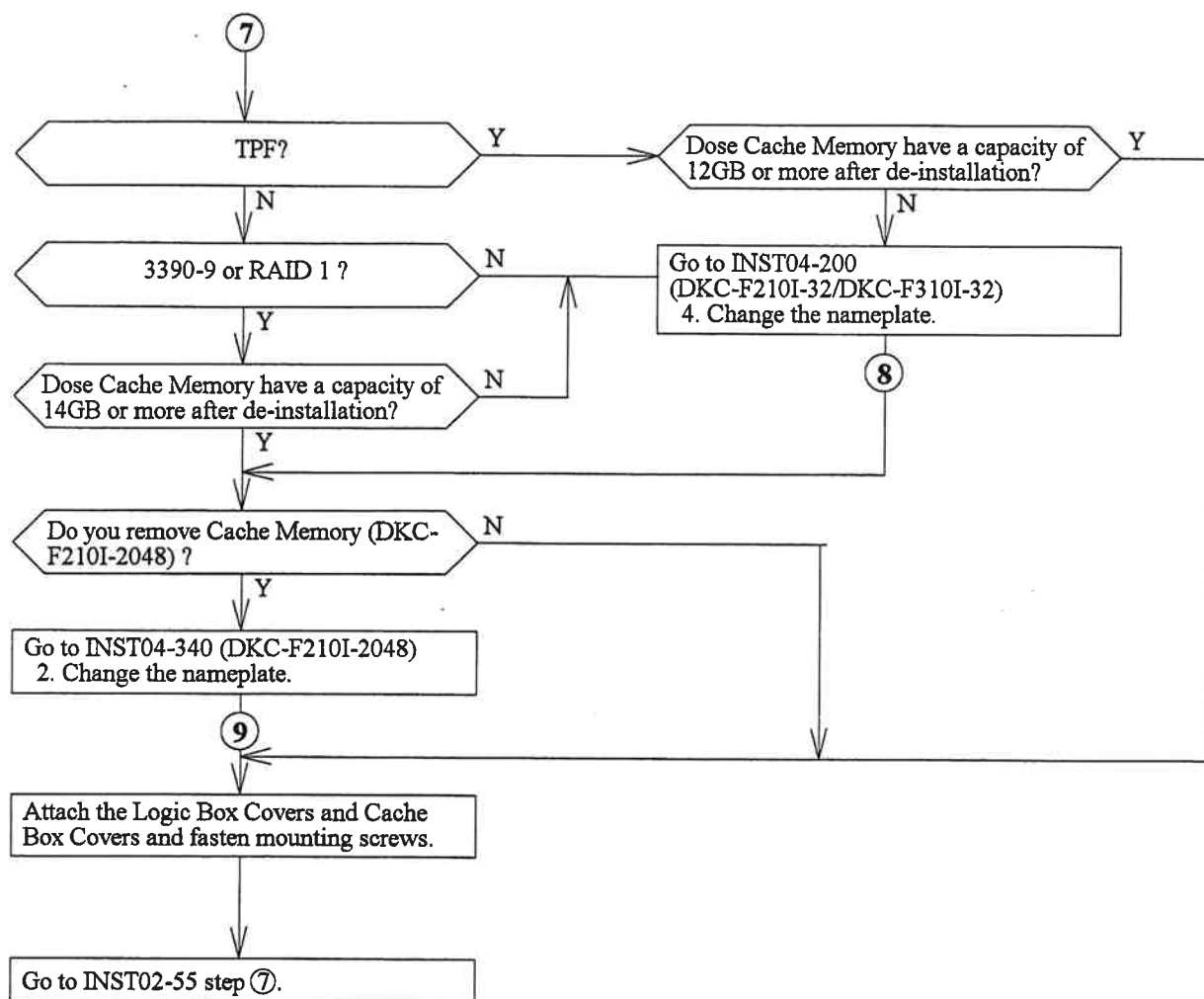
1. Hardware De-Installation on the Cluster 1 side



2. Hardware De-Installation on the Cluster 2 side



3. Attachment of the Nameplate



3.4.1.3 De-Installation of Additional Shared Memory (DKC-F210I-32/DKC-F310I-32)

3.4.1.3.1 Parts List

Table 3.4.1.3.1-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-32	SM Module / SZ635-B	5472694-4 / 2099862-B	2	Shared Memory Module (16MB)
2	DKC-F310I-32	SH024-B	1505404-B	2	Shared Memory Module (16MB)
		Name Plate	3252736-1	1	For DKC-F310I-32

3.4.1.3.2 De-Installation Procedure of Additional Shared Memory

Case1 When Decreasing the capacity of Cache Memory to 4,096 MB or Less (DKC-F210I-40 not installed)

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

1. Remove the PCBs.

- a. While referring to Fig. 3.4.1.3.2-1 and Table 3.4.1.3.2-1, check the Shut Down LED on the Cache Memory PCB in the Logic Box. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

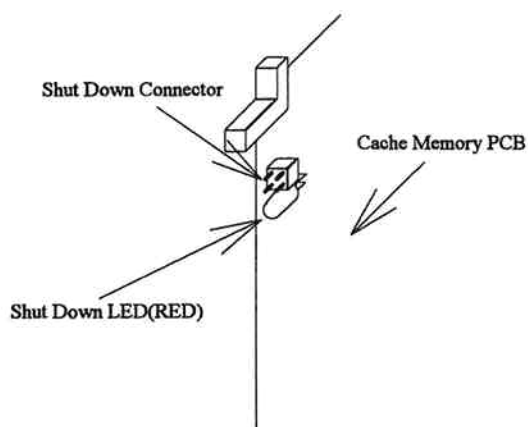


Fig. 3.4.1.3.2-1 Location of the Shut Down LED

Table 3.4.1.3.2-1 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB

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

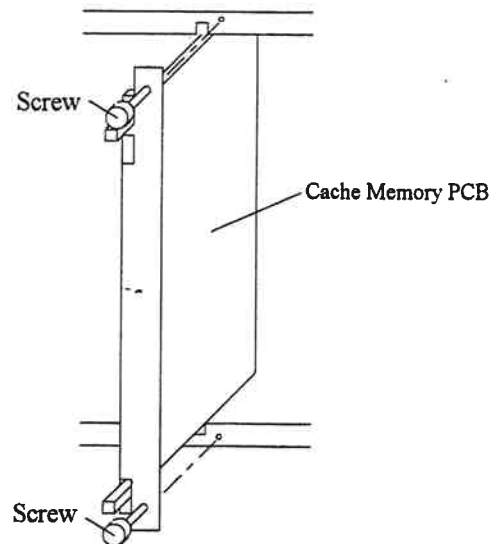


Fig. 3.4.1.3.2-2 Removal of the Cache Memory PCB

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

2. Remove the Shared Memory Modules.

- a. Remove the extra Shared Memory Modules according to the required Shared Memory capacity referring to Fig 3.4.1.3.2-3, and Table 3.4.1.3.2-2.

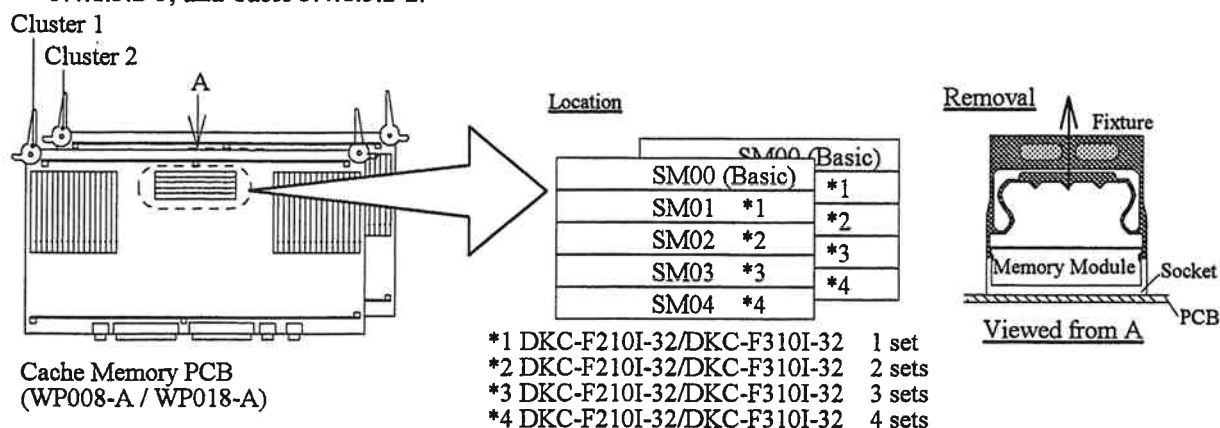


Fig. 3.4.1.3.2-3 Inserting Location of the Shared Memory Module

Table 3.4.1.3.2-2 Location of SMs and Corresponding Shared Memory Capacity

No.	Shared Memory capacity		Model No.	Cluster 1		Cluster 2	
	From	To		Part name	Quantity	Part name	Quantity
1	0 MB	32 MB	Basic	SM Module	1	SM Module	1
2	32 MB	64 MB	DKC-F210I-32/DKC-F310I-32 1 set	SM Module	1	SM Module	1
3	64 MB	96 MB	DKC-F210I-32/DKC-F310I-32 2 sets	SM Module	1	SM Module	1
4	96 MB	128 MB	DKC-F210I-32/DKC-F310I-32 3 sets	SM Module	1	SM Module	1
5	128 MB	160 MB	DKC-F210I-32/DKC-F310I-32 4 sets	SM Module	1	SM Module	1

Note. SM : Shared Memory

- b. See Table 3.4.1.3.2-2A to go to flowchart.

Table 3.4.1.3.2-2A Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	4096MB or less	3840MB or less	INST04-20 step ②	INST04-30 step ⑥

3. Insert the PCBs.

- a. Insert the Cache Memory PCB into the Logic Box referring to Table 3.4.1.3.2-3.
 b. Fasten the two screws.

Table 3.4.1.3.2-3 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB

- c. See Table 3.4.1.3.2-3A to go to flowchart.

Table 3.4.1.3.2-3A Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	4096MB or less	3840MB or less	INST04-20 step ④	INST04-30 step ⑧

4. Change the nameplate.

- a. Refer to Fig. 3.4.1.3.2-4 and Table 3.4.1.3.2-4 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-32/DKC-F310I-32 can be seen.

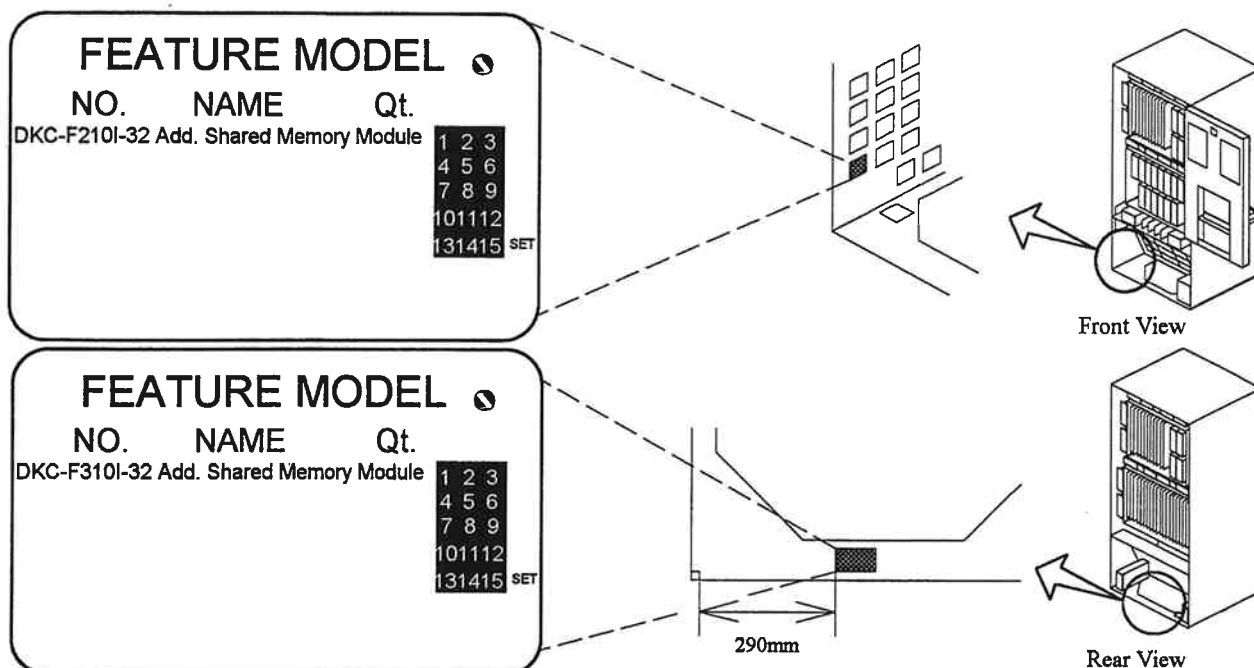


Fig. 3.4.1.3.2-4 Location of the Nameplate

Table 3.4.1.3.2-4 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F210I-32/DKC-F310I-32 sets	Qt.
1	—	
2	1 set	1
3	2 sets	2
4	3 sets	3

- b. See Table 3.4.1.3.2-4A to go to flowchart.

Table 3.4.1.3.2-4A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	4096MB or less	3840MB or less	INST04-40 step ⑩

Case2. When Decreasing the capacity of Cache Memory to 4,096 MB or Less (DKC-F210I-40 installed)

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

1. Remove the PCBs.

- a. While referring to Fig. 3.4.1.3.2-5 and Table 3.4.1.3.2-5, check the Shut Down LED on the Cache PCB. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

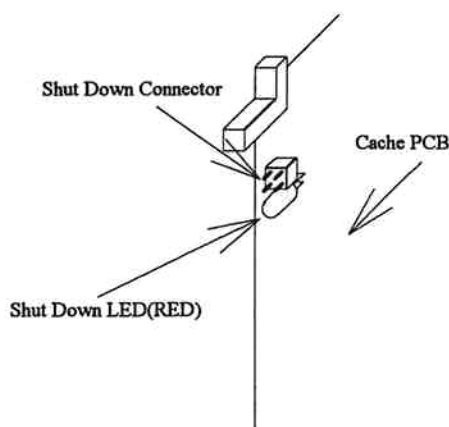


Fig. 3.4.1.3.2-5 Location of the Shut Down LED

Table 3.4.1.3.2-5 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP004-A /WP014-A	Logic Box	C	CPM-1C	CPM PCB
	WP008-A /WP018-A	Cache Box-1	D	CACHE-C1D	Cache Memory PCB
2	WP004-A /WP014-A	Logic Box	T	CPM-2T	CPM PCB
	WP008-A /WP018-A	Cache Box-2	D	CACHE-C2D	Cache Memory PCB

- b. Remove the two screws and remove the Cache Memory PCB (Slot No. D) from the Cache Box .

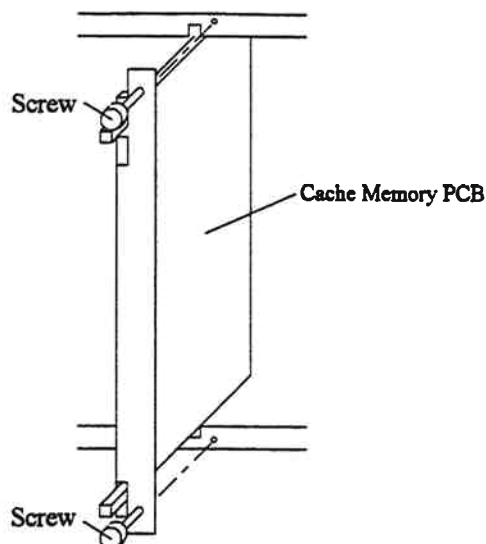


Fig. 3.4.1.3.2-6 Removal of the Cache Memory PCB

- c. Unfasten the cable cover buttons to open the cable cover.
 d. Remove the sub-edge cables from the CPM PCB.
 e. Remove the two screws and remove the CPM PCB from the Logic Box.

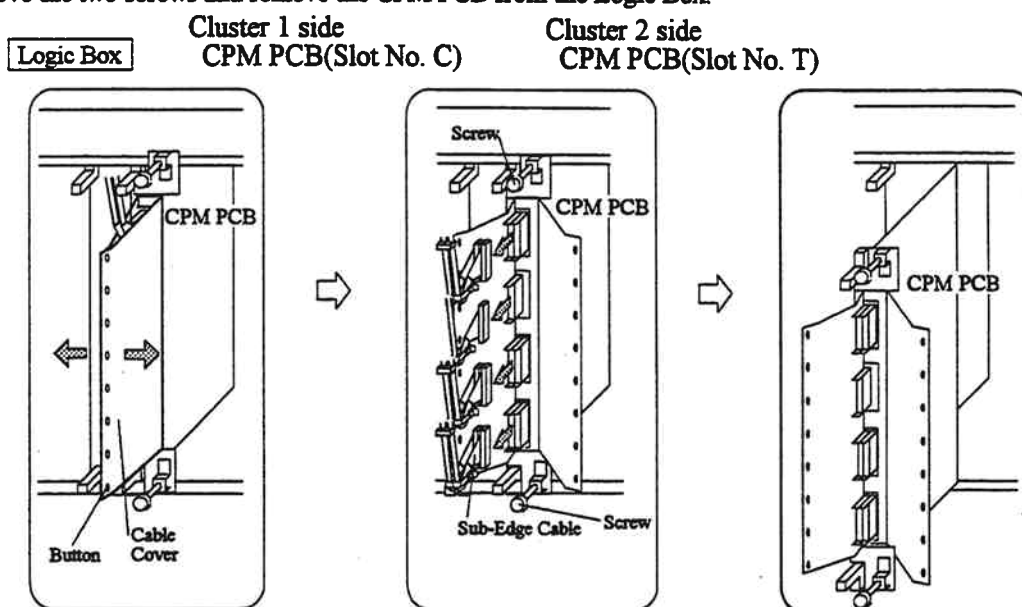


Fig. 3.4.1.3.2-7 Removal of the CPM PCB

- f. Remove the Shut Down Jumper if it is mounted.

2. Remove the Shared Memory Modules.

- a. Remove Shared Memory Modules SM00 to SM06 from the removed CPM PCB. Then insert the required number of Shared Memory Modules you removed into the Cache Memory PCB in the Cache Box referring to Fig. 3.4.1.3.2-8 and Table 3.4.1.3.2-6.

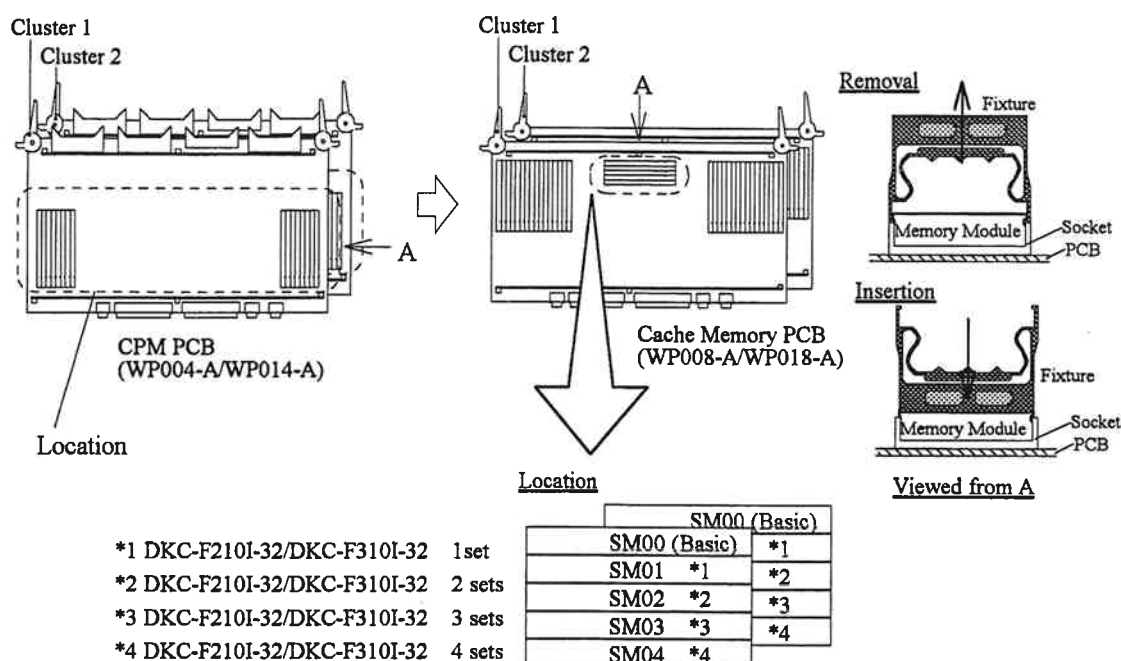


Fig. 3.4.1.3.2-8 Inserting Location of the Shared Memory Module

Table 3.4.1.3.2-6 Number of SMs and Corresponding Shared Memory Capacity

No.	Shared Memory capacity		Model No.	Cluster 1		Cluster 2	
	From	To		Part name	Quantity	Part name	Quantity
1	0 MB	32 MB	Basic	SM Module	1	SM Module	1
2	32 MB	64 MB	DKC-F210I-32/DKC-F310I-32 1 set	SM Module	1	SM Module	1
3	64 MB	96 MB	DKC-F210I-32/DKC-F310I-32 2 sets	SM Module	1	SM Module	1
4	96 MB	128 MB	DKC-F210I-32/DKC-F310I-32 3 sets	SM Module	1	SM Module	1
5	128 MB	160 MB	DKC-F210I-32/DKC-F310I-32 4 sets	SM Module	1	SM Module	1

Note. SM : Shared Memory

3. Insert the PCBs.

- a. Remove the Cache Memory Modules referring to "De-Installation of Additional Cache Memory (DKC-F210I-256)", then insert the Cache Memory PCB in the Logic Box according to Table 3.4.1.3.2-7.

Table 3.4.1.3.2-7 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB

b. Fasten the two screws.

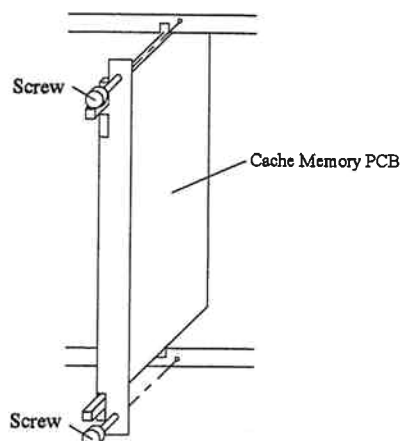


Fig. 3.4.1.3.2-9 Removal of the Cache Memory PCB

4. Change the nameplate.

a. Refer to Fig. 3.4.1.3.2-10 and Table 3.4.1.3.2-8 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-32/DKC-F310I-32 can be seen.

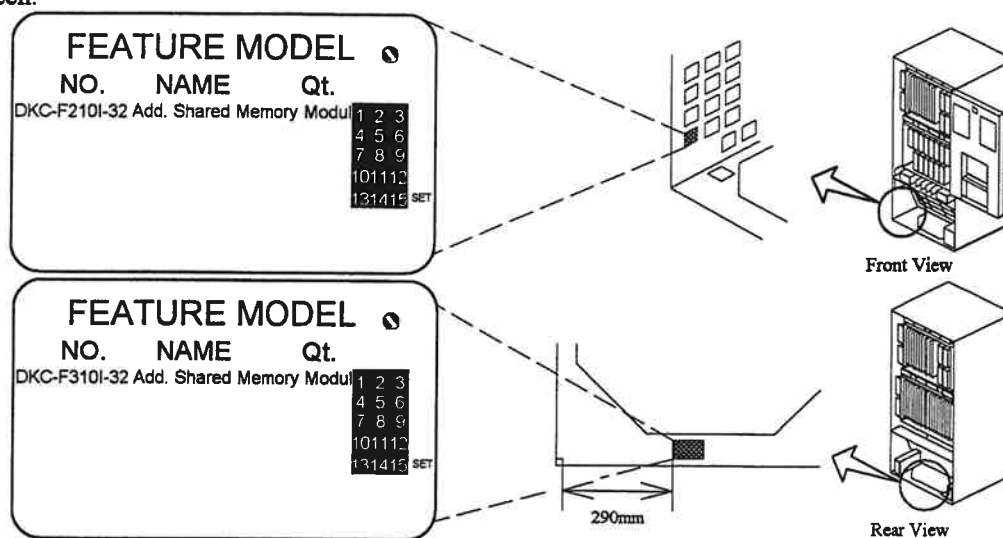


Fig. 3.4.1.3.2-10 Location of the Nameplate

Table 3.4.1.3.2-8 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F210I-32/DKC-F310I-32 sets	Qt.
1	—	
2	1 set	1
3	2 sets	2
4	3 sets	3
5	4 sets	4

b. See Table 3.4.1.3.2-8A to go to flowchart.
Table 3.4.1.3.2-8A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	6GB or more	4GB or less	INST04-70 step ⑫

Case3 When Decreasing the capacity of Cache Memory to 6 GB or More

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

1. Remove the PCBs.

- a. While referring to Fig. 3.4.1.3.2-11 and Table 3.4.1.3.2-9, check the Shut Down LED on the CPM PCB in the Logic Box. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

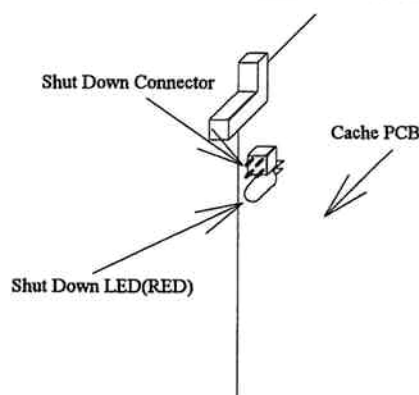


Fig. 3.4.1.3.2-11 Location of the Shut Down LED

Table 3.4.1.3.2-9 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP004-A / WP014-A	Logic Box	C	CPM-1C	CPM PCB
2	WP004-A / WP014-A	Logic Box	T	CPM-2T	CPM PCB

- b. Unfasten the cable cover buttons to open the cable cover.
- c. Remove the sub-edge cables from the CPM PCB.
- d. Remove the two screws and remove the CPM PCB from the Logic Box.
- e. Remove the Shut Down Jumper if it is mounted.

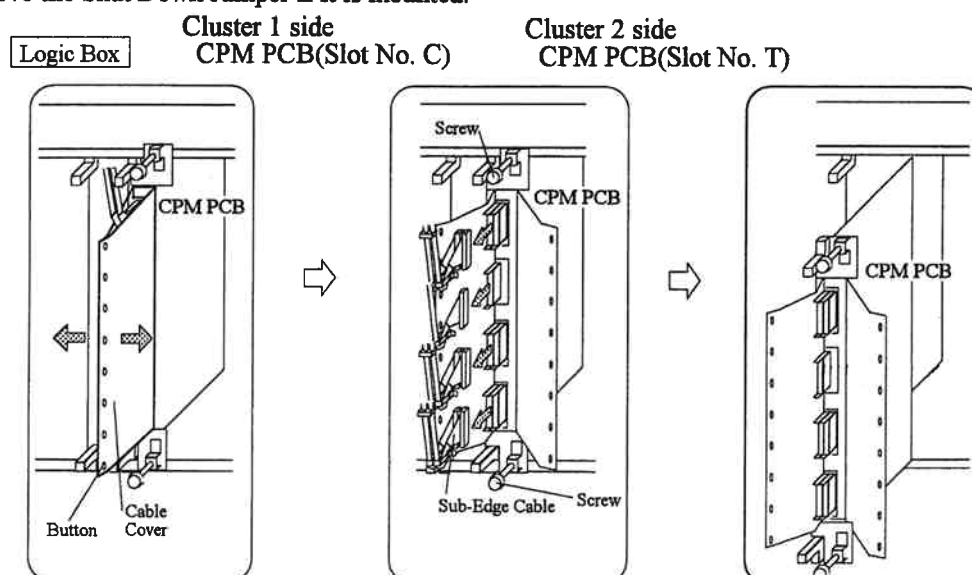


Fig. 3.4.1.3.2-12 Removal of the CPM PCB

3. Insert the PCBs.

- a. Insert the CPM PCB into the Logic Box and fasten the two screws.
- b. Connect the sub-edge cables to the PCB.
- c. Button up the cable cover.

Table 3.4.1.3.2-11 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP004-A / WP014-A	Logic Box	C	CPM-1C	CPM PCB
2	WP004-A / WP014-A	Logic Box	T	CPM-2T	CPM PCB

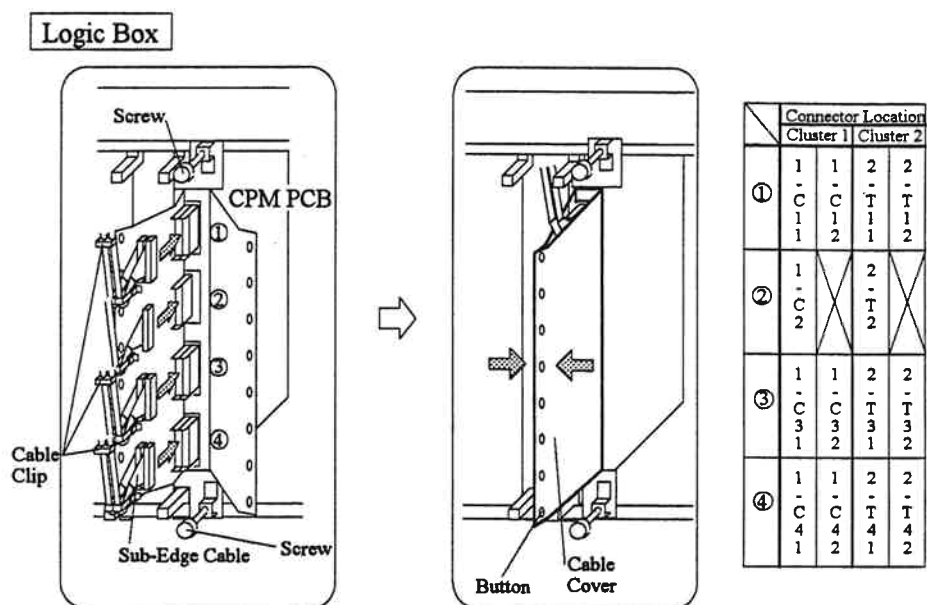


Fig. 3.4.1.3.2-14 Insertion of the CPM PCB

d. See Table 3.4.1.3.2-11A to go to flowchart.

Table 3.4.1.3.2-11A Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	8GB or more	6GB or more	INST04-80 step ②	INST04-80 step ⑤

4. Change the nameplate.

- a. Refer to Fig. 3.4.1.3.2-15 and Table 3.4.1.3.2-12 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-32/DKC-F310I-32 can be seen.

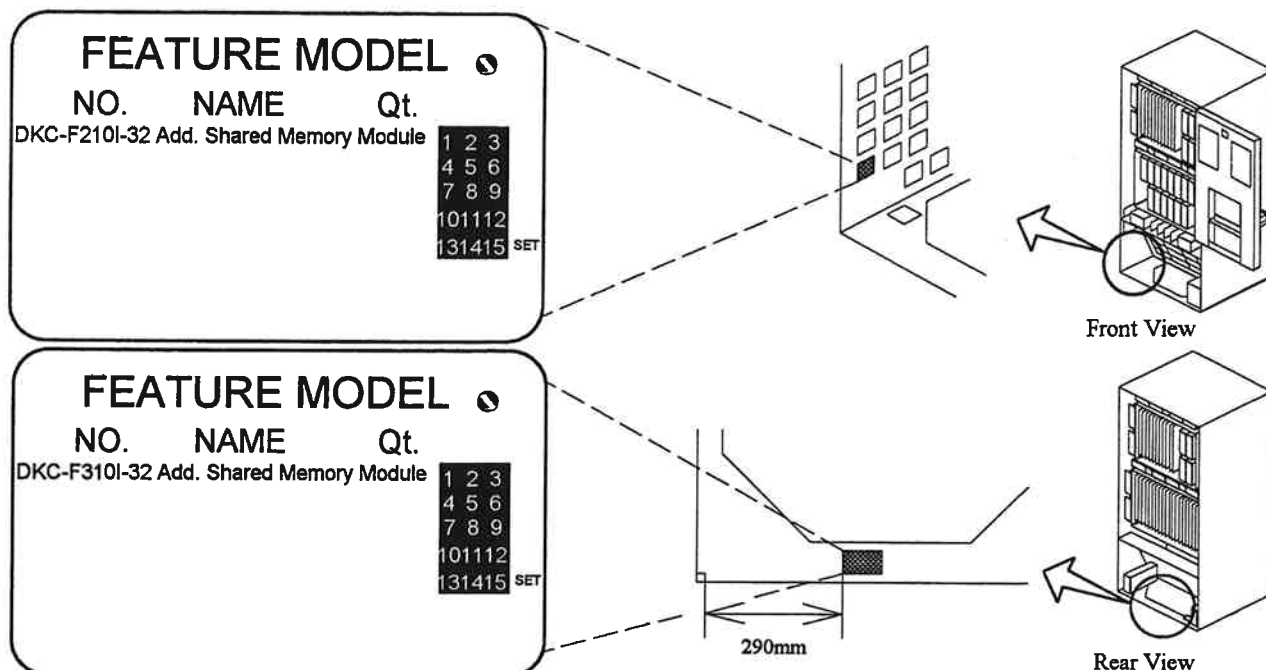


Fig. 3.4.1.3.2-15 Location of the Nameplate

Table 3.4.1.3.2-12 Quantity Marking

No.	Quantity Marking	
	Number of DKC-F210I-32/DKC-F310I-32 sets	Qt.
1	2 sets	2
2	3 sets	3
3	4 sets	4
4	5 sets	5
5	6 sets	6

- b. See Table 3.4.1.3.2-12A to go to flowchart.

Table 3.4.1.3.2-12A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	8GB or more	6GB or more	INST04-81 step ⑧

3.4.1.4 De-Installation of Additional Cache Memory (DKC-F210I-256/DKC-F310I-256)

3.4.1.4.1 Parts List

Table 3.4.1.4.1-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-256	CM Module / SZ635-A	5472694-3 / 2099862-A	8	Cache Memory Module (32MB)
2	DKC-F310I-256	SH024-A	1505404-A	2	Cache Memory Module (32MB)
		Name Plate	3252543-1	1	For DKC-F310I-256

3.4.1.4.2 De-Installation Procedure of Additional Cache Memory

Case1 When DKC-F210I-40 is not Installed

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

1. Remove the PCBs.

- a. While referring to Fig. 3.4.1.4.2-1 and Table 3.4.1.4.2-1, check the Shut Down LED on the Cache Memory PCB in the Logic Box. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

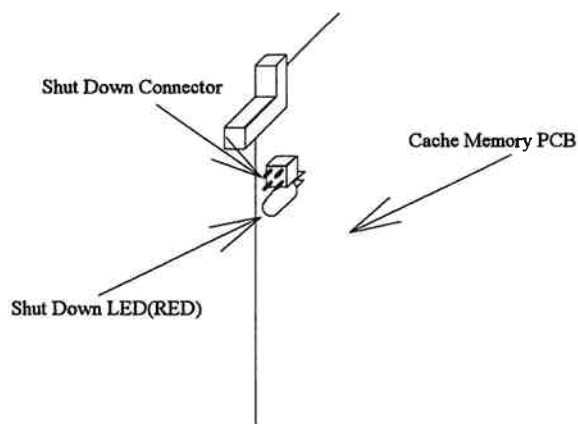


Fig. 3.4.1.4.2-1 Location of the Shut Down LED

Table 3.4.1.4.2-1 Location of PCBs to be Removed and Corresponding Cache Memory Capacity

Cache Memory capacity(MB)	Cluster 1 (Logic Box)		Cluster 2 (Logic Box)	
	WP008-A/WP018-A (Slot No. C)	WP008-B/WP018-B (Slot No. D)	WP008-A/WP018-A (Slot No. T)	WP008-B/WP018-B (Slot No. S)
256	○	□	○	□
512	○	□	○	□
768	○	□	○	□
1024	○	□	○	□
1280	○	□	○	□
1536	○	□	○	□
1792	○	□	○	□
2048	—	○	—	○
2304	—	○	—	○
2560	—	○	—	○
2816	—	○	—	○
3072	—	○	—	○
3328	—	○	—	○
3584	—	○	—	○
3840	—	○	—	○

○: To be removed
 □: To be removed if installed
 —: Not to be removed

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

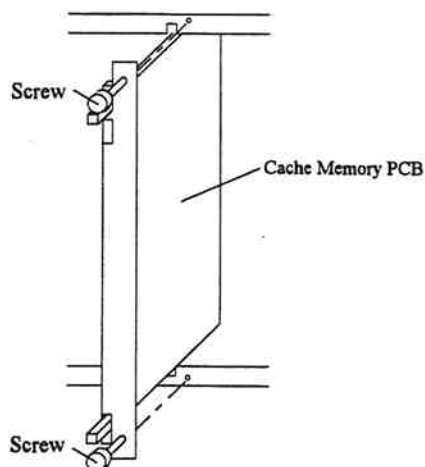


Fig. 3.4.1.4.2-2 Removal of the Cache Memory PCB

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

Table 3.4.1.4.2-2 Location of CMs and Corresponding Cache Memory Capacity

No.	Cache Memory capacity		Model No.	Cluster 1		Cluster 2	
	From	To		Part name	Quantity	Part name	Quantity
1	0MB	256MB	Basic	CM Module	4	CM Module	4
2	256MB	512MB	DKC-F210I-256/DKC-F310I-256 1 set	CM Module	4	CM Module	4
3	512MB	768MB	DKC-F210I-256/DKC-F310I-256 2 sets	CM Module	4	CM Module	4
4	768MB	1024MB	DKC-F210I-256/DKC-F310I-256 3 sets	CM Module	4	CM Module	4
5	1024MB	1280MB	DKC-F210I-256/DKC-F310I-256 4 sets	CM Module	4	CM Module	4
6	1280MB	1536MB	DKC-F210I-256/DKC-F310I-256 5 sets	CM Module	4	CM Module	4
7	1536MB	1792MB	DKC-F210I-256/DKC-F310I-256 6 sets	CM Module	4	CM Module	4
8	1792MB	2048MB	DKC-F210I-256/DKC-F310I-256 7 sets	CM Module	4	CM Module	4
9	2048MB	2304MB	DKC-F210I-256/DKC-F310I-256 8 sets	CM Module	4	CM Module	4
10	2304MB	2560MB	DKC-F210I-256/DKC-F310I-256 9 sets	CM Module	4	CM Module	4
11	2560MB	2816MB	DKC-F210I-256/DKC-F310I-256 10 sets	CM Module	4	CM Module	4
12	2816MB	3072MB	DKC-F210I-256/DKC-F310I-256 11 sets	CM Module	4	CM Module	4
13	3072MB	3328MB	DKC-F210I-256/DKC-F310I-256 12 sets	CM Module	4	CM Module	4
14	3328MB	3584MB	DKC-F210I-256/DKC-F310I-256 13 sets	CM Module	4	CM Module	4
15	3584MB	3840MB	DKC-F210I-256/DKC-F310I-256 14 sets	CM Module	4	CM Module	4

Note. CM : Cache Memory

3. Insert the PCBs.

a. After removing the Cache Memory Modules, insert the Cache Memory PCB according to Table 3.4.1.4.2.1-3 or Table 3.4.1.4.2-4.

b. Fasten the two screws.

Table 3.4.1.4.2-3 Location of the Cache Memory PCB (Cache Memory capacity of 2048MB or less)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB

Table 3.4.1.4.2-4 Location of the Cache Memory PCB (Cache Memory capacity of 2304MB or more)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
	WP008-B / WP018-B	Logic Box	D	CACHE-1D	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB
	WP008-B / WP018-B	Logic Box	S	CACHE-2S	Cache Memory PCB

c. See Table 3.4.1.4.2-4A to go to flowchart.

Table 3.4.1.4.2-4A Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	4096MB or less	3840MB or less	INST04-20 step ③	INST04-30 step ②

4. Change the nameplate.

- a. Refer to Fig. 3.4.1.4.2-4 and Table 3.4.1.4.2-5 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-256/DKC-F310I-256 can be seen.

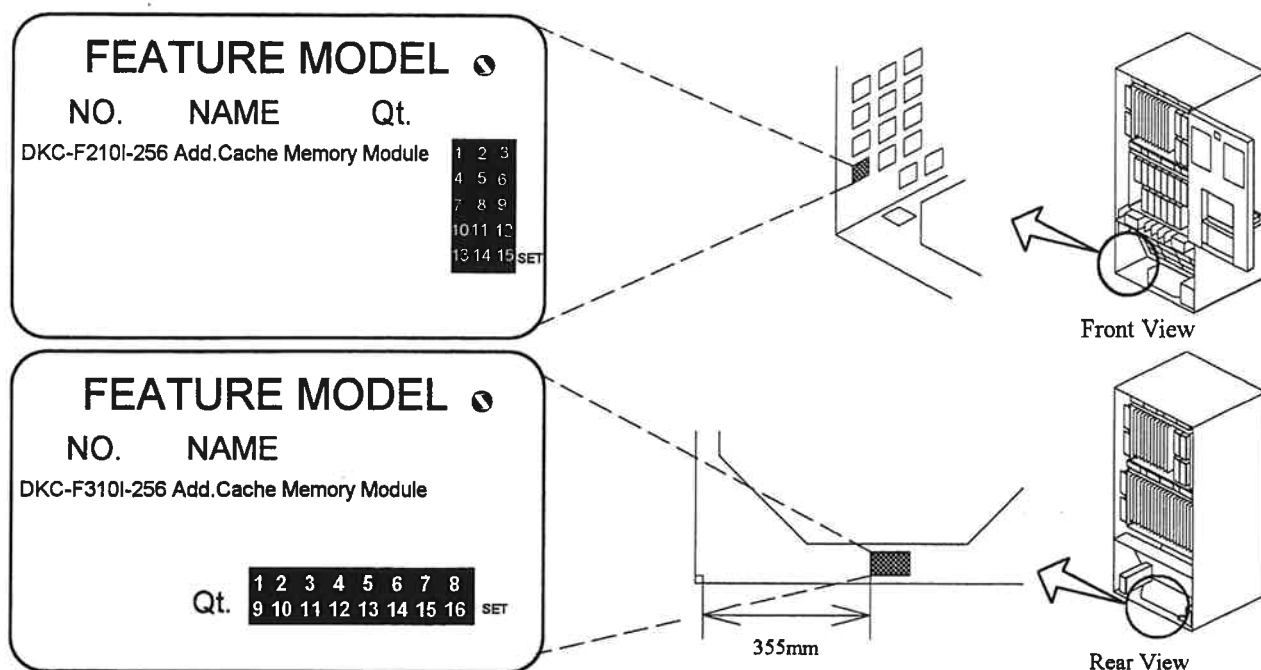


Fig. 3.4.1.4.2-4 Location of the Nameplate

Table 3.4.1.4.2-5 Quantity Marking

No.	Quantity Marking		
	Number of DKC-F210I-256/DKC-F310I-256 sets	Qt. of DKC-F210I-256	Qt. of DKC-F310I-256
1	—		
2	1 set	1	1
3	2 sets	2	2
4	3 sets	3	3
5	4 sets	4	4

(To be continued)

(Continued from the preceding page)

No.	Quantity Marking		
	Number of DKC-F210I-256/DKC-F310I-256 sets	Qt. of DKC-F210I-256	Qt. of DKC-F310I-256
6	5 sets	5	5
7	6 sets	6	6
8	7 sets	7	7
9	8 sets	8	8
10	9 sets	9	9
11	10 sets	10	10
12	11 sets	11	11
13	12 sets	12	12
14	13 sets	13	13
15	14 sets	14	14

b. See Table 3.4.1.4.2-5A to go to flowchart.

Table 3.4.1.4.2-5A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	4096MB or less	3840MB or less	INST04-40 step ⑪

Case2 When DKC-F2101-40 is Installed

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

1. Remove the PCBs.

- a. Check the Shut Down LED on the Cache Memory PCB in the Cache Box. Refer to Fig.3.4.1.4.2-5 and Table 3.4.1.4.2-6. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

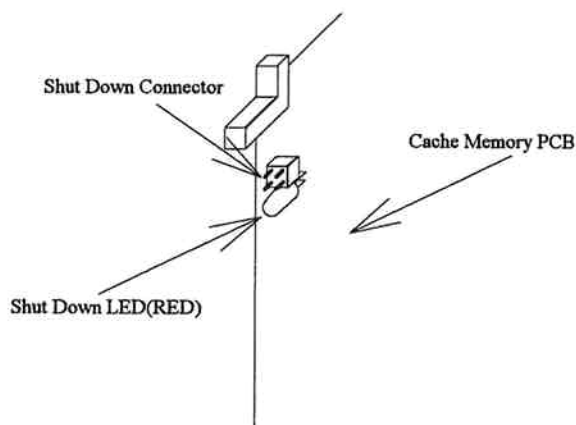


Fig. 3.4.1.4.2-5 Location of the Shut Down LED

Table 3.4.1.4.2-6 PCB Location of the Cache Box

Cluster	PCB Name	Box	Slot No.	Location	Remarks
1	WP008-A / WP018-A	Cache Box-1	D	CACHE-C1D	Cache Memory PCB
	WP008-B / WP018-B	Cache Box-1	E	CACHE-C1E	Cache Memory PCB
2	WP008-A / WP018-A	Cache Box-2	D	CACHE-C2D	Cache Memory PCB
	WP008-B / WP018-B	Cache Box-2	E	CACHE-C2E	Cache Memory PCB

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

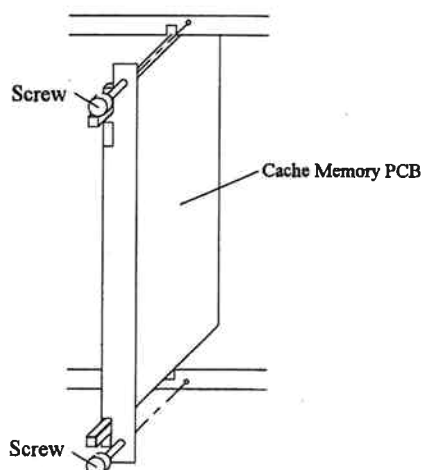


Fig. 3.4.1.4.2-6 Removal of the Cache Memory PCB

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

2. Remove the Cache Memory Modules.

- a. Remove the extra Cache Memory Modules according to the required Cache Memory capacity referring to Fig. 3.4.1.4.2-7 and Table 3.4.1.4.2-7.

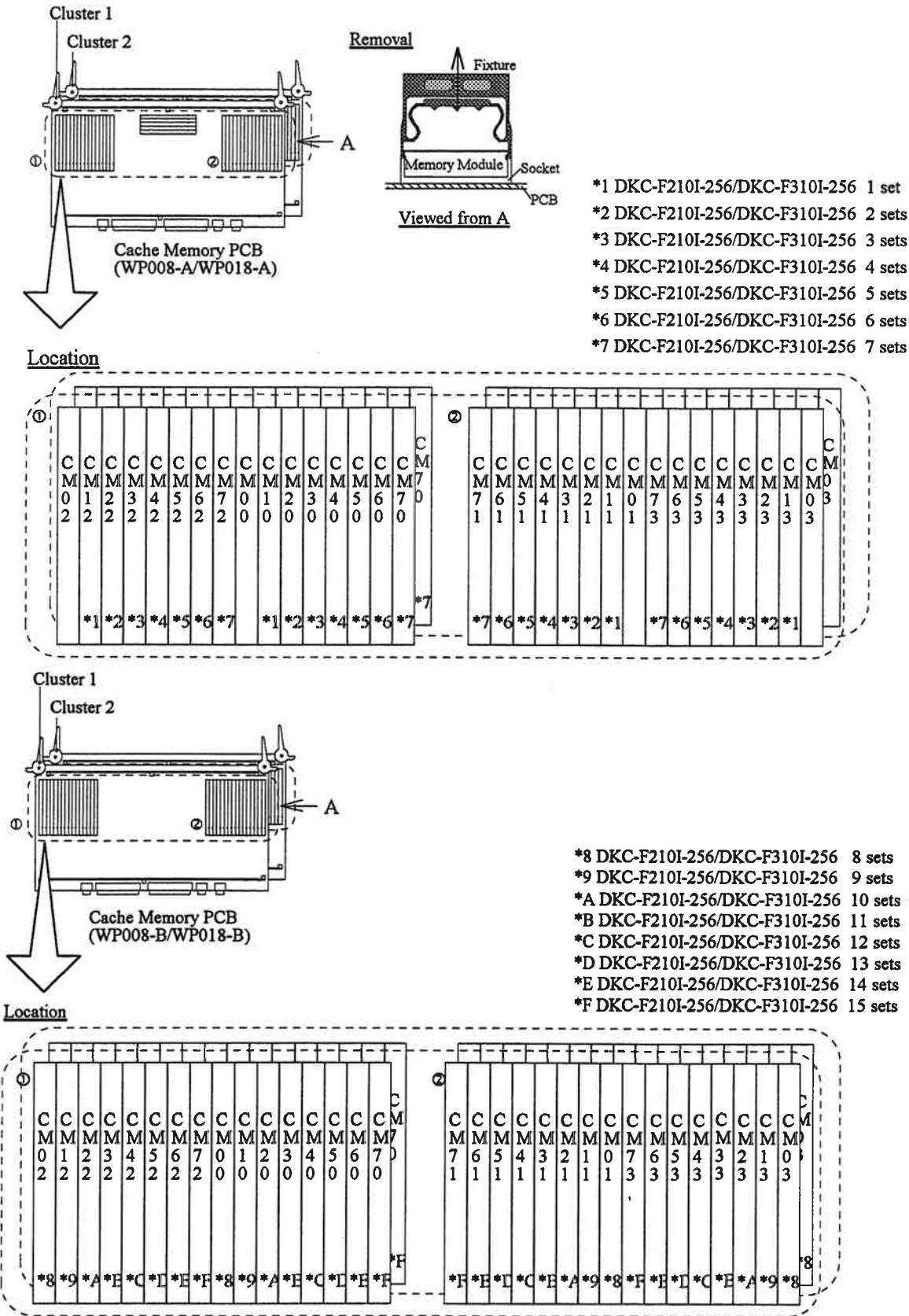


Fig. 3.4.1.4.2-7 Inserting Location of the Cache Memory Module

Table 3.4.1.4.2-7 Location of PCBs to be Removed and Corresponding Cache Memory Capacity

No.	Cache Memory capacity		Model No.	Cluster 1		Cluster 2	
	From	To		Part name	Quantity	Part name	Quantity
1	0MB	256MB	Basic	CM Module	4	CM Module	4
2	256MB	512MB	DKC-F210I-256/DKC-F310I-256 1 set	CM Module	4	CM Module	4
3	512MB	768MB	DKC-F210I-256/DKC-F310I-256 2 sets	CM Module	4	CM Module	4
4	768MB	1024MB	DKC-F210I-256/DKC-F310I-256 3 sets	CM Module	4	CM Module	4
5	1024MB	1280MB	DKC-F210I-256/DKC-F310I-256 4 sets	CM Module	4	CM Module	4
6	1280MB	1536MB	DKC-F210I-256/DKC-F310I-256 5 sets	CM Module	4	CM Module	4
7	1536MB	1792MB	DKC-F210I-256/DKC-F310I-256 6 sets	CM Module	4	CM Module	4
8	1792MB	2048MB	DKC-F210I-256/DKC-F310I-256 7 sets	CM Module	4	CM Module	4
9	2048MB	2304MB	DKC-F210I-256/DKC-F310I-256 8 sets	CM Module	4	CM Module	4
10	2304MB	2560MB	DKC-F210I-256/DKC-F310I-256 9 sets	CM Module	4	CM Module	4
11	2560MB	2816MB	DKC-F210I-256/DKC-F310I-256 10 sets	CM Module	4	CM Module	4
12	2816MB	3072MB	DKC-F210I-256/DKC-F310I-256 11 sets	CM Module	4	CM Module	4
13	3072MB	3328MB	DKC-F210I-256/DKC-F310I-256 12 sets	CM Module	4	CM Module	4
14	3328MB	3584MB	DKC-F210I-256/DKC-F310I-256 13 sets	CM Module	4	CM Module	4
15	3584MB	3840MB	DKC-F210I-256/DKC-F310I-256 14 sets	CM Module	4	CM Module	4

Note. CM : Cache Memory

b. See Table 3.4.1.4.2-7A to go to flowchart.

Table 3.4.1.4.2-7A Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	6GB or more	4GB or less	INST04-50 step ④	INST04-60 step ⑨

3. Insert the PCBs.

a. After removing the Cache Memory Modules, install the Cache Memory PCB in the Logic Box according to Table 3.4.1.4.2-8 or Table 3.4.1.4.2-9.

b. Fasten the two screws.

Table 3.4.1.4.2-8 PCB Location of the Logic Box (Cache Memory capacity of 2048MB or less)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB

Table 3.4.1.4.2-9 PCB Location of the Logic Box (Cache Memory capacity of 2304MB or more)

Cluster	PCB Name	Box	Slot No.	Location	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
	WP008-B / WP018-B	Logic Box	D	CACHE-1D	Cache Memory PCB
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB
	WP008-B / WP018-B	Logic Box	S	CACHE-2S	Cache Memory PCB

4. Change the nameplate.

- a. Refer to Fig. 3.4.1.4.2-8 and Table 3.4.1.4.2-10 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-256/DKC-F310I-256 can be seen.

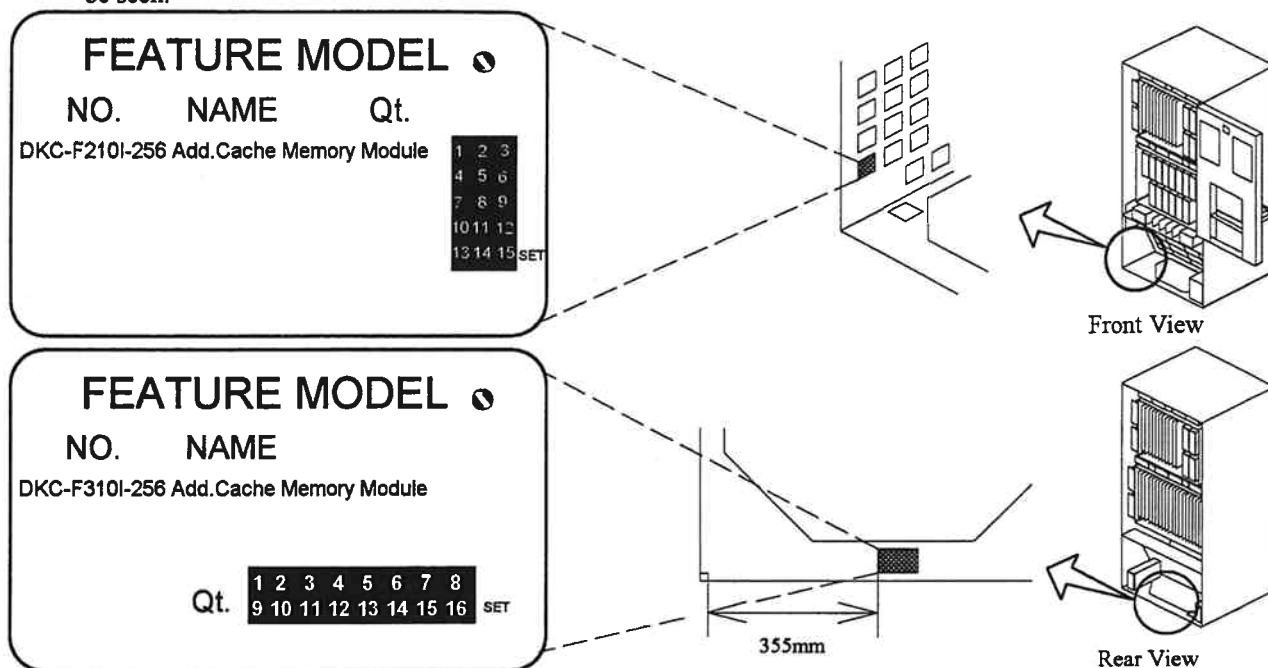


Fig. 3.4.1.4.2-8 Location of the Nameplate

Table 3.4.1.4.2-10 Quantity Marking

No.	Quantity Marking		
	Number of DKC-F210I-256/DKC-F310I-256 sets	Qt. of DKC-F210I-256	Qt. of DKC-F310I-256
1	—		
2	1 set	1	1
3	2 sets	2	2
4	3 sets	3	3
5	4 sets	4	4

(To be continued)

(Continued from the preceding page)

No.	Quantity Marking		
	Number of DKC-F210I-256/DKC-F310I-256 sets	Qt. of DKC-F210I-256	Qt. of DKC-F310I-256
6	5 sets	5	5
7	6 sets	6	6
8	7 sets	7	7
9	8 sets	8	8
10	9 sets	9	9
11	10 sets	10	10
12	11 sets	11	11
13	12 sets	12	12
14	13 sets	13	13
15	14 sets	14	14

b. See Table 3.4.1.4.2-10A to go to flowchart.

Table 3.4.1.4.2-10A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	6GB or more	4GB or less	INST04-70 step ⑬

3.4.1.5 De-Installation of Additional Cache Assembly (DKC-F210I-2048)

3.4.1.5.1 Parts List

Table 3.4.1.5.1-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-2048	WP008-B / WP018-B	1503464-B / 1504020-B	2	Cache Memory PCB
		CM Module / SZ635-B / SH024-A	5472694-3 / 2099862-A / 1505404-A	64	Cache Memory Module (32MB) (Note)

Note : Installed to Cache Memory PCBs

3.4.1.5.2 De-Installation Procedure of Additional Cache Assembly

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

1. Remove the PCBs.

- a. Check the Shut Down LED on the Cache Memory PCB in the Cache Box referring to Fig. 3.4.1.5.2-1 and Table 3.4.1.5.2-1. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.



CAUTION

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

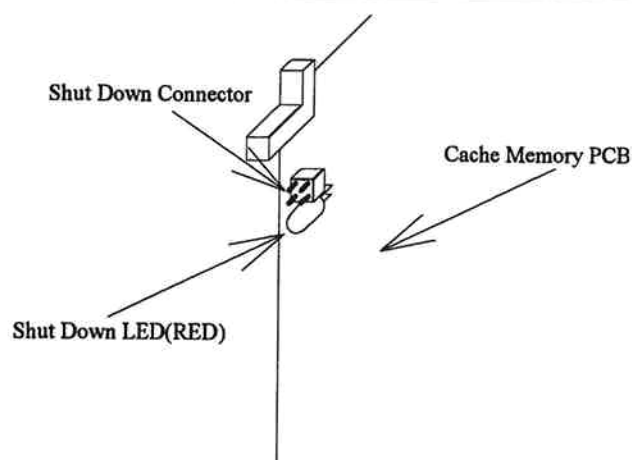


Fig. 3.4.1.5.2-1 Location of the Shut Down LED

Table 3.4.1.5.2-1 Location of PCBs and Corresponding Cache Memory Capacity

No.	Cache Memory capacity		Model No.	Cluster 1 (Cache Box-1)		Cluster 2 (Cache Box-2)	
	From	To		Part name	Slot No.	Part name	Slot No.
1	4GB	6GB	DKC-F210I-2048 1 set	Cache Memory PCB	F	Cache Memory PCB	F
2	6GB	8GB	DKC-F210I-2048 2 sets	Cache Memory PCB	G	Cache Memory PCB	G
3	8GB	10GB	DKC-F210I-2048 3 sets	Cache Memory PCB	H	Cache Memory PCB	H
4	10GB	12GB	DKC-F210I-2048 4 sets	Cache Memory PCB	J	Cache Memory PCB	J
5	12GB	14GB	DKC-F210I-2048 5 sets	Cache Memory PCB	K	Cache Memory PCB	K
6	14GB	16GB	DKC-F210I-2048 6 sets	Cache Memory PCB	L	Cache Memory PCB	L

- b. Remove the two screws and remove the extra Cache Memory PCB according to the required Cache Memory capacity in the Cache Box.

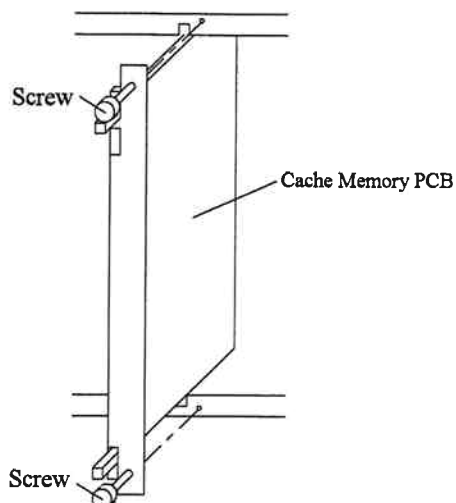


Fig. 3.4.1.5.2-2 Removal of the Cache Memory PCB

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

- d. See Table 3.4.1.5.2-2 to go to flowchart.

Table 3.4.1.5.2-2 Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	6GB or more	4GB or less	INST04-50 step ②	INST04-60 step ⑦
2	8GB or more	6GB or more	INST04-80 step ③	INST04-80 step ⑥

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2. Change the nameplate.

- a. Refer to Figure 3.4.1.5.2-3 and Table 3.4.1.5.2-3 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-2048 can be seen.

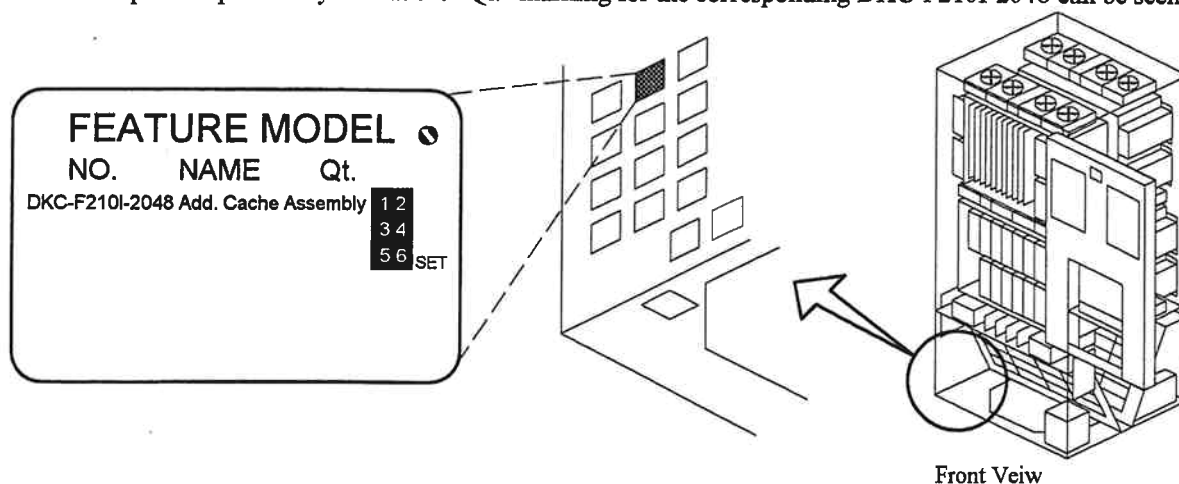


Fig. 3.4.1.5.2-3 Location of the Nameplate

Table 3.4.1.5.2-3 Quantity marking

No.	Cache Memory Capacity	Quantity Marking	
		Number of DKC-F210I-2048 sets	Qt.
1	6GB or less	1 set	1
2	8GB	2 sets	2
3	10GB	3 sets	3
4	12GB	4 sets	4
5	14GB	5 sets	5

- b. See Table 3.4.1.5.2-4 to go to flowchart.

Table 3.4.1.5.2-4 Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	8GB or more	6GB or more	INST04-81 step ⑨

3.4.1.6 De-Installation of Additional Cache Platform Board(DKC-F210I-20)

3.4.1.6.1 Parts List

Table 3.4.1.6.1-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-20	WP008-B /	1503464-B	2	Cache Memory PCB
		WP018-B	1504020-B		
		Nameplate	3243355-1	1	

3.4.1.6.2 De-Installation Procedure of Additional Cache Platform Board

Case1 When DKC-F210I-40 is not Installed

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

1. Remove the PCBs.

- a. While referring to Fig. 3.4.1.6.2-1 and Table 3.4.1.6.2-1, check the Shut Down LED on the Cache Memory PCB in the Logic Box. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

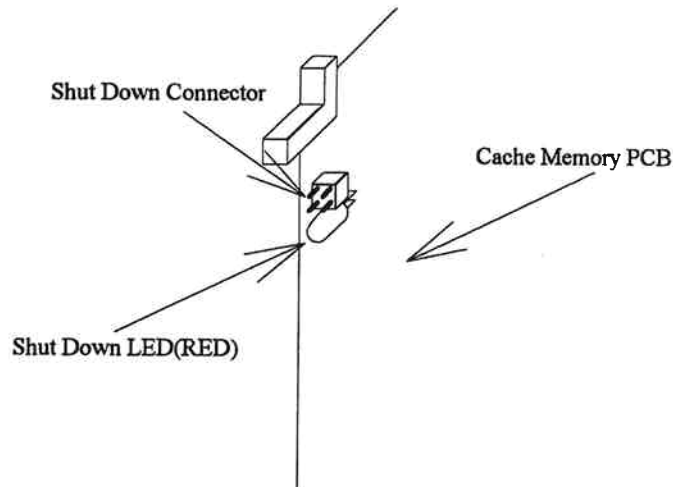


Fig. 3.4.1.6.2-1 Location of the Shut Down LED

Table 3.4.1.6.2-1 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-B / WP018-B	Logic Box	D	CACHE-1D	Cache Memory PCB
2	WP008-B / WP018-B	Logic Box	S	CACHE-2S	Cache Memory PCB

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

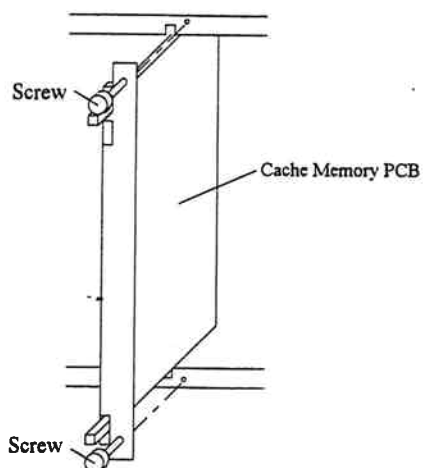


Fig. 3.4.1.6.2-2 Removal of the Cache Memory PCB

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

Case2 When DKC-F210I-40 is Installed

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

1. Remove the PCBs.

- a. While referring to Fig. 3.4.1.6.2-5 and Table 3.4.1.6.2-3, check the Shut Down LED on the Cache Memory PCB in the Cache Box. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

! CAUTION

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

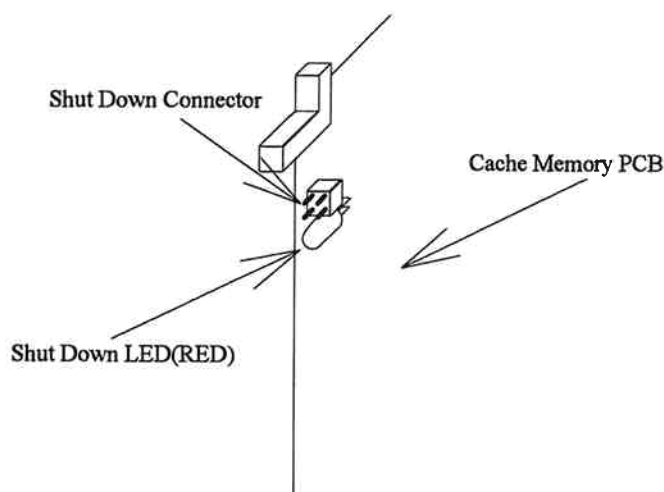


Fig. 3.4.1.6.2-5 Location of the Shut Down LED

Table 3.4.1.6.2-3 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-B / WP018-B	Cache Box-1	E	CACHE-1D	Cache Memory PCB
2	WP008-B / WP018-B	Cache Box-2	E	CACHE-2S	Cache Memory PCB

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

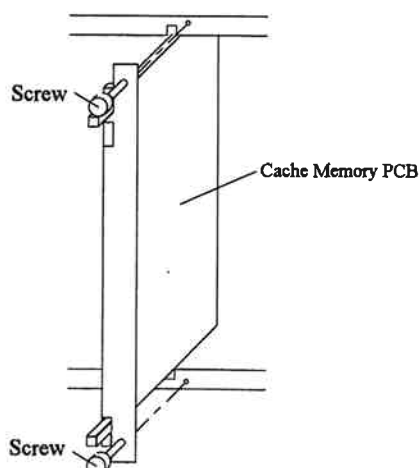
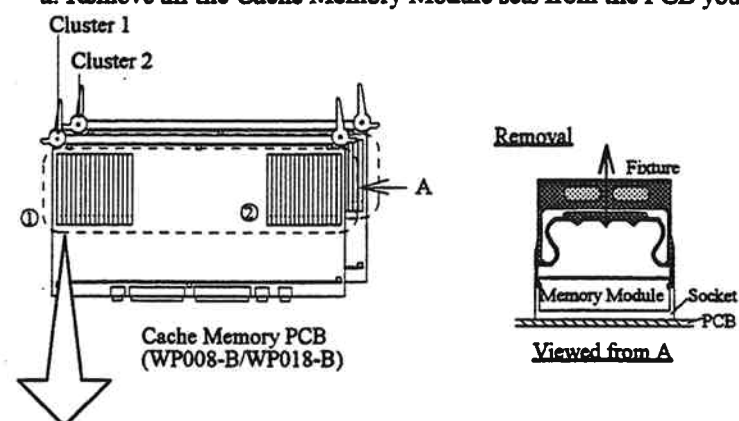


Fig. 3.4.1.6.2-6 Removal of the Cache Memory PCB

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

2. Remove the Cache Memory Modules.

- a. Remove all the Cache Memory Module sets from the PCB you removed referring to Fig. 3.4.1.6.2-7.



Location

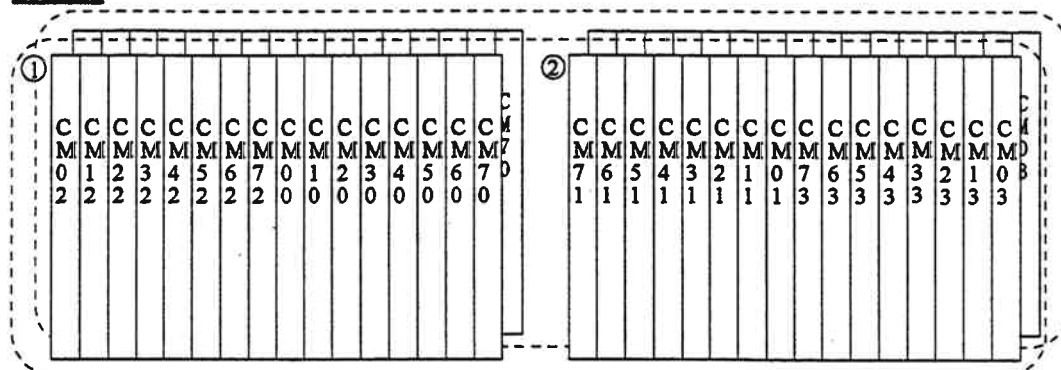


Fig. 3.4.1.6.2-7 Inserting Location of the Cache Memory Module

3. Detach the nameplate.

- a. Detach the nameplate of DKC-F210I-20 referring to Fig. 3.4.1.6.2-8.

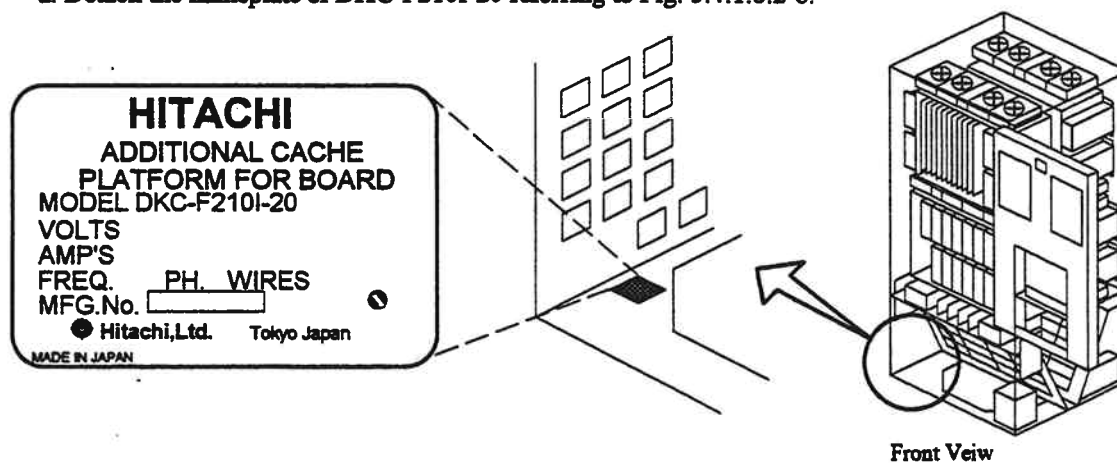


Fig. 3.4.1.6.2-8 Location of the Nameplate

- b. See Table 3.4.1.6.2-4 to go to flowchart.

Table 3.4.1.6.2-4 Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before De-Installation	After De-Installation	
1	6GB or more	4GB or less	INST04-70 step ⑭

3.4.1.7 De-Installation of Platform for Additional Cache Assembly(DKC-F210I-40)

3.4.1.7.1 Parts List

Table 3.4.1.7.1-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-40	Cache Box Assembly 1	1501953-A	1	Cache Box-1
		Cache Box Assembly 2	1501953-B	1	Cache Box-2
		WP004-A / WP014-A	3236922-A	2	CPM PCB
		WP004-B / WP014-B	3236922-B	2	CPS PCB
		WP010-A	1503529-A	4	CTM PCB
		5V Power Supply	5479609-A / 5479654-A	2	
		3.3V Power Supply	5479609-B / 5479654-B	2	
		Dummy Plate	5480477-A	4	
		SZ615-A	2098683-A	4	Battery Controller PCB
		Battery Assembly	3236759-A	4	
		RAIL (CACHE)	3236853-1	2	
		Plate (CACHE)	5480260-1	2	
		Bracket (CACHE_F)	3236848-1	1	Bracket F
		Bracket (CACHE_F)	3236848-2	1	Bracket F
		Bracket (CACHE_R)	3236849-1	1	Bracket R
		Bracket (CACHE_R)	3236849-2	1	Bracket R
		BASE(BAT) ASSY	5480478-A	2	Battery box
		Stopper	5480229-1	2	
		Cover(CACHE) ASM	2099268-A	2	
		Cover (PS-U)	3245046-A	1	Logic PS Box Cover 1 (type 2)
		Cover (PS-L)	3245046-D	1	Logic PS Box Cover 2 (type 2)
		Cable Assembly 1	1504053-1	1	Label: 1504053-1
		Cable Assembly	3240292-A	1	Label: 1•C11-C1•M11
		Cable Assembly	3240292-B	1	Label: 1•C12-C1•M12
		Cable Assembly	3240292-C	1	Label: 1•C2-C1•M2
		Cable Assembly	3240292-D	1	Label: 1•C31-C1•M31
		Cable Assembly	3240292-E	1	Label: 1•C32-C1•M32
		Cable Assembly	3240292-F	1	Label: 1•C41-C1•M41
		Cable Assembly	3240292-G	1	Label: 1•C42-C1•M42
		Cable Assembly	3240292-H	1	Label: 2•T11-C2•M11
		Cable Assembly	3240292-J	1	Label: 2•T12-C2•M12
		Cable Assembly	3240292-K	1	Label: 2•T2-C2•M2
		Cable Assembly	3240292-L	1	Label: 2•T31-C2•M31

(To be continued)

(Continued from the preceding page)

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-40	Cable Assembly	3240292-M	1	Label: 2•T32-C2•M32
		Cable Assembly	3240292-N	1	Label: 2•T41-C2•M41
		Cable Assembly	3240292-P	1	Label: 2•T42-C2•M42
		Cable Assembly 2	3240295-A	1	Label: 3VPSC10-3VPSC21-5VPSC10-5VPSC21-P201-1
		Cable Assembly 3	3240295-B	1	Label: 3VPSC20-3VPSC11-5VPSC20-5VPSC11-P201-2
		Repeat binder 1	5409042-1	14	100mm
		Repeat binder 2	5409042-2	14	140mm
		Repeat binder 3	5409042-3	2	250mm
		Cable clamp 1	3183016-2	1	
		Cable clamp 2	3183016-4	11	
		Cable clip	5480326-1	12	
		Dummy Connector	5490526-A	2	Label: P201 (Used on P201 de-installation)
		Support (Cover-R)	3245046-B	1	Support-RC
		Support (Cover-L)	3245046-C	1	Support-LC
		Cover (Side-LC)	5480479-A	2	
		Cover (Side-RC)	5480479-B	2	
		Nameplate	3243061-1	1	DKC-F210I-40
		Nameplate	3243060-1	1	DKC-F210I-2048

3.4.1.7.2 De-Installation Procedure of Platform for Additional Cache Assembly

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

Notice: Two or more persons must be involved to perform this de-installation procedure.

1. Remove the PCBs.

- a. Remove Cache Box Cover 1 and 2 from the Cache Boxes.
- b. Loosen the four screws at the side of the Cache Box-1. Remove the two Covers from the Cache Box-1 and secure the four screws. Repeat this procedure for Cache Box-2 (in the rear side).

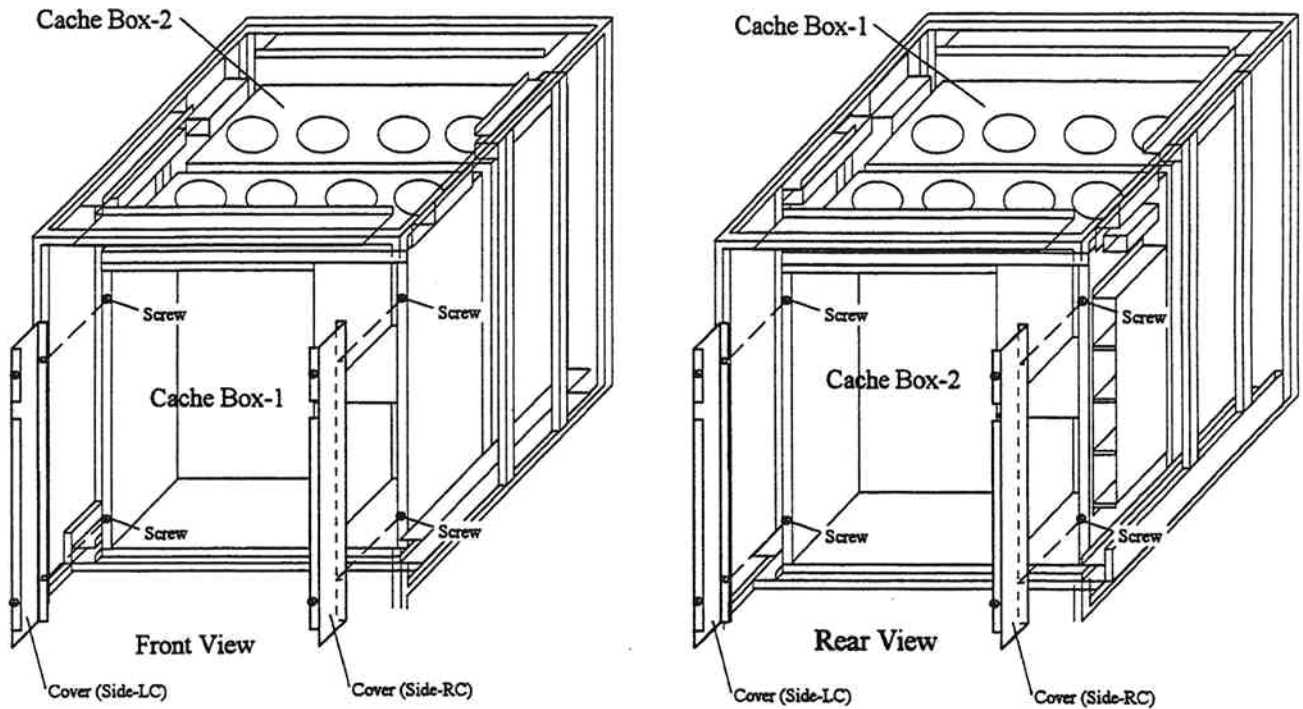


Fig. 3.4.1.7.2-1 Removal of the Covers

- c. While referring to Fig. 3.4.1.7.2-2 and Table 3.4.1.7.2-1, check the Shut Down LED on the Cache PCB. See 'Connection of Shut Down Jumper(INST03-2600)' if the Shut Down LED is not on. Insert the Shut Down Jumper because the Shut Down LED on the CPS PCB does not light.

! CAUTION

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

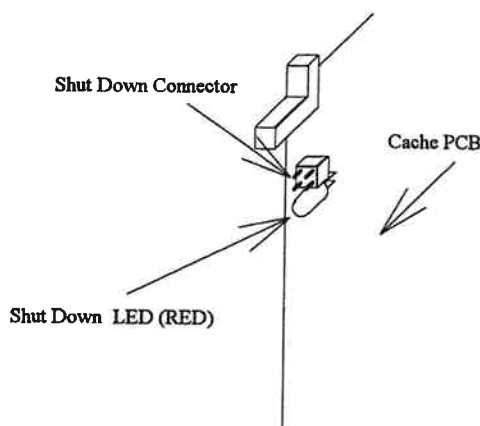


Fig. 3.4.1.7.2-2 Location of the Shut Down LED

Table 3.4.1.7.2-1 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP004-A / WP014-A	Logic Box	C	CPM-1C	CPM PCB
	WP004-B / WP014-B	Cache Box-1	M	CPS-C1M	CPS PCB
	WP008-A / WP018-A	Cache Box-1	D	CACHE-C1D	Cache Memory PCB
	WP008-B / WP018-B	Cache Box-1	E	CACHE-C1E	Cache Memory PCB
2	WP004-A / WP014-A	Logic Box	T	CPM-2T	CPM PCB
	WP004-B / WP014-B	Cache Box-2	M	CPS-C2M	CPS PCB
	WP008-A / WP018-A	Cache Box-2	D	CACHE-C2D	Cache Memory PCB
	WP008-B / WP018-B	Cache Box-2	E	CACHE-C2E	Cache Memory PCB

- d. Remove the two screws and remove the Cache Memory PCBs from the Cache Box. Refer to Table 3.4.1.7.2-2 and Fig. 3.4.1.7.2-3.

Table 3.4.1.7.2-2 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Cache Box-1	D	CACHE-C1D	Cache Memory PCB
	WP008-B / WP018-B	Cache Box-1	E	CACHE-C1E	Cache Memory PCB
2	WP008-A / WP018-A	Cache Box-2	D	CACHE-C2D	Cache Memory PCB
	WP008-B / WP018-B	Cache Box-2	E	CACHE-C2E	Cache Memory PCB

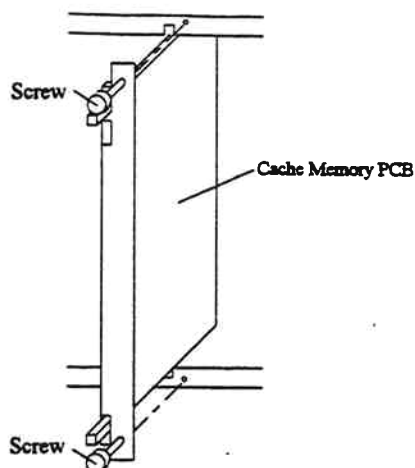


Fig. 3.4.1.7.2-3 Removal of the Cache Memory PCB

- e. Unfasten the cable cover buttons to open the cable cover.
- f. Remove the cable clips and remove the sub-edge cables from the CPS PCB.
- g. Remove the two screws and remove the CPS PCB from the Cache Box.

Cache Box

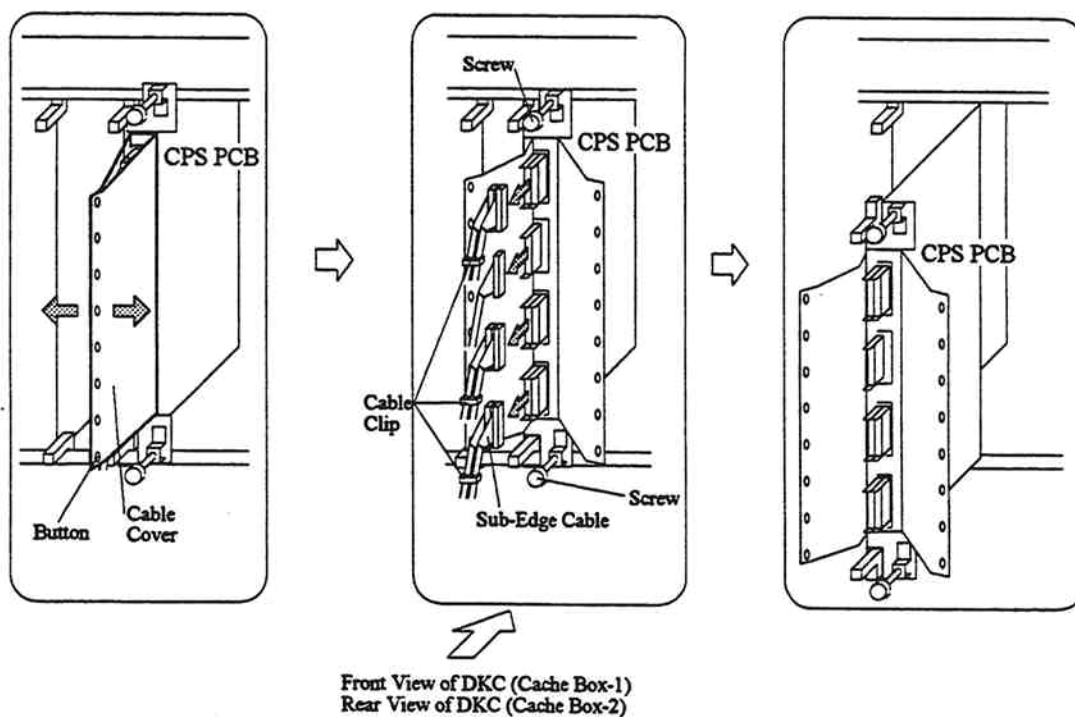


Fig. 3.4.1.7.2-4 Removal of the CPS PCB

Table 3.4.1.7.2-3 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP004-B / WP014-B	Cache Box-1	M	CPS-C1M	CPS PCB
2	WP004-B / WP014-B	Cache Box-2	M	CPS-C2M	CPS PCB

- h. Unfasten the cable cover buttons to open the cable cover.
 i. Remove the cable clips and remove the sub-edge cables from the CPM PCB. Remove the repeat binders.
 j. Remove the two screws and remove the CPM PCB from the Logic Box.

Logic Box

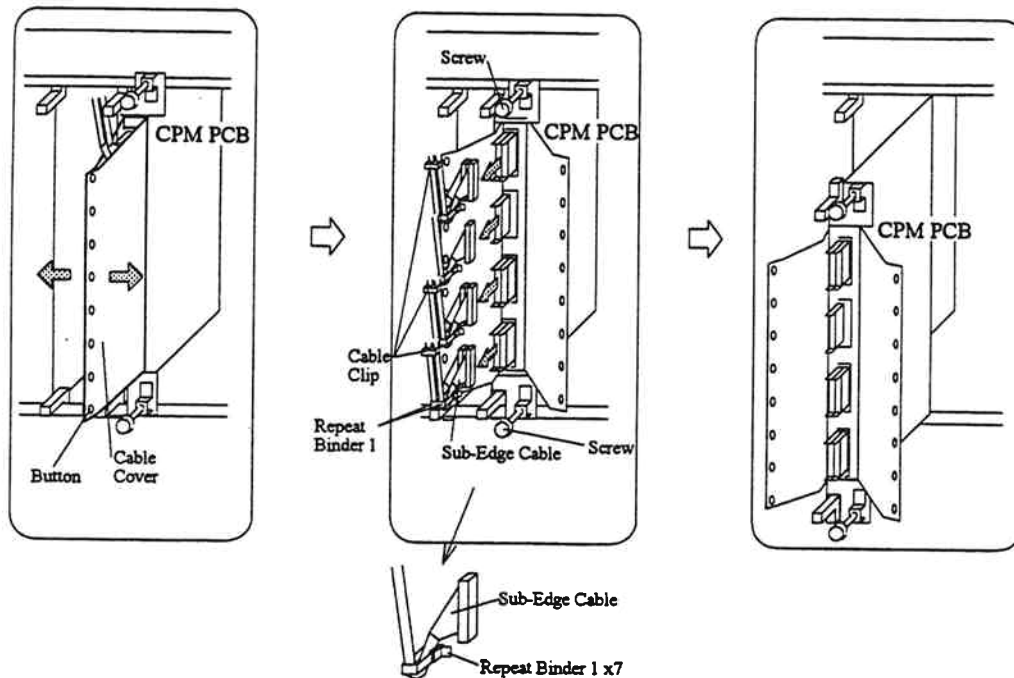


Fig. 3.4.1.7.2-5 Removal of the CPM PCB

Table 3.4.1.7.2-4 Location of the Cache PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP004-A / WP014-A	Logic Box	C	CPM-1C	CPM PCB
2	WP004-A / WP014-A	Logic Box	T	CPM-2T	CPM PCB

- k. Loosen the two screws to open the cover. Remove the cables, close the cover, and secure the screws.

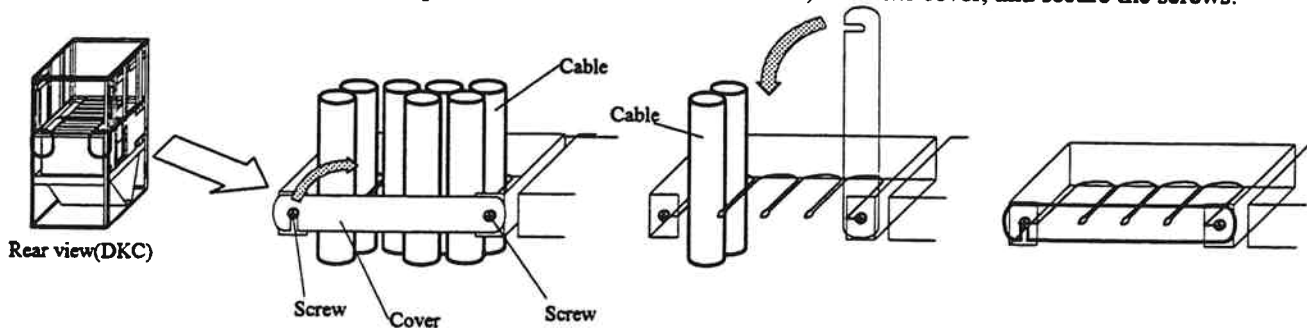


Fig. 3.4.1.7.2-6 Removal of the Cables

- l. Remove the Shut Down Jumper if it is mounted.

- m. See Table 3.4.1.7.2-5 to go to flowchart.

Table 3.4.1.7.2-5 Flowchart page

No.	Cache Memory Capacity		Flowchart	
	Before De-Installation	After De-Installation	Cluster 1	Cluster 2
1	6GB or more	4GB or less	INST04-50 step ③	INST04-60 step ⑧

2. Remove the Shared Memory Modules.

- a. Remove all the Shared Memory Modules from the CPM PCB. Mount the required numbers of the removed Shared Memory Modules to the Cache Memory PCB. Refer to Fig. 3.4.1.7.2-7 and Table 3.4.1.7.2-6.

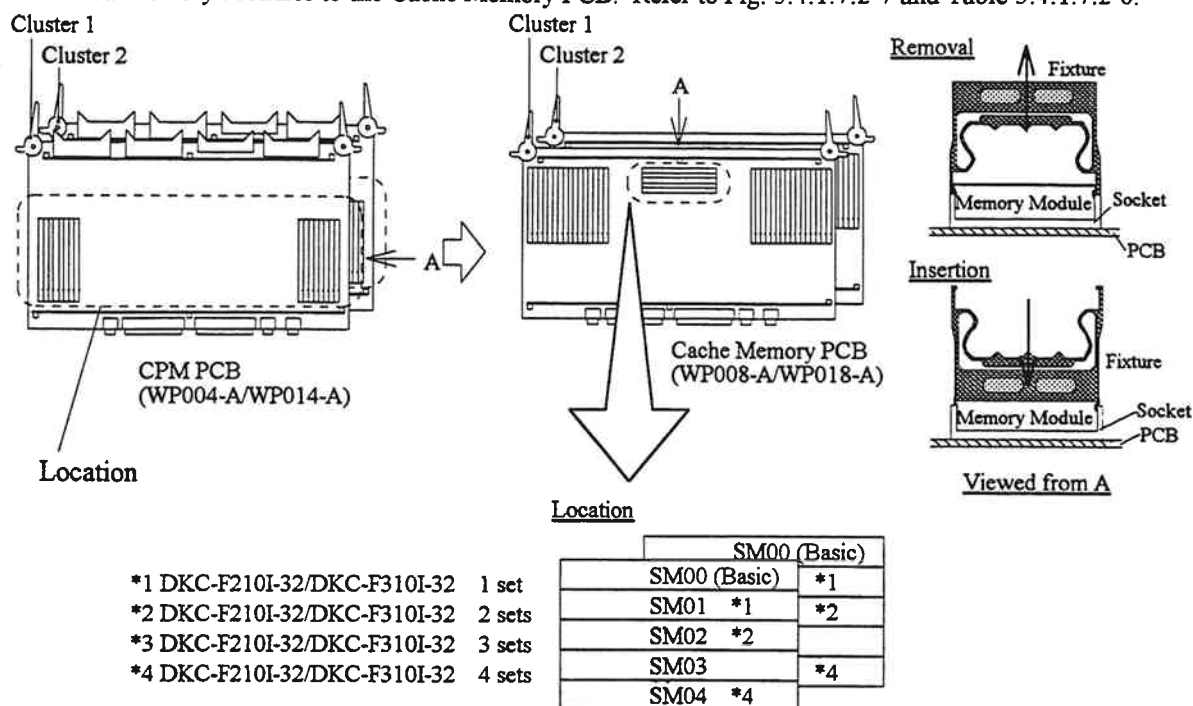


Fig. 3.4.1.7.2-7 Inserting Location of the Shared Memory Module

Table 3.4.1.7.2-6 Number of SMs and Corresponding Shared Memory Capacity

No.	Shared Memory capacity		Model No.	Cluster 1		Cluster 2	
	From	To		Part name	Quantity	Part name	Quantity
1	0MB	32MB	Basic	SM Module	1	SM Module	1
2	32MB	64MB	DKC-F210I-32/DKC-F310I-32 1 set	SM Module	1	SM Module	1
3	64MB	96MB	DKC-F210I-32/DKC-F310I-32 2 sets	SM Module	1	SM Module	1
4	96MB	128MB	DKC-F210I-32/DKC-F310I-32 3 sets	SM Module	1	SM Module	1
5	128MB	160MB	DKC-F210I-32/DKC-F310I-32 4 sets	SM Module	1	SM Module	1

Note. SM : Shared Memory

3. Insert the PCBs.

a. Insert the Cache Memory PCBs in the Logic Box.

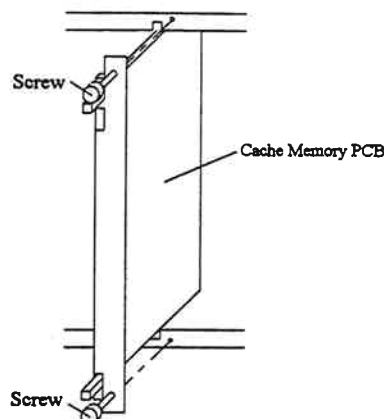


Fig. 3.4.1.7.2-8 Removal of the Cache Memory PCB

Table 3.4.1.7.2-7 Location of Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP008-A / WP018-A	Logic Box	C	CACHE-1C	Cache Memory PCB
	WP008-B / WP018-B	Logic Box	D	CACHE-1D	Cache Memory PCB(Note)
2	WP008-A / WP018-A	Logic Box	T	CACHE-2T	Cache Memory PCB
	WP008-B / WP018-B	Logic Box	S	CACHE-2S	Cache Memory PCB(Note)

Note: No PCB needs to be installed when decreasing the capacity of Cache Memory to 2048MB or less.

4. Change the jumper settings for PWRCTL-1 and PWRCTL-2.

- Remove Movable Rack Cover 2 from the Movable Rack. Refer to INST03-40.
- When de-installing Cache Memory from Cluster 1, change the settings of jumper plug (JP3) for PWRCTL-1 from #2-#3 short to #1-#2 short and from #5-#6 short to #4-#5 short. Also, change the setting of jumper plug (JP3) for PWRCTL-2 from #5-#6 short to #4-#5 short.

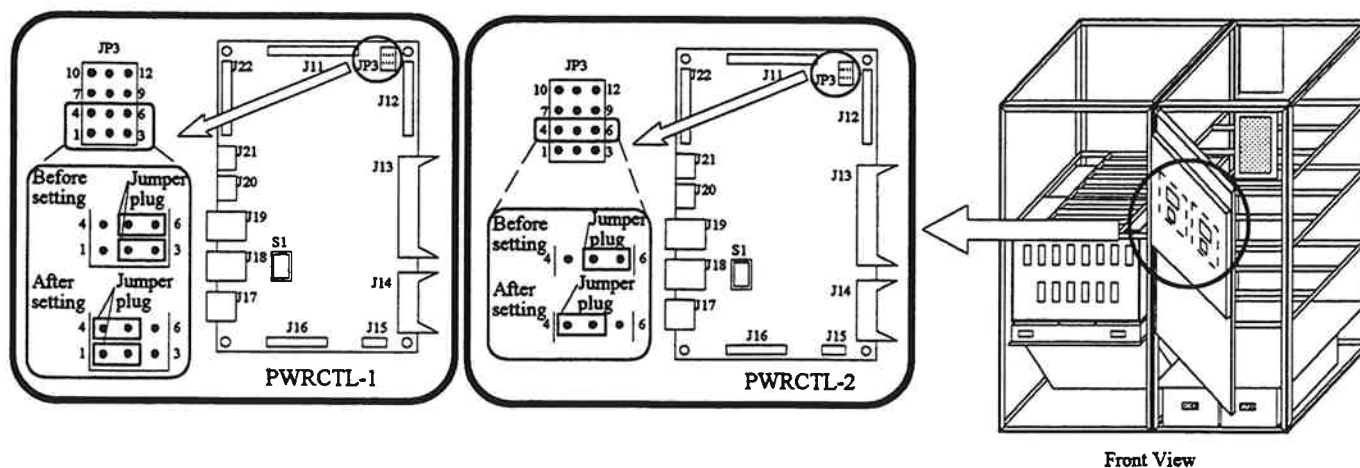


Fig. 3.4.1.7.2-9 Setting of the Jumper

- c. When de-installing Cache Memory from Cluster 2, change the setting of jumper plug (JP3) for PWRCTL-2 from #2-#3 short to #1-#2 short.

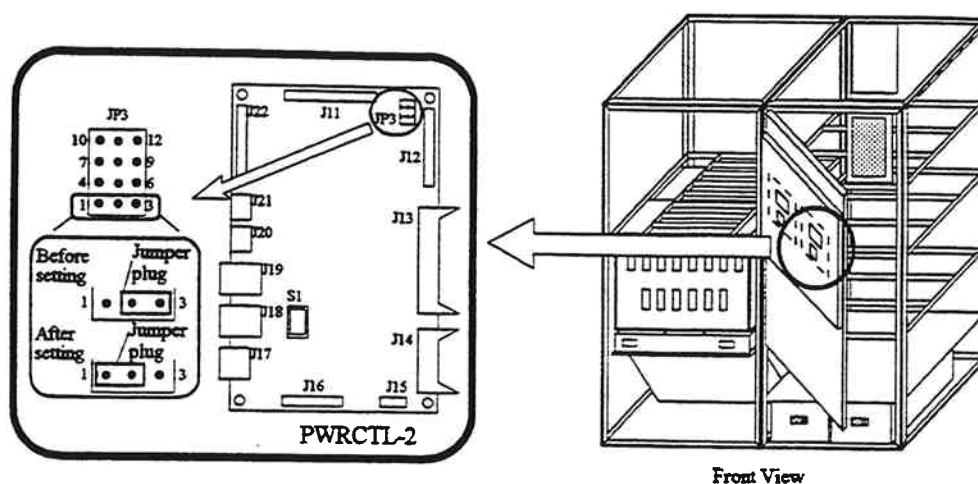


Fig. 3.4.1.7.2-10 Setting of the Jumper

- d. Attach Movable Rack Cover 2 to the Movable Rack. Refer to INST03-40.

5. Set the PS Enable/Disable Switch on the 5V and 3.3V Power Supplies to Disable.

- a. When de-installing Cache Memory from Cluster 1, set the PS Enable/Disable Switch on the 5V and 3.3V power supplies installed on the Cache Box-1 to (DOWN) Disable.
- b. When de-installing Cache Memory from Cluster 2, set the PS Enable/Disable Switch on the 5V and 3.3V power supplies installed on the Cache Box-2 to (DOWN) Disable.

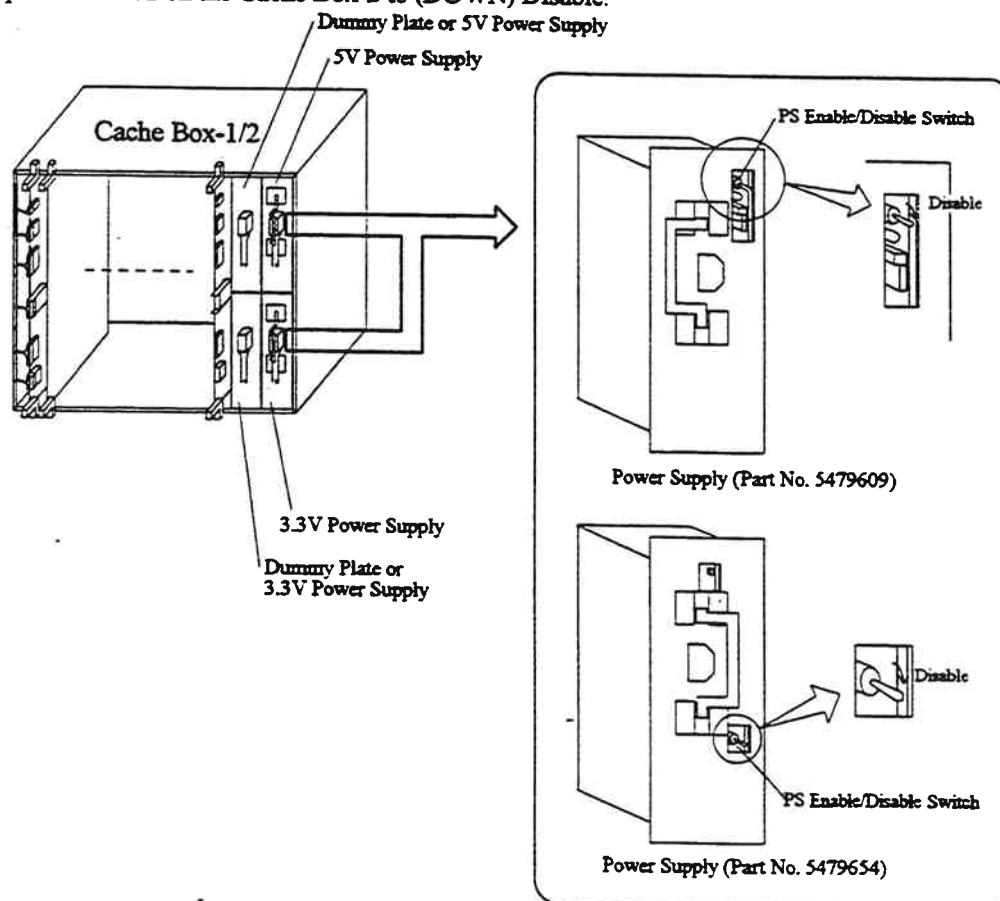


Fig. 3.4.1.7.2-11 Setting of the Power Supply Switch

6. Disconnect the cables from the corresponding parts.

When disconnecting the cables from Cluster 2, go to INST04-530.

i. Cluster 1

Follow procedures 1 through 5 shown below.

Procedure 1

- a. Disconnect the cables (CD51 to CD53, CD61 to CD63) from the battery controller PCBs (BATT CTR-5, BATT CTR-6). Be sure to remove these connectors in the order of ①, ②, and ③.

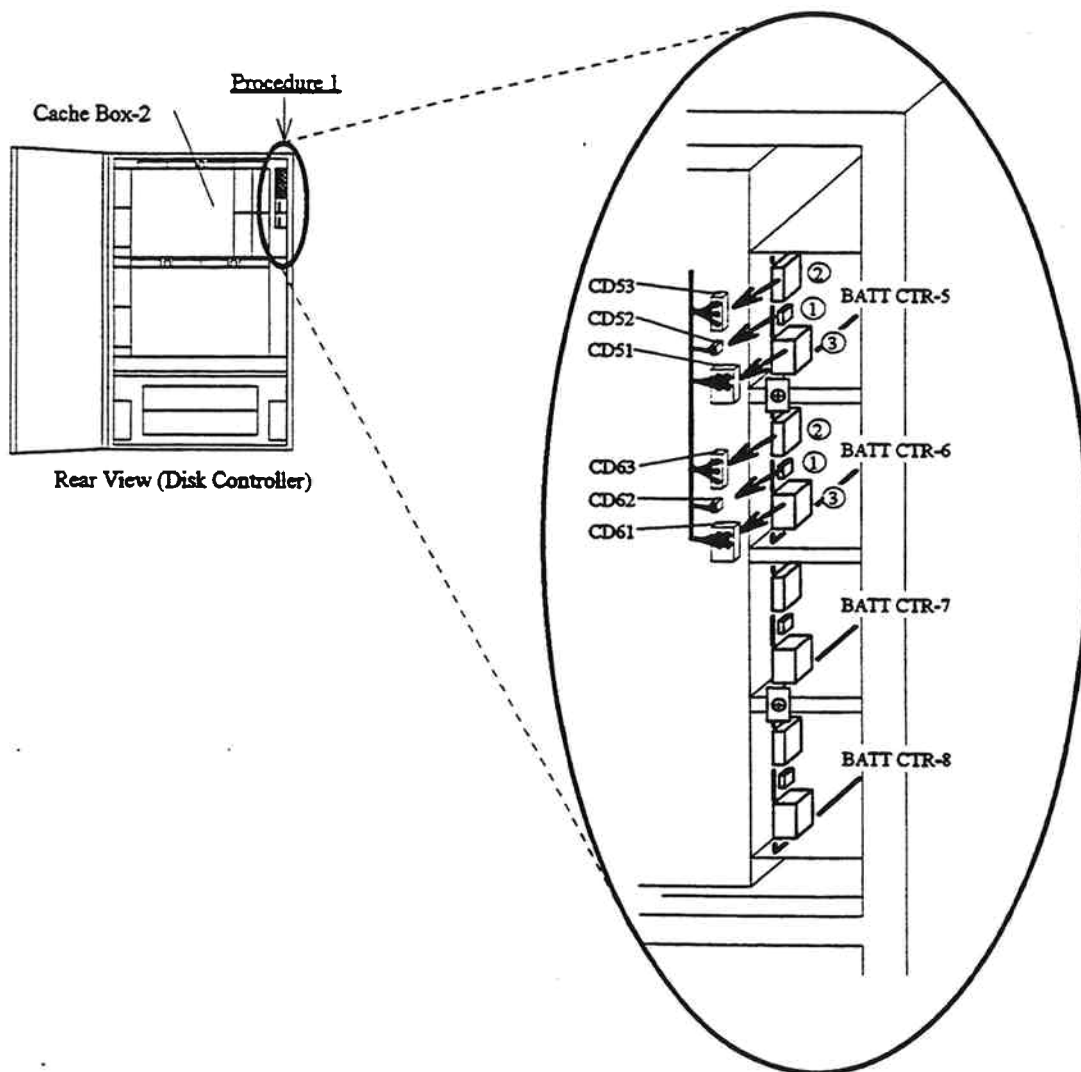


Fig. 3.4.1.7.2-12 Disconnection of the Cables

Procedure 2

- a. Disconnect the cables (FC11, FC12, FC13, FC14) from the FAN Assemblies (FANC11, FANC12, FANC13, FANC14).
- b. Disconnect the cable (PTHC1) from the Thermostat Assembly (THC1).

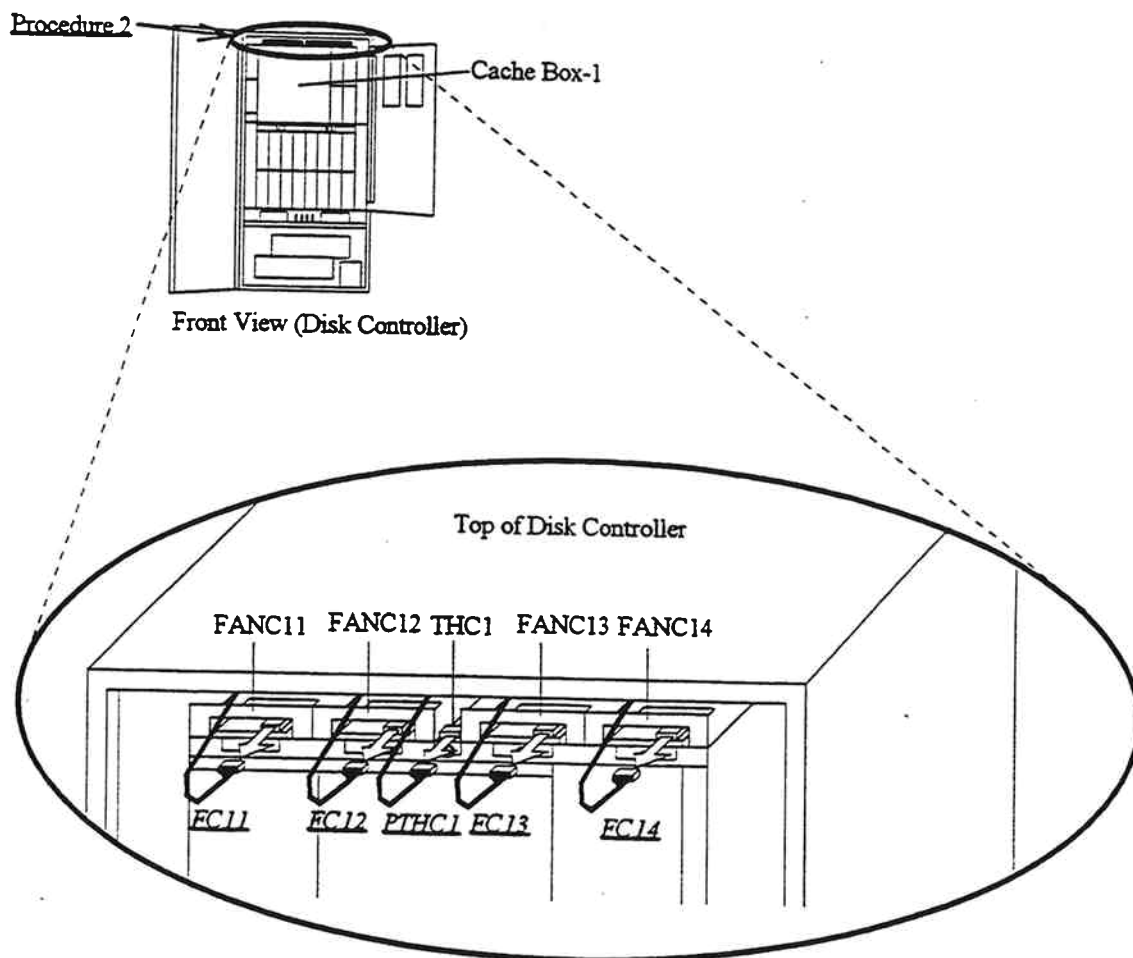


Fig. 3.4.1.7.2-13 Disconnection of the Cables

Procedure 3

- a. Remove the power supply lever (5VPSC10, 3VPSC10) and disconnect the inlet cables (5VPSC10, 3VPSC10).
- b. When the Cache redundant power supply (DKC-F210I-72) is not de-installed, remove the cable clamps from the dummy plate and disconnect the inlet cables (5VPSC11, 3VPSC11).
When the Cache redundant power supply (DKC-F210I-72) is de-installed, remove the power supply lever (5VPSC11, 3VPSC11) and disconnect the inlet cables (5VPSC11, 3VPSC11).
- c. Remove the repeat binder.
- d. Disconnect the cables (PB5A, PB5B, PB6A, PB6B) from the Battery Assemblies (Battery-5, Battery-6).
- e. Disconnect the cables (C1-N1 to C1-N6) from the CTM PCB (Slot No. N).

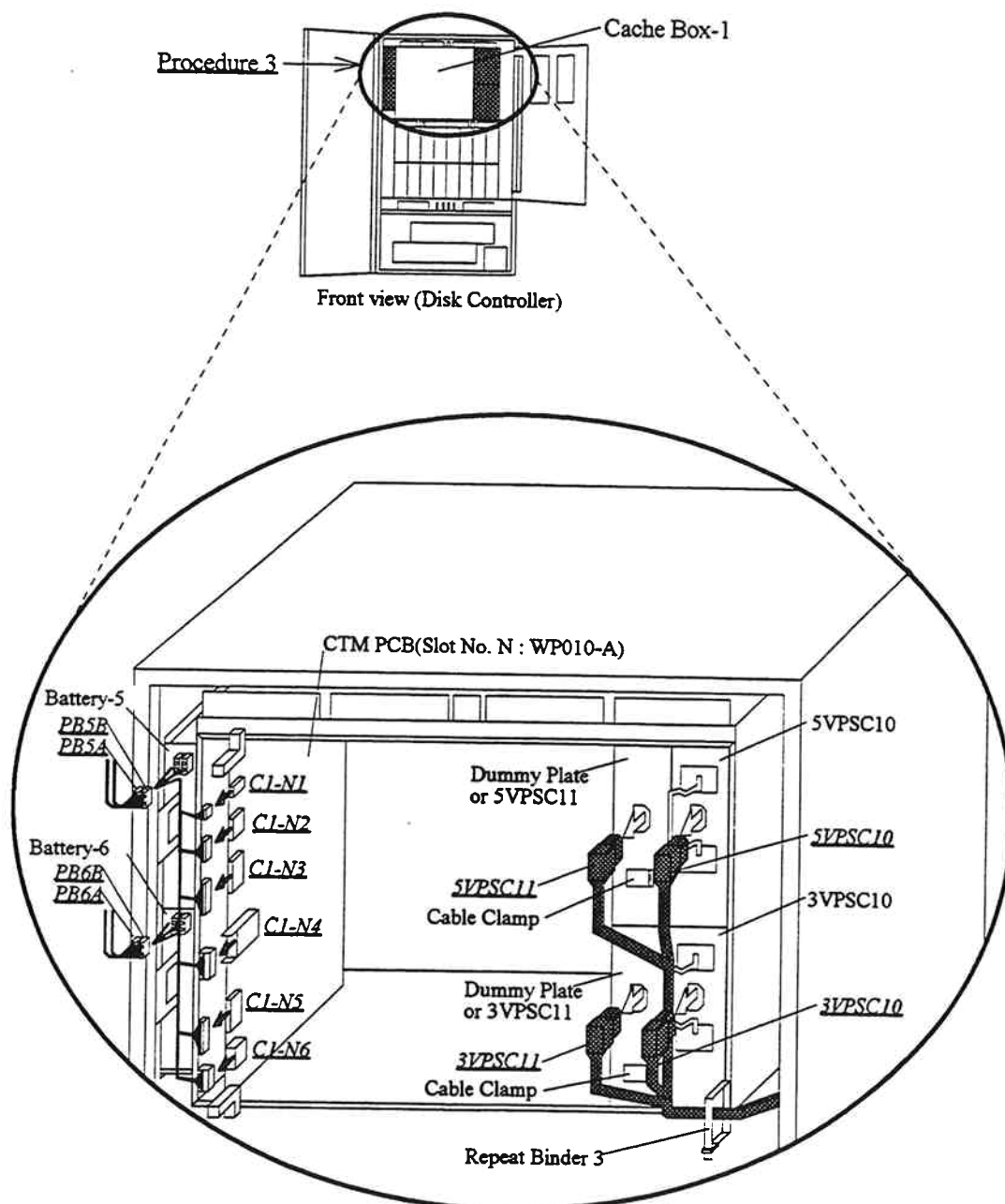


Fig. 3.4.1.7.2-14 Disconnection of the Cables

Procedure 4

- Remove Movable Rack Cover 2 from the Movable Rack. Refer to INST03-40.
- Disconnect the cable (P16-1) from the PWRCTL-1.
- Attach Movable Rack Cover 2 to the Movable Rack. Refer to INST03-40.

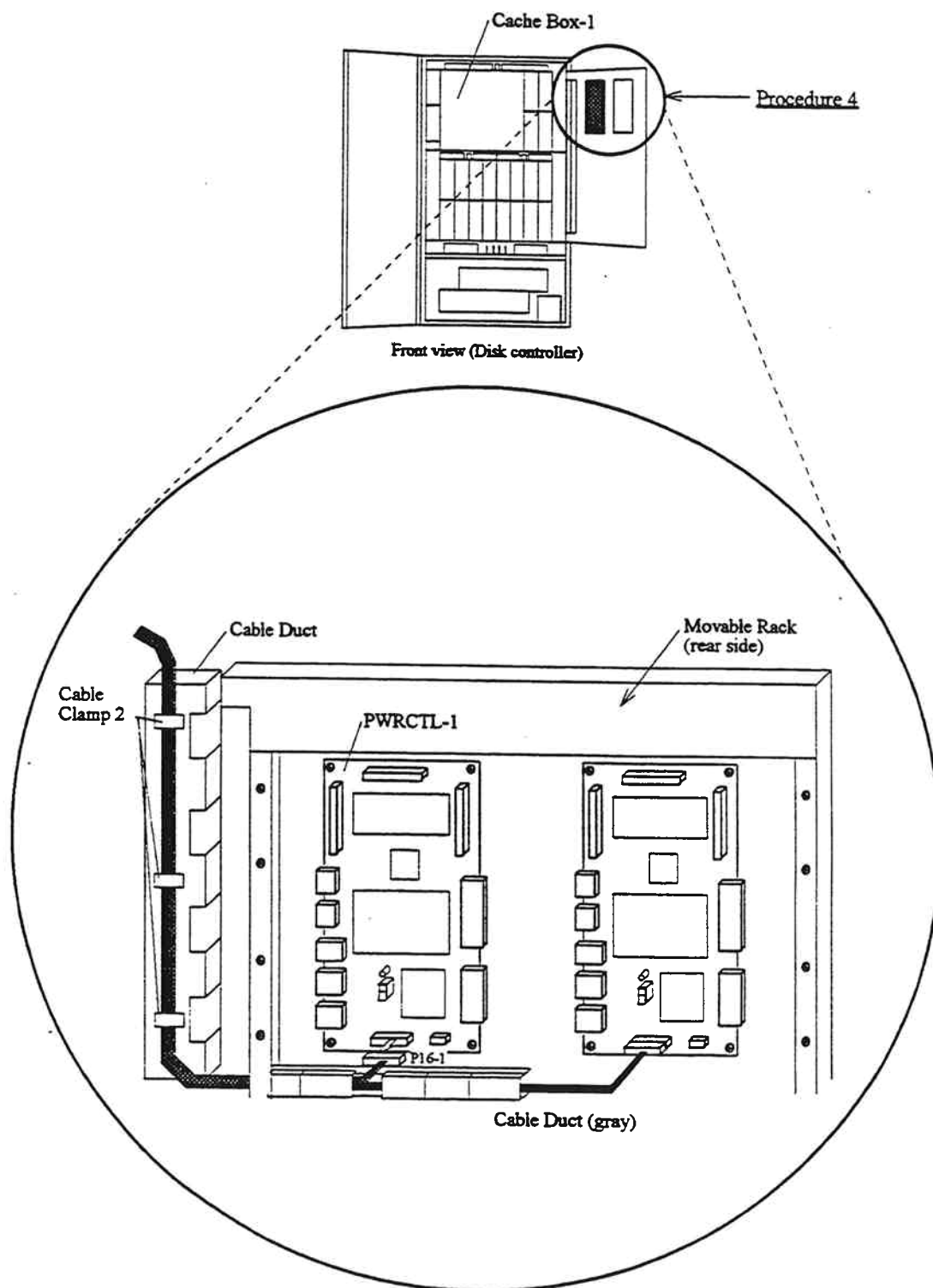


Fig. 3.4.1.7.2-15 Disconnection of the Cables

Procedure 5

- a. Remove Logic PS Box Cover 1 (type 2) and Logic PS Box Cover 2 (type 2). Refer to INST03-10.
- b. Disconnect the cable (CD33C) from the Battery Controller PCB (BATT CTR-3) and connect the cable (CD33).

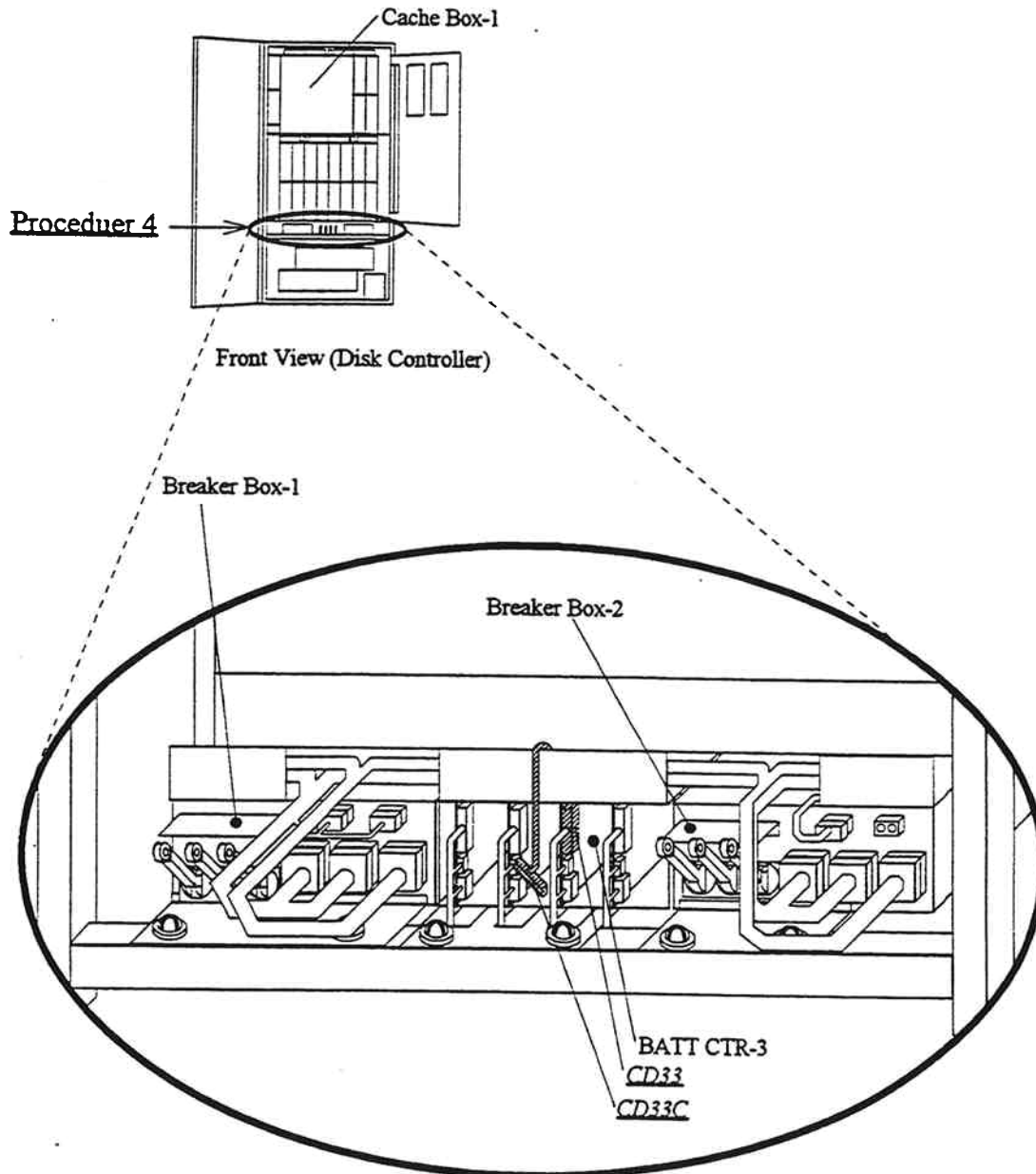


Fig. 3.4.1.7.2-16 Disconnection of the Cables

- c. When de-installing the Cache Memory from Cluster 1, go to INST04-50 step ⑤.

ii. Cluster 2

When de-installing the Cache Memory from Cluster 1, go to INST04-50 step ⑤.

Follow procedures 1 through 5 shown below.

Procedure 1

- a. Disconnect the cables (CD71 to CD73, CD81 to CD83) from the Battery Controller PCBs (BATT CTR-7, BATT CTR-8). Be sure to disconnect these cables in the order of ①, ②, and ③.

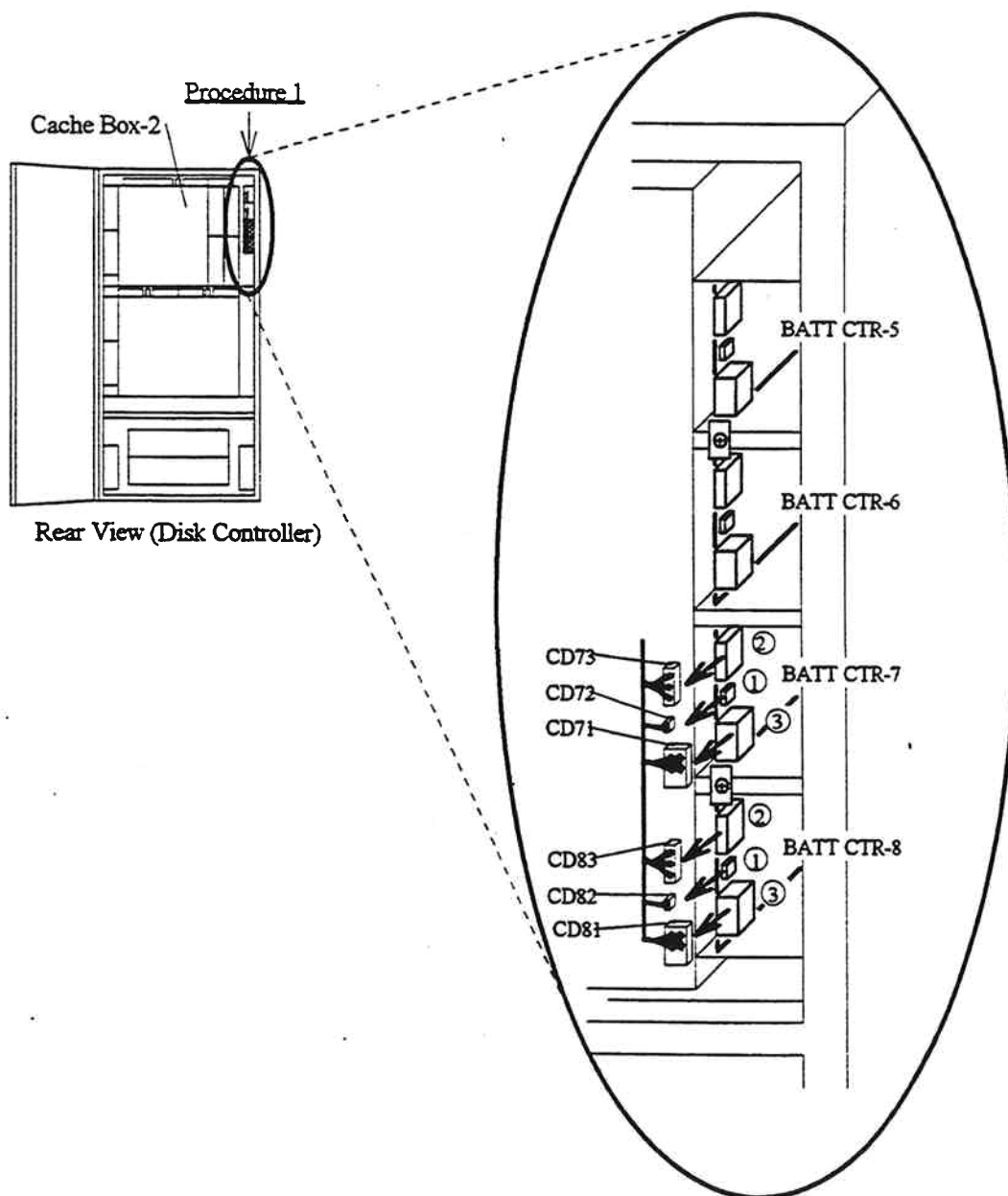


Fig. 3.4.1.7.2-17 Disconnection of the Cables

Procedure 2

- a. Disconnect the cables (FC21, FC22, FC23, FC24) from the FAN Assemblies (FANC21, FANC22, FANC23, FANC24).
- b. Disconnect the cable (PTHC2) connector from the Thermostat Assembly (THC2).

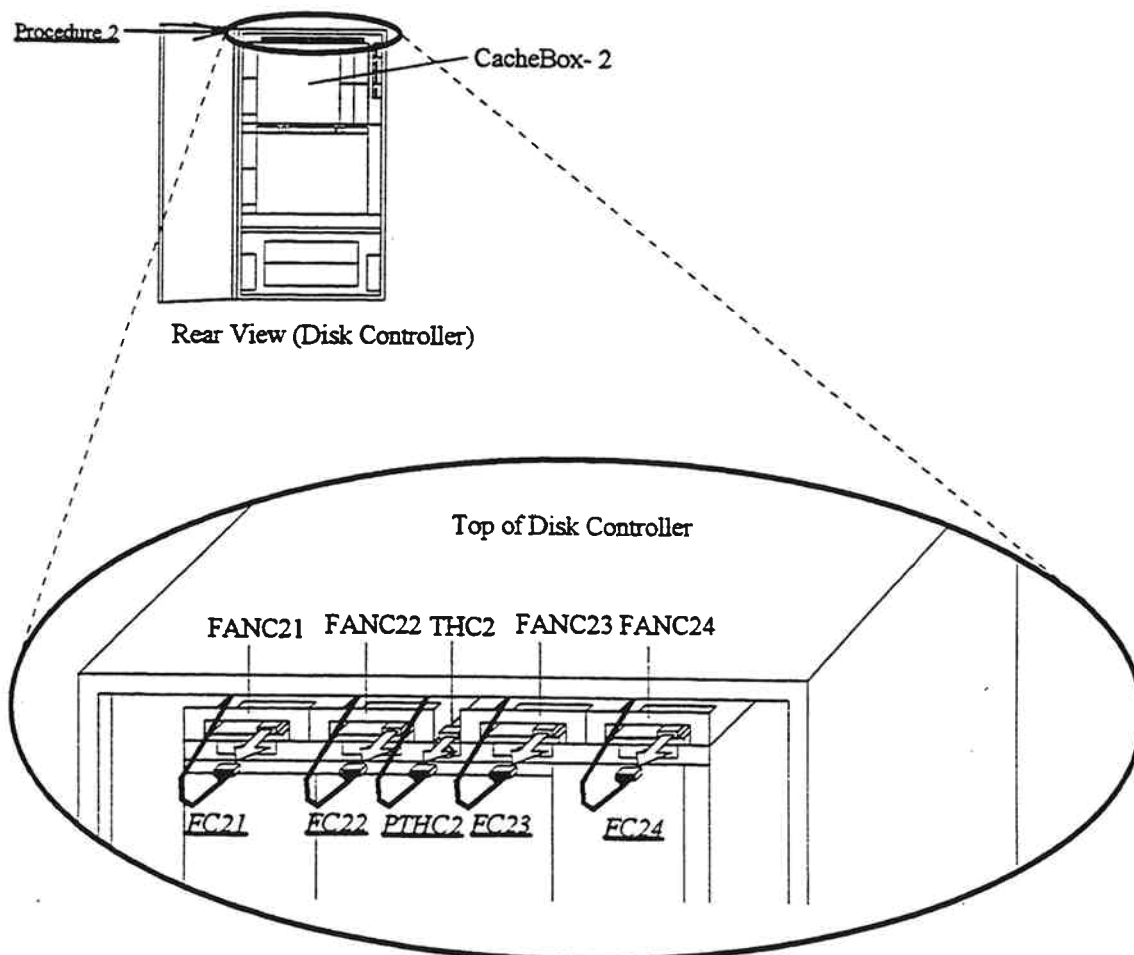


Fig. 3.4.1.7.2-18 Disconnection of the Cables

Procedure 3

- a. Remove the power supply lever (5VPSC20, 3VPSC20) and disconnect the inlet cables (5VPSC20, 3VPSC20).
- b. When the Cache redundant power supply (DKC-F210I-72) is not de-installed, remove the cable clamps from the dummy plate and disconnect the inlet cables (5VPSC21, 3VPSC20).

When the Cache redundant power supply (DKC-F210I-72) is de-installed, Remove the power supply lever (5VPSC21, 3VPSC21) and disconnect the inlet cables (5VPSC21, 3VPSC21).

- c. Remove the repeat binder.
- d. Disconnect the cables (PB7A, PB7B, PB8A, PB8B) from the Battery Assemblies (Battery-7, Battery-8).
- e. Disconnect the cables (C2-N1 through C2-N6) from the CTM PCB (Slot No. N).

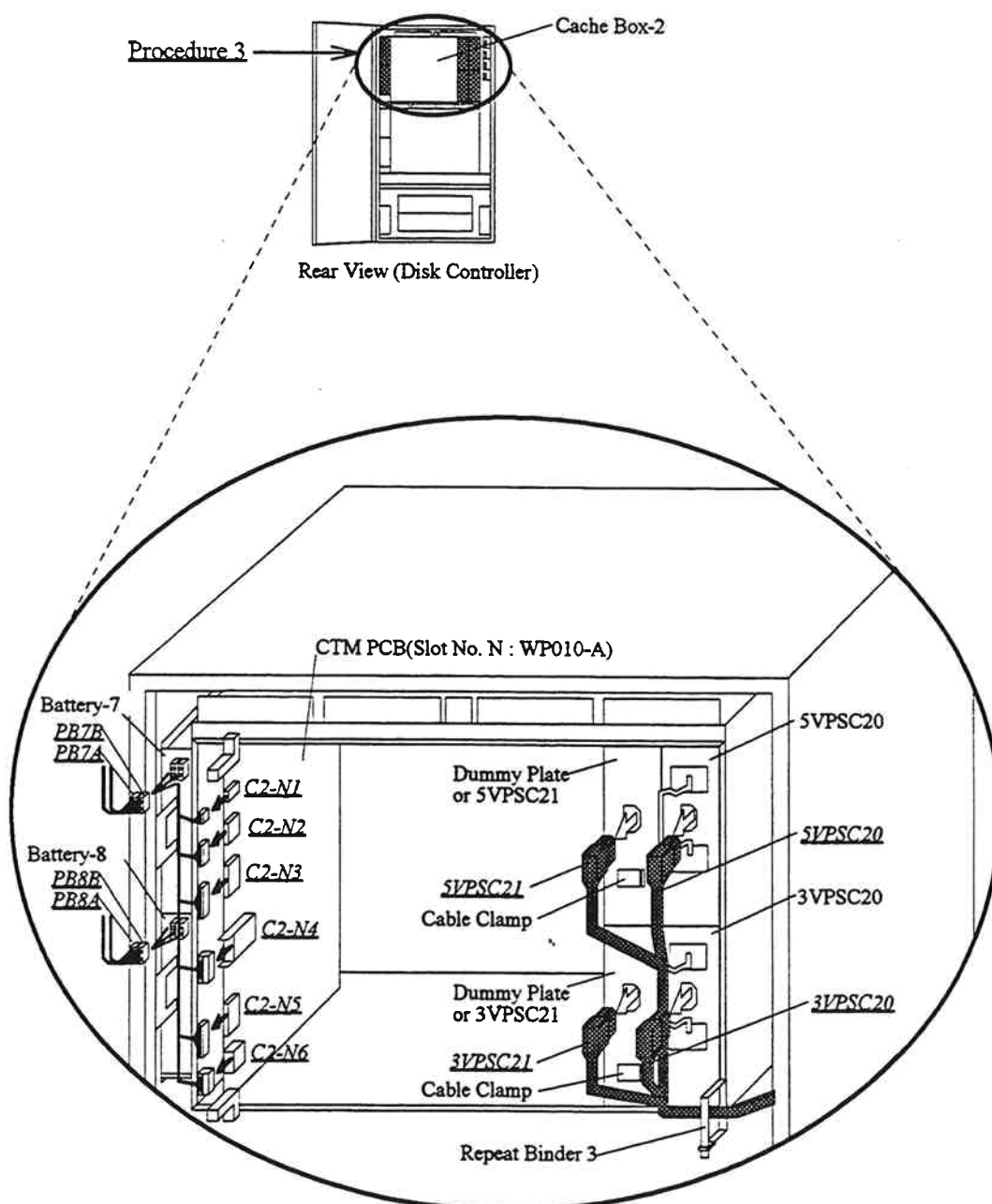


Fig. 3.4.1.7.2-19 Disconnection of the Cables

Procedure 4

- a. Remove Movable Rack Cover 2 from the Movable Rack. Refer to INST03-40.
- b. Disconnect the cable (P16-2) from the PWRCTL-2.
- c. Attach Movable Rack Cover 2 to the Movable Rack. Refer to INST03-40.

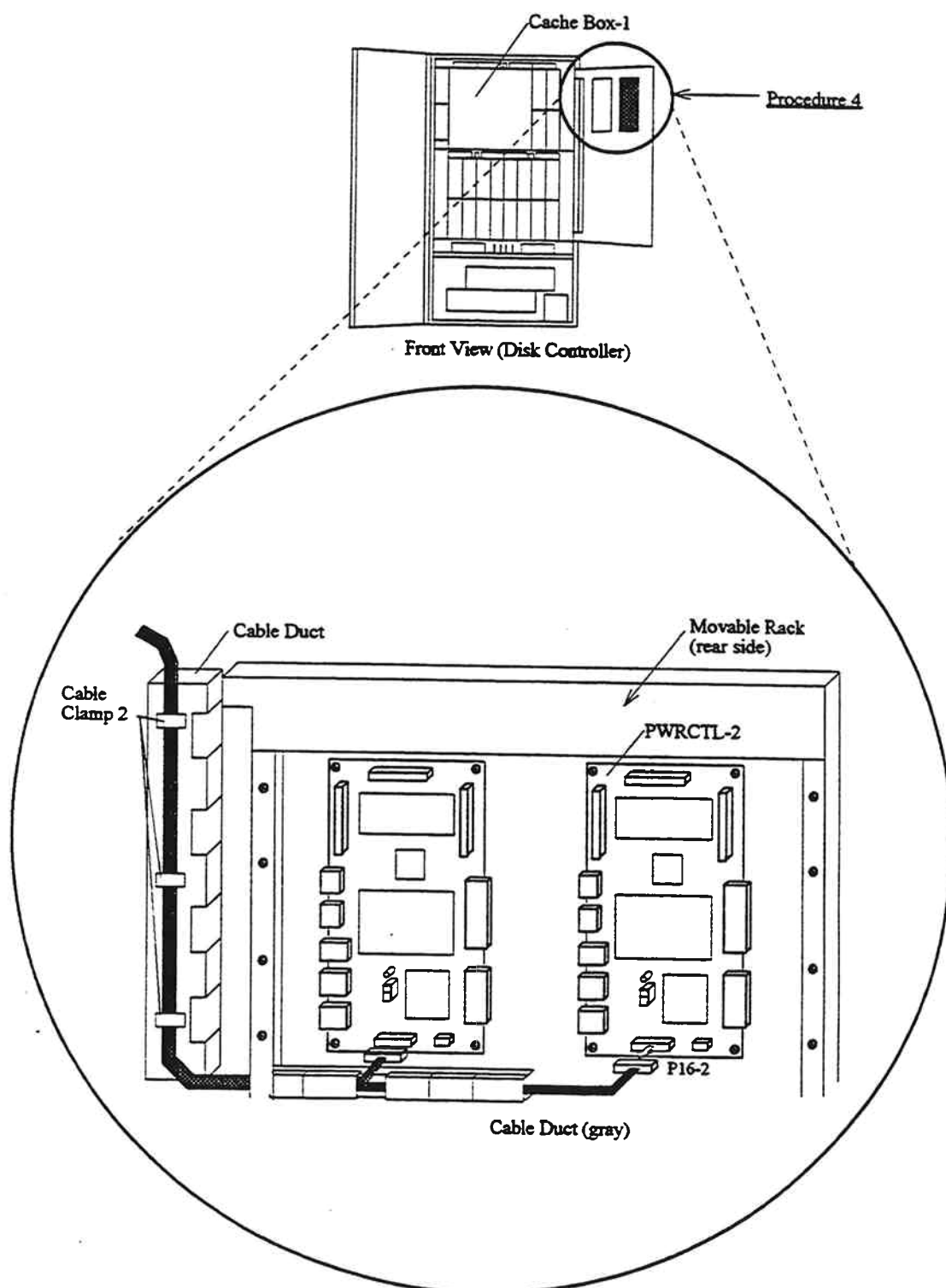


Fig. 3.4.1.7.2-20 Disconnection of the Cables

Procedure 5

- a. Disconnect the cable (CD43C) from the Battery Controller PCB (BATT CTR-4) and connect the cable (CD43).

**WARNING****Be Careful with Electric Shock**

- The connector (J201) on Breaker Box is a live part. So be sure to keep tools and parts such as a screwdriver and screw from contact with the connector.
- Be sure to connect or disconnect the cables (P201-1 and P201-2) of the Breaker Box with one hand. This can prevent an electric current from flowing between your arms if you touch the live part of the connector (J201).

- b. Disconnect the cable (P201-1) from the Breaker Box (Breaker Box-1) and connect the dummy connector (P201).
- c. Disconnect the cable (P201-2) from the Breaker Box (Breaker Box-2) and connect the dummy connector (P201).
- d. Go to INST04-60 step ④.

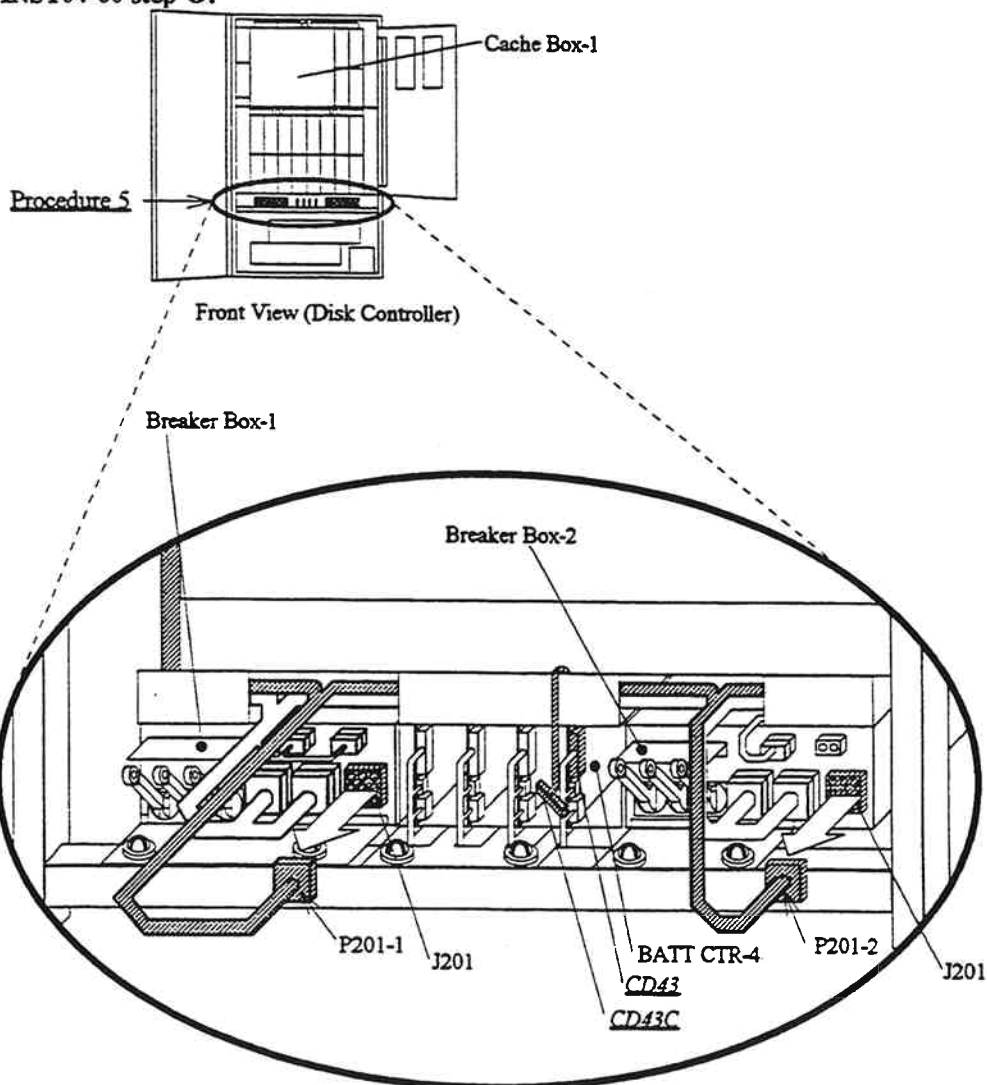


Fig. 3.4.1.7.2-21 Disconnection of the Cables

7. Remove the Cache Box-1 and Cache Box-2 parts from the Cache Boxes.

- a. Loosen screw ① and remove the Fan Assemblies (4 assemblies per box).
- b. Loosen screw ② and remove the Thermostat Assembly (1 assembly per box).
- c. Loosen screws ③ and ④ and remove the Battery Assemblies (2 assemblies per box).
- d. Loosen screws ⑤ and ⑥ and remove the 5V and 3.3V Power Supplies (1 each per box).
- e. When the Cache redundant power supply (DKC-F210I-72) is not de-installed, loosen screws ⑦ and ⑧ and remove the Dummy Plates (2 plates per box).

When the Cache redundant power supply (DKC-F210I-72) is de-installed, loosen screws ⑤ and ⑥ and remove the 5V and 3.3V Power Supplies (1 each per box).

- f. Loosen screws ⑨ and ⑩ and rotate the clamp 90 degrees. Remove the four Battery Controller PCBs (Cache Box-2 only).

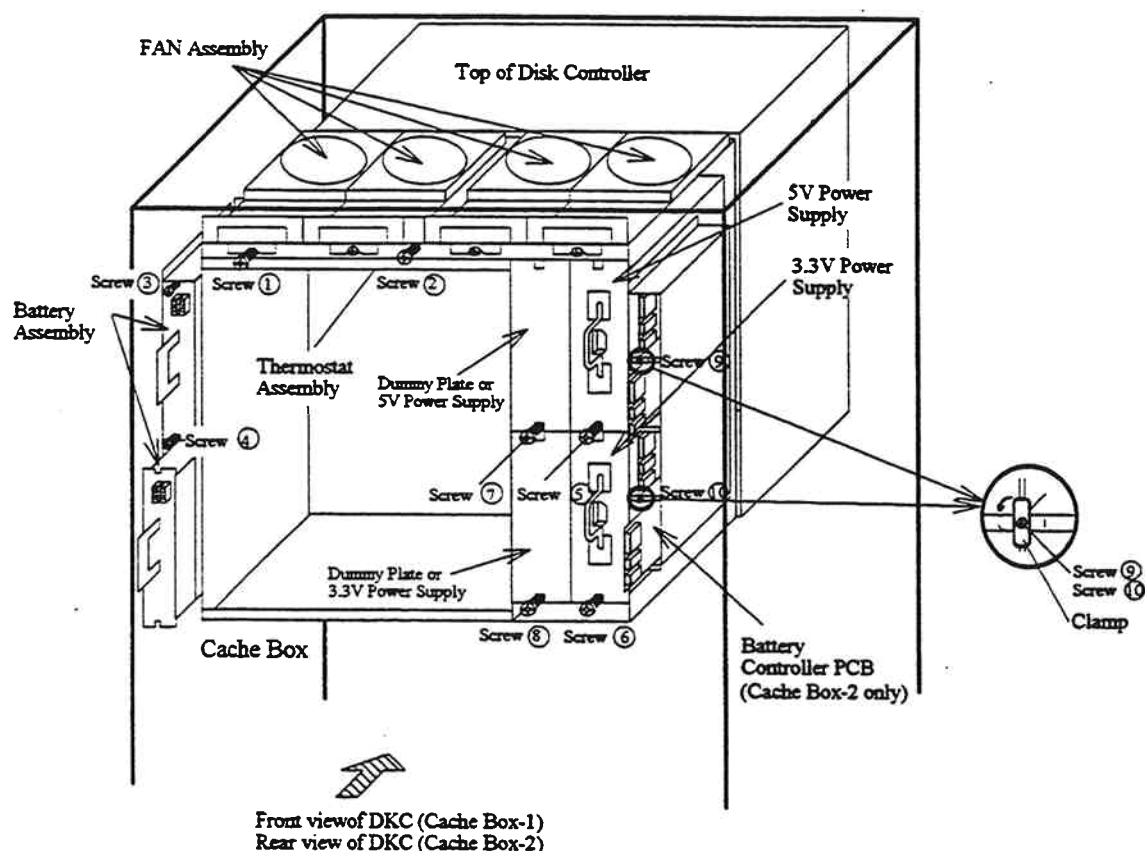


Fig. 3.4.1.7.2-22 Removal of the Parts

- g. Remove the two screws and remove the CTM PCBs (Slot No. C and N : WP010-A) from the Cache Box.

8. Remove Cache Box-1 and Cache Box-2. (See "3.3.7.8 Connection of Handling vehicle (INST03-1680)")

- a. Loosen the four screws at the top of Cache Box-1 (in the front side) and on the frame. Remove the two brackets which fix the box. Fasten the four screws. Repeat this procedure for Cache Box-2 (in the rear side).

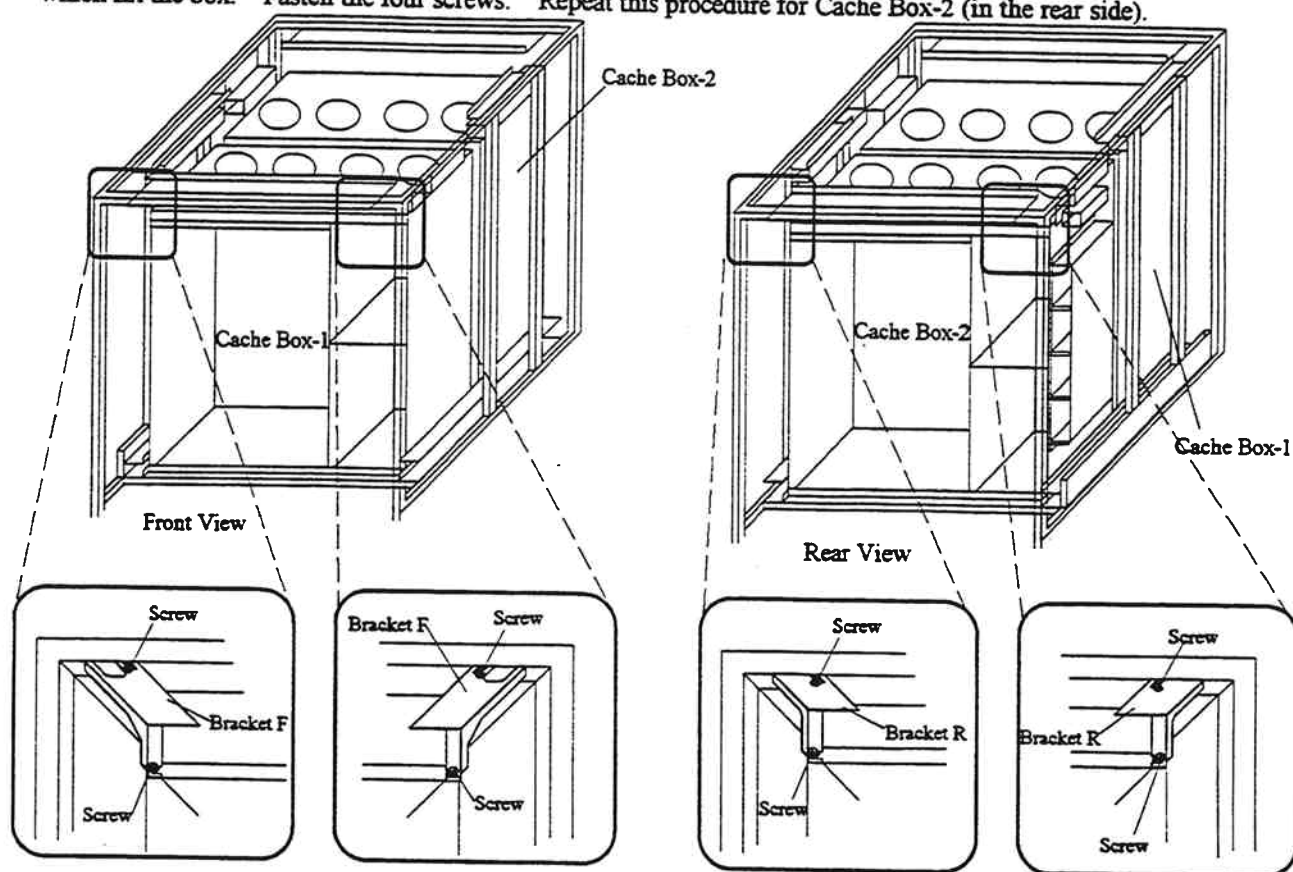


Fig. 3.4.1.7.2-23 Removal of the Brackets

- b. Loosen the four screws at the bottom of Cache Box-1 (in the front side) and on the frame. Remove the plate which fixes the box. Fasten the four screws. Repeat this procedure for Cache Box-2 (in the rear side).

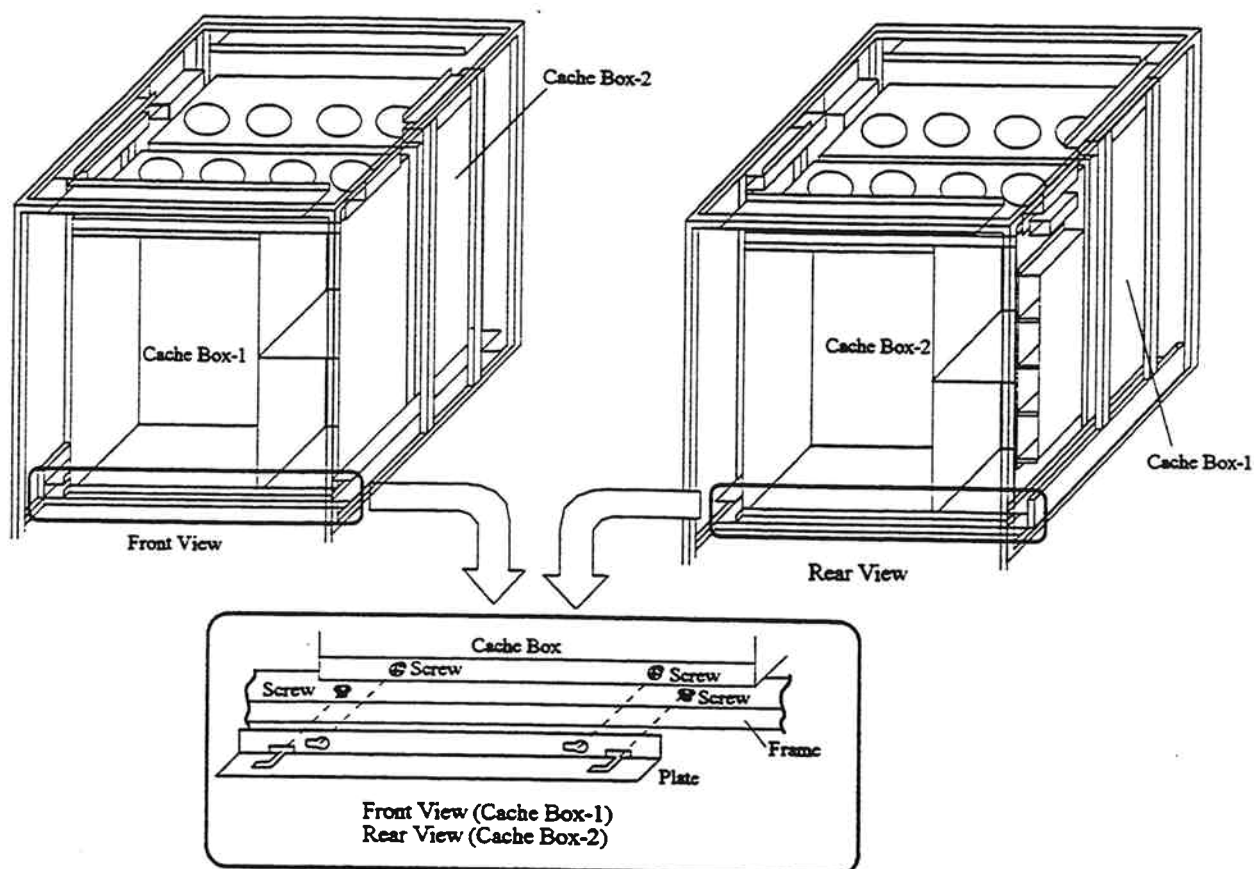


Fig. 3.4.1.7.2-24 Removal of the Plates

- c. Remove Cache Box-2 from the rear side.

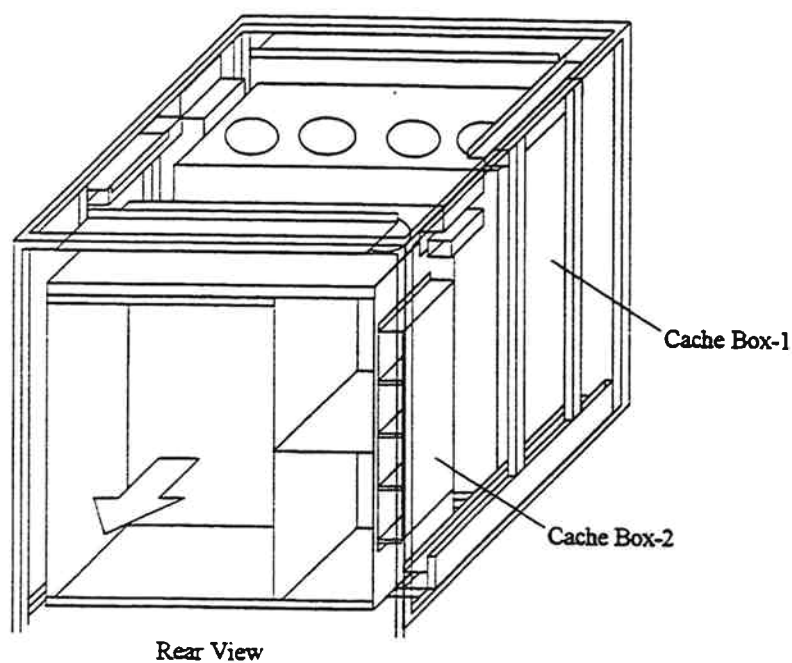
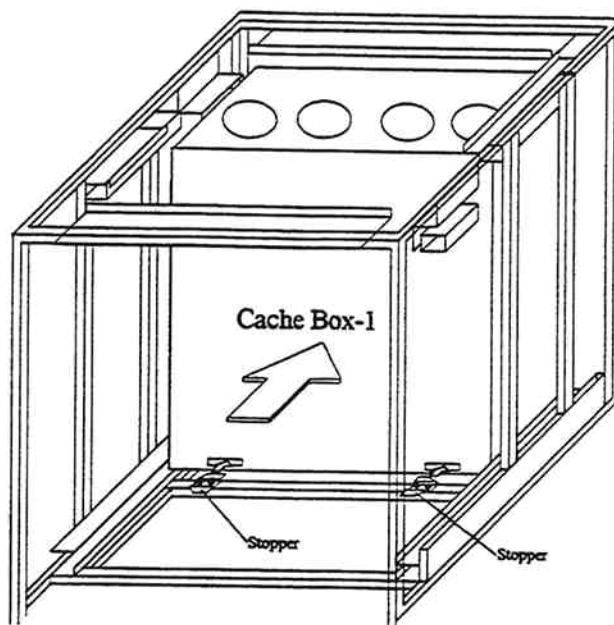


Fig. 3.4.1.7.2-25 Removal of the Cache Box-2

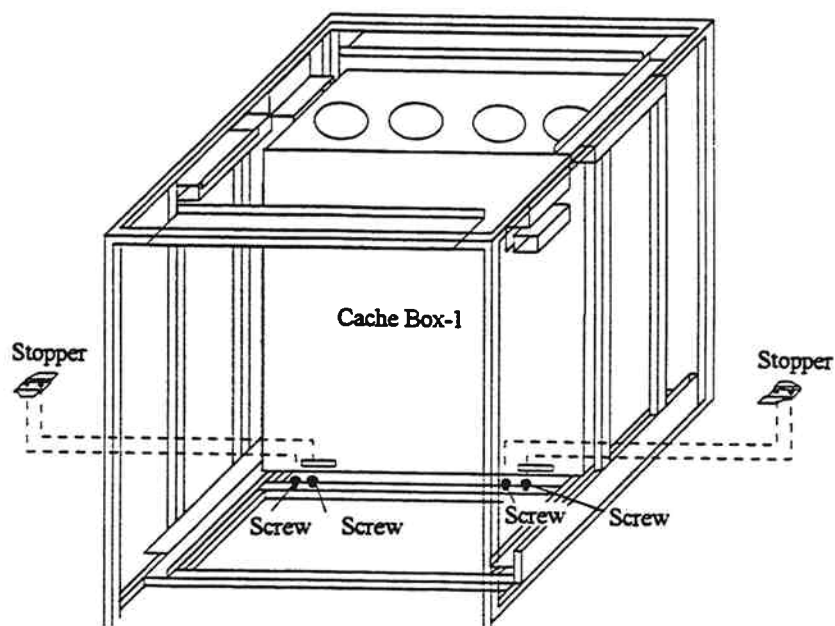
- d. Push the Cache Box-1 in the fore direction of equipment until it is removed from the stopper.



Rear View

Fig. 3.4.1.7.2-26 Removal of the Cache Box-1

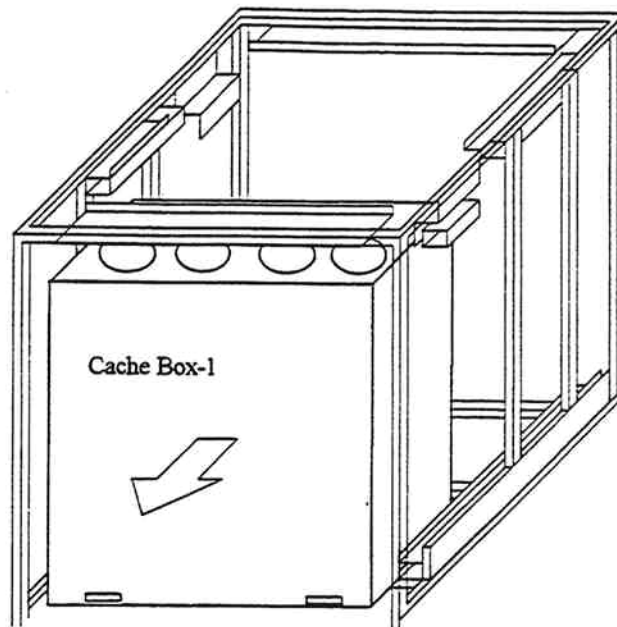
- e. Loosen the four screws. Remove the two stoppers and fasten the four screws.



Rear View

Fig. 3.4.1.7.2-27 Removal of the Stopper

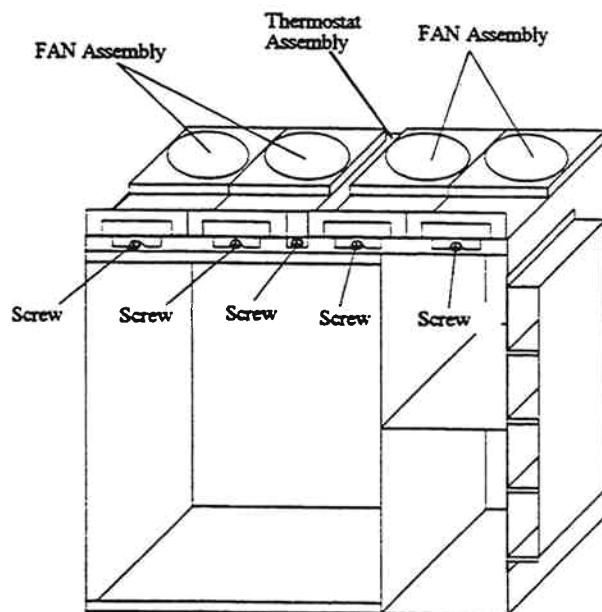
f. Remove Cache Box-1 from the rear side.



Rear View

Fig. 3.4.1.7.2-28 Removal of the Cache Box-1

g. Loosen the five screws. Attach the Fan Assemblies and Thermostat Assemblies to Cache Box-1 and Cache Box-2. Fasten the five screws.



Cache Box

Fig. 3.4.1.7.2-29 Attachment of the Parts

- h. Loosen the four screws. Remove the two rails and fasten the four screws. Refer to Fig. 3.4.1.7.2-30 or Fig. 3.4.1.7.2-30A.

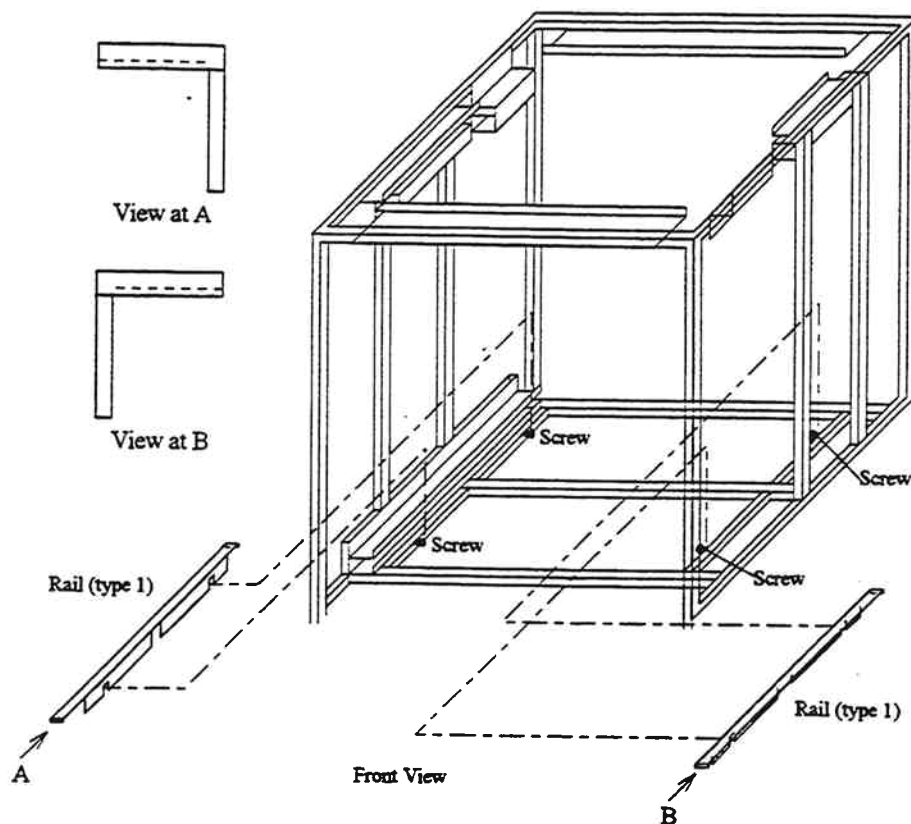


Fig. 3.4.1.7.2-30 Removal of the Rails

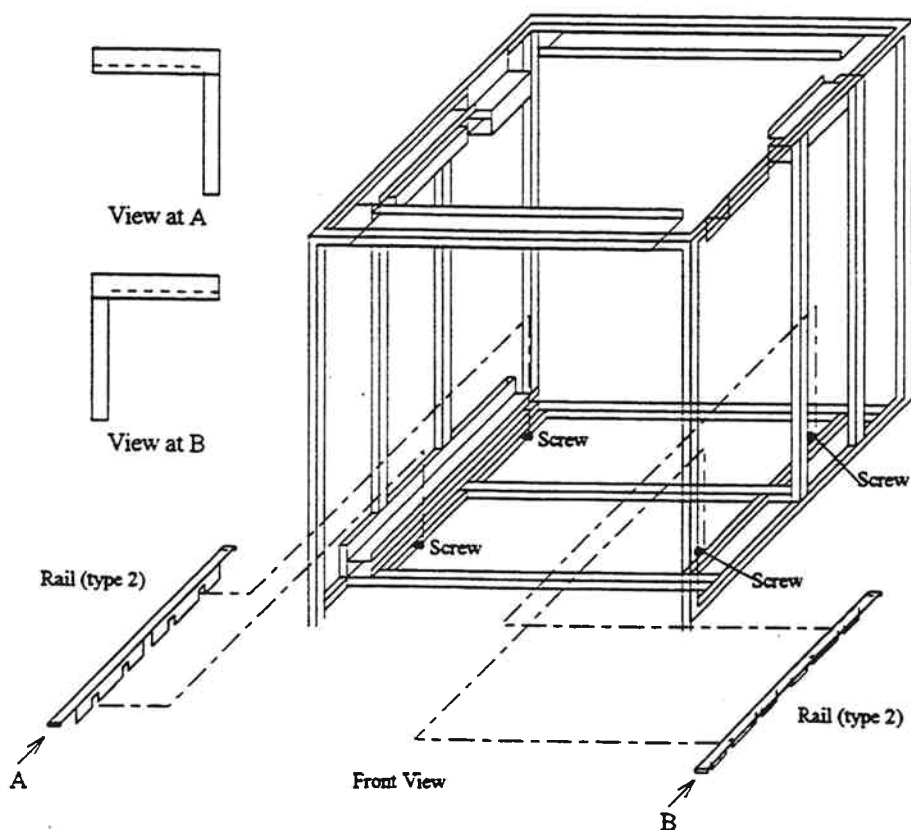


Fig. 3.4.1.7.2-30A Removal of the Rails

9. Remove the Cables from Cache Box-1 and Cache Box-2.

- a. Remove the three repeat binders from the cables projecting from each of the front and rear sides of the frame.

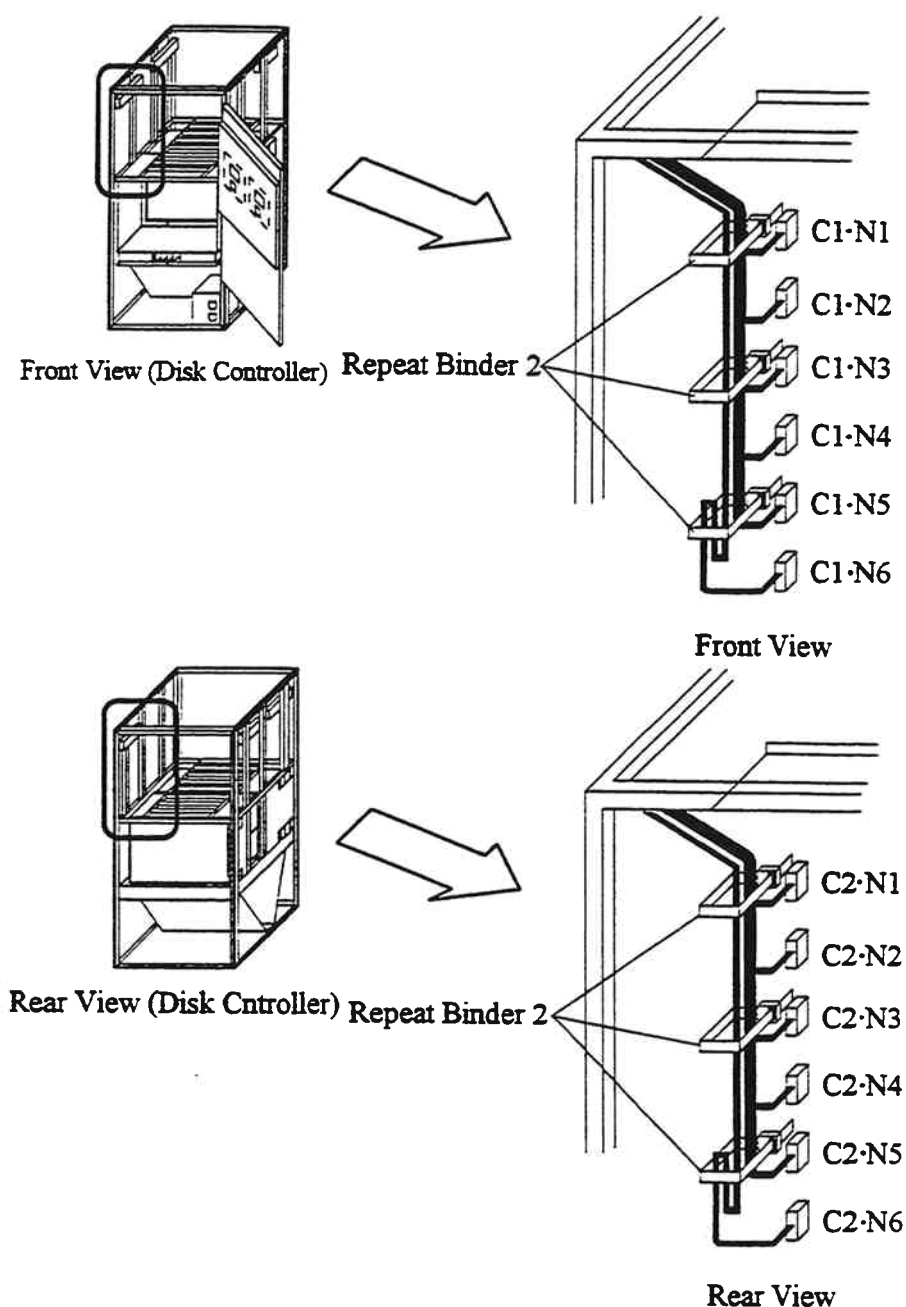


Fig. 3.4.1.7.2-31 Removal of the Cables

b. Remove the seven cables from the bottom of the cable duct.

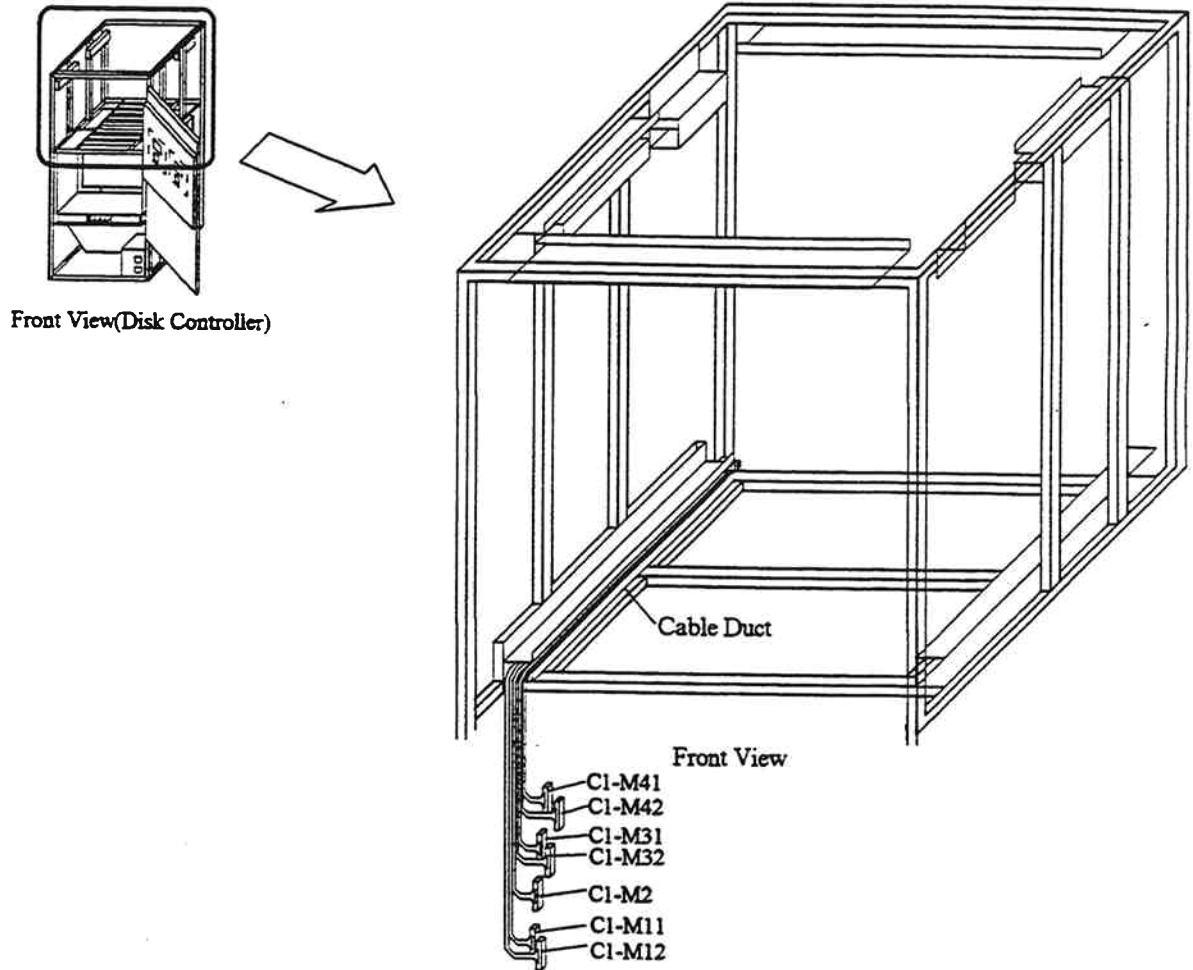


Fig. 3.4.1.7.2-32 Removal of the Cables

c. Remove Cable Assembly 2 and Cable Assembly 3

① In case of DKC210I S/N 30001 - 30204, 40001, 40002, 50001, 50002

Unfasten the four cable clamps at the right side of the frame. Remove Cable Assembly 2 and Cable Assembly 3.

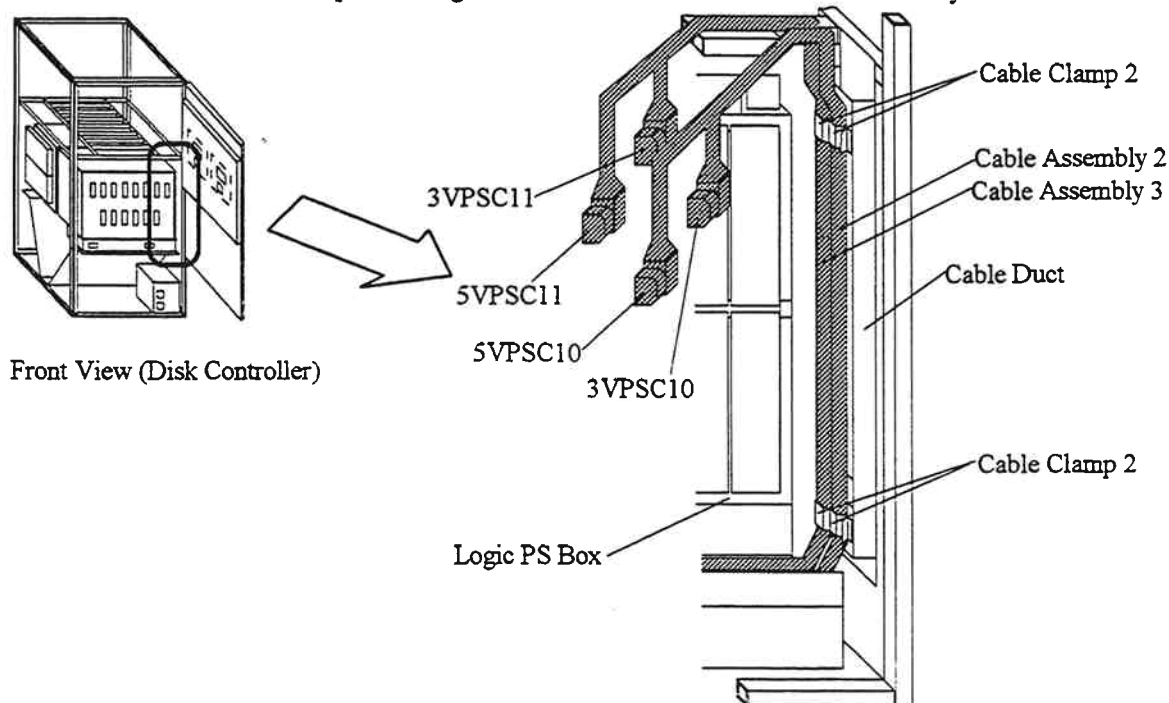


Fig. 3.4.1.7.2-33 Removal of the Cables

② In case of DKC210I S/N 30205-, 40003-, 50003-

Unfasten the three repeat binders at the right side of the frame. Remove Cable Assembly 2 and Cable Assembly 3 and fasten the three repeat binders.

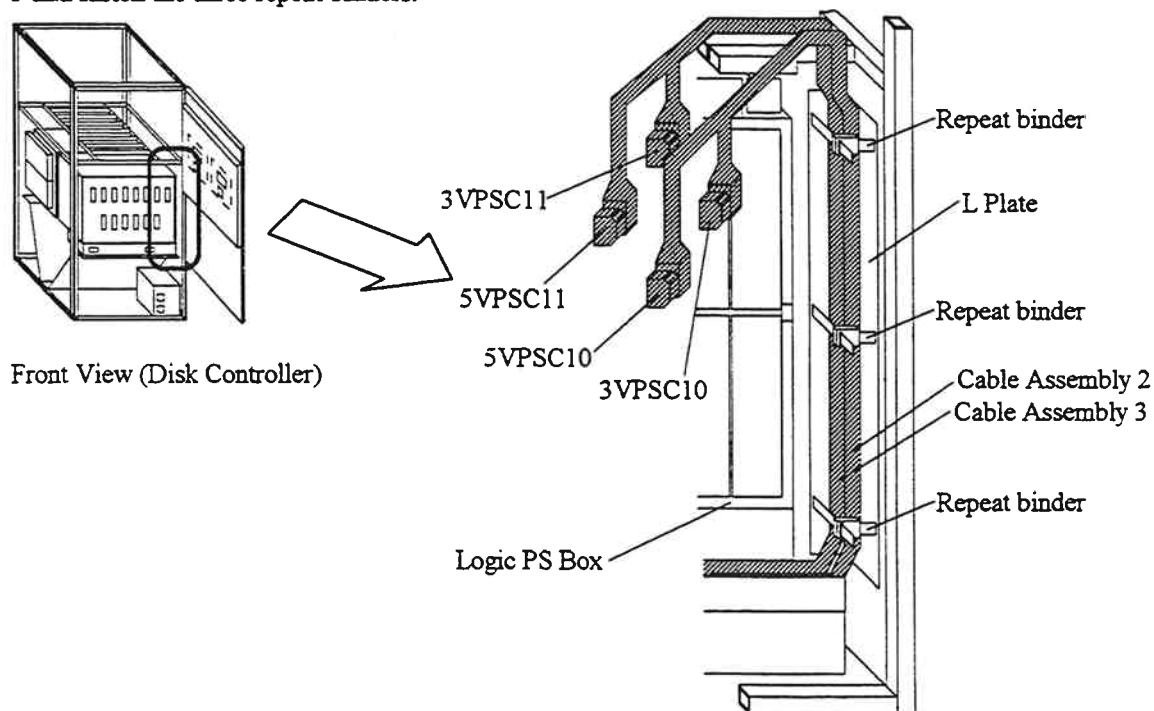


Fig. 3.4.1.7.2-33A Removal of the Cables

- d. Unfasten the four cable clamps at the left side of the frame to remove Cable Assembly 2 and Cable Assembly 3. Unfasten the four repeat binders at the bottom of the Logic PS Box, remove Cable Assembly 2, Cable Assembly 3, and cables (CD32C and CD43C), and fasten the four repeat binders.

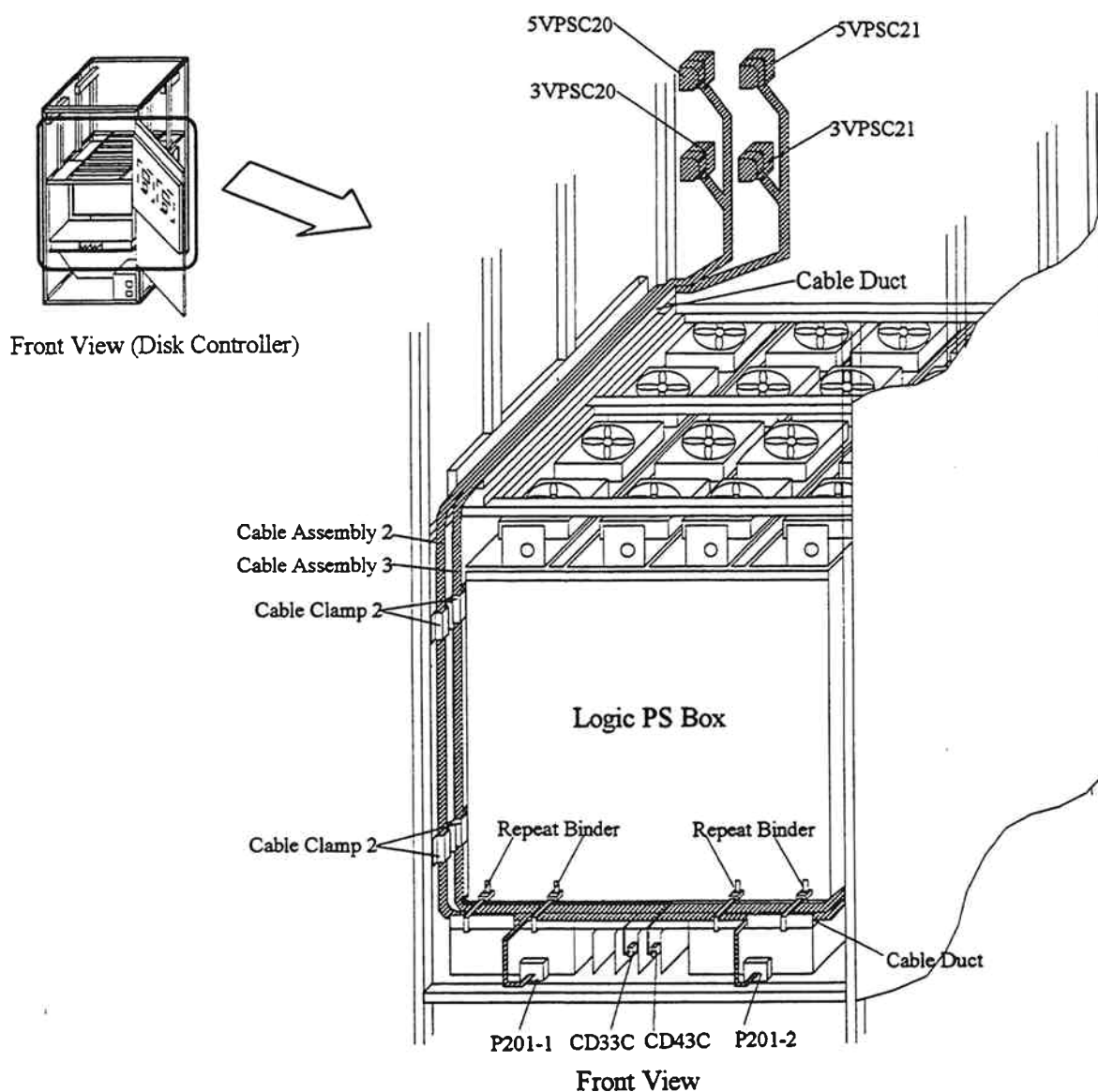


Fig. 3.4.1.7.2-34 Removal of the Cables

e. Exchange the supports.

① In case of DKC210I S/N 30001 - 30204, 40001,40002,50001,50002

Remove the two screws and remove the Support-LC and RC. Attach the Support-L and R and secure the two screws.

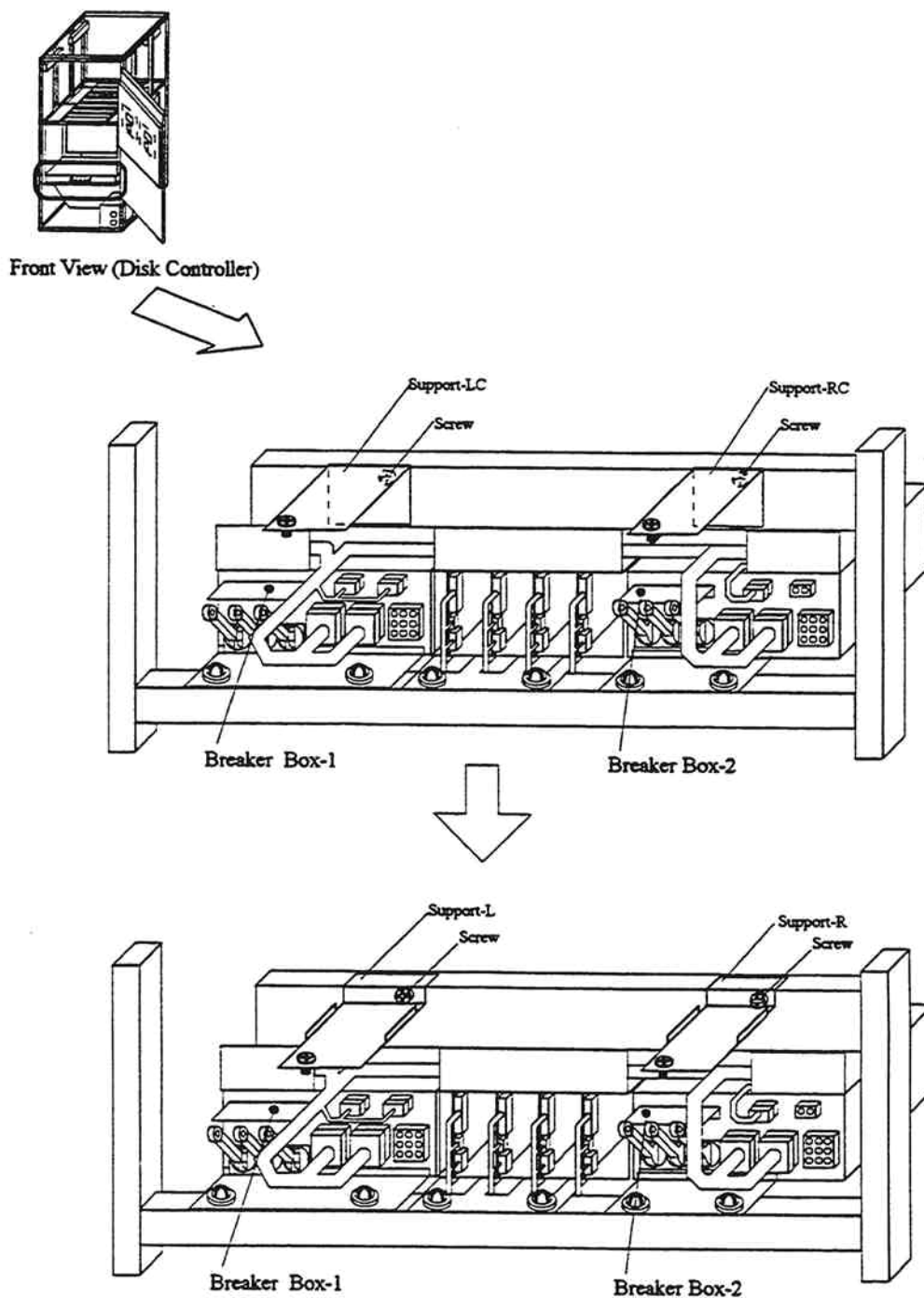


Fig. 3.4.1.7.2-35 Removal of the Supports

Ⓢ In case of DKC210I S/N 30205 - 30434, 40003-40218, 50003 - 50175

Loosen the two screws and remove the Support-LC and RC. Attach the Support-L and R and secure the two screws.

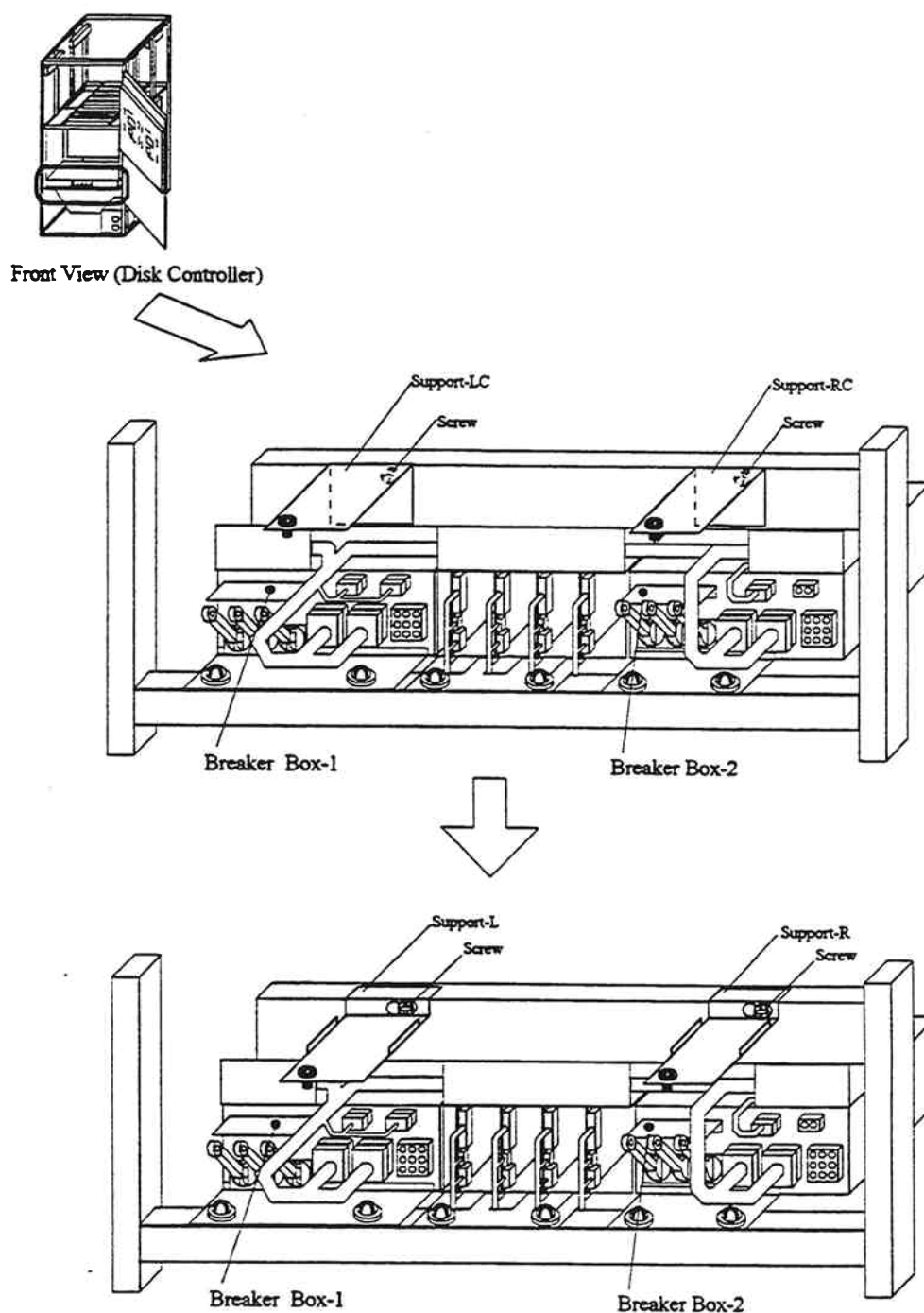


Fig. 3.4.1.7.2-36 Removal of the Supports

③ In case of DKC210I S/N 30435-, 40219-, 50176-

Loosen the two screws and remove the Support-LC and RC. Attach the Support-L and R and secure the two screws.

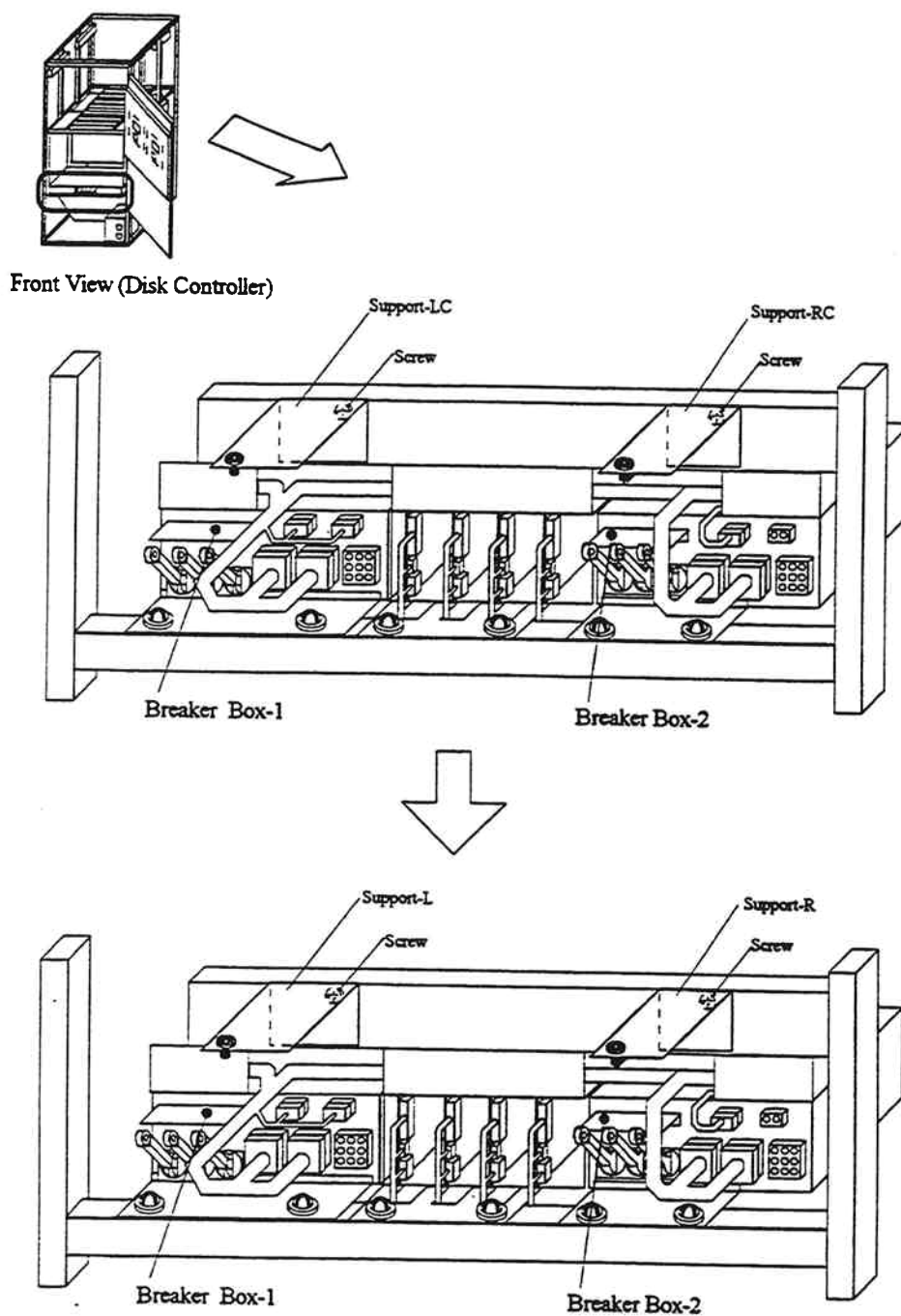


Fig. 3.4.1.7.2-36A Removal of the Supports

f. Attach Logic PS Box Cover 1 and 2. Refer to INST03-10

- g. Remove Movable Rack Cover 2 from the Movable Rack. Refer to INST03-40.
- h. Remove the cable covers from the cable duct (gray) to remove the cables. Attach the cable covers. Unfasten the three cable clamps on the cable duct to remove the cables.

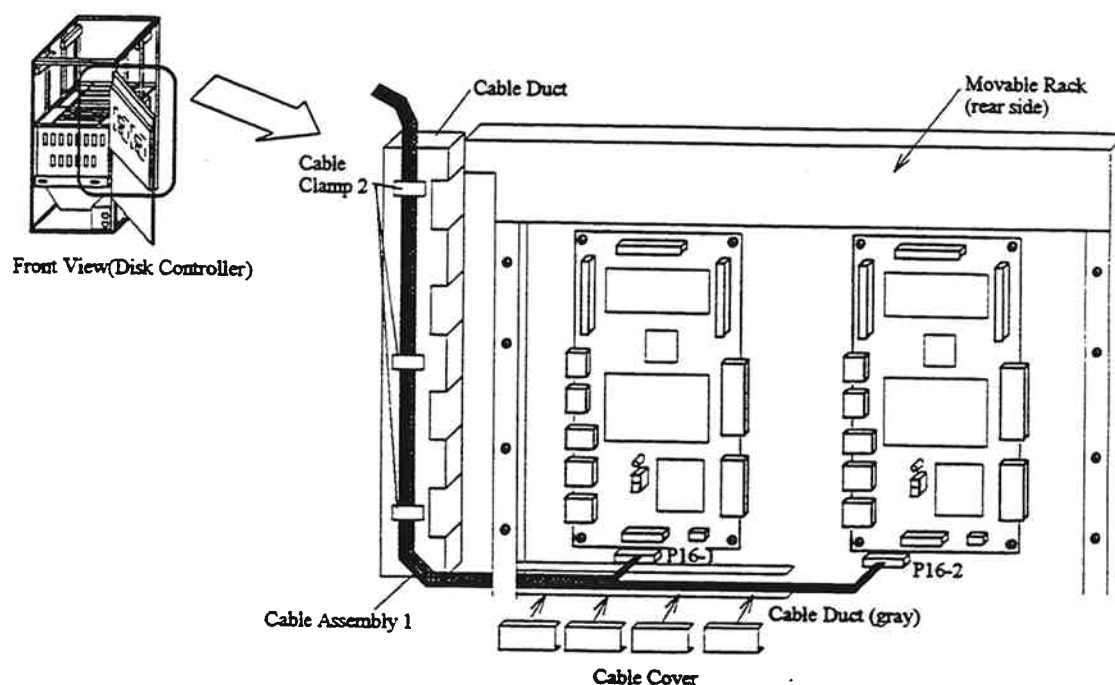


Fig. 3.4.1.7.2-37 Removal of the Cable Assembly 1

- i. Attach Movable Rack Cover 2 to the Movable Rack. Refer to INST03-40.

- j. Unfasten the three repeat binders to remove Cable Assembly 1 and cable (C1-N6). Unfasten the two repeat binders on the Logic PS Box to remove Cable Assembly 1.

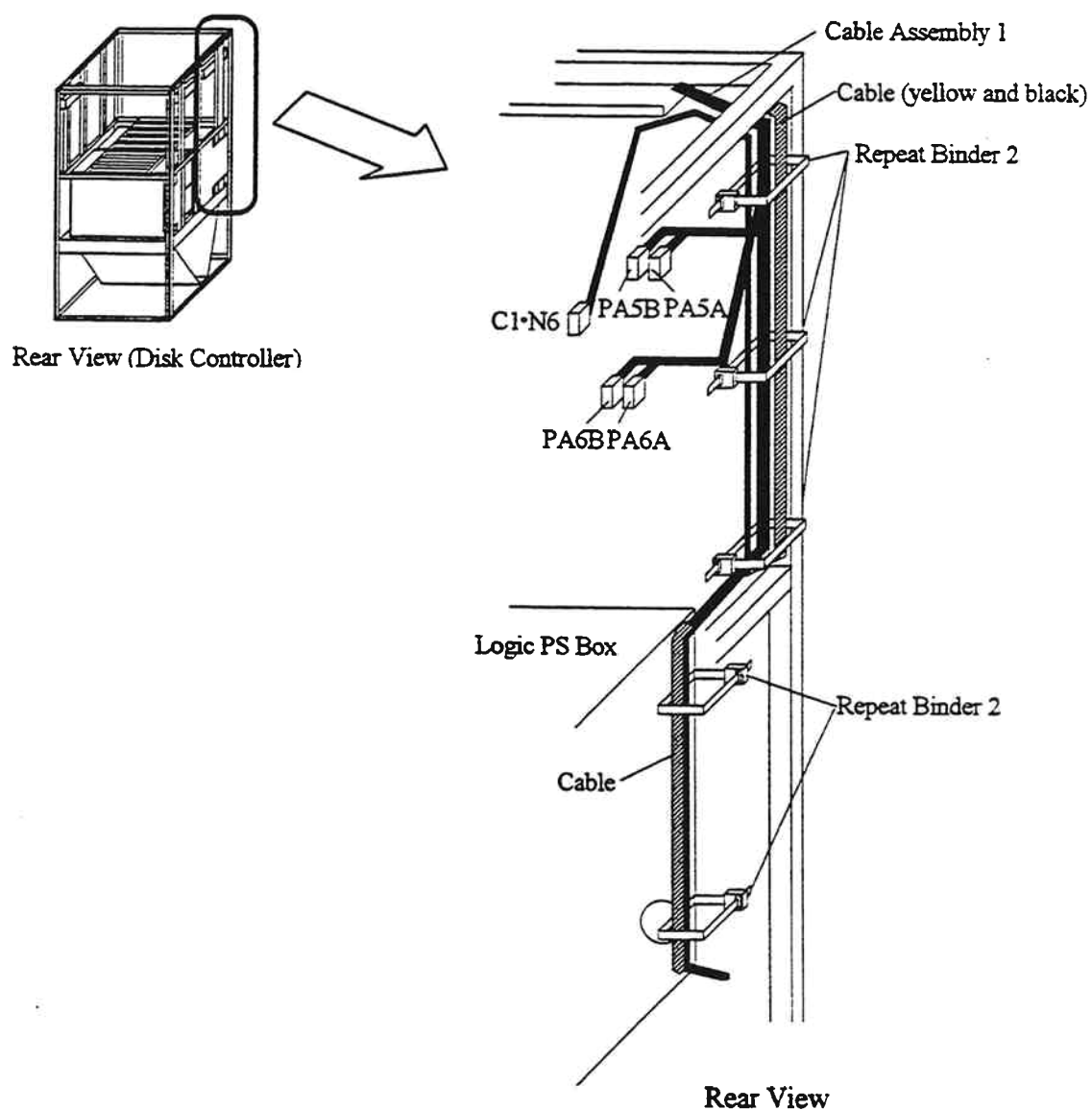


Fig. 3.4.1.7.2-38 Removal of the Cable Assembly 1

- k. Remove the three repeat binders to remove Cable Assembly 1.

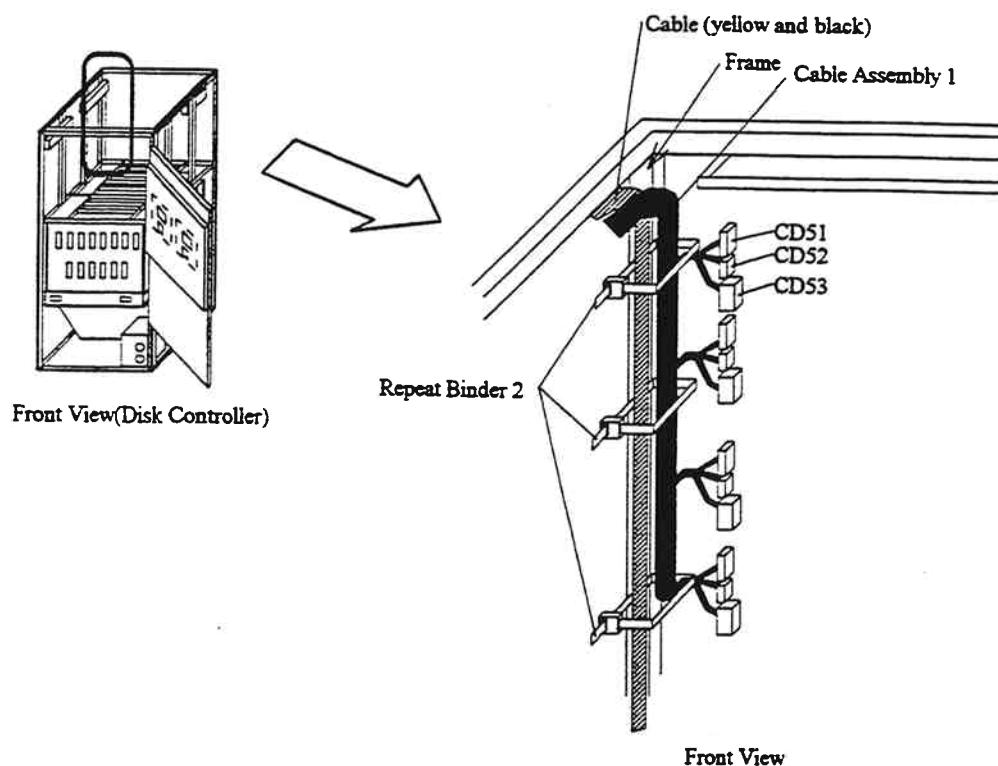


Fig. 3.4.1.7.2-39 Removal of the Cable Assembly 1

- l. Unfasten the cable clamp on the frame to remove Cable Assembly 1.

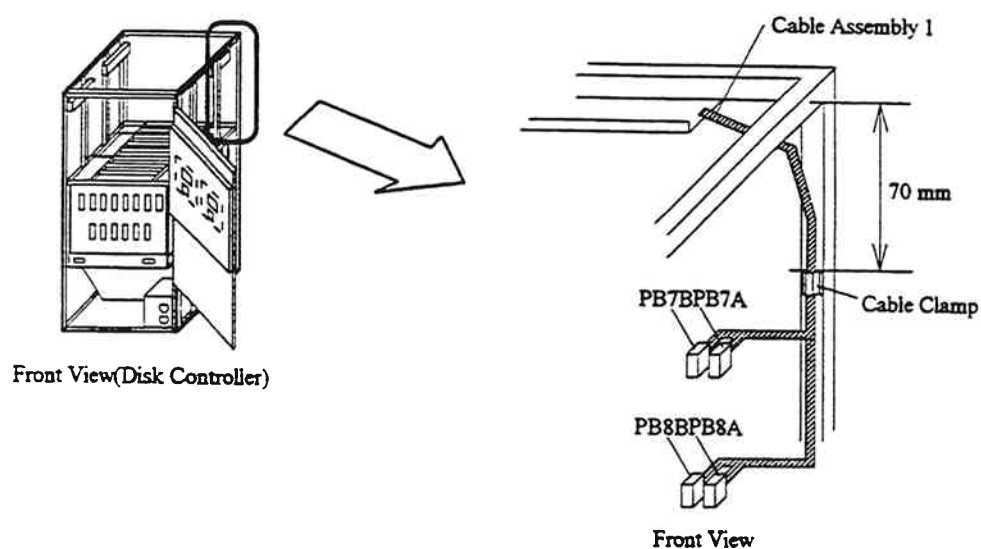


Fig. 3.4.1.7.2-40 Removal of the Cable Assembly 1

- m. Unfasten the ten repeat binders. Remove Cable Assembly 1 from the four plates at the top of the frame.

Fasten the ten repeat binders.

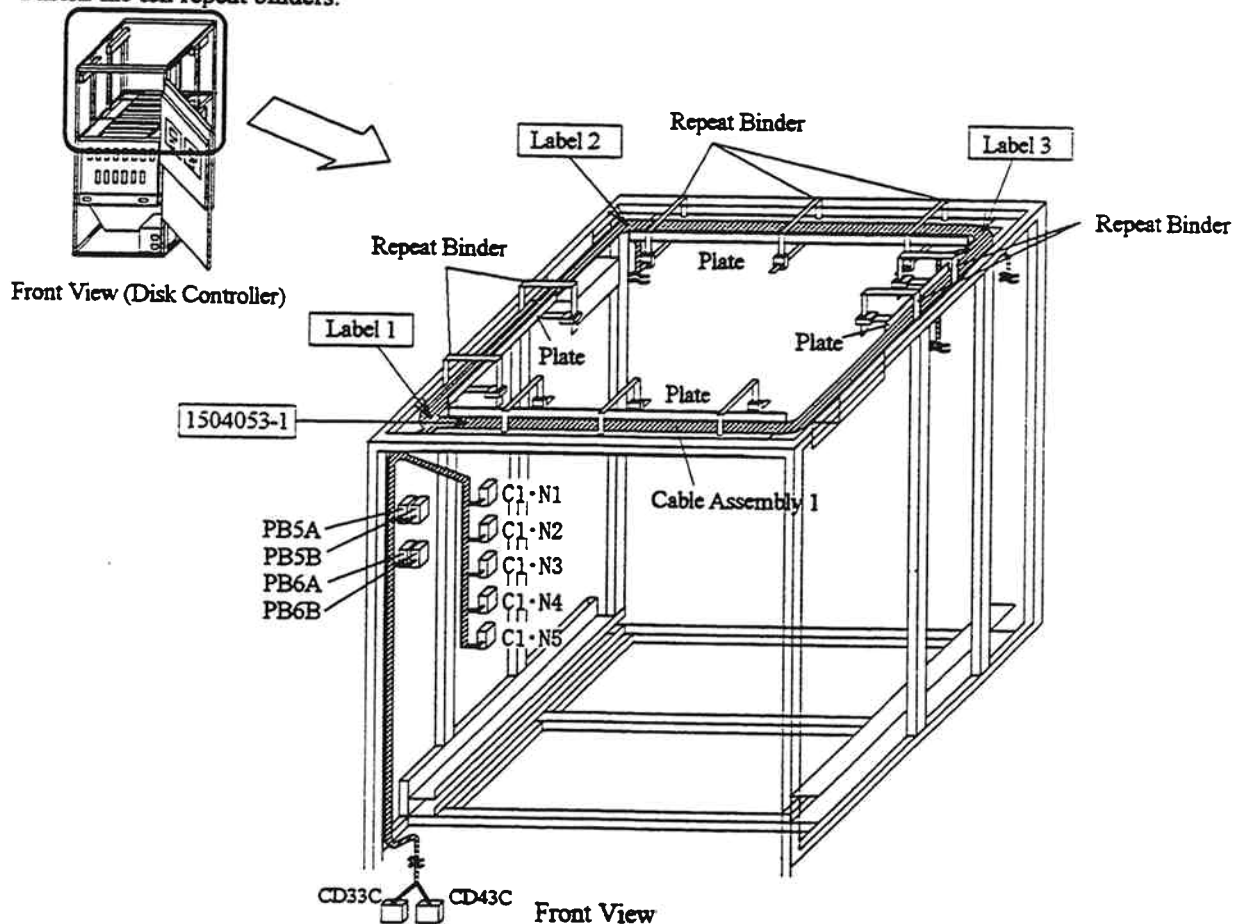


Fig. 3.4.1.7.2-41 Removal of the Cable Assembly 1

- n. Attach repeat binder to bind the cable (C1-N6). Unfasten the three repeat binders and attach the cable (C2-N6).

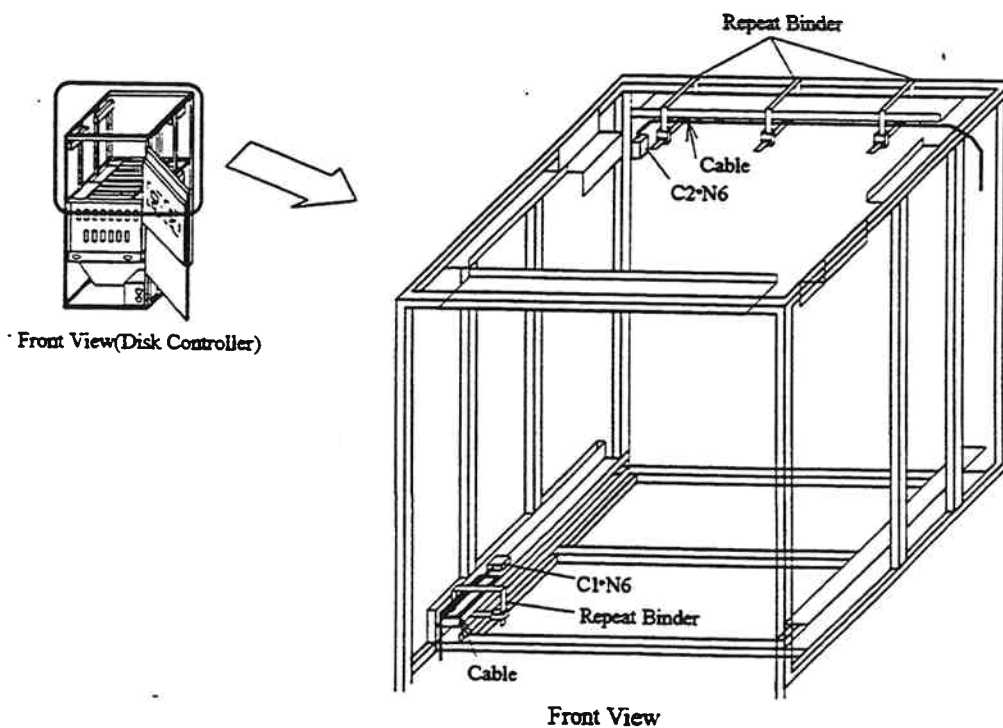


Fig. 3.4.1.7.2-42 Attachment of the Cables

- p. Remove the cable from the cable box in the rear side. Loosen screws ① through ⑥. Remove the battery box and cable box and fasten screws ③ through ⑥. (When Basic DKU is installed, there is no cable inside the cable box.)

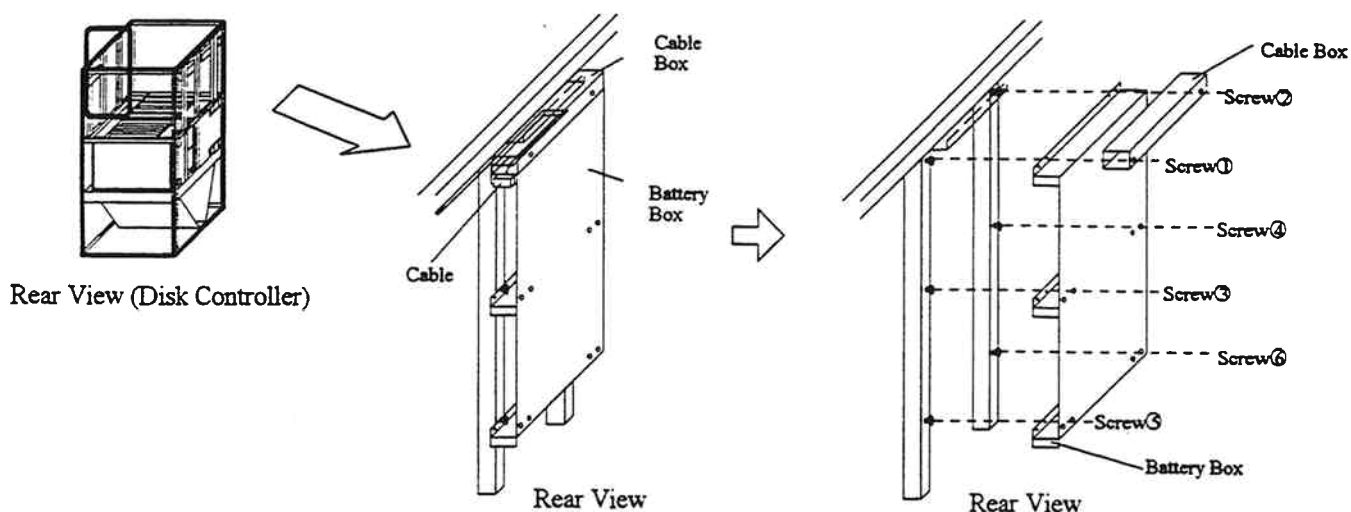


Fig. 3.4.1.7.2-43 Removal of the Battery Box.

- q. Attach the cable box and fasten screws ① and ②. Insert the cable into the cable box. (When Basic DKU is installed, there is no cable inside the cable box.)

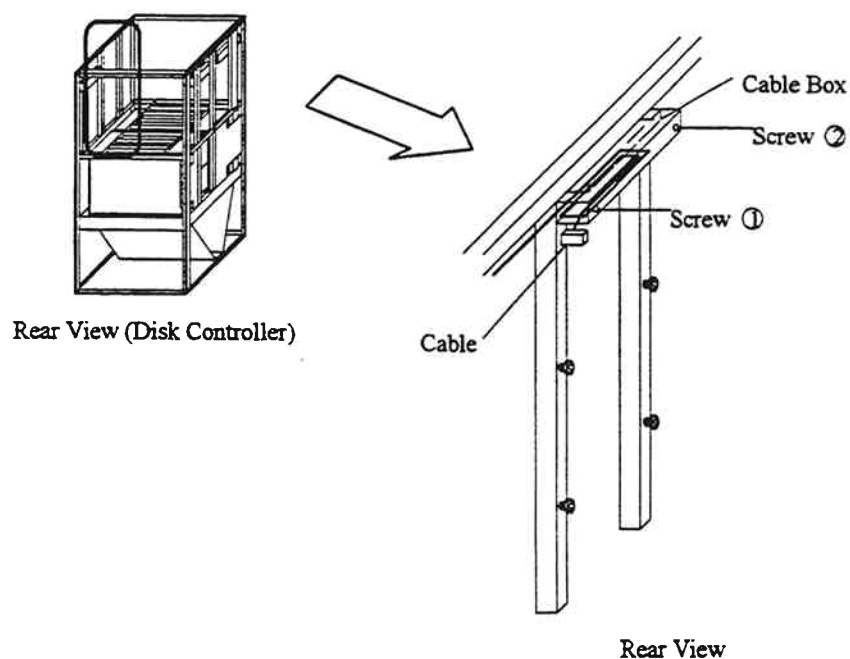


Fig. 3.4.1.7.2-44 Attachment of the Cable Box

- r. Remove the cable from the cable box in the rear side. Loosen screws ① through ⑥. Remove the battery box and cable box and fasten screws ③ through ⑥. (When 2nd DKU is installed, there is no cable inside the cable box.)

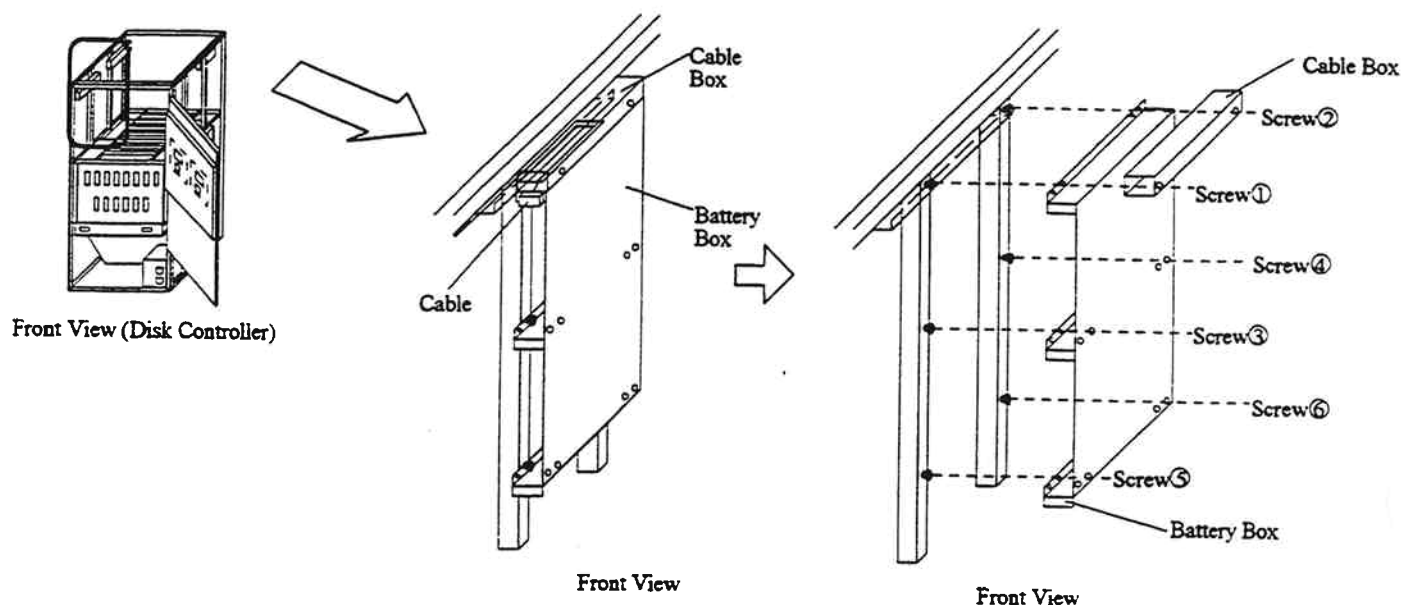


Fig. 3.4.1.7.2-45 Removal of the Battery Box.

- s. Attach the cable box and fasten screws ① and ②. Insert the cable into the cable box. (When 2nd DKU is installed, there is no cable inside the cable box.)

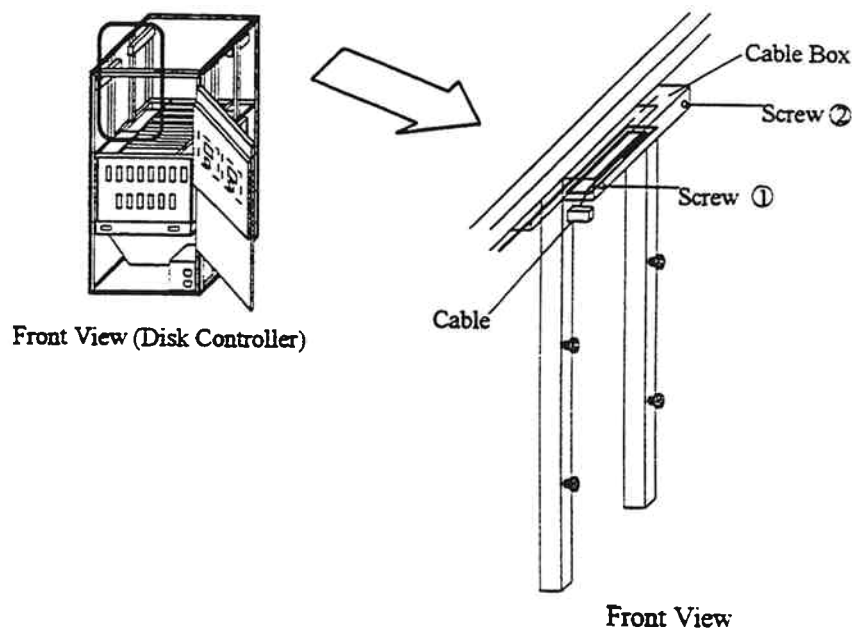


Fig. 3.4.1.7.2-46 Attachment of the Cable Box

10. Detach the Nameplates.

- a. Detach the nameplates of DKC-F210I-40 and DKC-F210I-2048.

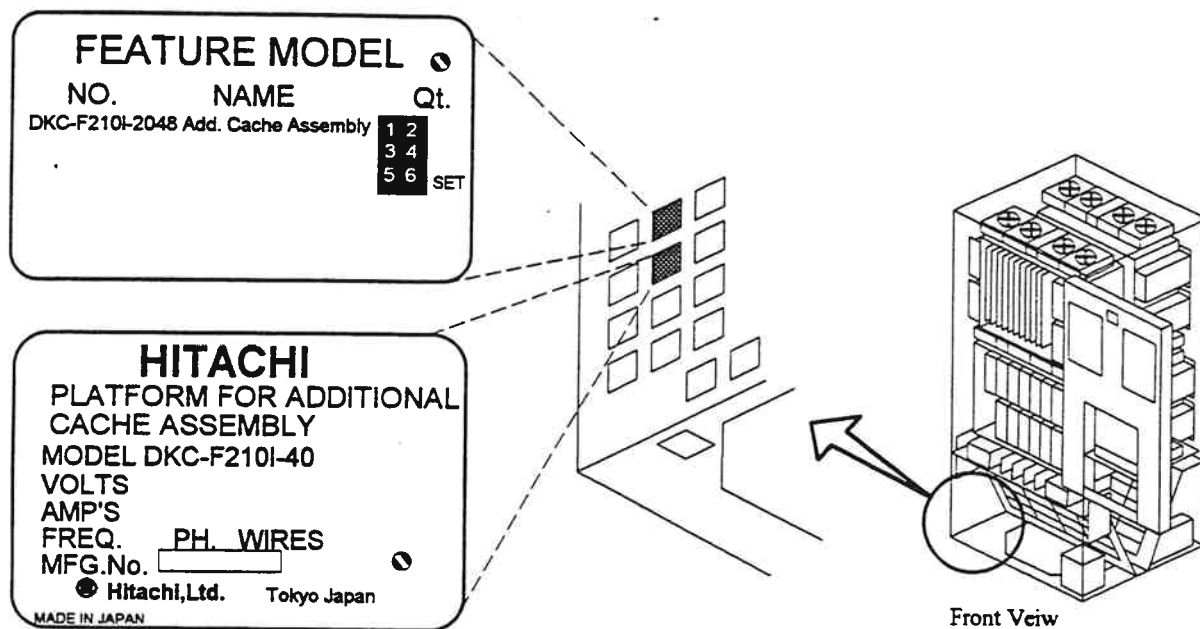


Fig. 3.4.1.7.2-47 Location of the Nameplate

- b. Non-Disruptive De-Installation : Go to INST02-32 step (10)-2.

Disruptive De-Installation : Go to INST02-51A step (16).

3.4.1.8 De-Installation of Additional Cache Memory (DKC-F210I-64)

3.4.1.8.1 Parts List

Table 3.4.1.8.1-1 Parts List

No.	Model Number	Parts Name	Parts No.	Quantity	Remarks
1	DKC-F210I-256	SZ730-A	2099864-A	8	Cache Memory Module(8MB)

3.4.1.8.2 De-Installation Procedure of Additional Cache Memory

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

1. Remove the PCBs.

- While referring to Fig. 3.4.1.8.2-1 and Table 3.4.1.8.2-1 or Table 3.4.1.8.2-2, check the Shut Down LED on the Cache Memory PCB. See "Connection of Shut Down Jumper (INST03-2600)" if the Shut Down LED is not on.

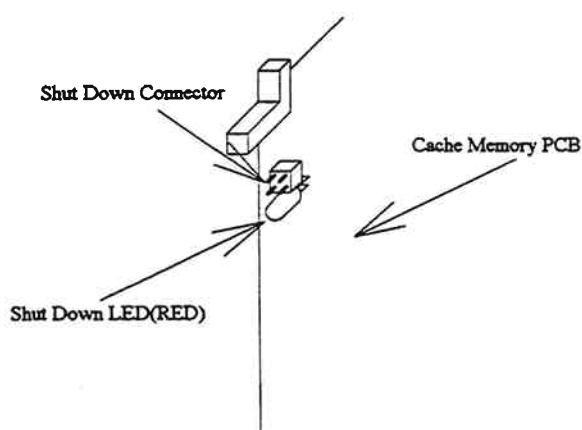


Fig. 3.4.1.8.2-1 Location of the Shut Down LED

Table 3.4.1.8.2-1 Location of the Cache Memory Module (DKC-F210I-40 not installed)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP018-C	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP018-C	Logic Box	T	CACHE-2T	Cache Memory PCB

Table 3.4.1.8.2-2 Location of the Cache Memory Module (DKC-F210I-40 installed)

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP018-C	Cache Box-1	D	CACHE-C1D	Cache Memory PCB
2	WP018-C	Cache Box-2	D	CACHE-C2D	Cache Memory PCB

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

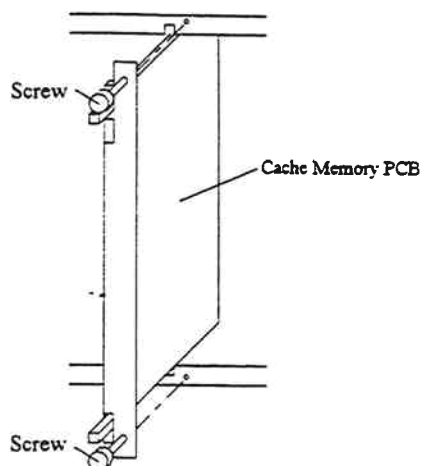


Fig. 3.4.1.8.2-2 Removal of the Cache Memory PCB

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

2. Remove the Cache Memory Modules.

- a. Remove the extra Cache Memory Modules according to the required Cache Memory capacity referring to Fig. 3.4.1.8.2-3 and Table 3.4.1.8.2-3.

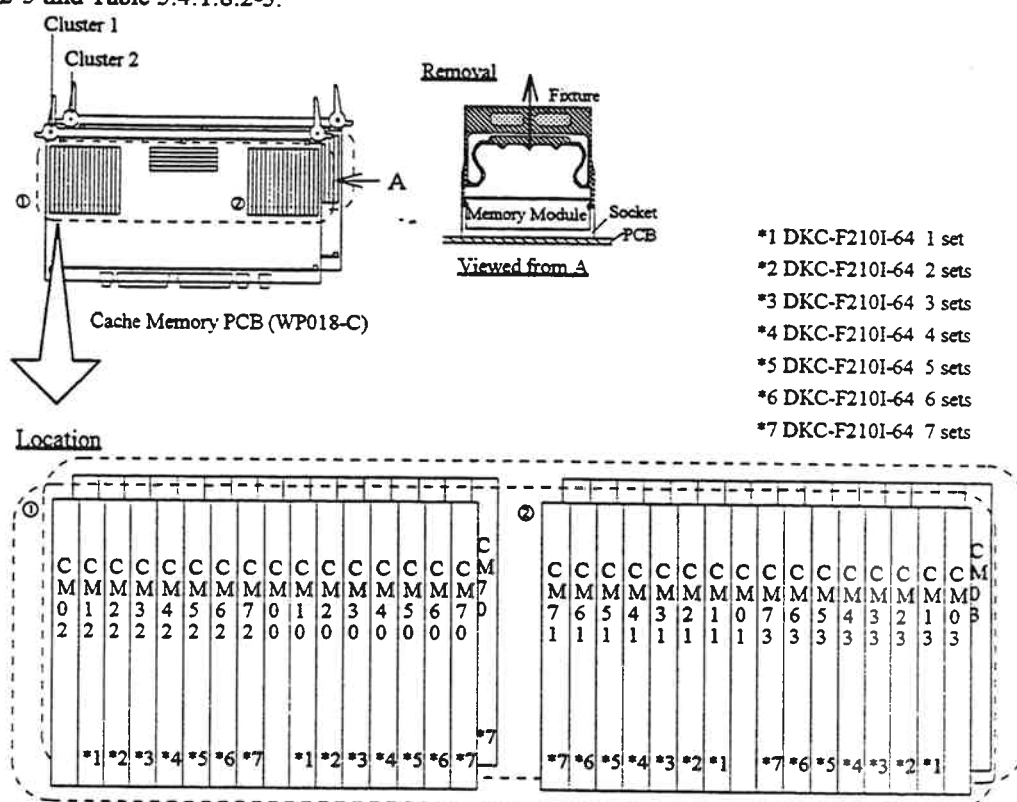


Fig. 3.4.1.8.2-3 Inserting Location of the Cache Memory Module

Table 3.4.1.8.2-3 Location of CMs and Corresponding Cache Memory Capacity

No.	Cache Memory capacity		Model No.	Cluster 1		Cluster 2	
	From	To		Part name	Quantity	Part name	Quantity
1	0MB	64MB	Basic	Cache Memory Module	4	Cache Memory Module	4
2	64MB	128MB	DKC-F210I-64 1 set	Cache Memory Module	4	Cache Memory Module	4
3	128MB	192MB	DKC-F210I-64 2 sets	Cache Memory Module	4	Cache Memory Module	4
4	192MB	256MB	DKC-F210I-64 3 sets	Cache Memory Module	4	Cache Memory Module	4
5	256MB	320MB	DKC-F210I-64 4 sets	Cache Memory Module	4	Cache Memory Module	4
6	320MB	384MB	DKC-F210I-64 5 sets	Cache Memory Module	4	Cache Memory Module	4
7	384MB	448MB	DKC-F210I-64 6 sets	Cache Memory Module	4	Cache Memory Module	4

3. Insert the PCBs.

- After removing the Cache Memory Modules, insert the Cache Memory PCB according to Table 3.4.1.8.2-4.
- Fasten the two screws.

Table 3.4.1.8.2-4 Location of the Cache Memory PCB

Cluster	PCB Name	Box	Slot No.	Location No.	Remarks
1	WP018-C	Logic Box	C	CACHE-1C	Cache Memory PCB
2	WP018-C	Logic Box	T	CACHE-2T	Cache Memory PCB

4. Change the nameplate.

- Refer to Fig. 3.4.1.8.2-4 and Table 3.4.1.8.2-5 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-64 can be seen.

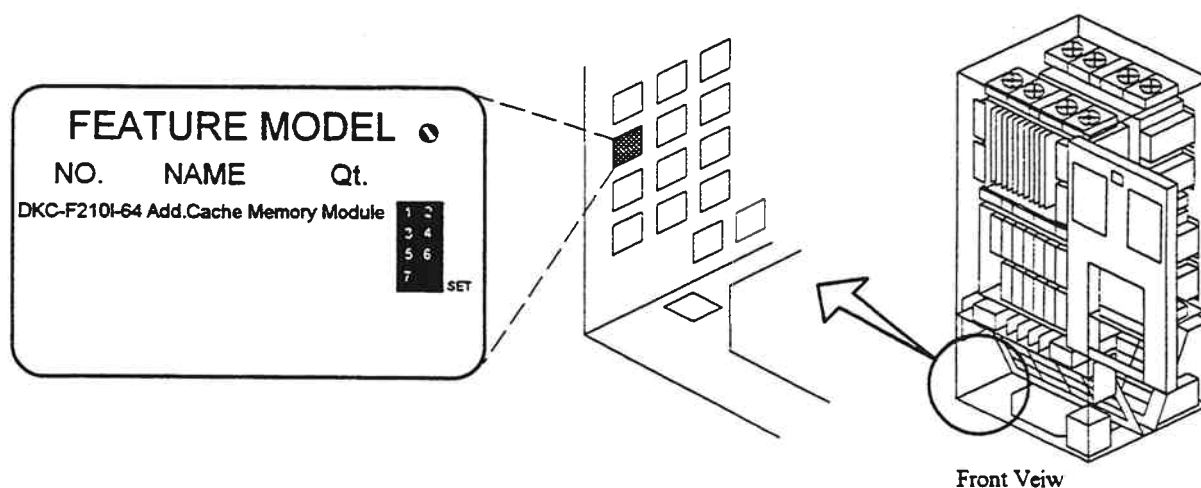


Fig. 3.4.1.8.2-4 Location of the Nameplate

Table 3.4.1.8.2-5 Quantity Marking

No.	Cache Memory Capacity	Quantity Marking	
		Number of DKC-F210I-64 sets	Qt.
1	64MB	—	
2	128MB	1 set	1
3	192MB	2 sets	2

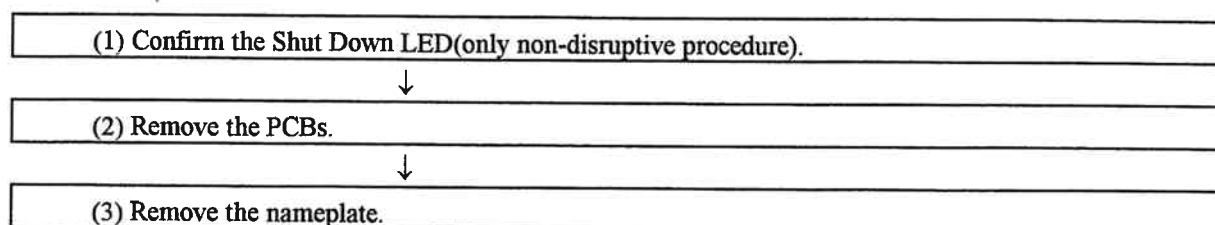
(To be continued)

(Continued from the preceding page)

No.	Cache Memory Capacity	Quantity Marking	
		Number of DKC-F210I-64 sets	Qt.
4	256MB	3 sets	3
5	320MB	4 sets	4
6	384MB	5 sets	5
7	448MB	6 sets	6

3.4.2 De-Installation of Additional 8-path Box Adapter(DKC-F210I-50/50E)

3.4.2.1 Flowchart



3.4.2.2 Parts list

Table 3.4.2.2-1 Parts List for Additional 8-path Box Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-50	Disk Adapter PCB	3236919-B	2	
		Clip(2)	5480324-1	2	
		Clip(4)	5480326-1	2	
		Nameplate	3243363-1	1	
2	DKC-F210I-50E	Disk Adapter PCB	3244973-B	2	
		Clip(2)	5480324-1	2	
		Clip(4)	5480326-1	2	
		Nameplate	3244906-1	1	

3.4.2.3 De-Installation Procedure of Additional 8-path Box Adapter

1. Confirmation of the Shut Down LED(Only Non-disruptive Procedure)
 - a. Confirm that the Shut Down LED lights.(Fig. 3.4.2.3-1) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

⚠ CAUTION

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

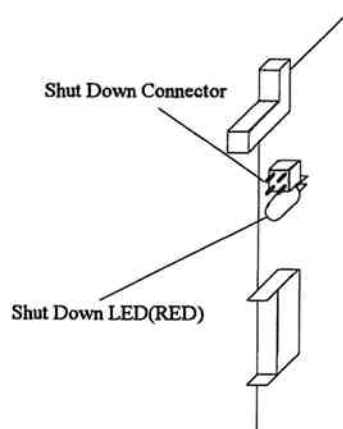


Fig. 3.4.2.3-1 Shut Down LED

2. Removal of the PCB

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

- a. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.4.2.3-1 and Fig. 3.4.2.3-2.

Table 3.4.2.3-1 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB	K and P	DKA-1K and DKA-2P	3rd set
2	Disk Adapter PCB	J and N	DKA-1J and DKA-2N	2nd set
3	Disk Adapter PCB	H and M	DKA-1H and DKA-2M	1st set

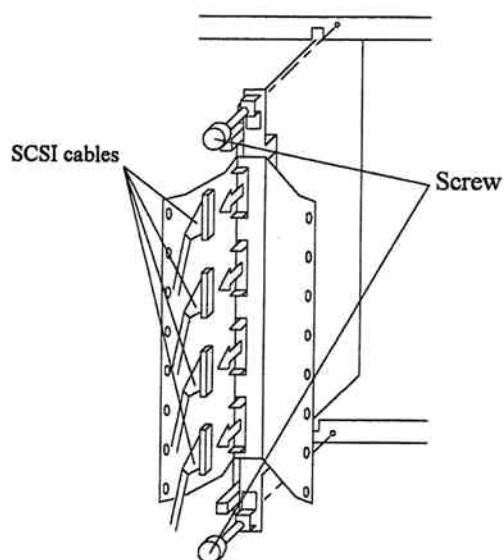
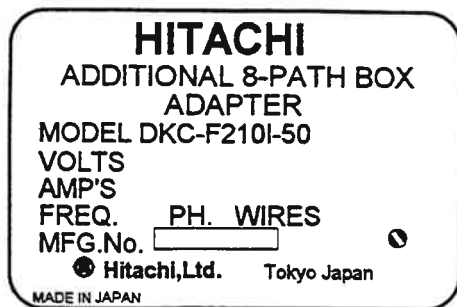


Fig. 3.4.2.3-2 Removal of PCB

3. Removal of the nameplate

- a. Remove the nameplate referring to Fig. 3.4.2.3-3.

• DKC-F210I-50



• DKC-F210I-50E

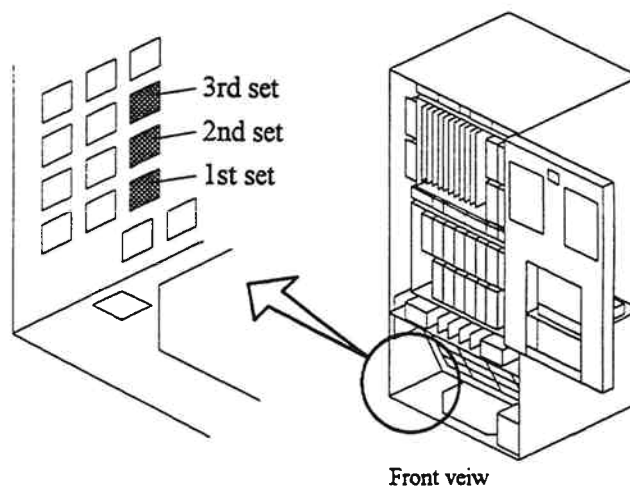
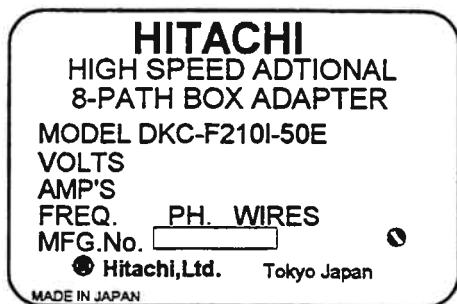


Fig. 3.4.2.3-3 Removal of Nameplate

4. Return to General Flow.

Non-disruptive De-Installation: Go to INST02-30 Step (3)-6.

Disruptive De-Installation: Go to INST02-51 Step (12)-2.

3.4.3 Disconnection of SCSI Interface Cables

3.4.3.1 Disconnection of Additional SCSI Interface Cables (DKU-F205I-2C)

3.4.3.1.1 Flowchart

1. Disconnection Procedure of SCSI Interface Cables between DKC and Second DKU (HDU-L10-L13) Chassis

(1) Open the front and rear doors from the disk controller and Second Disk Unit.	[INST04-790]
↓	
(2) Remove the Logic Box cover.	[INST04-790]
↓	
(3) Disconnect the SCSI interface cables.	[INST04-790]
↓	
(4) Remove the cable fixing wire and repeat binder.	[INST04-800]
↓	
(5) Remove the nameplate.	[INST04-805]
↓	
(6) Replace the Logic Box cover.	[INST04-805]
↓	
(7) Close the front and rear doors on the disk controller and Second Disk Unit.	[INST04-805]

2. Disconnection Procedure of SCSI Interface Cables between DKC and Second DKU (HDU-L14-L17) Chassis

(1) Open the front and rear doors from the disk controller and Second Disk Unit.	[INST04-810]
↓	
(2) Remove the Logic Box cover.	[INST04-810]
↓	
(3) Disconnect the SCSI interface cables.	[INST04-810]
↓	
(4) Remove the cable fixing wire and repeat binder.	[INST04-820]
↓	
(5) Fix the SCSI interface cables.	[INST04-825]
↓	
(6) Replace the Logic Box cover.	[INST04-825]
↓	
(7) Close the front and rear doors on the disk controller and Second Disk Unit.	[INST04-825]

3.4.3.1.2 Parts List

Table 3.4.3.1.2-1 Parts List for Additional SCSI Interface Cable

No.	Model Number	Parts Name	Parts No. (Spare Parts No.)	Quantity	Remarks
1	DKU-F205I-2C	SCSI Interface Cable	2098191-A-R (5487066-A-R)	16	HDU-L10-L17
		Name Plate	2099650-4	1	2C

3.4.3.1.3 Disconnection Procedure of Additional SCSI Interface Cables (In case of HDU-L13 from L10)

- Open the front and rear doors from the disk controller and Second Disk Unit.
- Remove the Logic Box cover.
- Refer to Fig. 3.4.3.1.3-1. Disconnect the SCSI interface cables from the sub-edges on the disk adapter PCBs that are installed in locations Nos. J and N in the logic box.

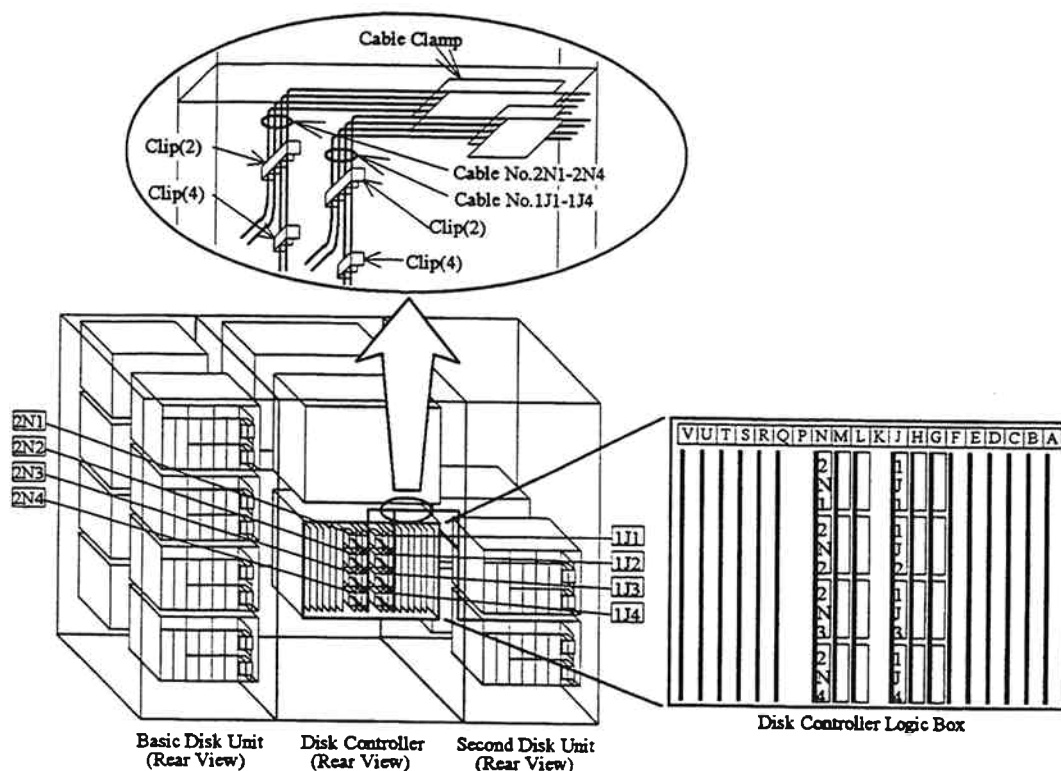


Fig. 3.4.3.1.3-1 SCSI Interface Cable Disconnecting Diagram (Disk Adapter PCB Side)

- Refer to Fig. 3.4.3.1.3-2. Disconnect the SCSI interface cables from the sub-edges on the SCSI BFR PCBs located in the HDU box.

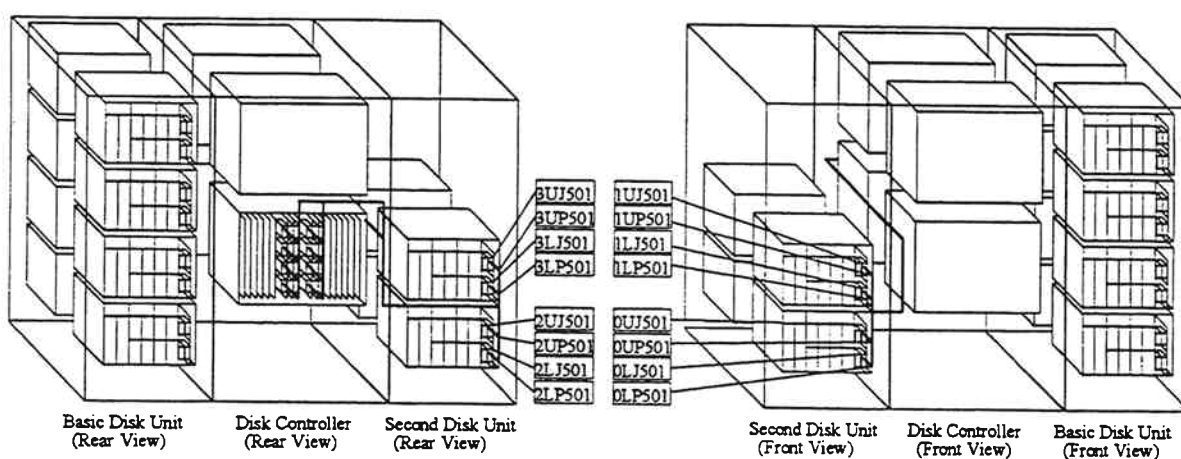


Fig. 3.4.3.1.3-2 SCSI Interface Cable Disconnecting Diagram (SCSI BFR PCB Side)

- e. Refer to Fig. 3.4.3.1.3-3. Remove the cable fixing wire and repeat binder that are securing the SCSI interface the cables from cable duct.

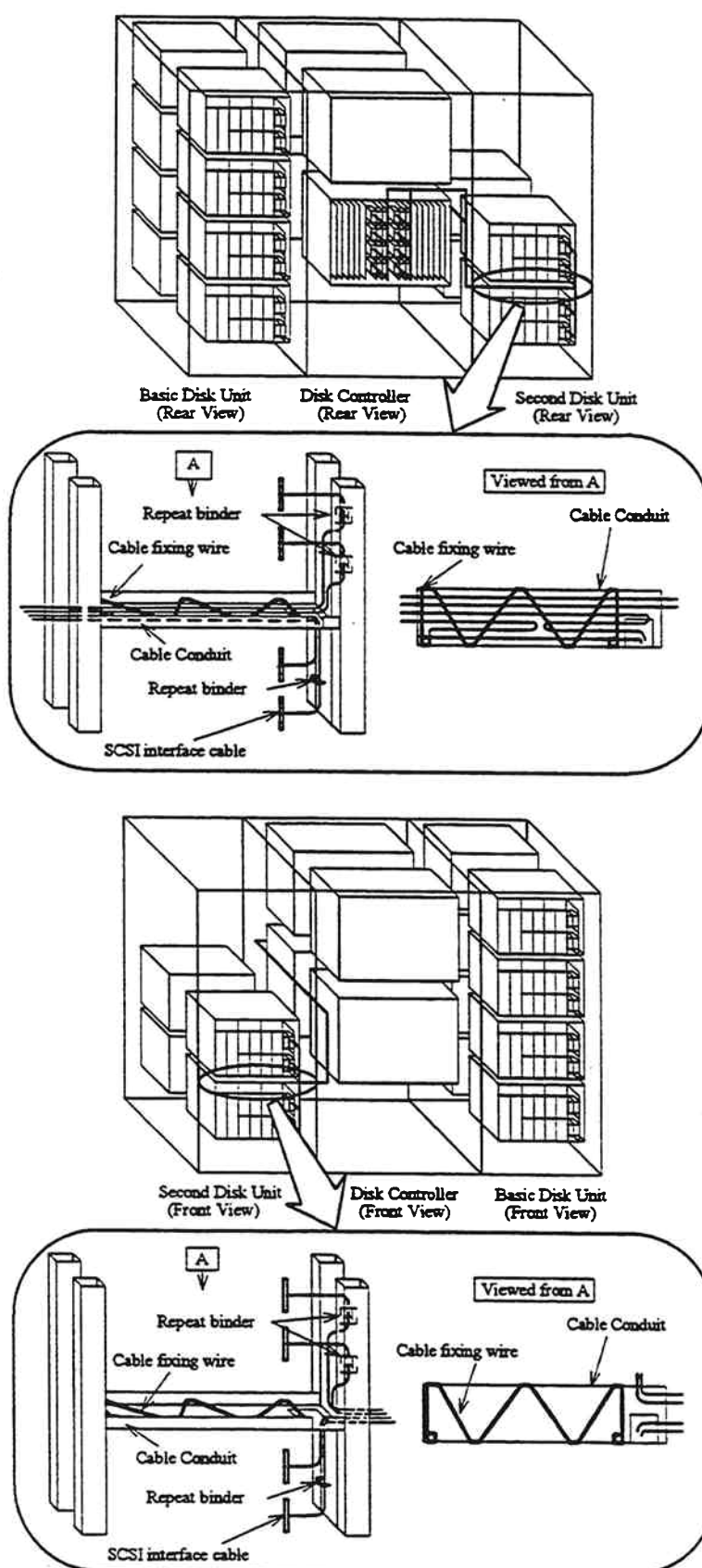


Fig. 3.4.3.1.3-3 Removal of the cable fixing wire and repeat binder

f. Refer to Fig. 3.4.3.1.3-4. De-install the name plate.

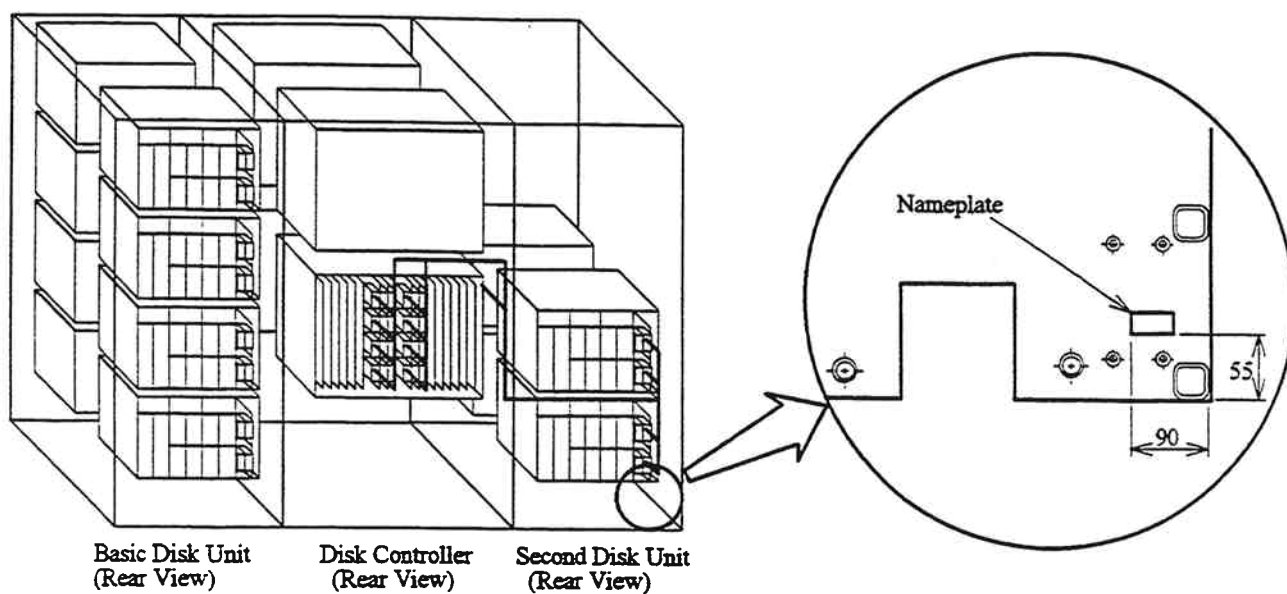


Fig. 3.4.3.1.3-4 De-installation of nameplate

g. Replace the Logic Box cover.

h. Close the front and rear doors on the disk controller and Second Disk Unit.

3.4.3.1.4 Disconnection Procedure of Additional SCSI Interface Cables (In case of HDU-L17 from L14)

- Open the front and rear doors from the disk controller and Second Disk Unit.
- Remove the Logic Box cover.
- Refer to Fig. 3.4.3.1.3-5. Disconnect the SCSI interface cables from the sub-edges on the disk adapter PCBs that are installed in locations Nos. K and P in the Logic Box.

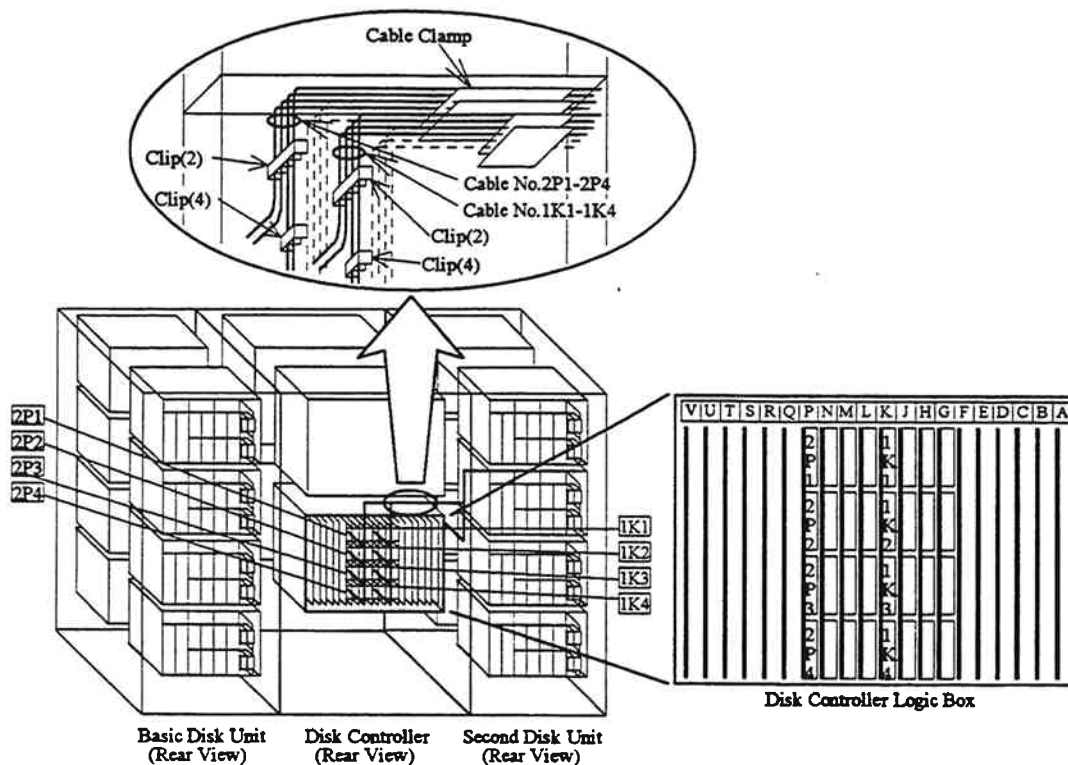


Fig. 3.4.3.1.3-5 SCSI Interface Cable Disconnecting Diagram (Disk Adapter PCB Side)

- Refer to Fig. 3.4.3.1.3-6 Disconnect the SCSI interface cables from the sub-edges on the SCSI BFR PCBs located in the HDU box.

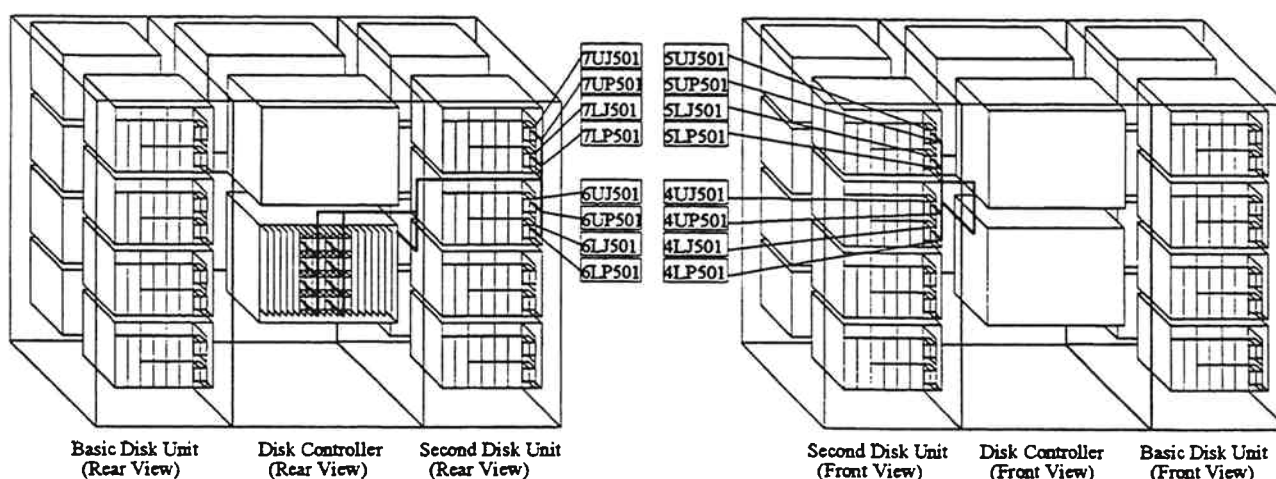


Fig. 3.4.3.1.3-6 SCSI Interface Cable Disconnecting Diagram (SCSI BFR PCB Side)

- e. Refer to Fig. 3.4.3.1.3-7. Remove the cable fixing wire and repeat binder that are securing the SCSI interface cables from the cable duct.

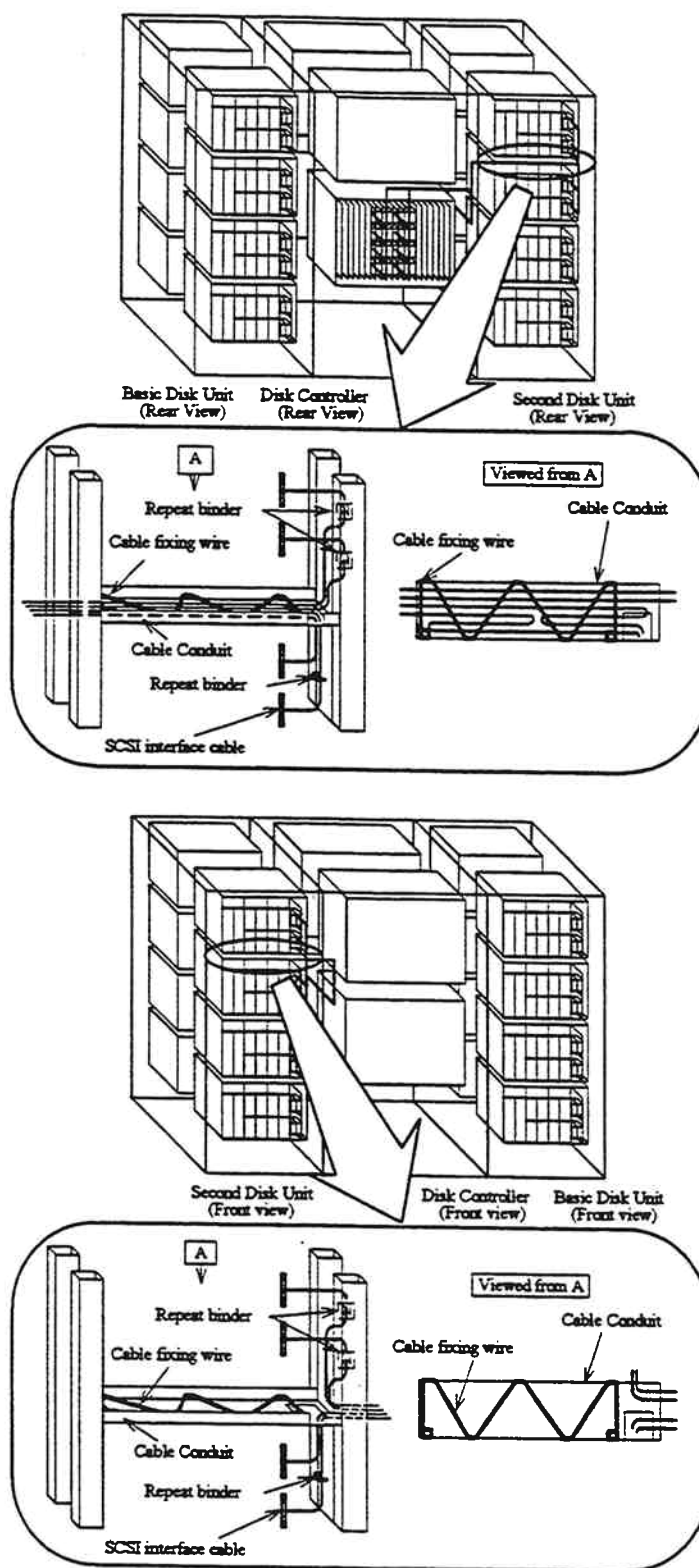


Fig. 3.4.3.1.3-7 Removal of Cable Clamp

- f. Refer to Fig. 3.4.3.1.3-8. Secure the 8 SCSI interface cables that removed inside the Basic Disk Unit with the tie wraps.

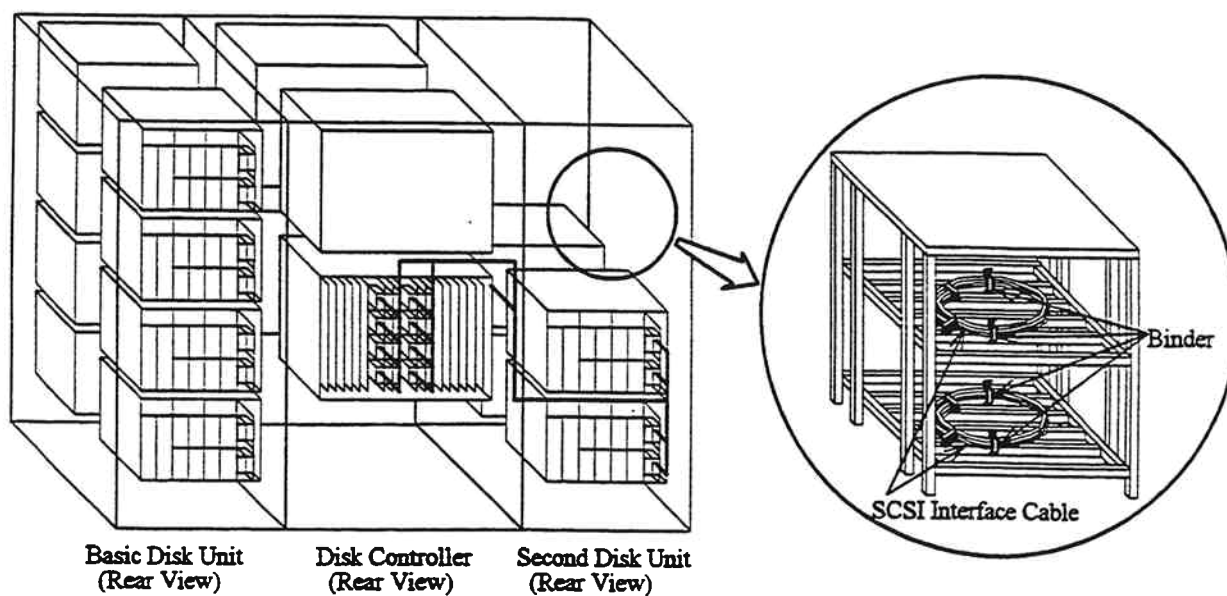


Fig. 3.4.3.1.3-8 Fixing of SCSI Interface Cables

- g. Replace the Logic Box cover.
- h. Close the front and rear doors on the disk controller and Second Disk Unit.
- i. Return to General Flow.

Non-Disruptive De-installation: Go to INST02-30 Step (3)-5.

Disruptive De-installation

Additional DKU units De-installation: Go to INST02-51 Step (11)-2.

HCU boxes De-installation: Go to INST02-51 Step (10)-2.

3.4.3.2 Disconnection of Additional SCSI Interface Cables (DKU-F205I-34C)

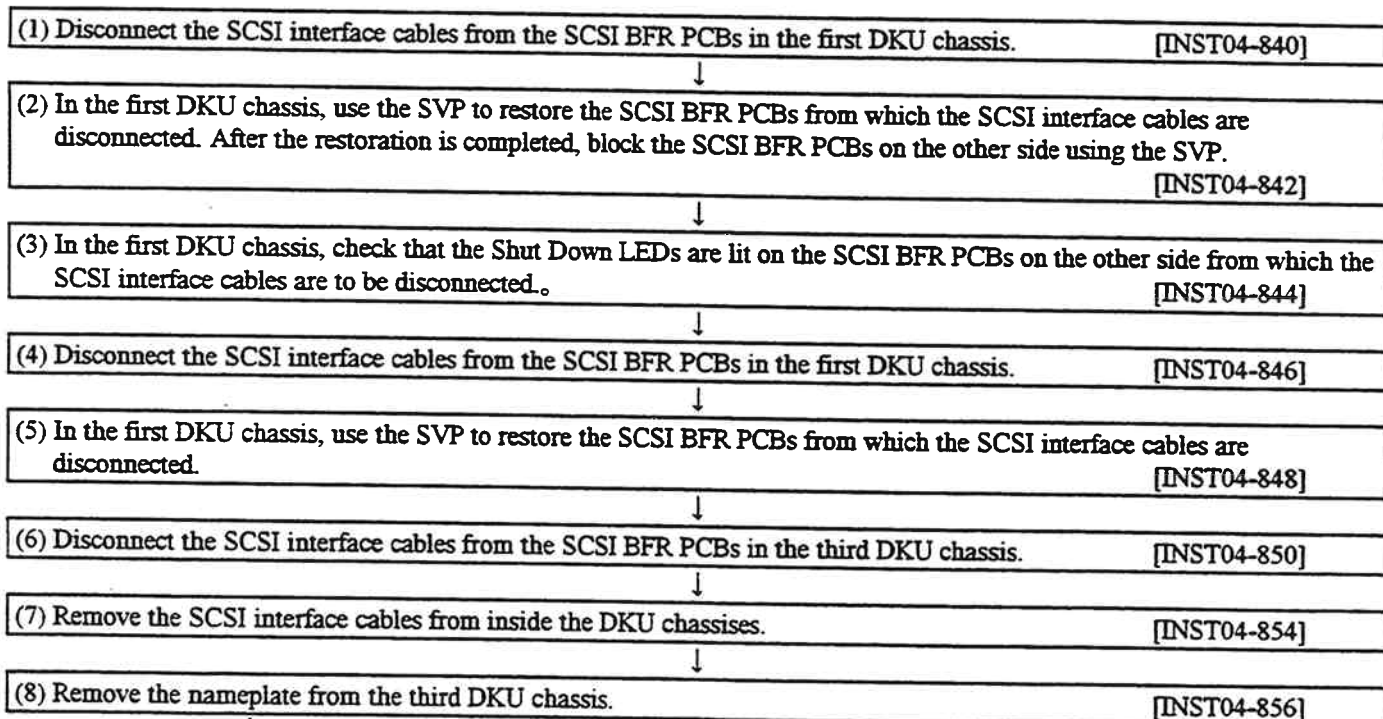
3.4.3.2.1 Flowchart

The disconnection procedure of the extension SCSI interface cables (DKU-F205I-34C) is shown below. You must perform the operations actually after referring to the details of the procedure.

When connecting the SCSI interface cable with disk subsystem inactive, you don't have to check Shut Down LED on the SCSI BFR PCB and blocking/restoring both DKA PCB and SCSI BFR PCB through SVP.

1. Disconnection Procedure of SCSI Interface Cables between First (HDU-R10-R13) and Third DKU (HDU-R20-R23) Chassis [INST04-830]
2. Disconnection Procedure of SCSI Interface Cables between First (HDU-R14-R17) and Third DKU (HDU-R24-R27) Chassis [INST04-832]
3. Disconnection Procedure of SCSI Interface Cables between Second (HDU-L10-L13) and Fourth DKU (HDU-L20-L23) Chassis [INST04-834]
4. Disconnection Procedure of SCSI Interface Cables between Second (HDU-L14-L17) and Fourth DKU (HDU-L24-L27) Chassis [INST04-836]

1. Disconnection Procedure of SCSI Interface Cables between First (HDU-R10-R13) and Third DKU (HDU-R20-R23) Chassis



2. Disconnection Procedure of SCSI Interface Cables between First (HDU-R14-R17) and Third DKU (HDU-R24-R27) Chassis

(1) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the first DKU chassis. [INST04-860]



(2) In the first DKU chassis, use the SVP to restore the SCSI BFR PCBs from which the SCSI interface cables are disconnected. After the restoration is completed, block the SCSI BFR PCBs on the other side using the SVP.

[INST04-862]



(3) In the first DKU chassis, check that the Shut Down LEDs are lit on the SCSI BFR PCBs on the other side from which the SCSI interface cables are to be disconnected.

[INST04-864]



(4) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the first DKU chassis.

[INST04-866]



(5) In the first DKU chassis, use the SVP to restore the SCSI BFR PCBs from which the SCSI interface cables are disconnected.

[INST04-868]



(6) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the third DKU chassis.

[INST04-870]



(7) Remove the SCSI interface cables from inside the DKU chassis.

[INST04-874]



(8) When the third DKU chassis consists of 4 HDU boxes, fix the disconnected SCSI interface cables in the third DKU chassis.

[INST04-876]

3. Disconnection Procedure of SCSI Interface Cables between Second (HDU-L10-L13) and Fourth DKU (HDU-L20-L23) Chassis

- | | |
|---|--------------|
| (1) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the second DKU chassis. | [INST04-880] |
| ↓ | |
| (2) In the second DKU chassis, use the SVP to restore the SCSI BFR PCBs from which the SCSI interface cables are disconnected. After the restoration is completed, block the SCSI BFR PCBs on the other side using the SVP. | [INST04-882] |
| ↓ | |
| (3) In the second DKU chassis, check that the Shut Down LEDs are lit on the SCSI BFR PCBs on the other side from which the SCSI interface cables are to be disconnected. | [INST04-884] |
| ↓ | |
| (4) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the second DKU chassis. | [INST04-886] |
| ↓ | |
| (5) In the second DKU chassis, use the SVP to restore the SCSI BFR PCBs from which the SCSI interface cables are disconnected. | [INST04-888] |
| ↓ | |
| (6) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the fourth DKU chassis. | [INST04-890] |
| ↓ | |
| (7) Remove the SCSI interface cables from inside the DKU chassis. | [INST04-894] |
| ↓ | |
| (8) Remove the nameplate from the fourth DKU chassis. | [INST04-896] |

4. Disconnection Procedure of SCSI Interface Cables between Second (HDU-L14-L17) and Fourth DKU (HDU-L24-L27) Chassis

- (1) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the second DKU chassis. [INST04-900]
- ↓
- (2) In the second DKU chassis, use the SVP to restore the SCSI BFR PCBs from which the SCSI interface cables are disconnected. After the restoration is completed, block the SCSI BFR PCBs on the other side using the SVP. [INST04-902]
- ↓
- (3) In the second DKU chassis, check that the Shut Down LEDs are lit on the SCSI BFR PCBs on the other side from which the SCSI interface cables are to be disconnected. [INST04-904]
- ↓
- (4) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the second DKU chassis. [INST04-906]
- ↓
- (5) In the second DKU chassis, use the SVP to restore the SCSI BFR PCBs from which the SCSI interface cables are disconnected. [INST04-908]
- ↓
- (6) Disconnect the SCSI interface cables from the SCSI BFR PCBs in the fourth DKU chassis. [INST04-910]
- ↓
- (7) Remove the SCSI interface cables from inside the DKU chassis. [INST04-914]
- ↓
- (8) When the fourth chassis consists of 4 HDU boxes, fix the disconnected SCSI interface cables in the fourth DKU chassis. [INST04-916]

3.4.3.2.2 Parts List

Table 3.4.3.2.2-1 Parts List of the SCSI Interface Cable

No.	Model Number	Parts Name	Parts No. (Spare Parts No.)	Quantity	Remarks
1	DKU-F205I-34C	SCSI Interface Cable	2098192-A-R (5487067-A-R)	16	HDU-R20-R27/L20-L27
		DKUMN Cable	3239256-A,B	2	Dynamic 6
		DKUMN Cable	2098190-A,B	2	MRP 100
		Nameplate	2099650-5	1	34C

3.4.3.2.3 Disconnection Procedure of Additional SCSI Interface Cables(In case of HDU-R23 from R20)

1. In the first DKU chassis, check that the Shut Down LEDs are lit on the SCSI BFR PCBs from which the SCSI interface cables are to be disconnected.

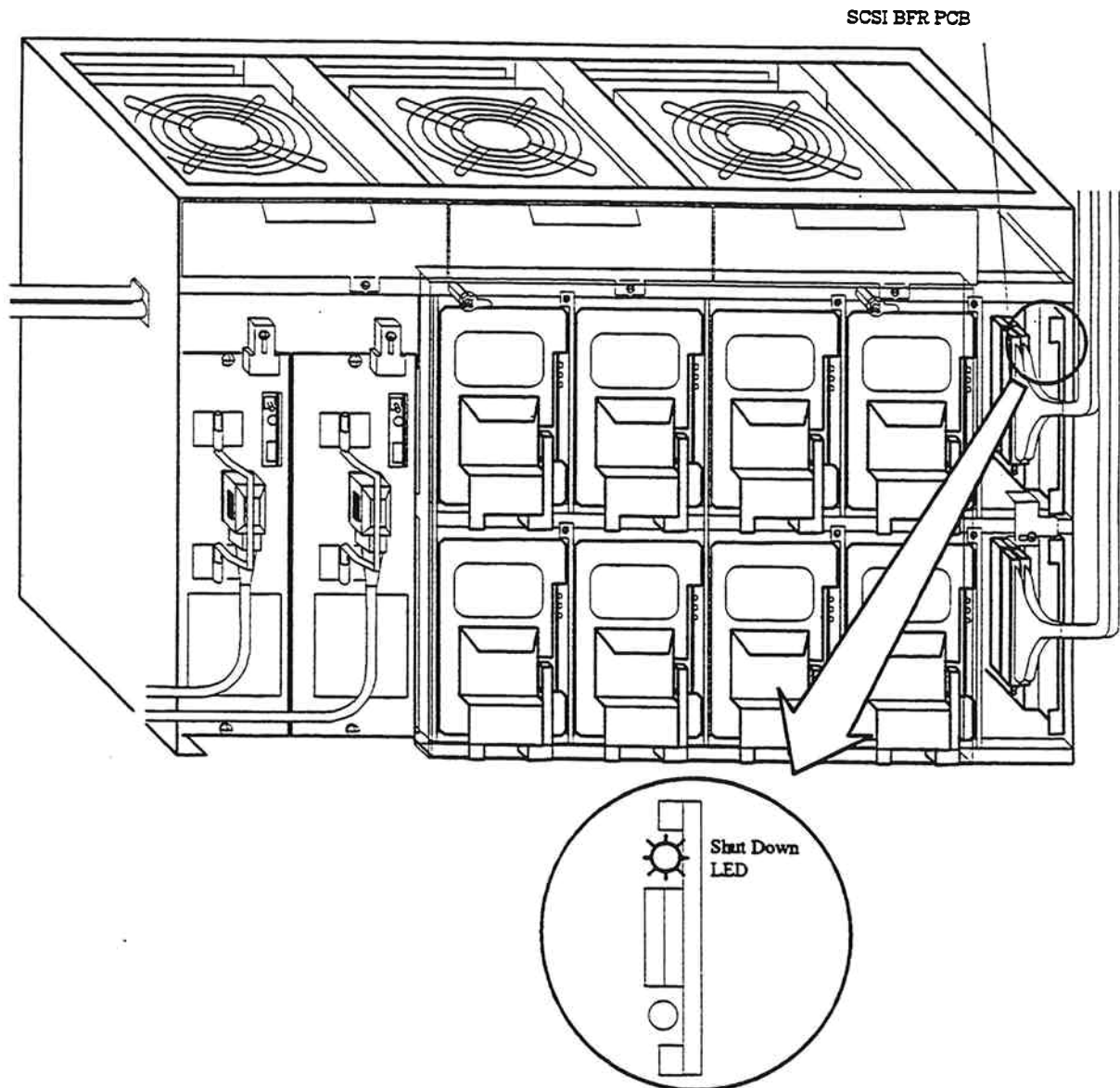


Fig. 3.4.3.2.3-1 Confirmation of the Shut Down LED Light

2. Disconnect the SCSI interface cables from the SCSI BFR PCBs in the first DKU chassis referring to figures 3.4.3.2.3-2 and 3.4.3.2.3-3.

Notice

When disconnecting the SCSI interface extension cable (DKU-F205I-34C) during the operation of subsystem, take the following actions from SVP to allow disconnection of only the SCSI interface cable whose Shut Down LED goes on.

1. Block the SCSI bus disconnecting the SCSI interface cable.
2. Light the Shut Down LED on the SCSI BFR PCB on the SCSI bus.

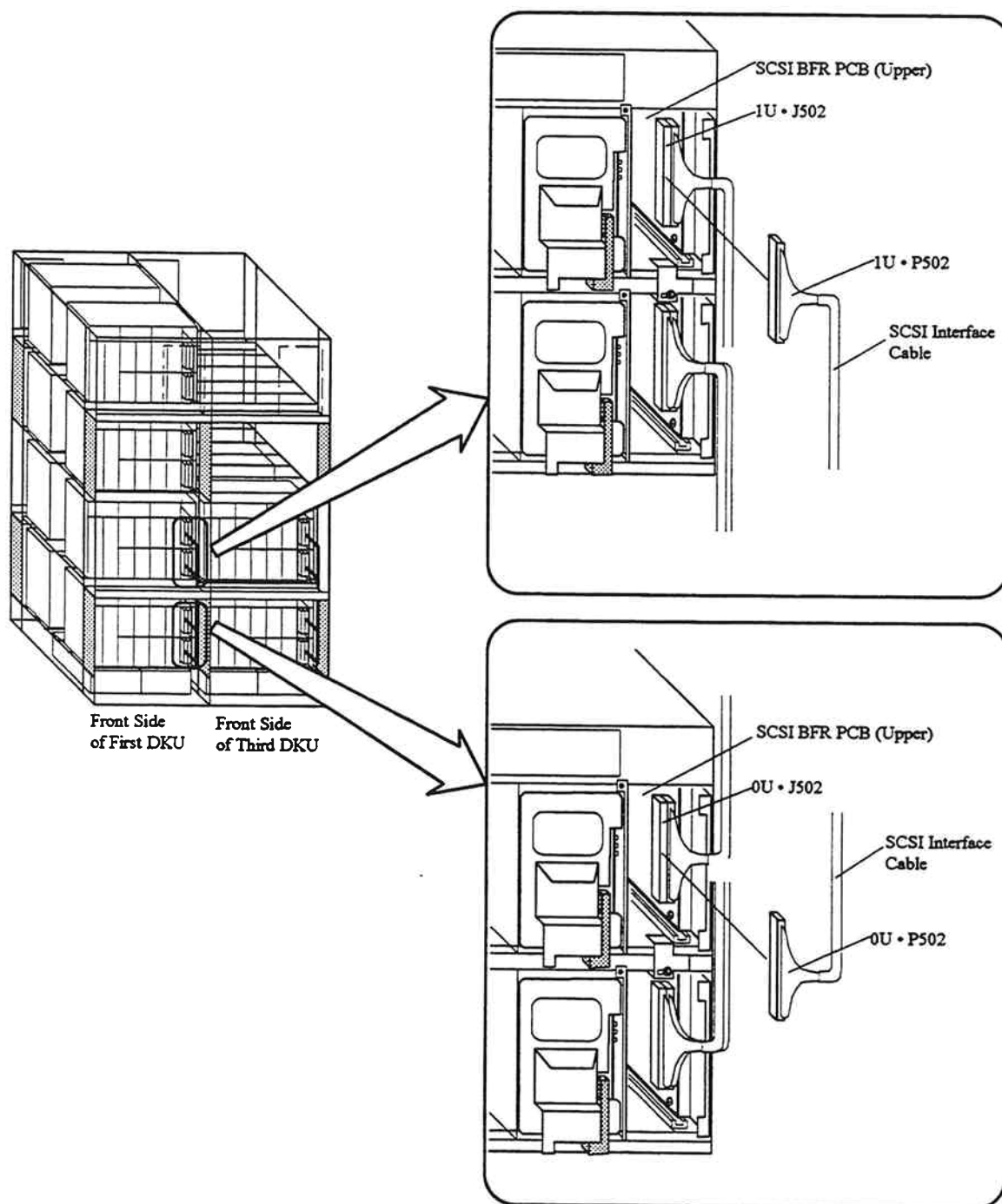


Fig. 3.4.3.2.3-2 Disconnection of the SCSI Interface Cables

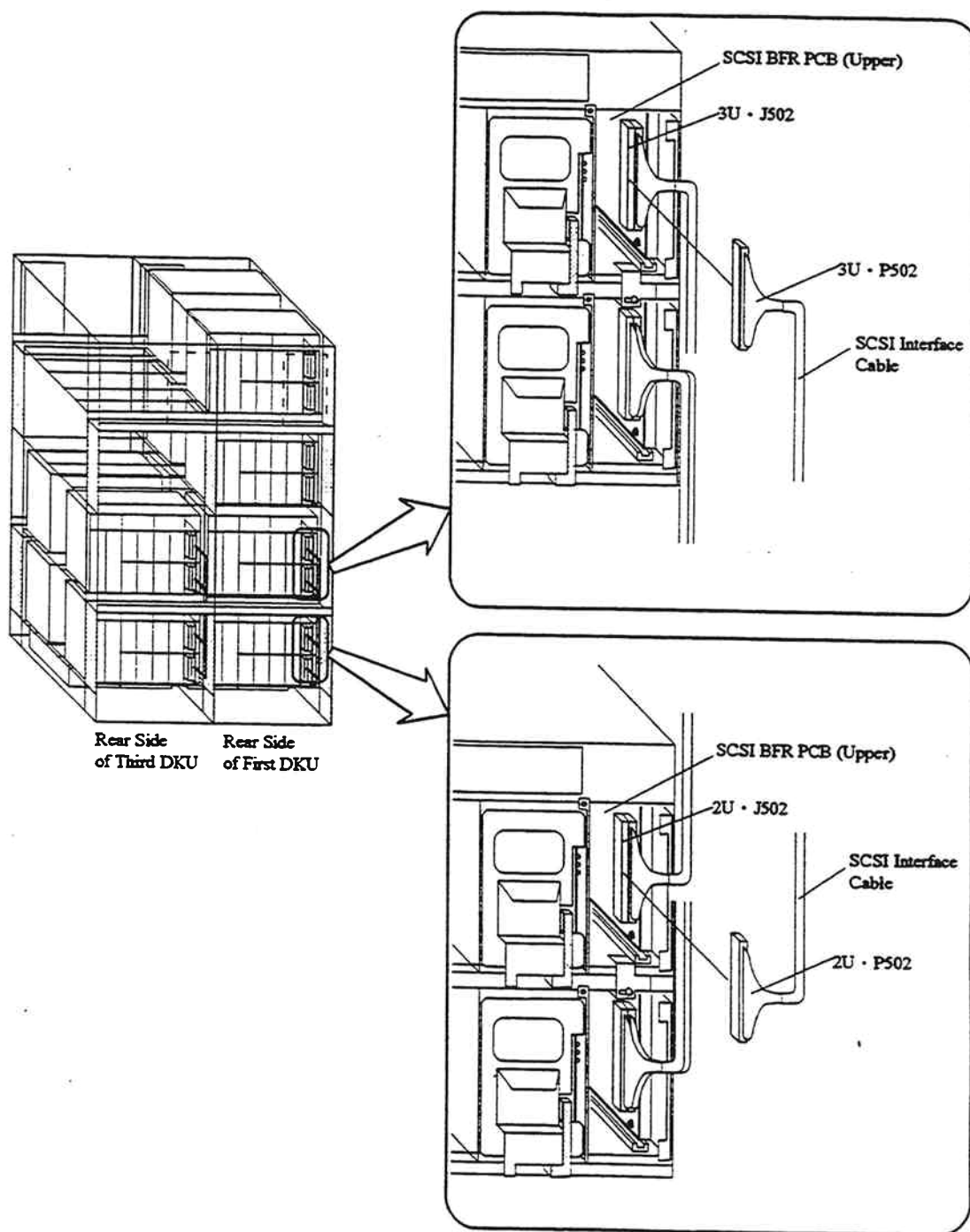


Fig. 3.4.3.2.3-3 Disconnection of the SCSI Interface Cables

3. Refer to INST02-58③ when disconnecting the additional SCSI interface cable while the sub-system is in operation. Refer to INST04-846 when disconnecting the additional SCSI interface cable with the sub-system switched off.

4. In the first DKU chassis, check that the Shut Down LEDs are lit on the SCSI BFR PCBs on the other side from which the SCSI interface cables are to be disconnected.

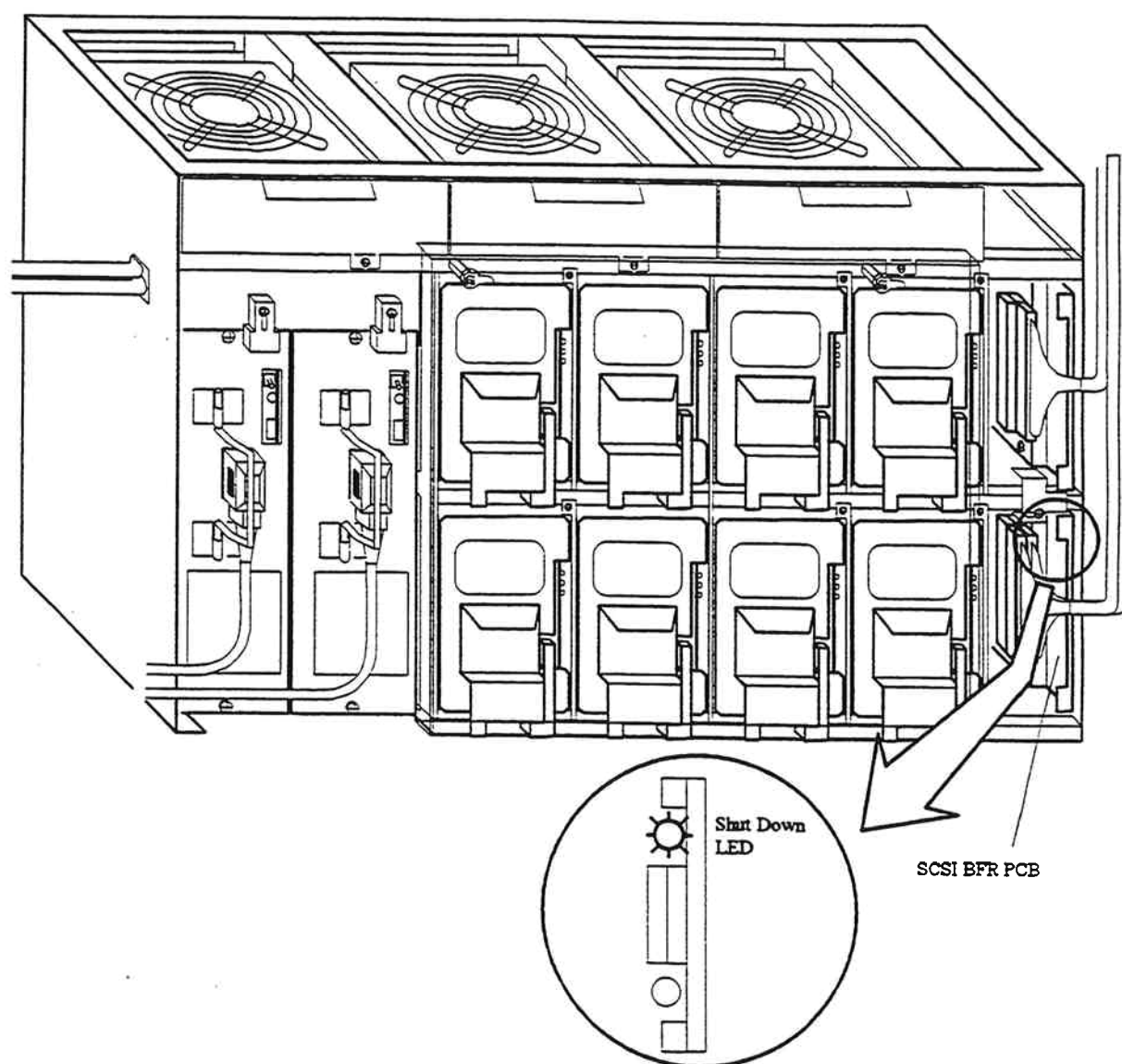


Fig. 3.4.3.2.3-4 Confirmation of the Shut Down LED Light

5. Disconnect the SCSI interface cables from the SCSI BFR PCBs in the first DKU chassis referring to figures 3.4.3.2.3-5 and 3.4.3.2.3-6.

Notice

When disconnecting the SCSI interface extension cable (DKU-F205I-34C) during the operation of subsystem, take the following actions from SVP to allow disconnection of only the SCSI interface cable whose Shut Down LED goes on.

1. Block the SCSI bus disconnecting the SCSI interface cable.
2. Light the Shut Down LED on the SCSI BFR PCB on the SCSI bus.

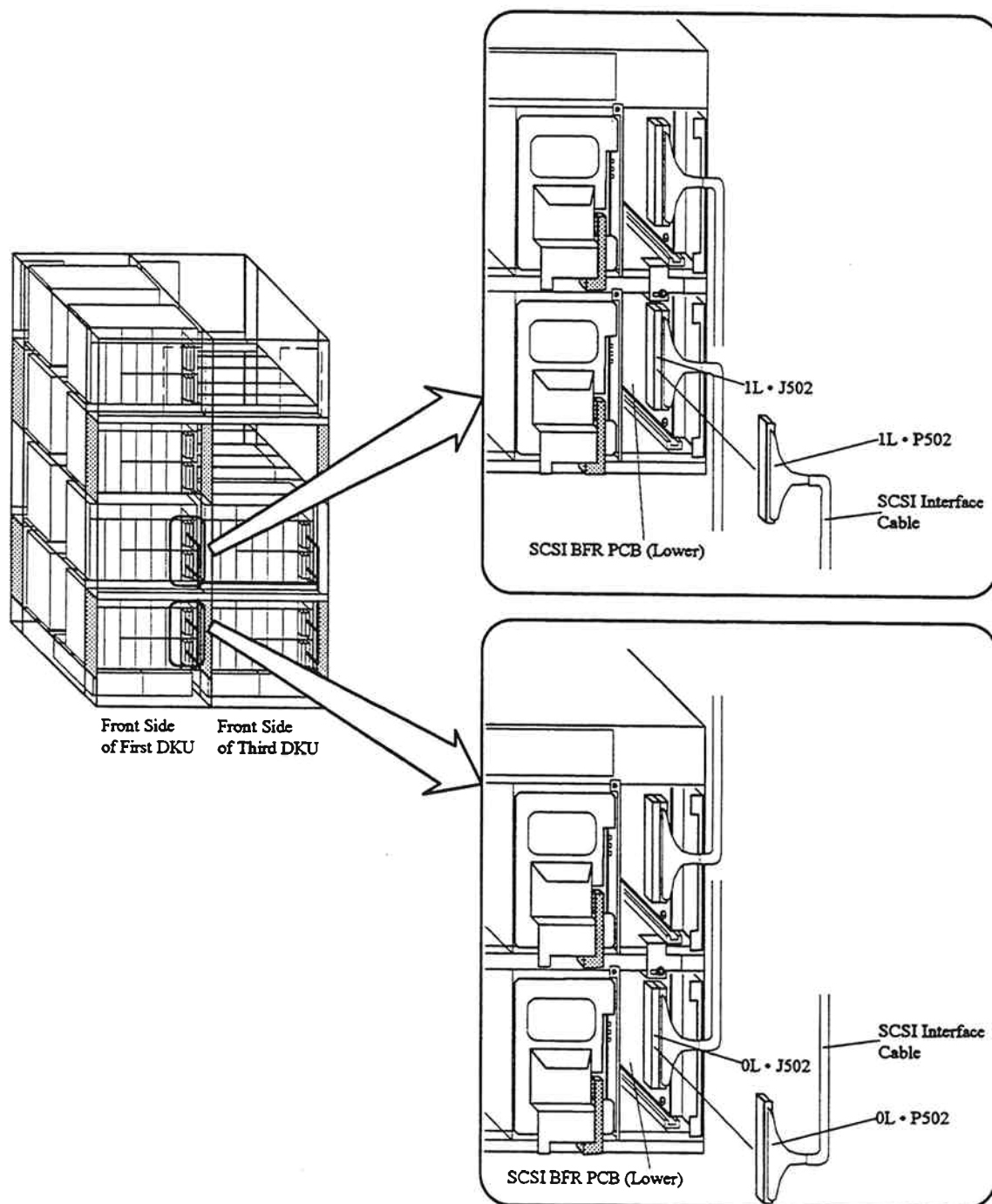


Fig. 3.4.3.2.3-5 Disconnection of the SCSI Interface Cables

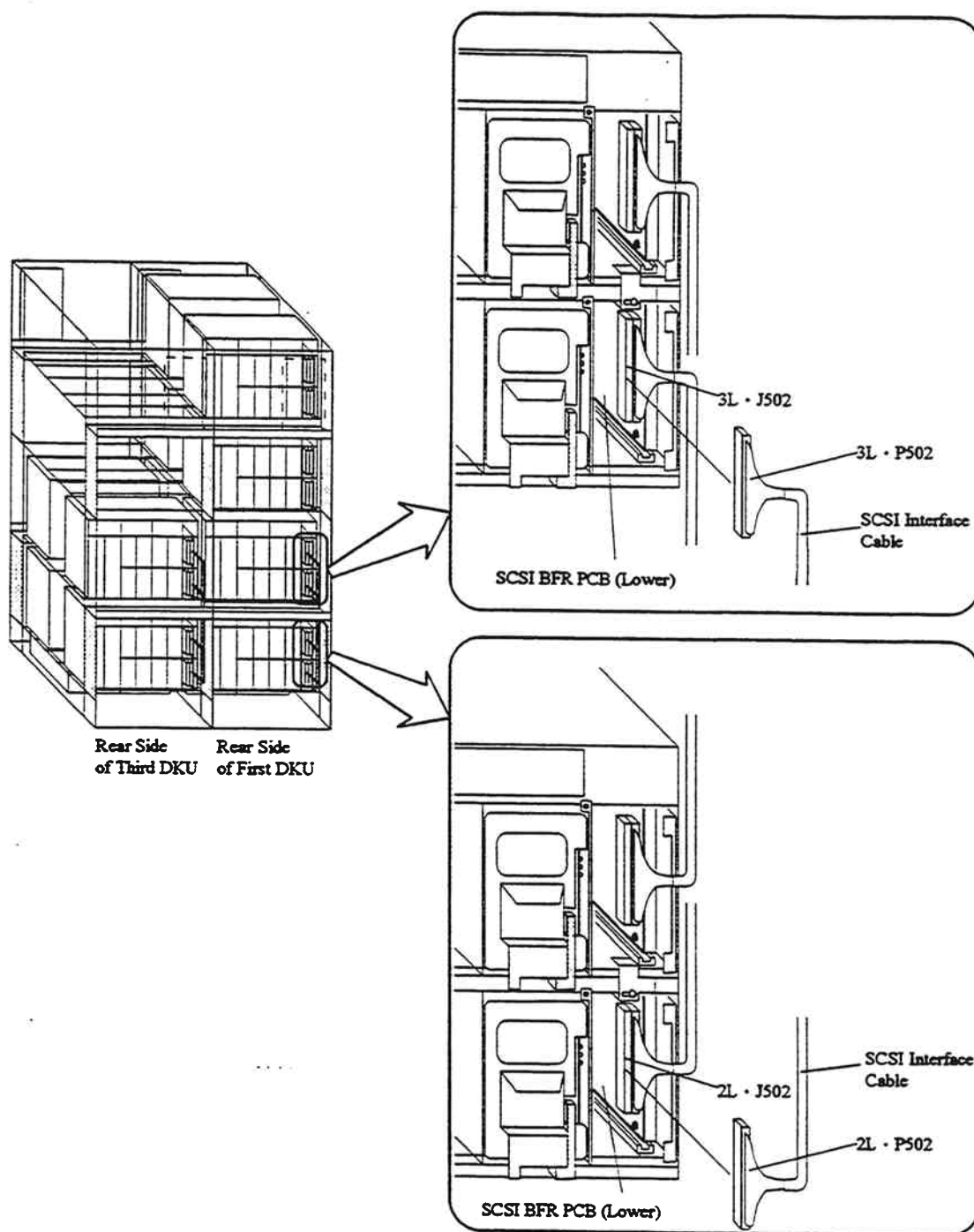


Fig. 3.4.3.2.3-6 Disconnection of the SCSI Interface Cables

6. Refer to INST02-59© when disconnecting the additional SCSI interface cable while the sub-system is in operation. Refer to INST04-850 when disconnecting the additional SCSI interface cable with the sub-system switched off.

7. Disconnect the SCSI interface cables from the SCSI BFR PCBs in the third DKU chassis referring to figures 3.4.3.2.3-7 and 3.4.3.2.3-8.

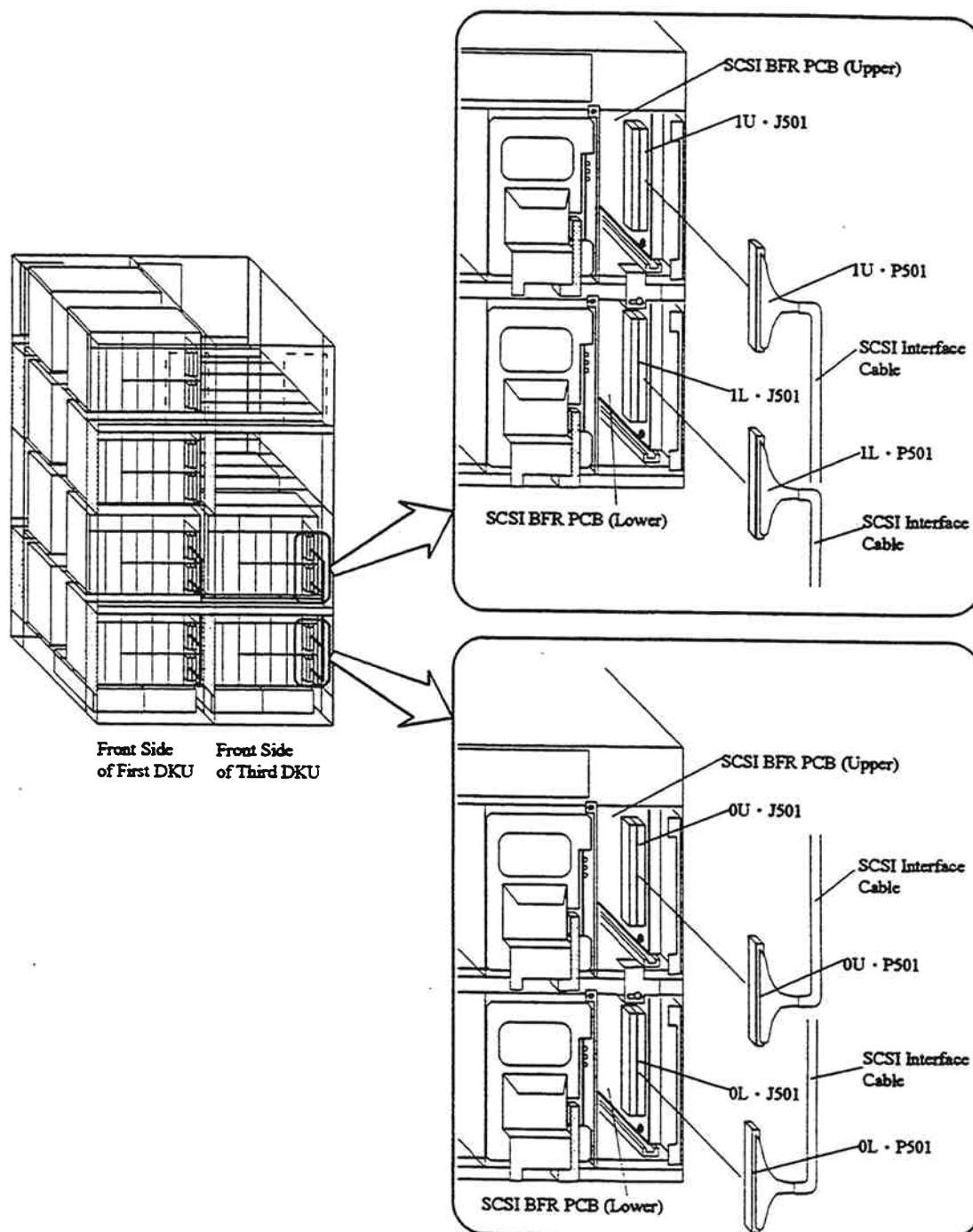


Fig. 3.4.3.2.3-7 Disconnection of the SCSI Interface Cables

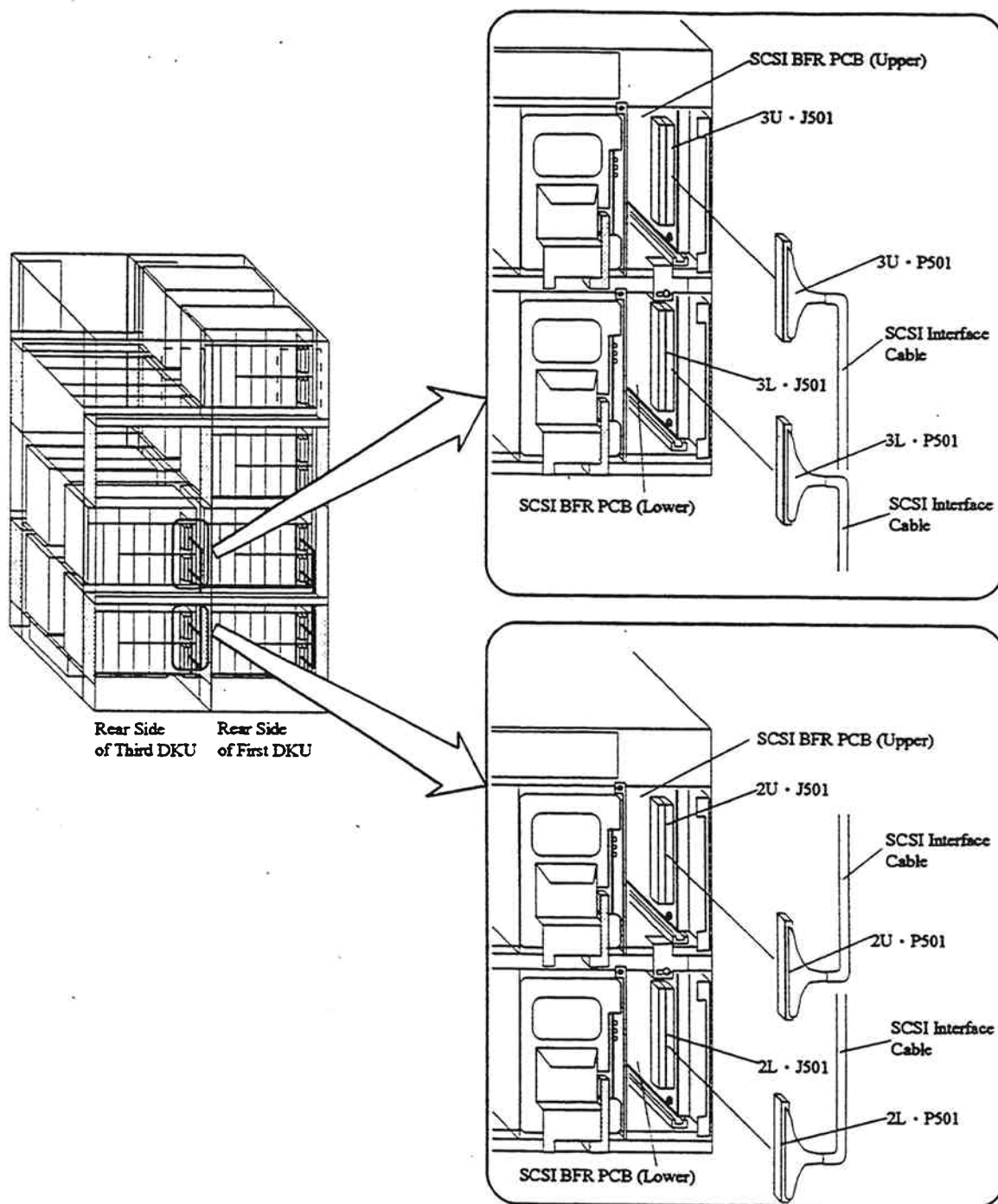


Fig. 3.4.3.2.3-8 Disconnection of the SCSI Interface Cables