

5. Binding of the CH cables

- Bind the CH cables referring to Fig. 3.3.6.2.2-15
- Button up the cable cover referring to Fig. 3.3.6.2.2-16.

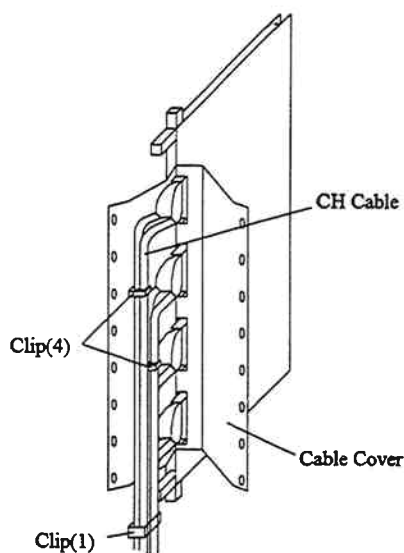


Fig. 3.3.6.2.2-15 Binding

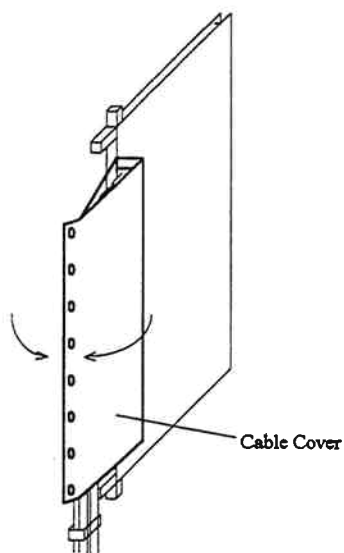


Fig. 3.3.6.2.2-16 Cable Cover

6. Labeling

- Attach the labels "PARALLEL PORT" to ③ and ④ referring to Fig. 3.3.6.2.2-17.

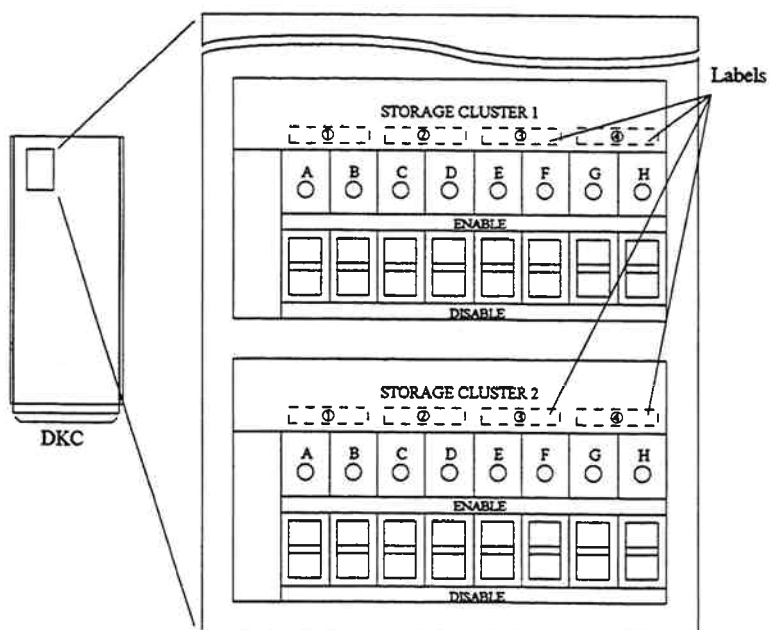
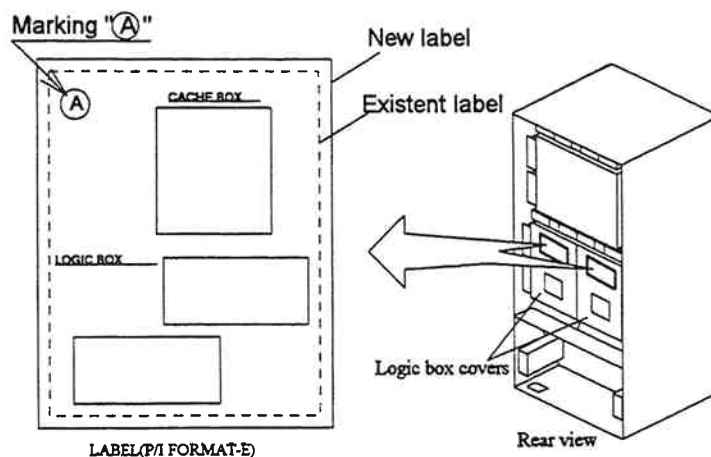


Fig. 3.3.6.2.2-17 Attachment of Labels

7. Exchange of Labels

- a. Stick the new labels (marking ㊦) over the existent labels on Logic box covers.

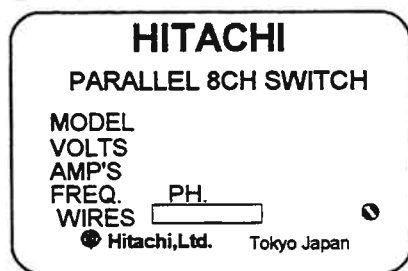
Note: If a new labels with a marking ㊦ printed was already attached, this work is not required.



8. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.2.2-18.

• DKC-F210I-8P



• DKC-F210I-8PE

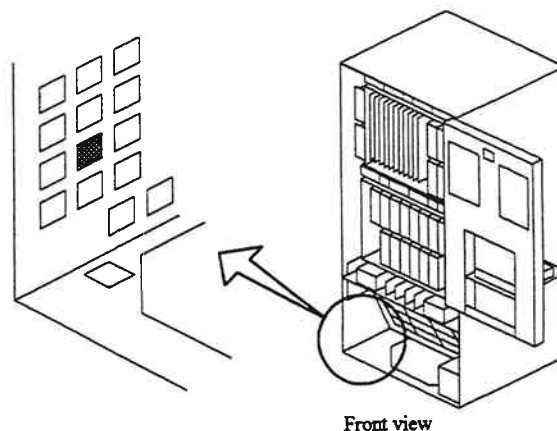
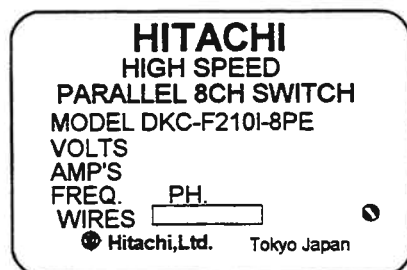


Fig. 3.3.6.2.2-18 Attachment of Nameplate

9. Return to General Flow.

New Installation: Go to INST02-10 Step (8).

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (7).

3.3.6.3 Installation of Serial 4 Port Adapter (DKC-F210I-4S/4SE)

3.3.6.3.1 Parts list

Table 3.3.6.3.1-1 Parts List for Serial 4 Port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-4S	Channel Adapter PCB	3240246-B	2	
		I/F Connector Panel	3228996-A	2	
		Screw	SB408	20	
		Label	5480349-1	2	Serial
		Screw	SB306	4	
		Bracket	5471998-1	2	
		Holder	2084816-1	4	
		Nameplate	3243053-1	1	
2	DKC-F210I-4SE	Channel Adapter PCB	3244935-B	2	
		I/F Connector Panel	3228996-A	2	
		Screw	SB408	20	
		Label	5480349-1	2	Serial
		Screw	SB306	4	
		Bracket	5471998-1	2	
		Holder	2084816-1	4	
		LABEL (P/I FORMAT-E)	3244961-1	2	
		Nameplate	3244903-1	1	

3.3.6.3.2 Installation Procedure of Serial 4 Port Adapter

Basic Location(CH A-D)

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. Insertion of the PCBs
 - a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.3.6.3.2-1.
 - b. Fasten the two screws referring to Fig. 3.3.6.3.2-1.

Table 3.3.6.3.2-1 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E and Q	CHA-1E and CHA-2Q	in Logic Box

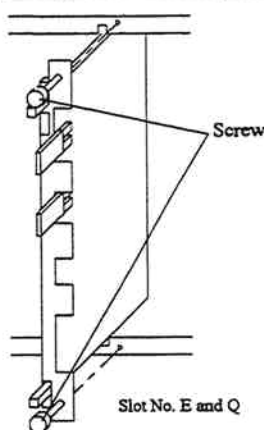
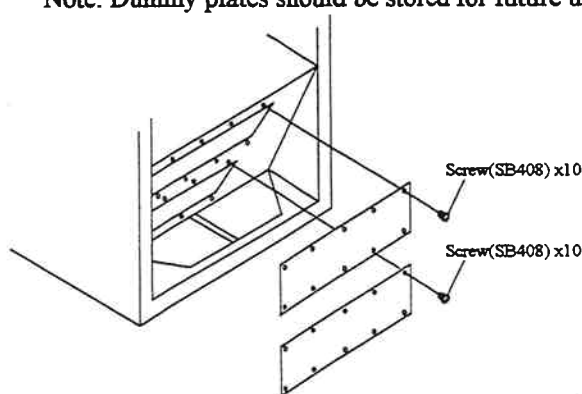


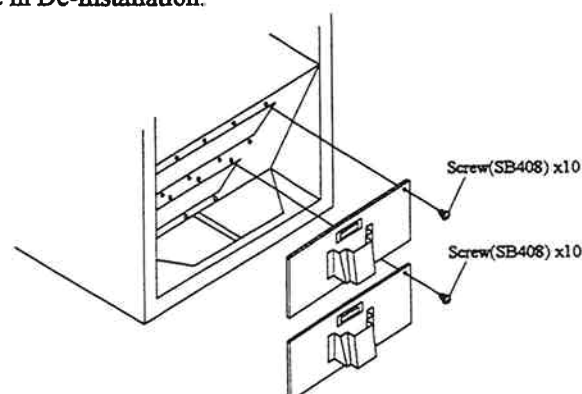
Fig. 3.3.6.3.2-1 Insertion of PCB

2. Installation of the I/F connector panel
 - a. Remove the dummy plate referring to Fig. 3.3.6.3.2-2.
 - b. Install the I/F connector panel referring to Fig. 3.3.6.3.2-3.
- Note: Dummy plates should be stored for future use in De-installation.



Front View of Disk Controller

Fig. 3.3.6.3.2-2 Removal of Dummy Plate



Front View of Disk Controller

Fig. 3.3.6.3.2-3 Installation of I/F Connector Panel

3. Labeling

- a. Attach the labels "SERIAL PORT" to ① referring to Fig. 3.3.6.3.2-4.

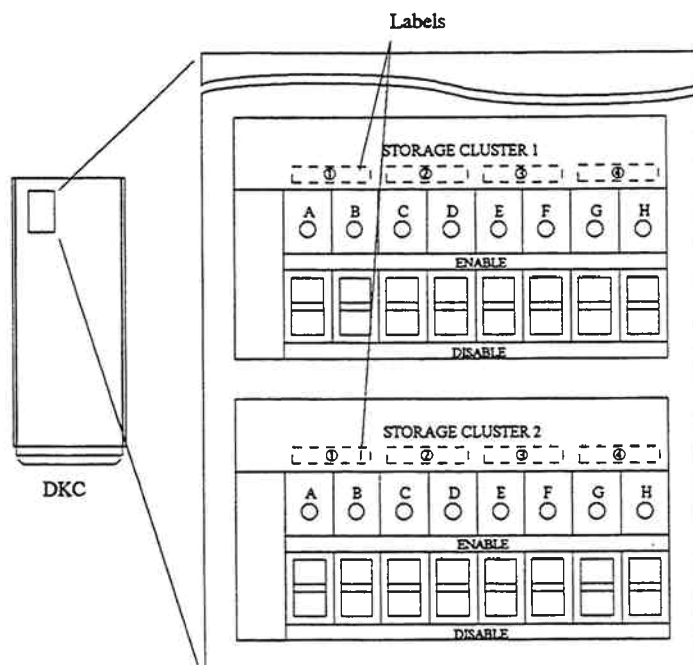
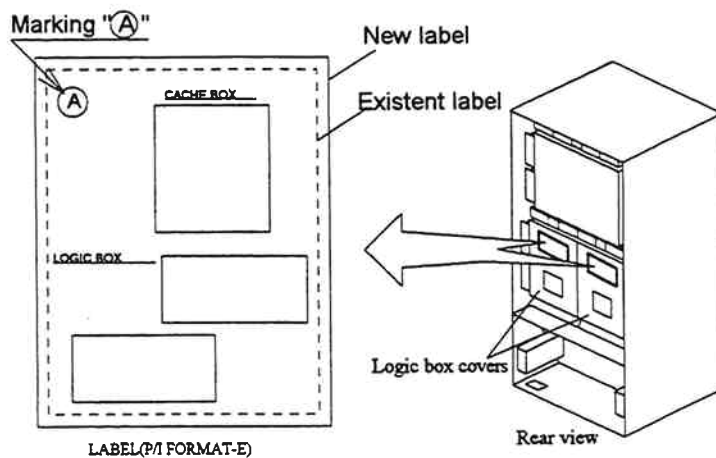


Fig. 3.3.6.3.2-4 Attachment of Labels

4. Exchange of Labels

- a. Stick the new labels (marking ①) over the existent labels on Logic box covers.

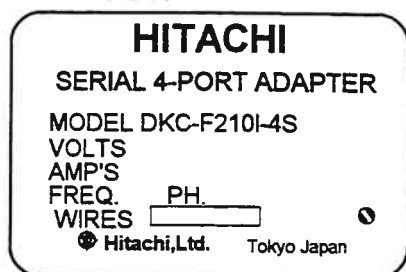
Note: If a new labels with a marking ① printed was already attached, this work is not required.



5. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.3.2-5.

• DKC-F210I-4S



• DKC-F210I-4SE

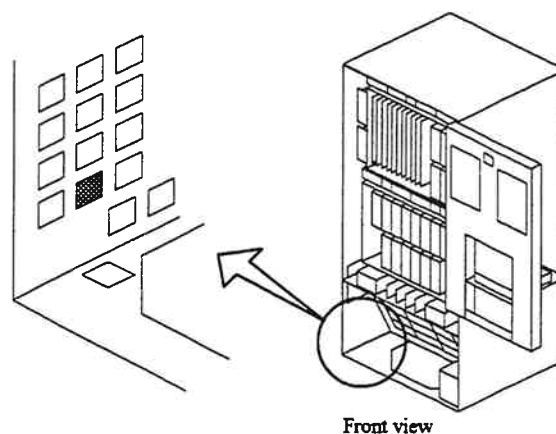
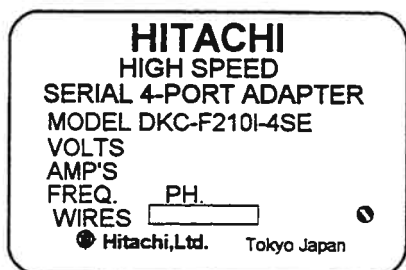


Fig. 3.3.6.3.2-5 Attachment of Nameplate

6. Connection of the optical fiber cable

- Pull the optical fiber cable into the DKC through the I/F connector panel.
- Connect the optical fiber cable to the PCB referring to Serial Channel Interface[LOCATION05-40] in LOCATION SECTION.
- Fix the cable with Holder① referring to Fig. 3.3.6.3.2-6.
- Fix the cable to Lower Strain Relief② and attach Upper Strain Relief③ and Bracket④ referring to Fig. 3.3.6.3.2-7.

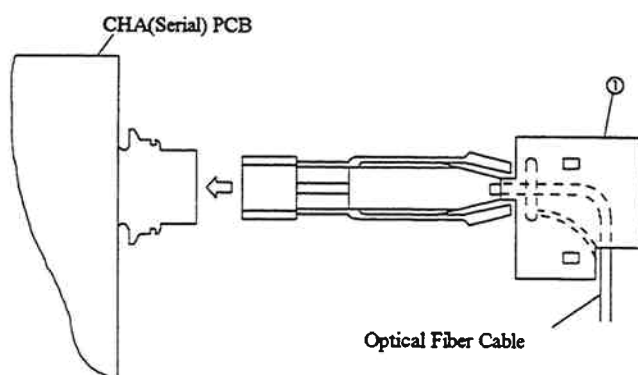


Fig. 3.3.6.3.2-6 Connection of Optical Fiber Cable

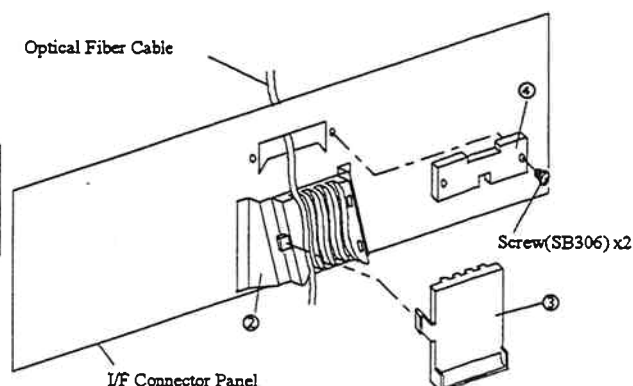


Fig. 3.3.6.3.2-7 Installation of Optical Fiber Cable

7. Return to General Flow.

New Installation: Go to INST02-10 Step (8). But if CHA must be installed in additional location, perform the hardware procedure for CHA additional location.

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (7).

Additional Location(CH E-H)

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. Insertion of the PCBs

- a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.3.6.3.2-2.
- b. Fasten the two screws referring to Fig. 3.3.6.3.2-8.

Table 3.3.6.3.2-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	F and R	CHA-1F and CHA-2R	in Logic Box

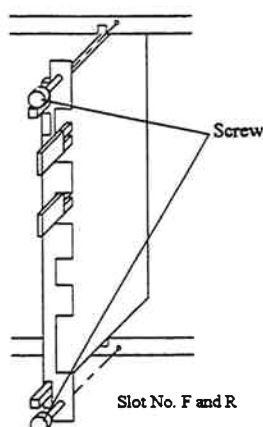
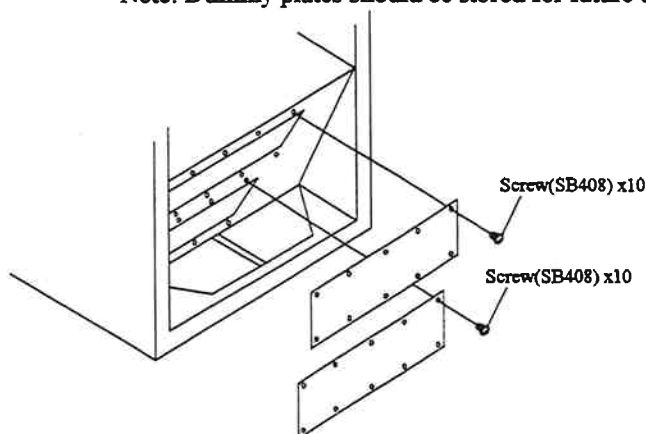


Fig. 3.3.6.3.2-8 Insertion of PCB

2. Installation of the I/F connector panel

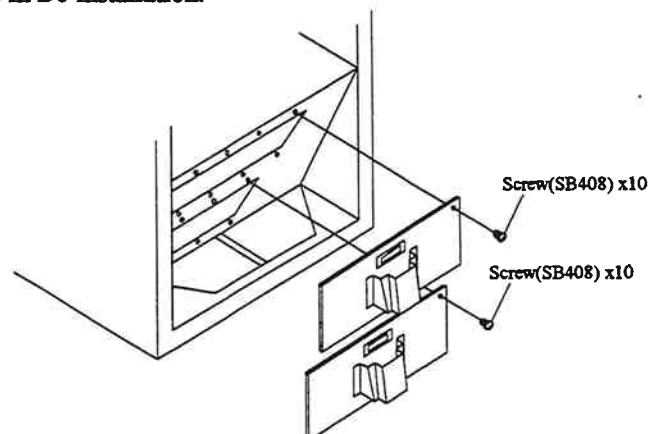
- a. Remove the dummy plate referring to Fig. 3.3.6.3.2-9.
- b. Install the I/F connector panel referring to Fig. 3.3.6.3.2-10.

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



Rear View of Disk Controller

Fig. 3.3.6.3.2-9 Removal of Dummy Plate



Rear View of Disk Controller

Fig. 3.3.6.3.2-10 Installation of I/F Connector Panel

3. Labeling

- a. Attach the labels "SERIAL PORT" to ③ referring to Fig. 3.3.6.3.2-11.

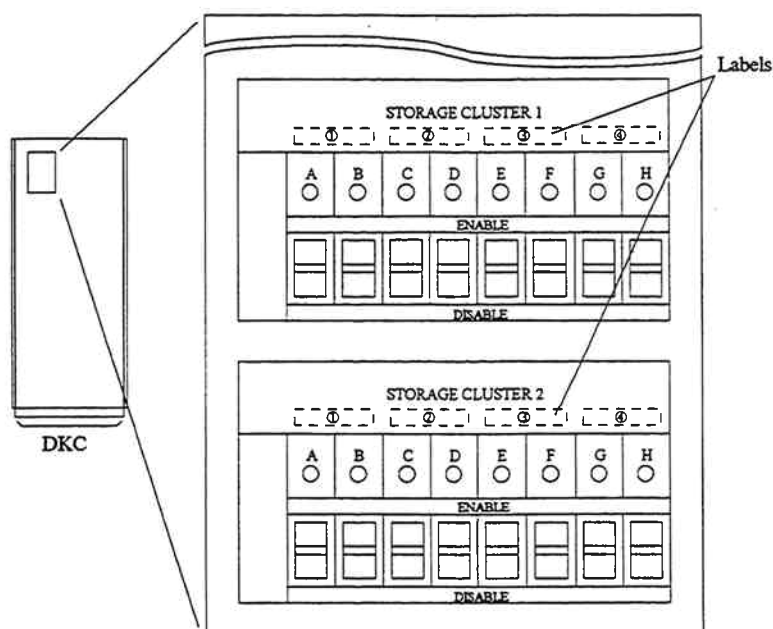
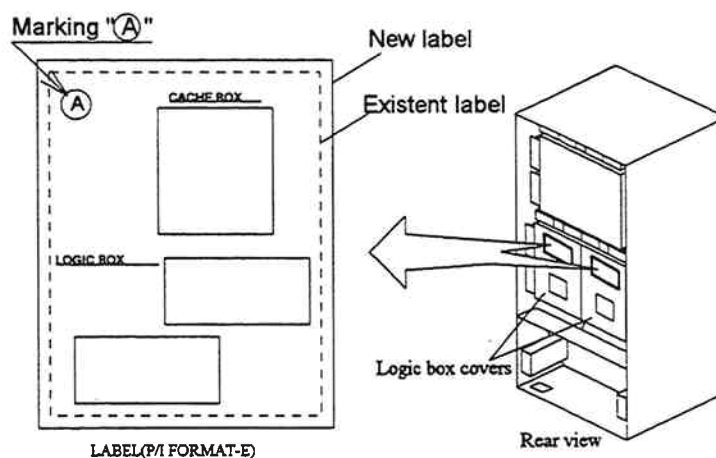


Fig. 3.3.6.3.2-11 Attachment of Labels

4. Exchange of Labels

- a. Stick the new labels (marking ①) over the existent labels on Logic box covers.

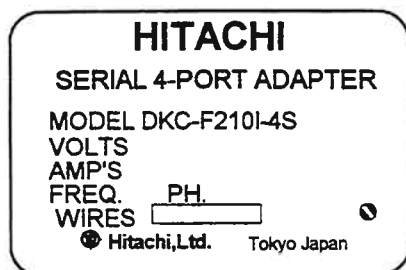
Note: If a new labels with a marking ① printed was already attached, this work is not required.



5. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.3.2-12.

• DKC-F210I-4S



• DKC-F210I-4SE

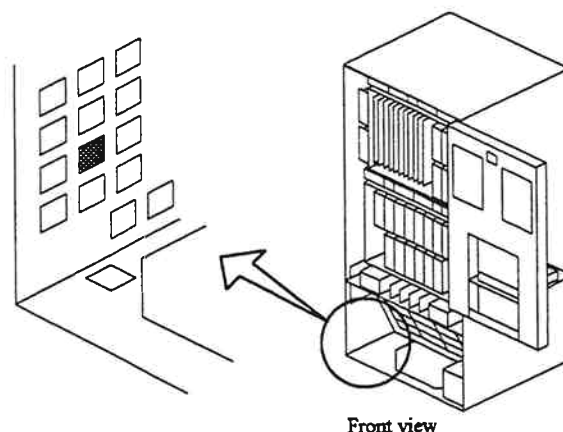
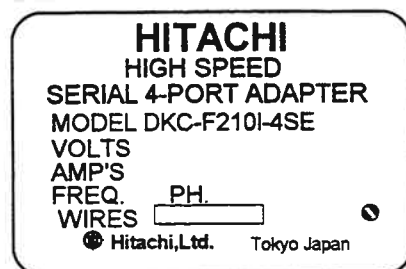


Fig. 3.3.6.3.2-12 Attachment of Nameplate

6. Connection of the optical fiber cable

- Pull the optical fiber cable into the DKC through the I/F connector panel.
- Connect the optical fiber cable to the PCB referring to Serial Channel Interface[LOCATION05-40] in LOCATION SECTION.
- Fix the cable with Holder① referring to Fig. 3.3.6.3.2-13.
- Fix the cable to Lower Strain Relief② and attach Upper Strain Relief③ and Bracket④ referring to Fig. 3.3.6.3.2-14.

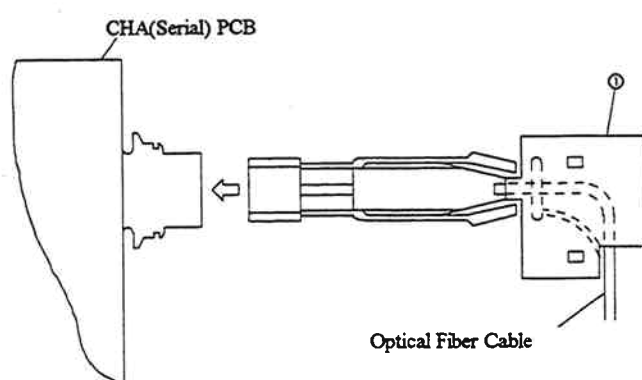


Fig. 3.3.6.3.2-13 Connection of Optical Fiber Cable

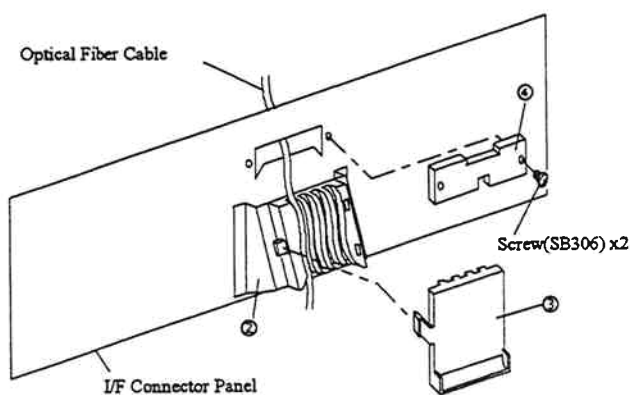


Fig. 3.3.6.3.2-14 Installation of Optical Fiber Cable

7. Return to General Flow.

New Installation: Go to INST02-10 Step (8).

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (7).

3.3.6.4 Installation of Serial 8 Port Adapter (DKC-F210I-8S/8SE)

3.3.6.4.1 Parts list

Table 3.3.6.4.1-1 Parts List for Serial 8 Port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-8S	Channel Adapter PCB	3240246-A	2	
		I/F Connector Panel	3228996-B	2	
		Screw	SB408	20	
		Label	5480349-1	4	Serial
		Screw	SB306	4	
		Bracket	5471998-1	2	
		Holder	2084816-1	8	
		Nameplate	3243054-1	1	
2	DKC-F210I-8SE	Channel Adapter PCB	3244935-A	2	
		I/F Connector Panel	3228996-B	2	
		Screw	SB408	20	
		Label	5480349-1	4	Serial
		Screw	SB306	4	
		Bracket	5471998-1	2	
		Holder	2084816-1	8	
		LABEL (P/I FORMAT-E)	3244961-1	2	
		Nameplate	3244904-1	1	

3.3.6.4.2 Installation Procedure of Serial 8 Port Adapter

Basic Location(CH A-D)

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. Insertion of the PCBs
 - a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.3.6.4.2-1.
 - b. Fasten the two screws referring to Fig. 3.3.6.4.2-1.

Table 3.3.6.4.2-1 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E and Q	CHA-1E and CHA-2Q	in Logic Box

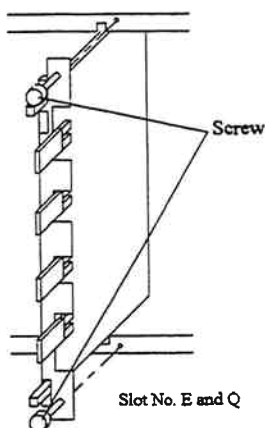
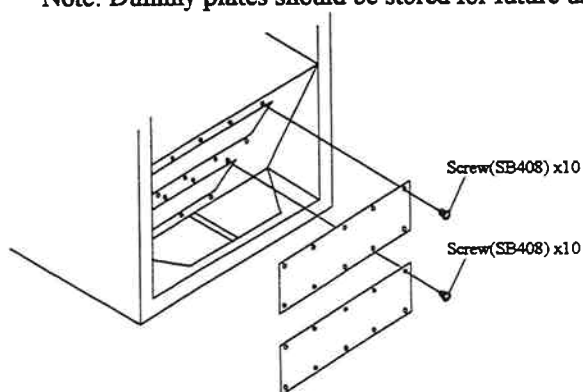


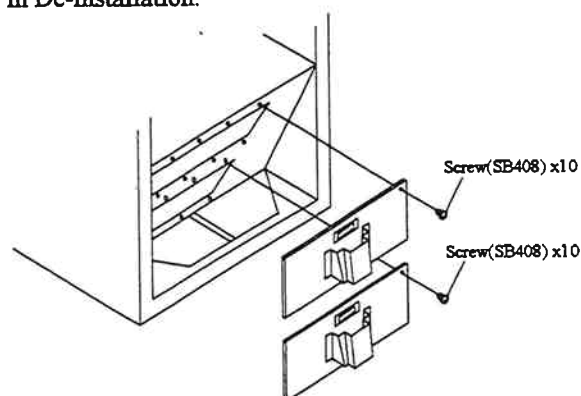
Fig. 3.3.6.4.2-1 Insertion of PCB

2. Installation of the I/F connector panel
 - a. Remove the dummy plate referring to Fig. 3.3.6.4.2-2.
 - b. Install the I/F connector panel referring to Fig. 3.3.6.4.2-3.
- Note: Dummy plates should be stored for future use in De-installation.



Front View of Disk Controller

Fig. 3.3.6.4.2-2 Removal of Dummy Plate



Front View of Disk Controller

Fig. 3.3.6.4.2-3 Installation of I/F Connector Panel

3. Labeling

- a. Attach the labels "SERIAL PORT" to ① and ② referring to Fig. 3.3.6.4.2-4.

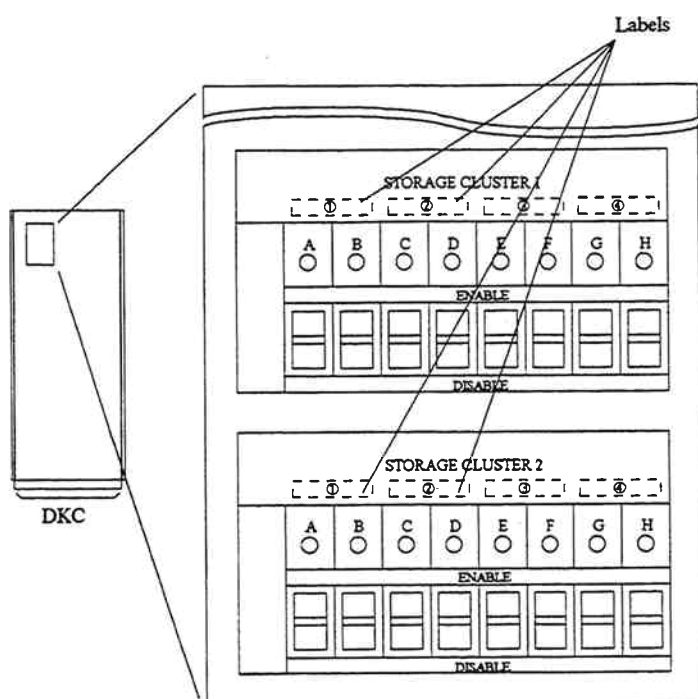
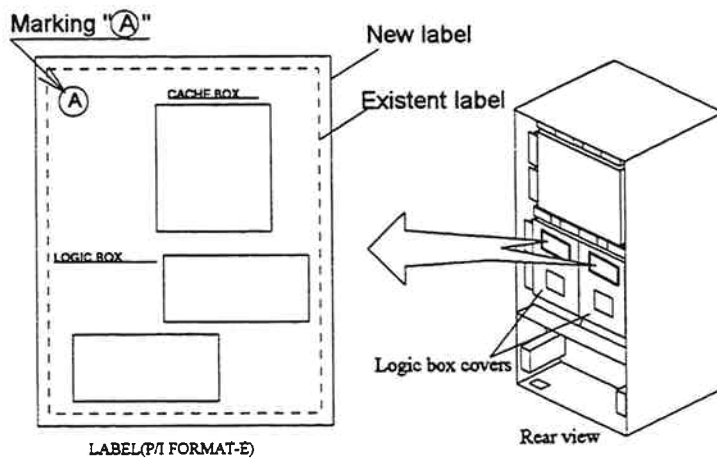


Fig. 3.3.6.4.2-4 Attachment of Labels

4. Exchange of Labels

- a. Stick the new labels (marking ㊦) over the existent labels on Logic box covers.

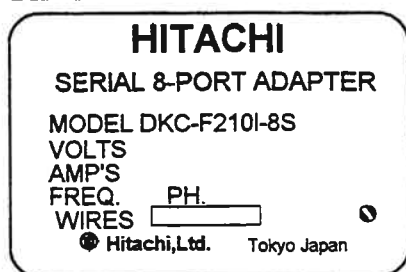
Note: If a new labels with a marking ㊦ printed was already attached, this work is not required.



5. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.4.2-5.

• DKC-F210I-8S



• DKC-F210I-8SE

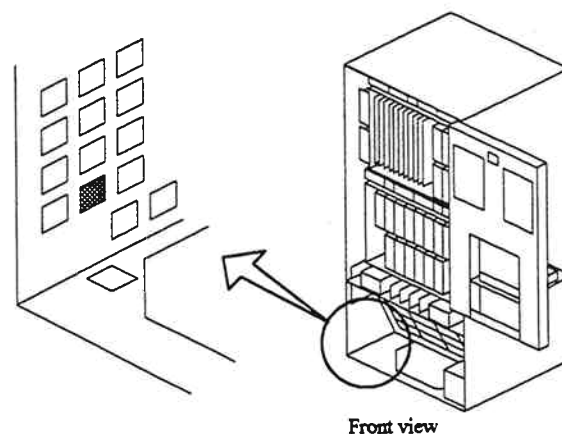
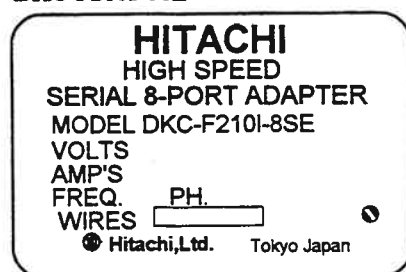


Fig. 3.3.6.4.2-5 Attachment of Nameplate

6. Connection of the optical fiber cable

- a. Pull the optical fiber cable into the DKC through the I/F connector panel.
- b. Connect the optical fiber cable to the PCB referring to Serial Channel Interface[LOCATION05-40] in LOCATION SECTION.
- c. Fix the cable with Holder① referring to Fig. 3.3.6.4.2-6.
- d. Fix the cable to Lower Strain Relief② and attach Upper Strain Relief③ and Bracket④ referring to Fig. 3.3.6.4.2-7.

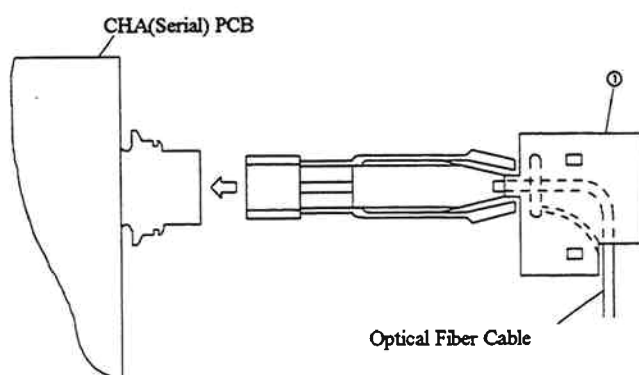


Fig. 3.3.6.4.2-6 Connection of Optical Fiber Cable

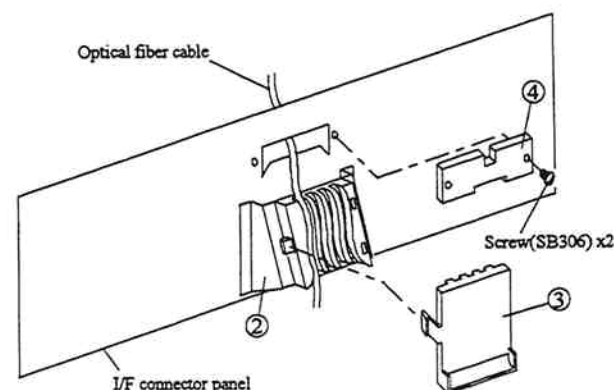


Fig. 3.3.6.4.2-7 Installation of Optical Fiber Cable

7. Return to General Flow.

New Installation: Go to INST02-10 Step (8). But if CHA must be installed in additional location, perform the hardware procedure for CHA additional location.

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (7).

Additional Location(CH E-H)

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. Insertion of the PCBs
 - a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.3.6.4.2-2.
 - b. Fasten the two screws referring to Fig. 3.3.6.4.2-8.

Table 3.3.6.4.2-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	F and R	CHA-1F and CHA-2R	in Logic Box

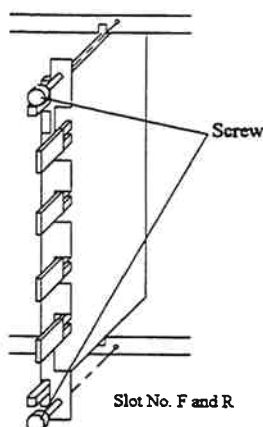
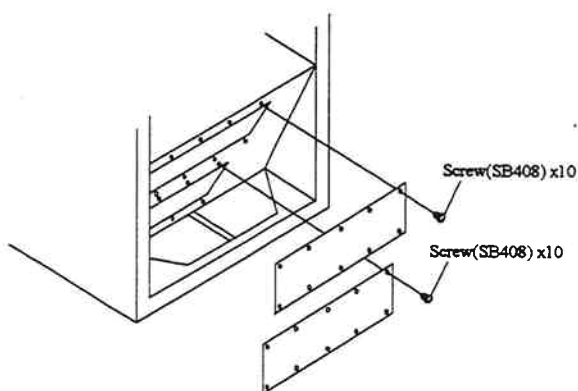


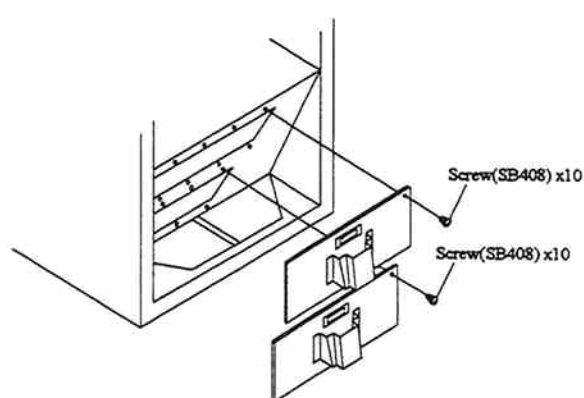
Fig. 3.3.6.4.2-8 Insertion of PCB

2. Installation of the I/F connector panel
 - a. Remove the dummy plate referring to Fig. 3.3.6.4.2-9.
 - b. Install the I/F connector panel referring to Fig. 3.3.6.4.2-10.
- Note: Dummy plates should be stored for future use in De-installation.



Rear View of Disk Controller

Fig. 3.3.6.4.2-9 Removal of Dummy Plate



Rear View of Disk Controller

Fig. 3.3.6.4.2-10 Installation of I/F Connector Panel

3. Labeling

- a. Attach the labels "SERIAL PORT" to ③ and ④ referring to Fig. 3.3.6.4.2-11.

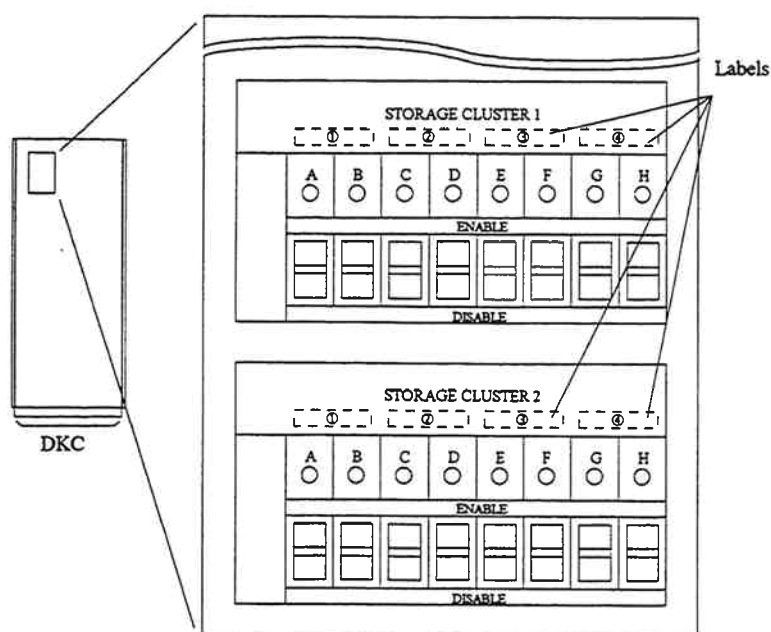
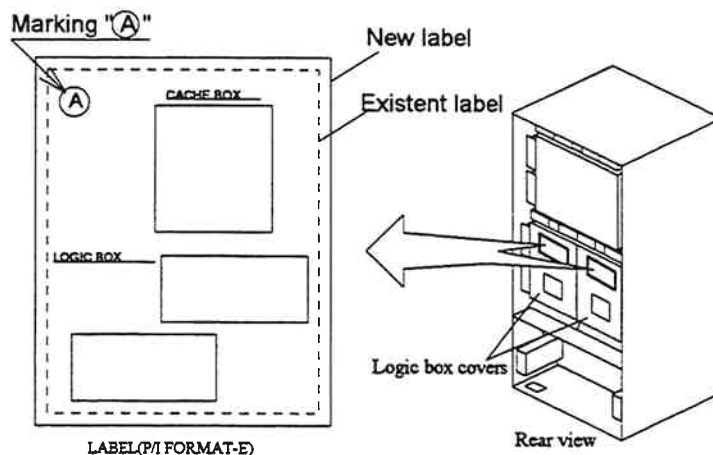


Fig. 3.3.6.4.2-11 Attachment of Labels

4. Exchange of Labels

- a. Stick the new labels (marking ㊦) over the existent labels on Logic box covers.

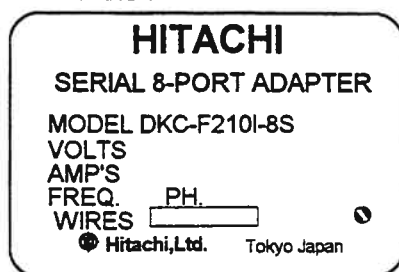
Note: If a new labels with a marking ㊦ printed was already attached, this work is not required.



5. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.4.2-12.

• DKC-F210I-8S



• DKC-F210I-8SE

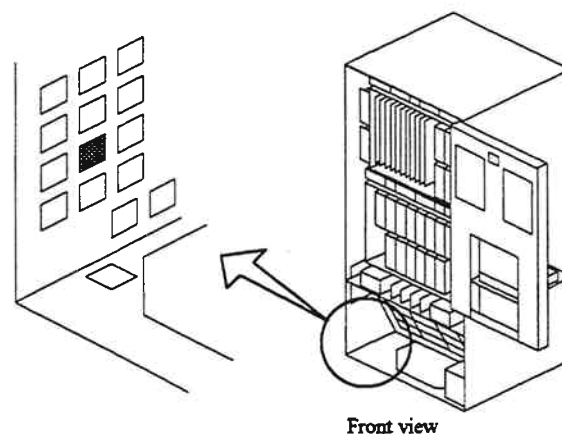
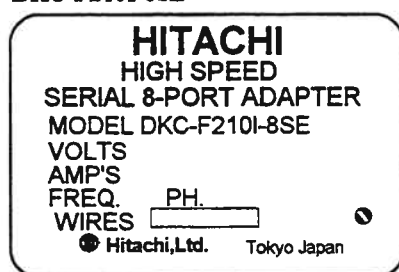


Fig. 3.3.6.4.2-12 Attachment of Nameplate

6. Connection of the optical fiber cable

- a. Pull the optical fiber cable into the DKC through the I/F connector panel.
- b. Connect the optical fiber cable to the PCB referring to Serial Channel Interface[LOCATION05-40] in LOCATION SECTION.
- c. Fix the cable with Holder① referring to Fig. 3.3.6.4.2-13.
- d. Fix the cable to Lower Strain Relief② and attach Upper Strain Relief③ and Bracket④ referring to Fig. 3.3.6.4.2-14.

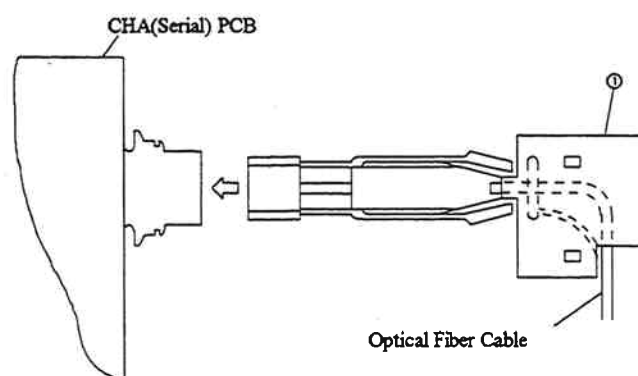


Fig. 3.3.6.4.2-13 Connection of Optical Fiber Cable

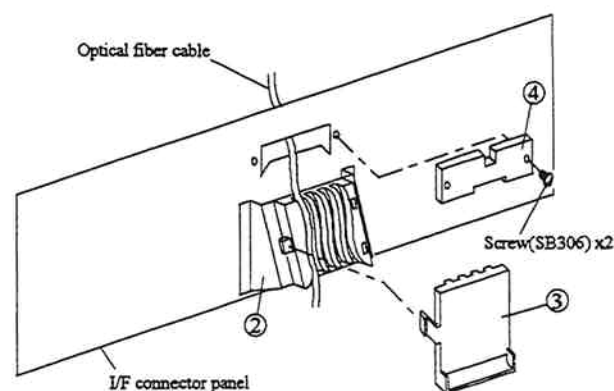


Fig. 3.3.6.4.2-14 Installation of Optical Fiber Cable

7. Return to General Flow.

New Installation: Go to INST02-10 Step (8).

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (7).

3.3.6.5 Installation of SCSI 8 Port Adapter (DKC-F210I-8C)

3.3.6.5.1 Parts list

Table 3.3.6.5.1-1 Parts List for SCSI 8 Port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-8C	Channel Adapter PCB	3247158-A	2	
		I/F Connector Panel	2099374-A	1	Cluster 1 side
		I/F Connector Panel	2099374-B	1	Cluster 2 side
		Screw	SB408	20	
		Clip(1)	5480323-1	2	
		Clip(4)	5480326-1	4	
		Label	5494057-1	2	SCSI
		Nameplate	3247146-1	1	
		Connector(Terminator)	5486080-868	8	

3.3.6.5.2 Installation Procedure of SCSI 8 Port Adapter

Basic Location(CH A-D)

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. Insertion of the PCBs
 - a. Insert the PCBs to the correct locations in the Logic Box referring to Table 3.3.6.5.2-1.
 - b. Fasten the two screws referring to Fig. 3.3.6.5.2-1.

Table 3.3.6.5.2-1 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E and Q	CHA-1E and CHA-2Q	in Logic Box

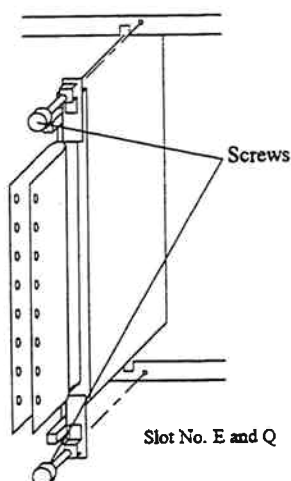


Fig. 3.3.6.5.2-1 Insertion of PCB

2. Installation of the I/F connector panel
 - a. Remove the dummy plate referring to Fig. 3.3.6.5.2-2.
 - b. Install the I/F connector panel referring Fig. 3.3.6.5.2-3.
- Note: Dummy plates should be stored for future use in De-installation.

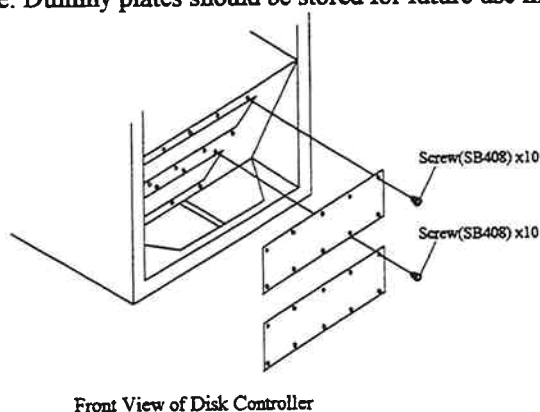


Fig. 3.3.6.5.2-2 Removal of Dummy Plate

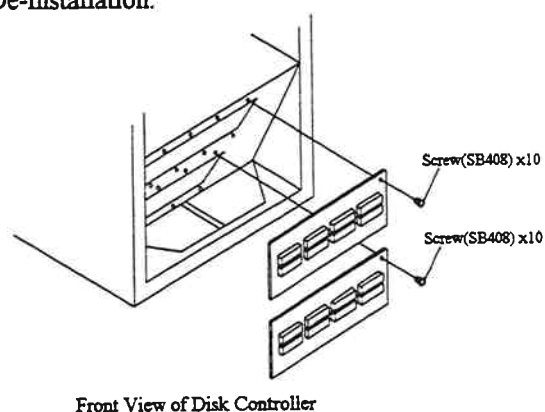


Fig. 3.3.6.5.2-3 Installation of I/F Connector Panel

3. Cabling

- a. Pass the SCSI cables through the cable guide referring to Fig. 3.3.6.5.2-4.

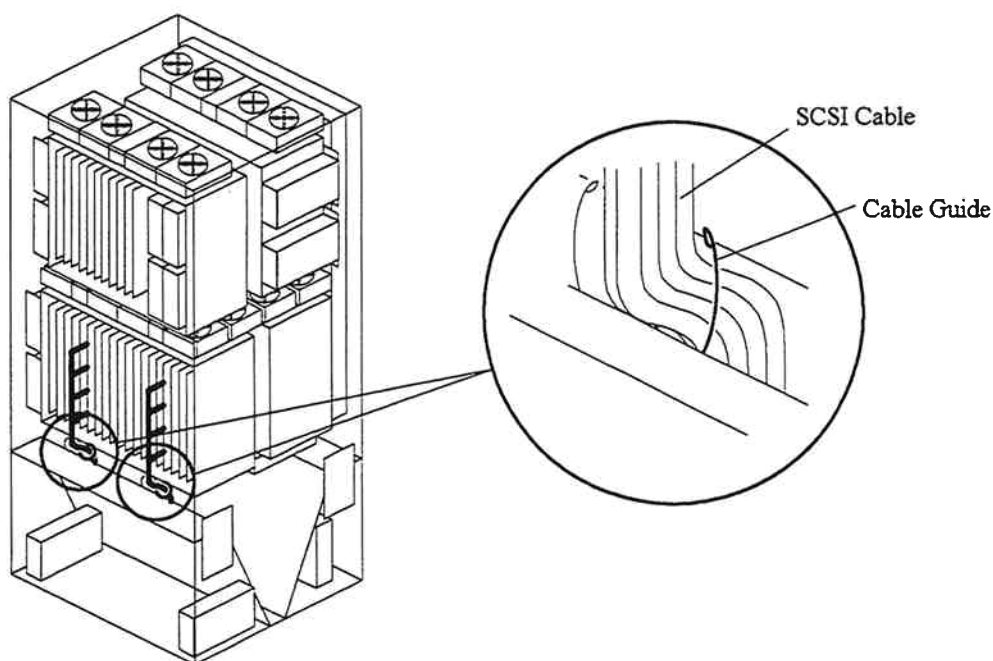


Fig. 3.3.6.5.2-4 Cabling

4. Connection of the SCSI cables

- a. Connect the SCSI cables to the sub-edge connectors on PCB. Refer to Fig. 3.3.6.5.2-5 and Table 3.3.6.5.2-2.

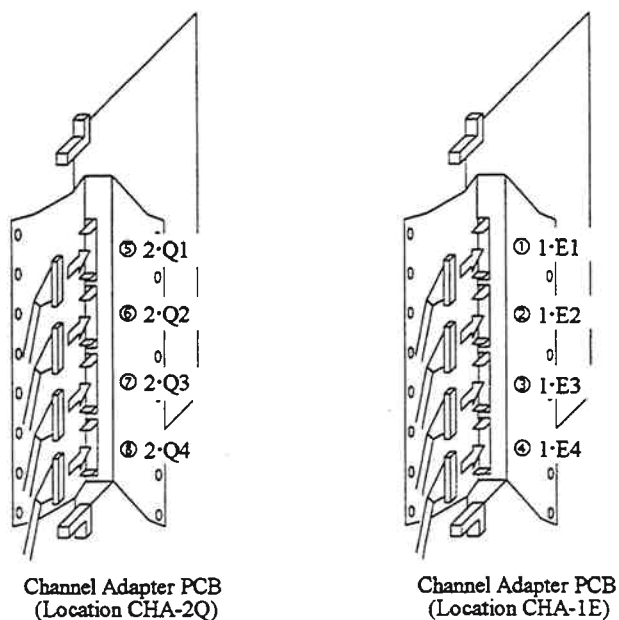


Fig. 3.3.6.5.2-5 Connection of SCSI Cables

Table 3.3.6.5.2-2 SCSI Cable Connection

No.	SCSI cable	Sub-edge connector on PCB
1	1•E1/1•F1	1•E1
2	1•E2/1•F2	1•E2
3	1•E3/1•F3	1•E3
4	1•E4/1•F4	1•E4
5	2•Q1/2•R1	2•Q1
6	2•Q2/2•R2	2•Q2
7	2•Q3/2•R3	2•Q3
8	2•Q4/2•R4	2•Q4

5. Binding of the SCSI cables

- a. Bind the SCSI cables referring to Fig. 3.3.6.5.2-6.
- b. Button up the cable cover referring to Fig. 3.3.6.5.2-7.

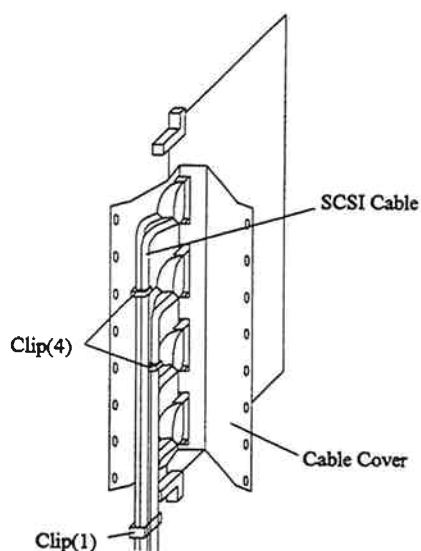


Fig. 3.3.6.5.2-6 Binding

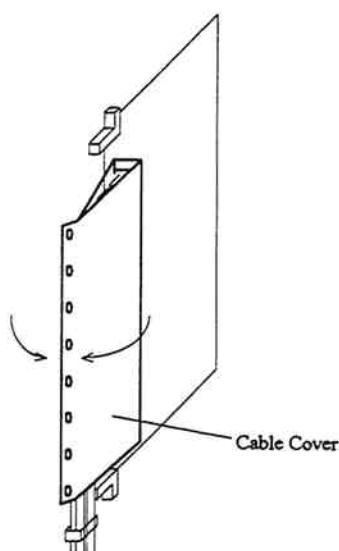


Fig. 3.3.6.5.2-7 Cable Cover

6. Labeling

- a. Attach the labels "SCSI PORT" to ① referring to Fig. 3.3.6.5.2-8.

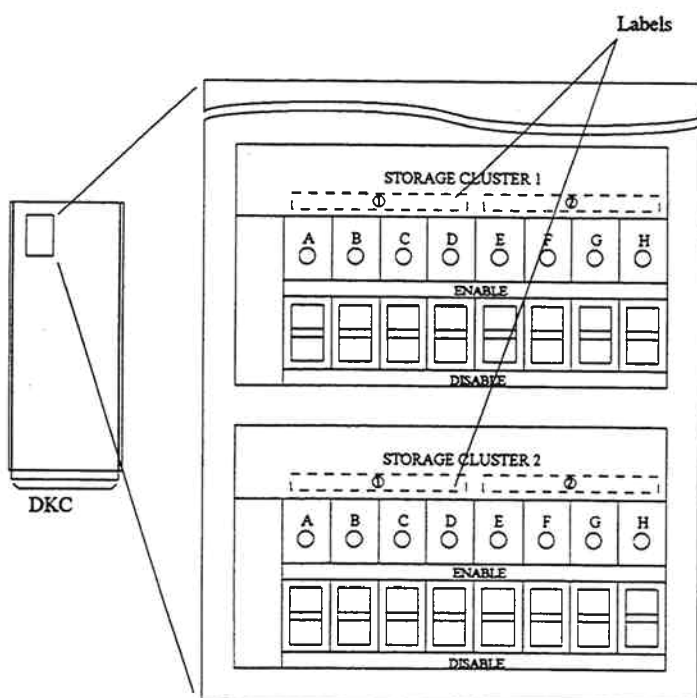


Fig. 3.3.6.5.2-8 Attachment of Labels

7. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.5.2-9.

• DKC-F210I-8C

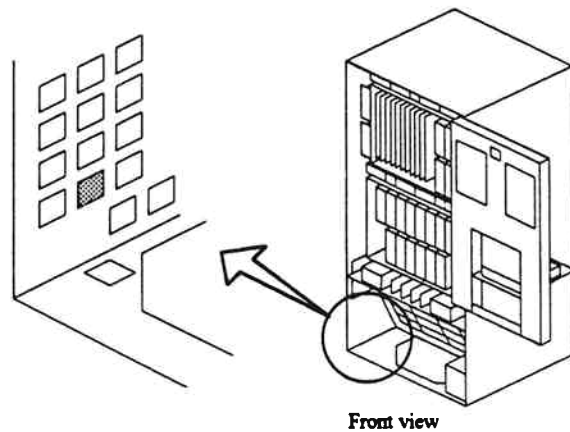
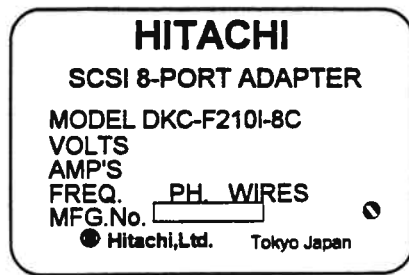


Fig. 3.3.6.5.2-9 Attachment of Nameplate

8. Return to General Flow.

New Installation: Go to INST02-10 Step (7). But if CHA must be installed in additional location, perform the hardware procedure for CHA additional location.

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (6).

3. Cabling

- a. Pass the SCSI cables through the cable guide referring to Fig. 3.3.6.5.2-13.

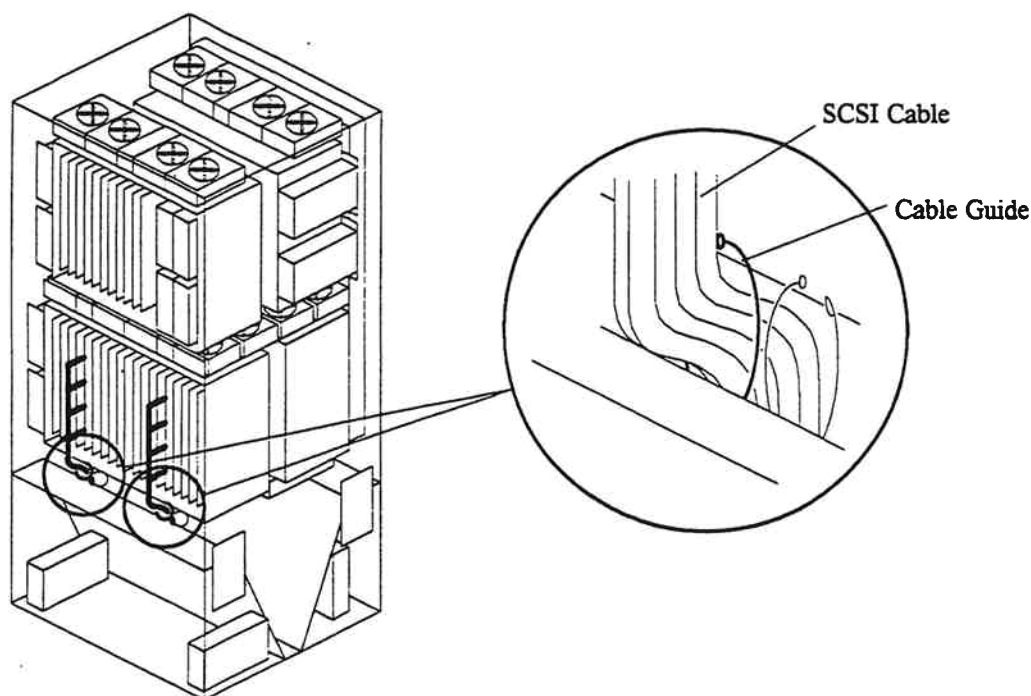
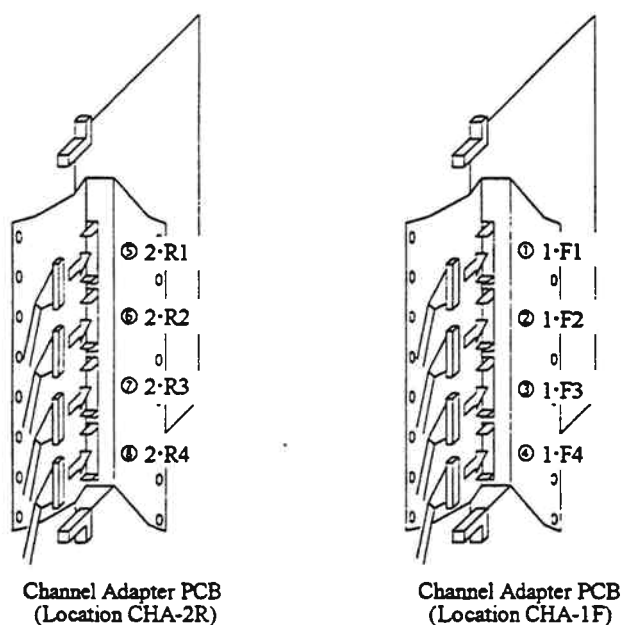


Fig. 3.3.6.5.2-13 Cabling

4. Connection of the SCSI cables

- a. Connect the SCSI cables to the sub-edge connectors on PCB. Refer to Fig. 3.3.6.5.2-14 and Table 3.3.6.5.2-4.



Channel Adapter PCB
(Location CHA-2R)

Channel Adapter PCB
(Location CHA-1F)

Fig. 3.3.6.5.2-14 Connection of SCSI Cables

Table 3.3.6.5.2-4 SCSI Cable Connection

No.	SCSI cable	Sub-edge connector on PCB
1	1•E1/1•F1	1•F1
2	1•E2/1•F2	1•F2
3	1•E3/1•F3	1•F3
4	1•E4/1•F4	1•F4
5	2•Q1/2•R1	2•R1
6	2•Q2/2•R2	2•R2
7	2•Q3/2•R3	2•R3
8	2•Q4/2•R4	2•R4

7. Attachment of the nameplate

- a. Attach the nameplate referring to Fig. 3.3.6.5.2-18.

• DKC-F210I-8C

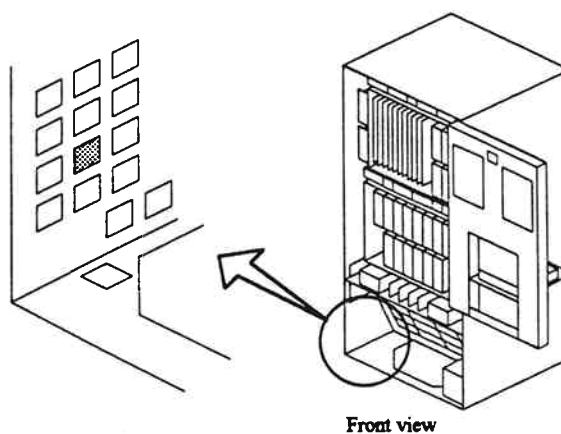
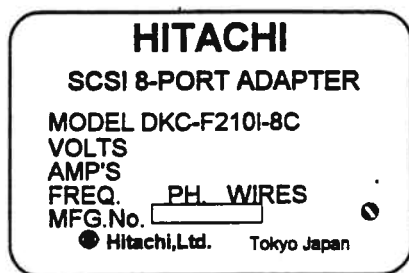


Fig. 3.3.6.5.2-18 Attachment of Nameplate

8. Return to General Flow.

New Installation: Go to INST02-10 Step (7).

Non-disruptive Installation: Go to INST02-20A Step (4)-2.

Disruptive Installation: Go to INST02-40 Step (6).

3.3.6.6.2 Installation Procedure of SCSI 8 Port Adapter (Dual Processor)

Basic Location(CH A-D)

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. Insertion of the PCBs
 - a. Insert the PCBs to the correct locations in the Logic Box referring to Table 3.3.6.6.2-1.
 - b. Fasten the two screws referring to Fig. 3.3.6.6.2-1.

Table 3.3.6.6.2-1 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E and Q	CHA-1E and CHA-2Q	in Logic Box

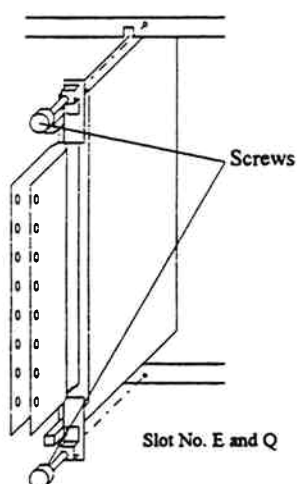
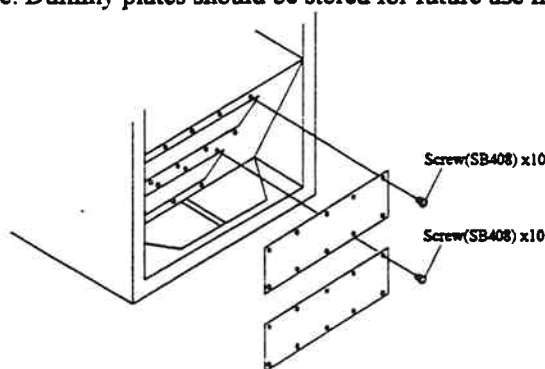


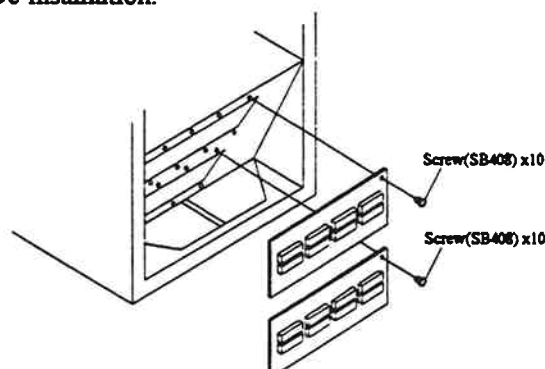
Fig. 3.3.6.6.2-1 Insertion of PCB

2. Installation of the I/F connector panel
 - a. Remove the dummy plate referring to Fig. 3.3.6.6.2-2.
 - b. Install the I/F connector panel referring Fig. 3.3.6.6.2-3.
- Note: Dummy plates should be stored for future use in De-installation.



Front View of Disk Controller

Fig. 3.3.6.6.2-2 Removal of Dummy Plate



Front View of Disk Controller

Fig. 3.3.6.6.2-3 Installation of I/F Connector Panel

5. Binding of the SCSI cables

- a. Bind the SCSI cables referring to Fig. 3.3.6.6.2-6.
- b. Button up the cable cover referring to Fig. 3.3.6.6.2-7.

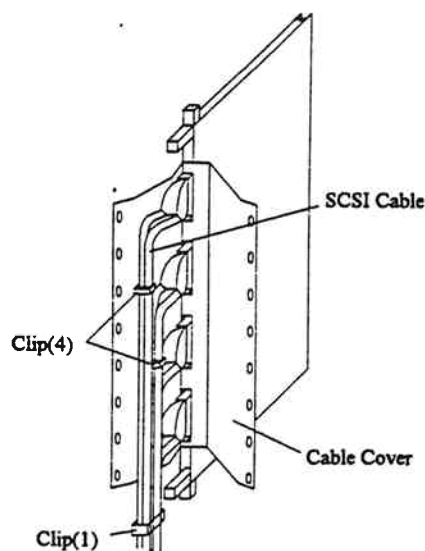


Fig. 3.3.6.6.2-6 Binding

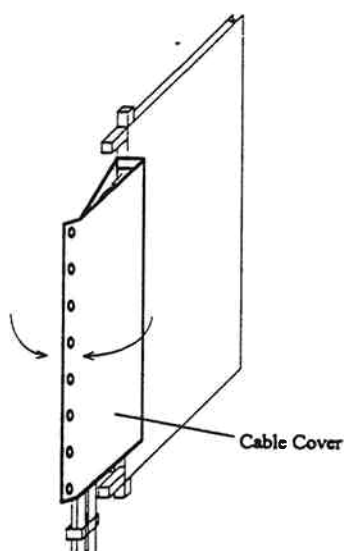


Fig. 3.3.6.6.2-7 Cable Cover

6. Labeling

- a. Attach the labels "SCSI PORT" to ① referring to Fig. 3.3.6.6.2-8.

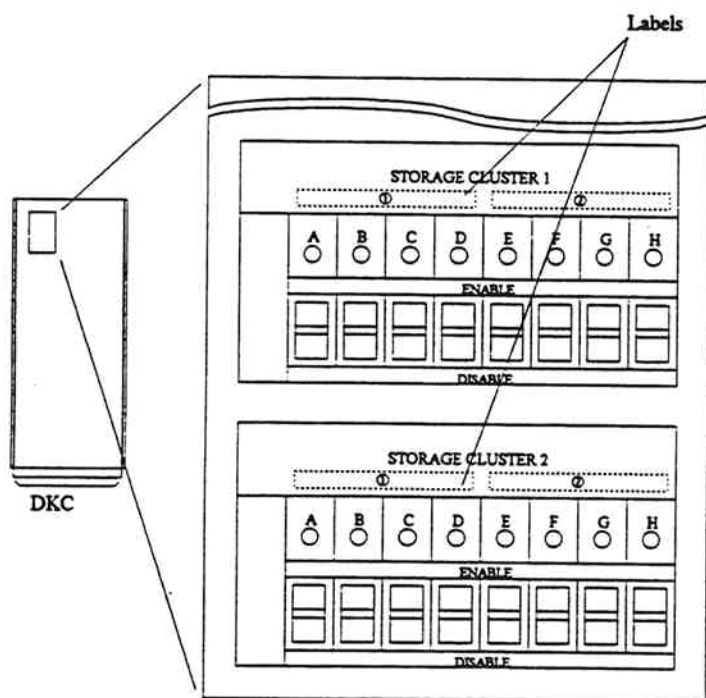


Fig. 3.3.6.6.2-8 Attachment of Labels

Additional Location(CHE-H)

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. Insertion of the PCBs

- a. Insert the PCBs to the correct locations in the Logic Box referring to Table 3.3.6.6.2-3.
- b. Fasten the two screws referring to Fig. 3.3.6.6.2-10.

Table 3.3.6.6.2-3 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	F and R	CHA-1F and CHA-2R	in Logic Box

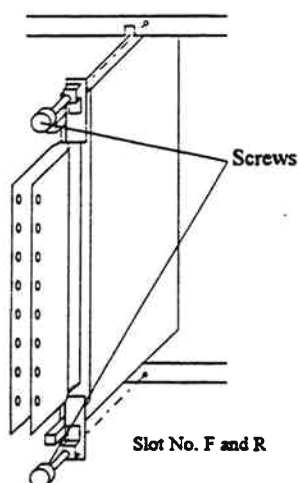
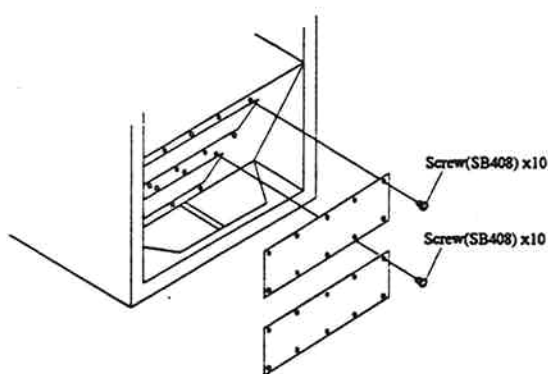


Fig. 3.3.6.6.2-10 Insertion of PCB

2. Installation of the I/F connector panel

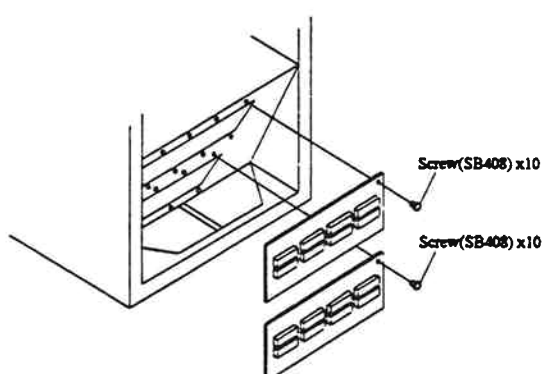
- a. Remove the dummy plate referring to Fig. 3.3.6.6.2-11.
- b. Install the I/F connector panel referring to Fig. 3.3.6.6.2-12.

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



Rear View of Disk Controller

Fig. 3.3.6.6.2-11 Removal of Dummy Plate



Rear View of Disk Controller

Fig. 3.3.6.6.2-12 Installation of I/F Connector Panel

5. Binding of the SCSI cables

- a. Bind the SCSI cables referring to Fig. 3.3.6.6.2-15
- b. Button up the cable cover referring to Fig. 3.3.6.6.2-16.

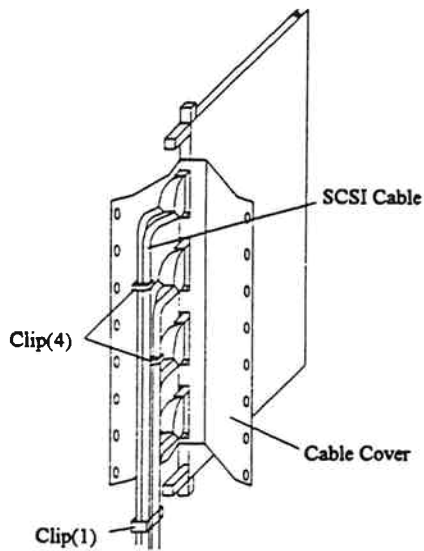


Fig. 3.3.6.6.2-15 Binding

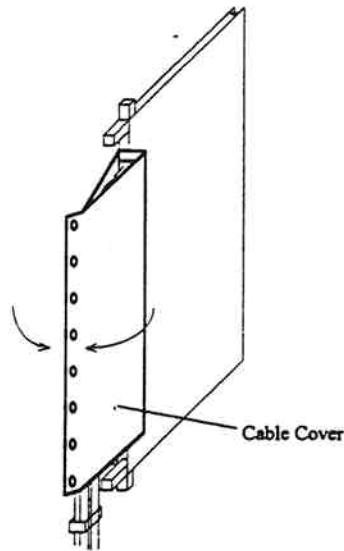


Fig. 3.3.6.6.2-16 Cable Cover

6. Labeling

- a. Attach the labels "SCSI PORT" to ② referring to Fig. 3.3.6.6.2-17.

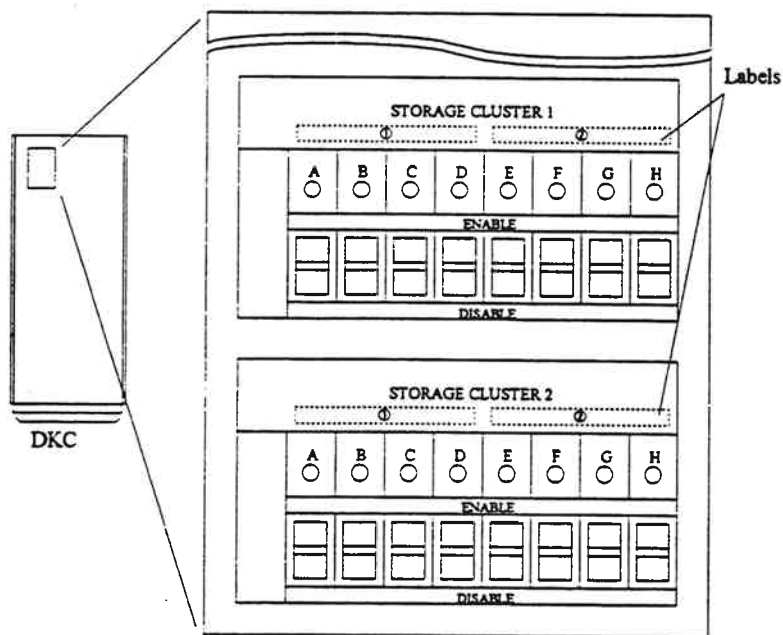


Fig. 3.3.6.6.2-17 Attachment of Labels

3.3.7 Installation of Additional Cache Memory and Additional Shared Memory

CAUTION

Before increasing Cache Memory Modules, be sure and check Cache Memory PCB revision of WP008/WP018 is "Fixed revision" or upper. If Cache Memory PCB revision is "Current revision", you must upgrade the "Fixed revision" or upper. Increasing Cache Memory Modules is permitted on condition that upgrade the "Fixed revision" or upper. Increases on "Current revision" Cache Memory PCB will result in serious problems. In worst case, subsystem down may occur. Concerning the "Current revision" and "Fixed revision", refer to follow table 3.3.7-1.

The revision of PCB WP008-A, B were changed as follows:

Table 3.3.7-1 Revision of Cache Memory PCB

PCB Name	Current Rev.	Fixed Rev.
WP008-A	G	H or Upper
WP008-B	E	F or Upper
WP018-A	D1	E1 or Upper
	D2	E2 or Upper
WP018-B	B1	C1 or Upper
	B2	C2 or Upper

3.3.7.1 Summary

Table 3.3.7.1-1 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				
						RAID 5			RAID1	
						Except 3390-9 and OPEN-9	3390-9 or OPEN-9	TPF		
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.

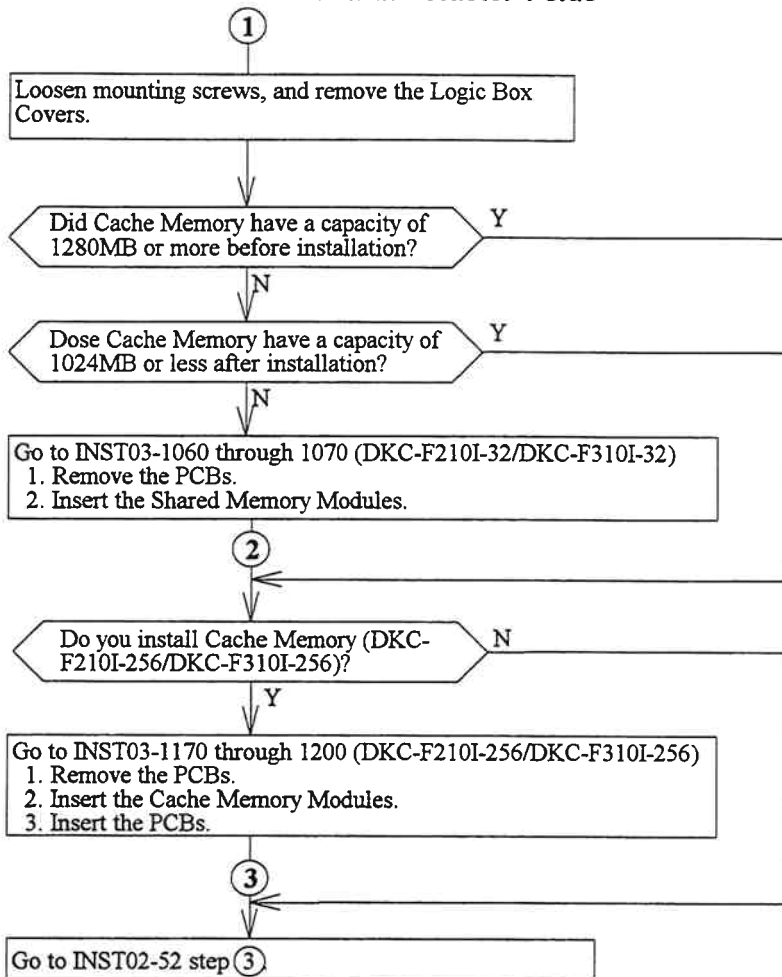
Configuration example	3390-9	OPEN-9	DKC-F210I-32
Cache Capacity=256MB	-	-	0
DK308-90	○	-	1
RAID5	-	○	1
without TPF	○	○	1

3.3.7.2 Flowchart

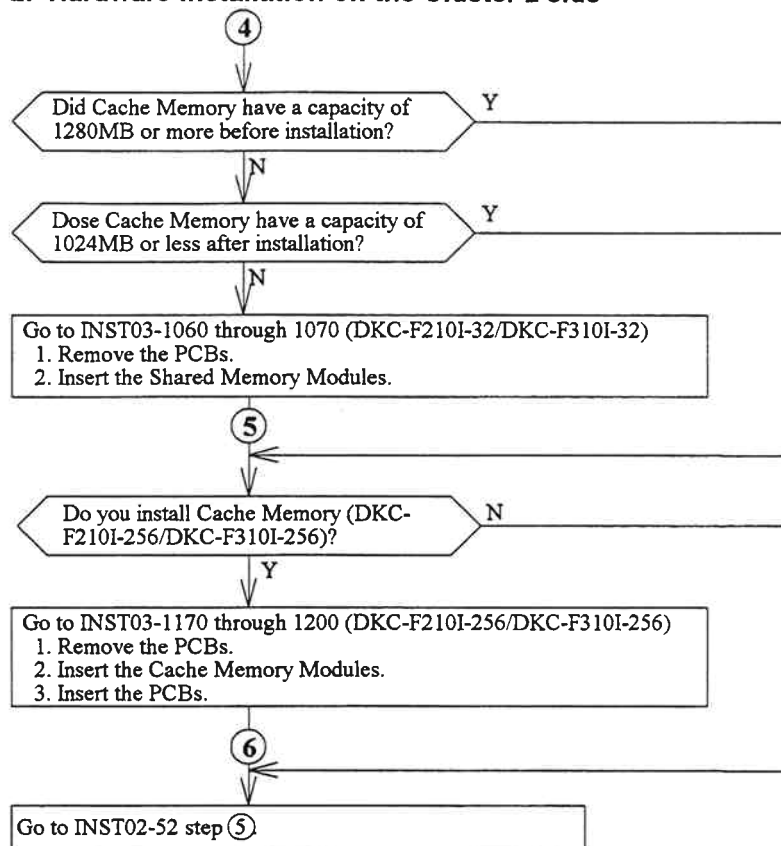
3.3.7.2.1 Installation

When increasing the capacity of Cache Memory to 2048 MB or less

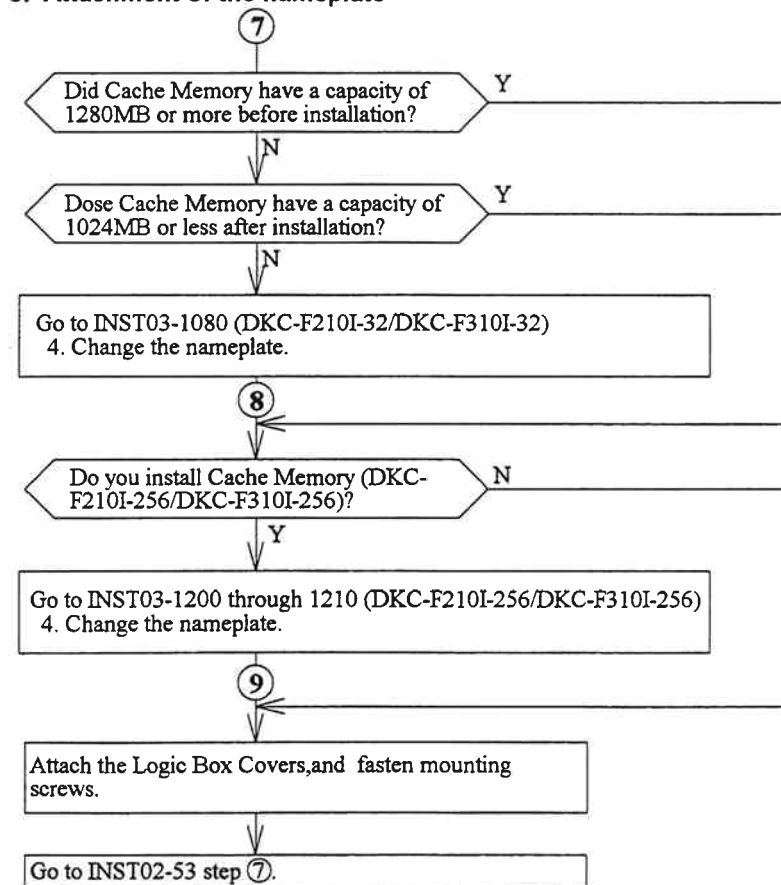
1. Hardware Installation on the Cluster 1 side



2. Hardware Installation on the Cluster 2 side

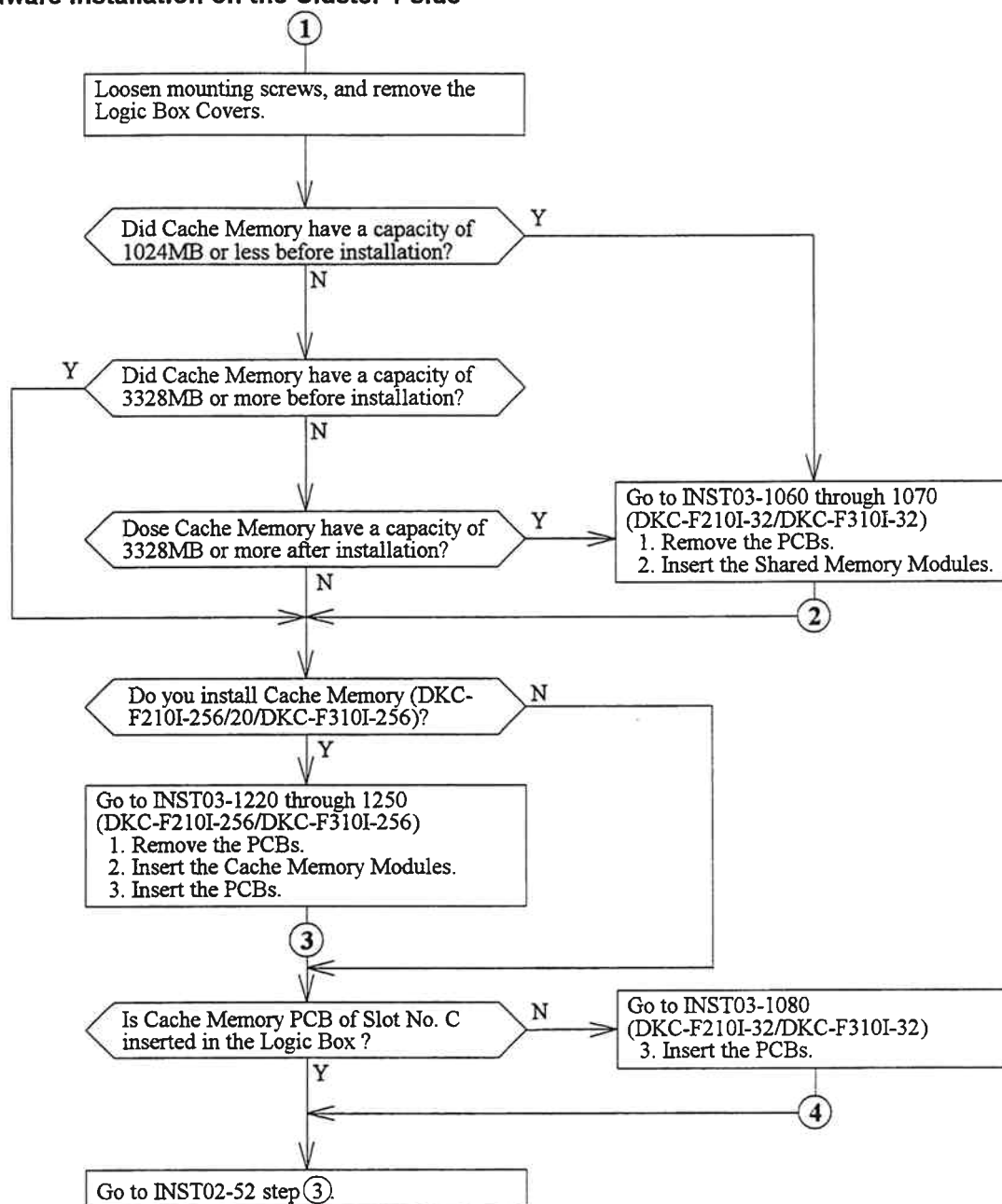


3. Attachment of the nameplate

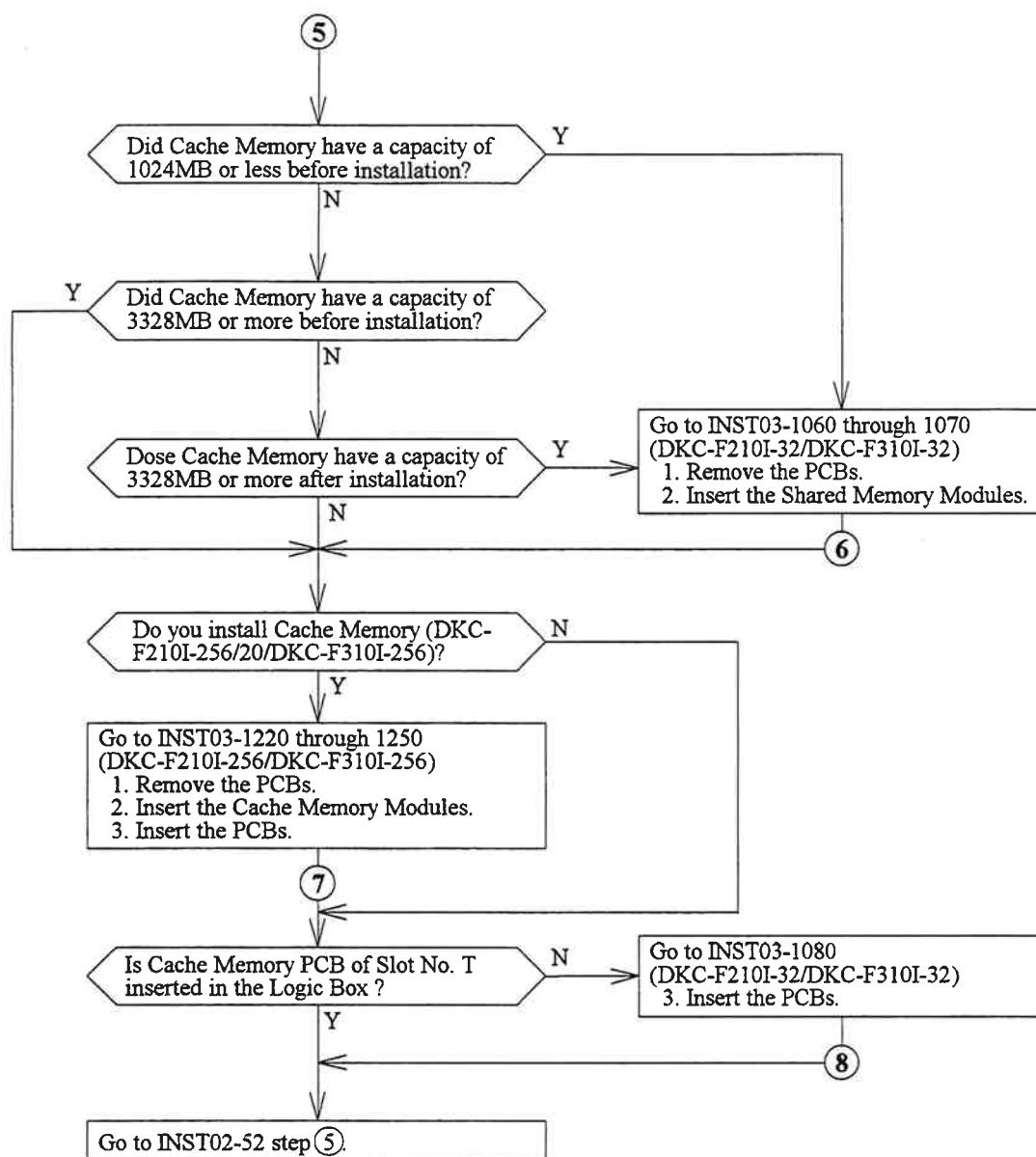


When increasing the capacity of Cache Memory to 2304 through 4096 MB

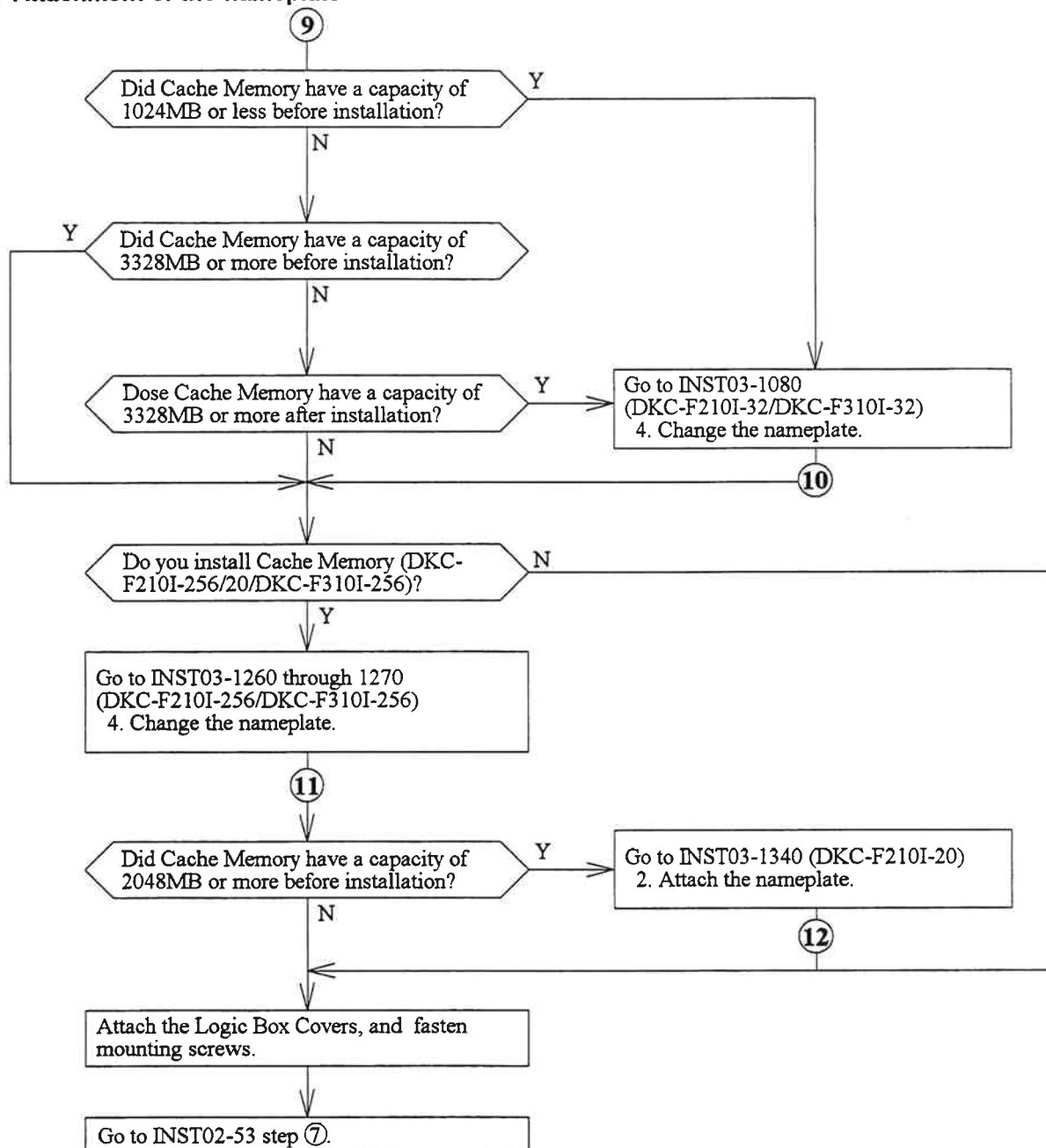
1. Hardware Installation on the Cluster 1 side



2. Hardware Installation on the Cluster 2 side

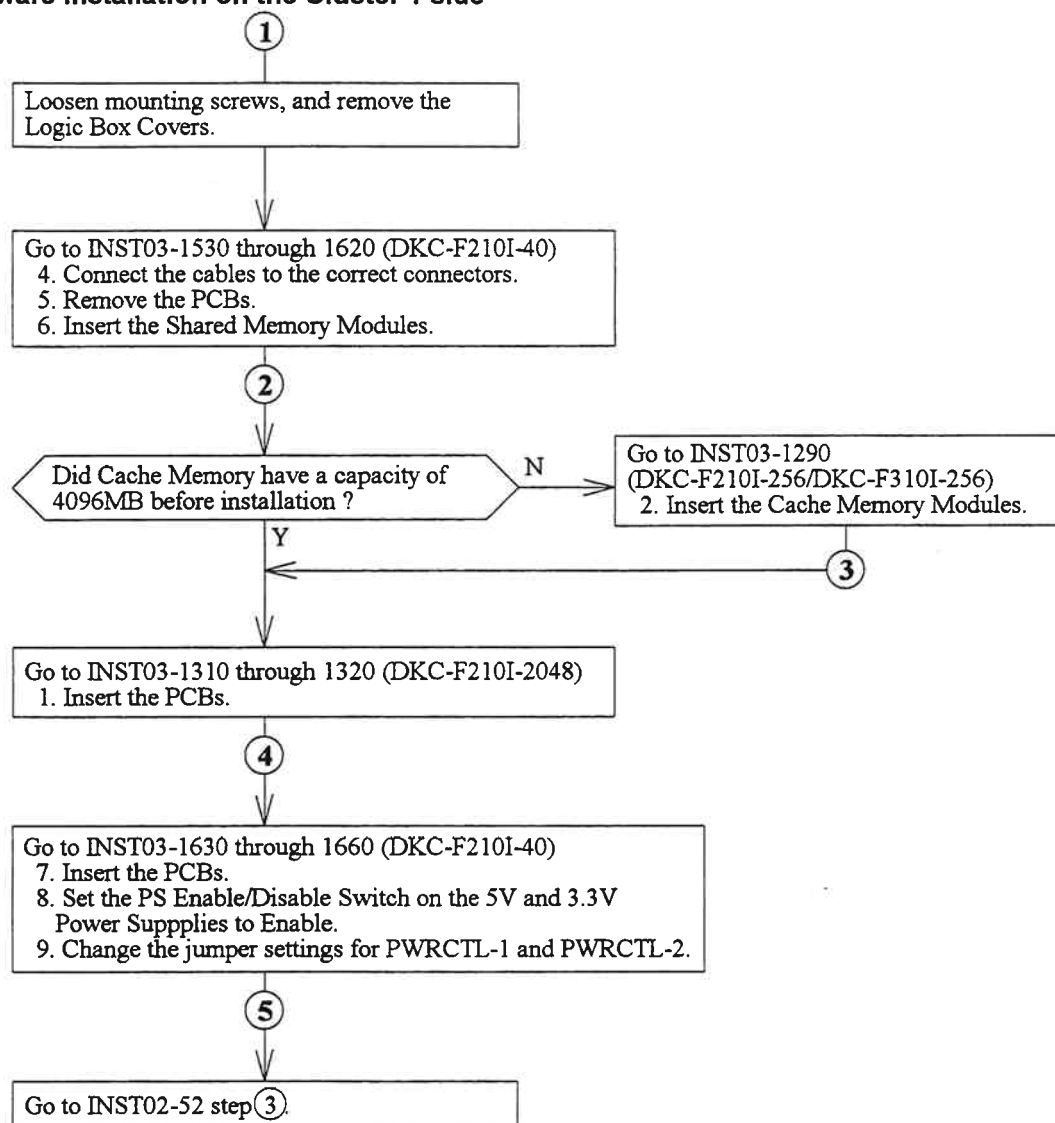


3. Attachment of the nameplate

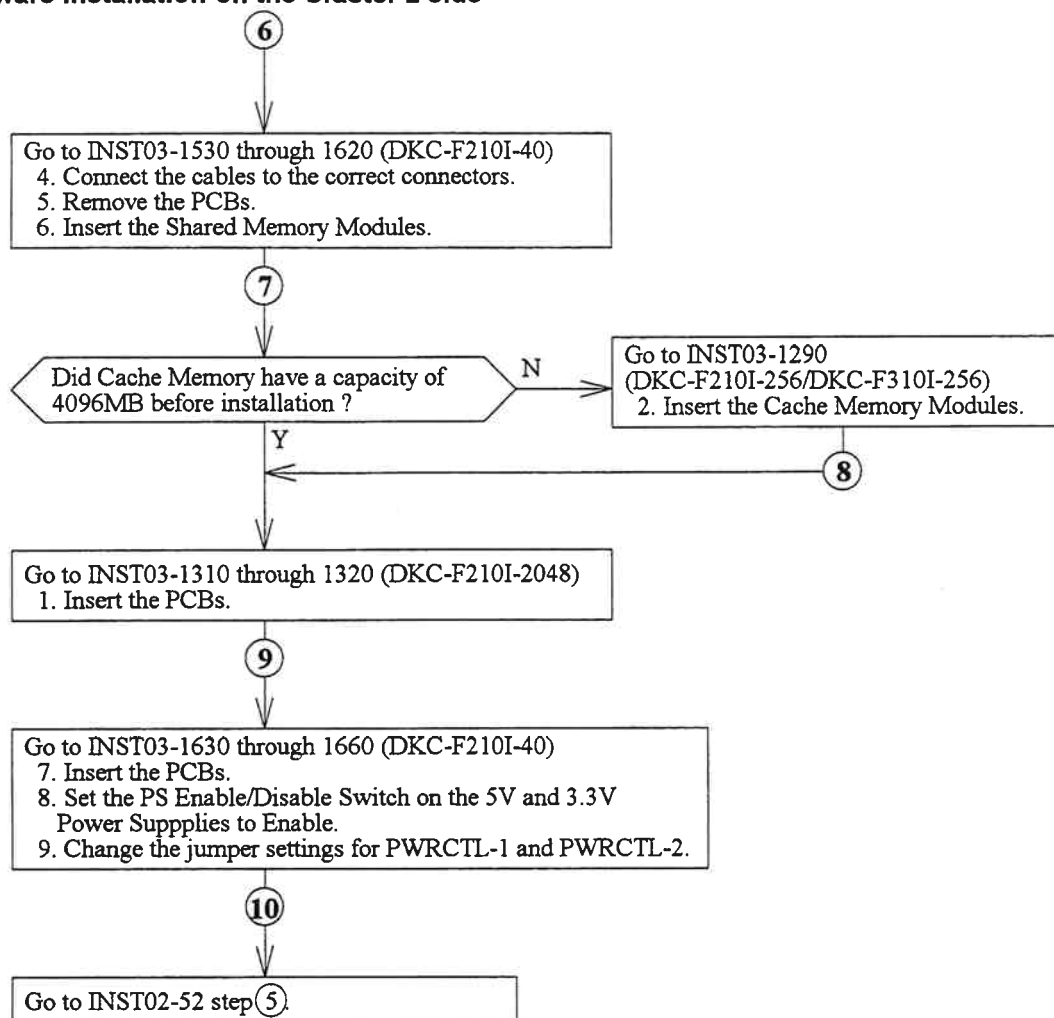


When increasing the capacity of Cache Memory to 6 GB or more (DKC-F210I-40 not installed)

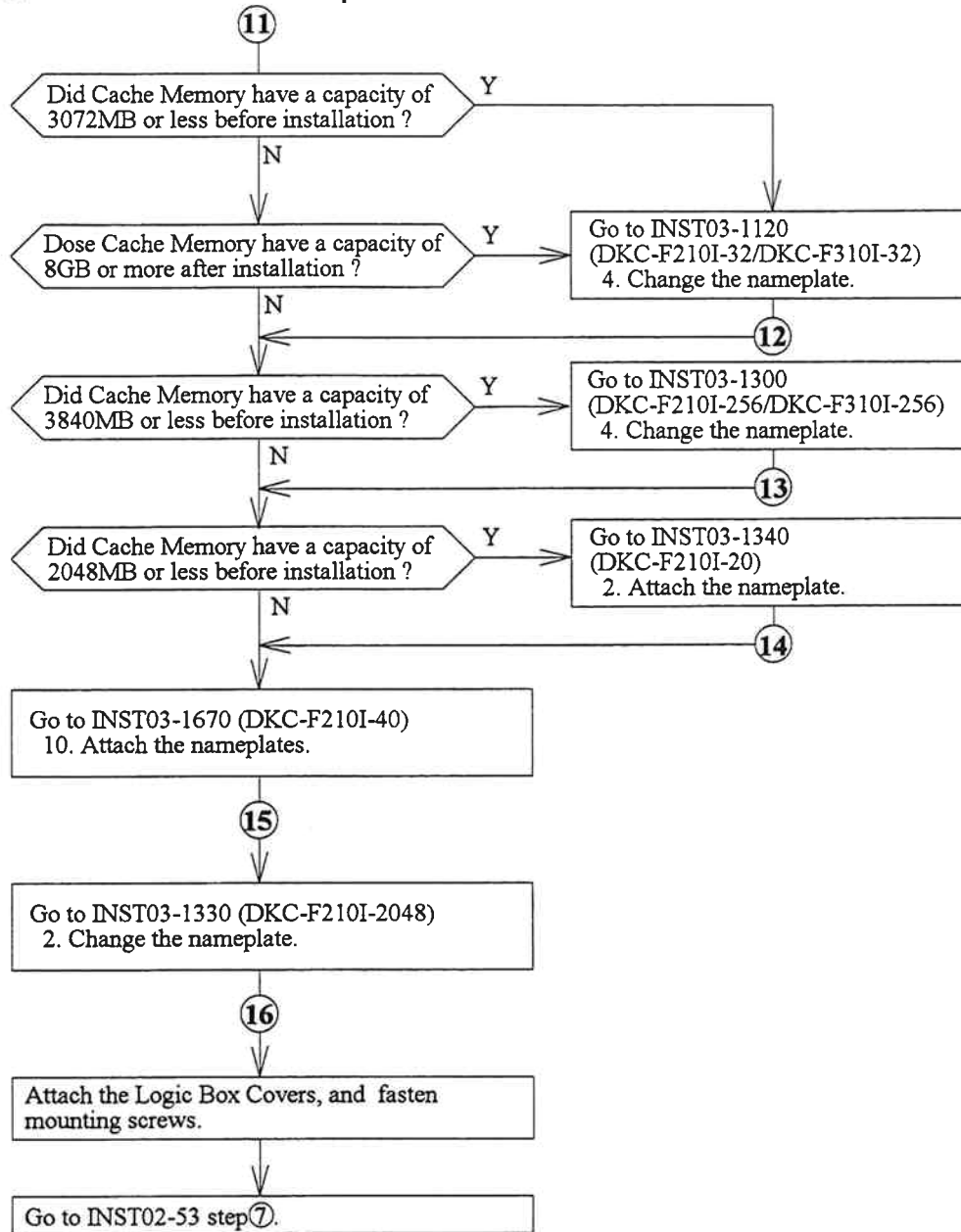
1. Hardware Installation on the Cluster 1 side



2. Hardware Installation on the Cluster 2 side

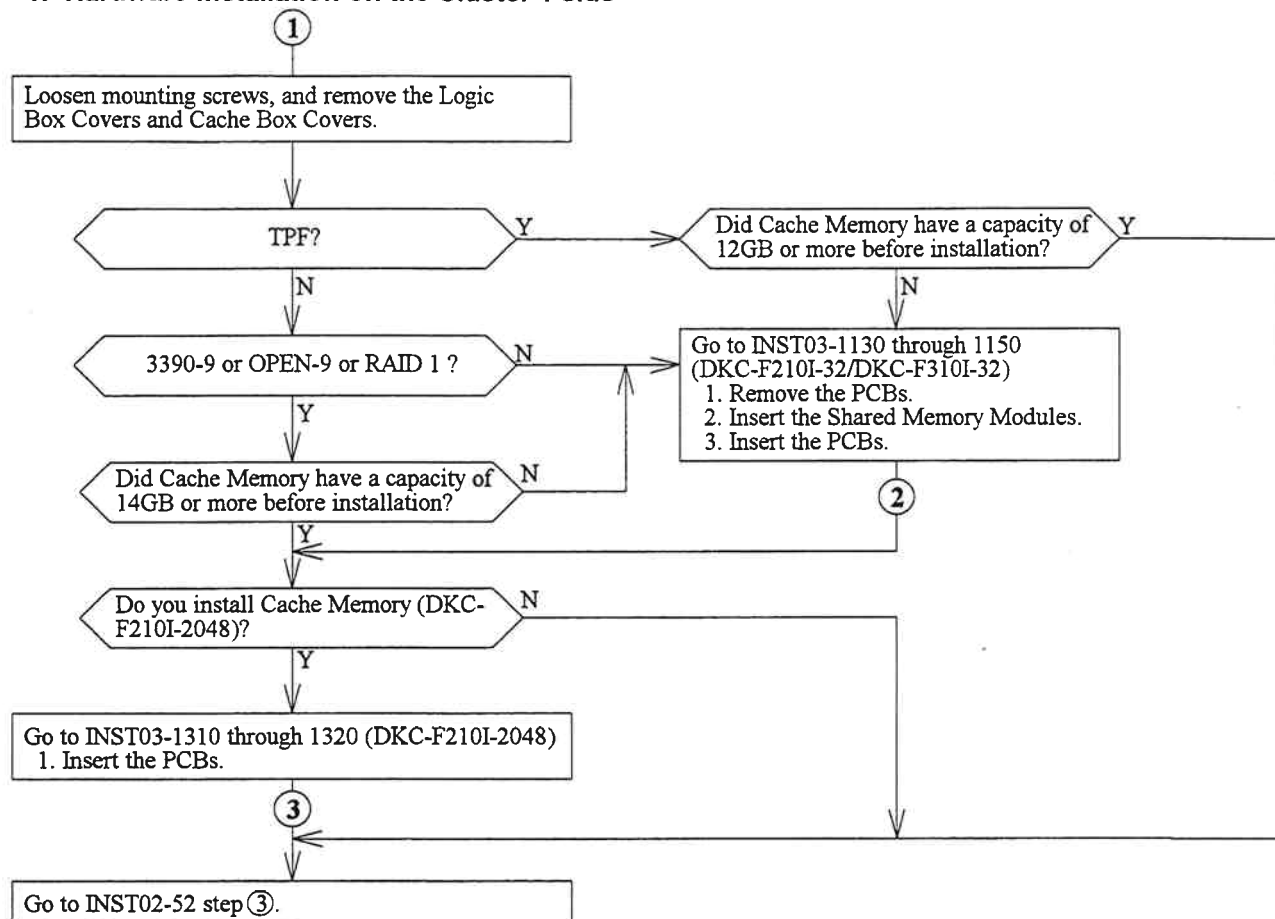


3. Attachment of the nameplate

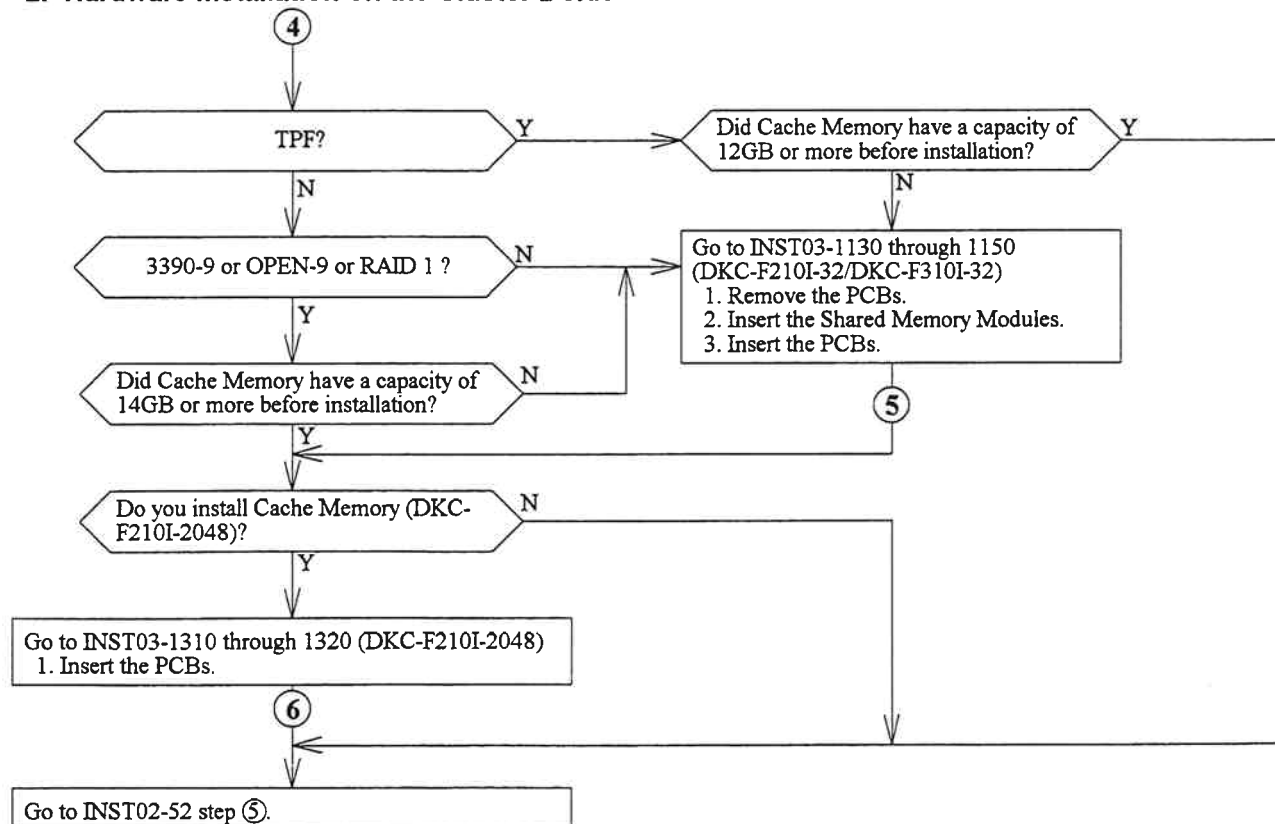


When increasing the capacity of Cache Memory to 8 GB or more (DKC-F210I-40 installed)

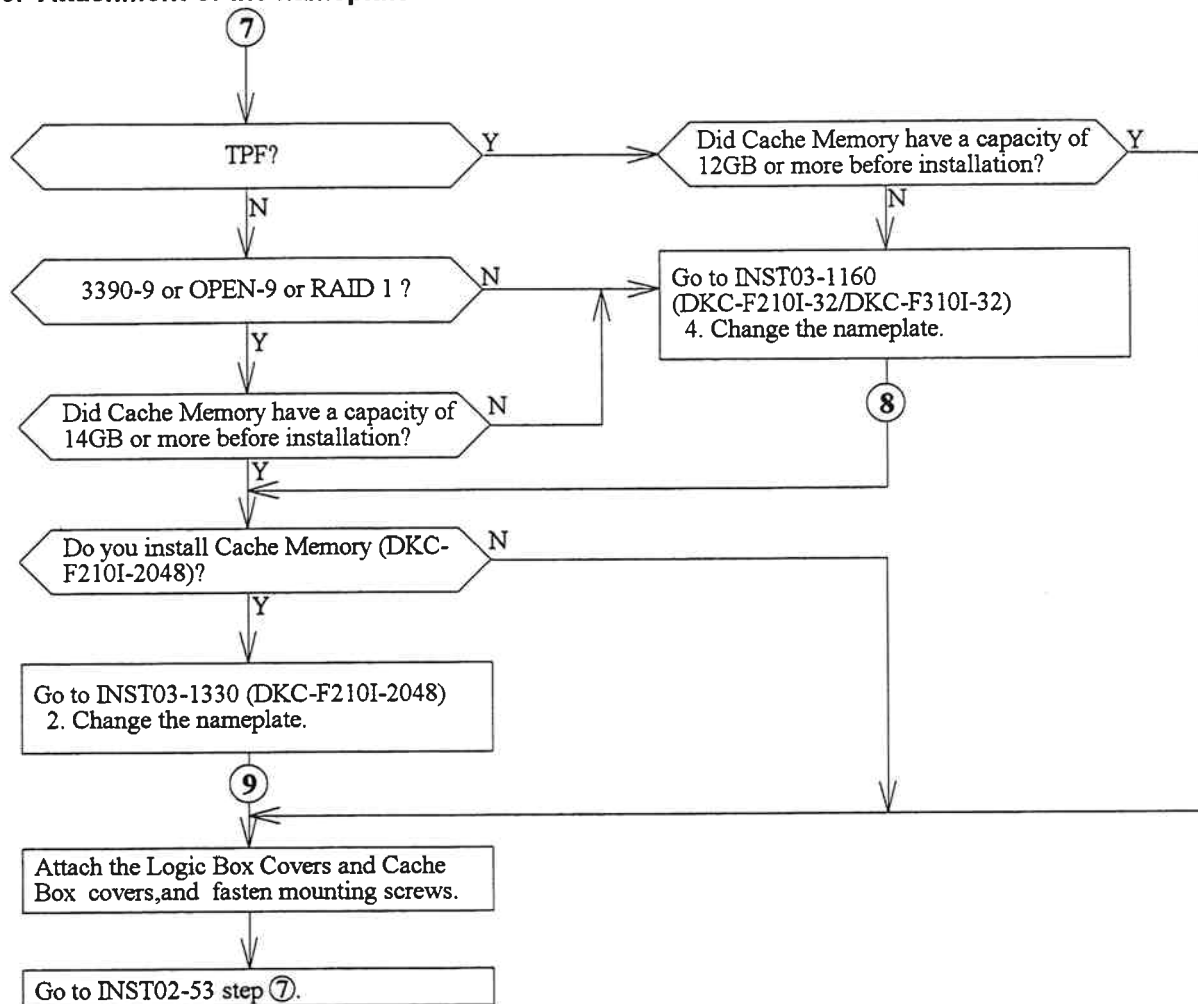
1. Hardware Installation on the Cluster 1 side



2. Hardware Installation on the Cluster 2 side



3. Attachment of the nameplate



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

3.3.7.3.1 Parts List

Table 3.3.7.3.1-1 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

3.3.7.3.2 Installation Procedure of Additional Shared Memory

Case1 When Increasing the Capacity of Cache Memory to 4,096 MB or Less

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. 3.3.7.3.2-1 and Table 3.3.7.3.2-1, 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. (This procedure [1. a.] is not valid for a New Installation.)

CAUTION

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

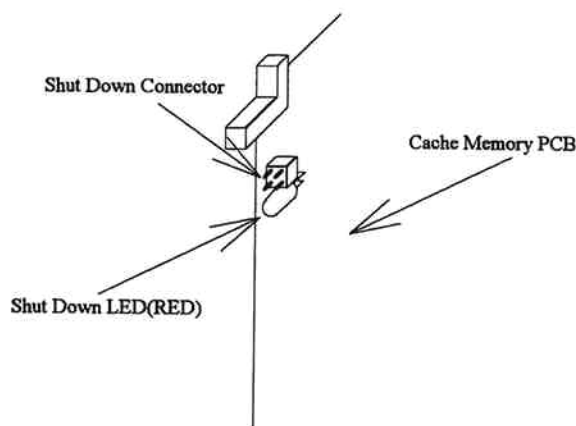


Fig. 3.3.7.3.2-1 Location of the Shut Down LED

Table 3.3.7.3.2-1 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. Remove the two screws and remove the Cache Memory PCB.

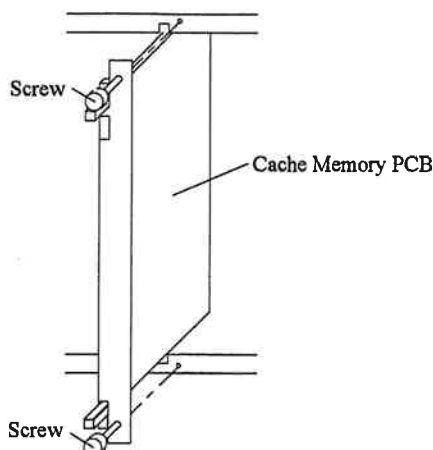


Fig. 3.3.7.3.2-2 Removal of the Cache Memory PCB

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

2. Insert the Shared Memory Modules.

- a. Insert the Shared Memory Modules that match the required Shared Memory capacity referring to Fig. 3.3.7.3.2-3 and Table 3.3.7.3.2-2.

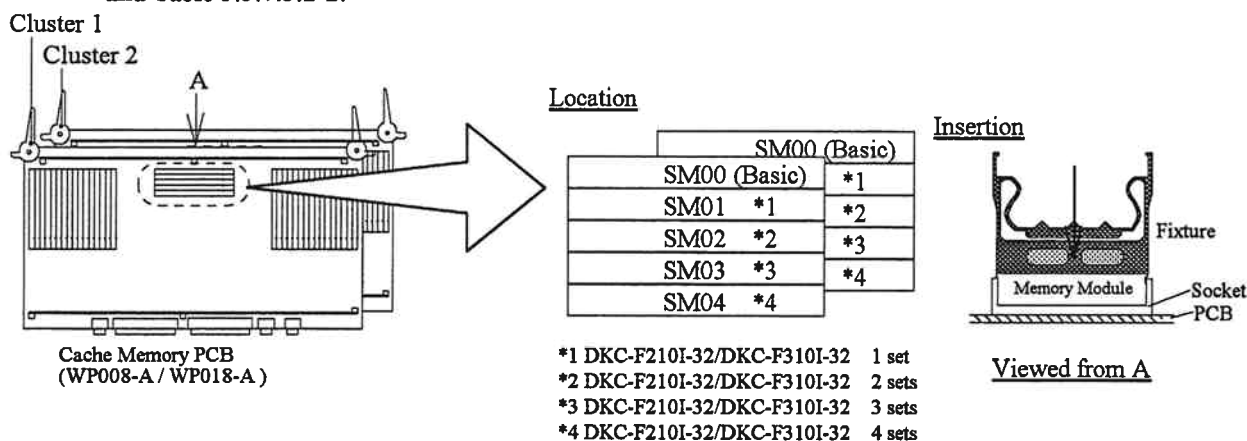


Fig. 3.3.7.3.2-3 Inserting Location of the Shared Memory Module

Table 3.3.7.3.2-2 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	32 MB	64 MB	DKC-F210I-32/DKC-F310I-32 1 set	SM Module	1	SM Module	1
2	64 MB	96 MB	DKC-F210I-32/DKC-F310I-32 2 sets	SM Module	1	SM Module	1
3	96 MB	128 MB	DKC-F210I-32/DKC-F310I-32 3 sets	SM Module	1	SM Module	1
4	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 3.3.7.3.2-2A to go to flowchart.

Table 3.3.7.3.2-2A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	1792MB or less	512 through 2048MB	INST03-970 step ②	INST03-980 step ⑤
2	3840MB or less	2304 through 4096MB	INST03-990 step ②	INST03-1000 step ⑥

3. Insert the PCBs.

- Insert the Cache Memory PCB into the Logic Box referring to Table 3.3.7.3.2-3.
- Fasten the two screws.

Table 3.3.7.3.2-3 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

c. See Table 3.3.7.3.2-3A to go to flowchart.

Table 3.3.7.3.2-3A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	3840MB or less	2304 through 4096MB	INST03-990 step ④	INST03-1000 step ③

4. Change the nameplate.

- When the DKC-F310I-32 is to be newly installed, attach a nameplate according to Figure 3.3.7.3.2-4. When the nameplate is already attached, go to the next step.
- Refer to Fig. 3.3.7.3.2-4 and Table 3.3.7.3.2-4 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.

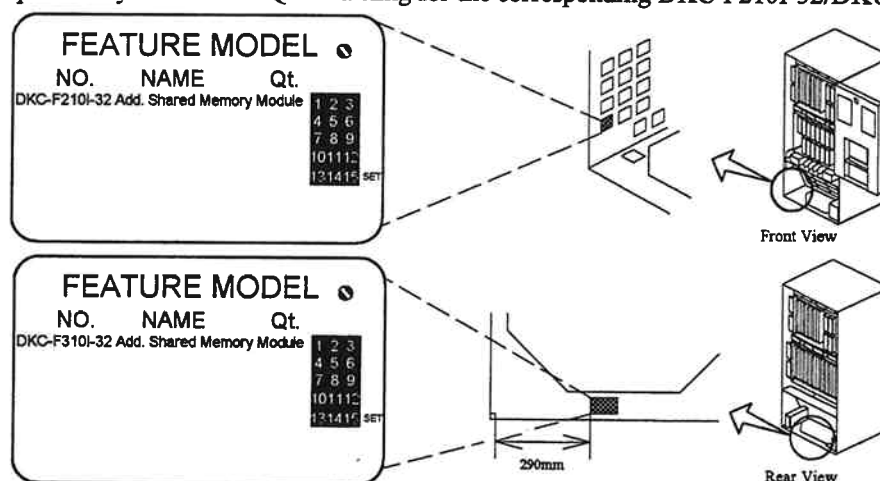


Fig. 3.3.7.3.2-4 Location of the Nameplate

Table 3.3.7.3.2-4 Quantity Marking

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

c. See Table 3.3.7.3.2-4A to go to flowchart.

Table 3.3.7.3.2-4A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	1792MB or less	512 through 2048MB	INST03-980 step ③
2	3840MB or less	2304 through 4096MB	INST03-1010 step ⑩

Case2 When Increasing the capacity of Cache Memory to 6 GB or More (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. 3.3.7.3.2-5 and Table 3.3.7.3.2-5, 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. (This procedure [1. a.] is not valid for a New Installation.)

CAUTION

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

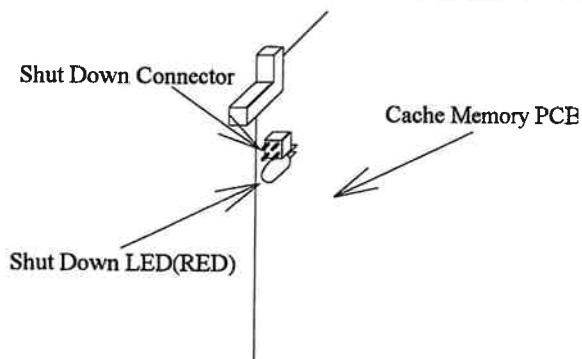


Fig. 3.3.7.3.2-5 Location of the Shut Down LED

Table 3.3.7.3.2-5 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. Remove the two screws and remove the Cache Memory PCB.

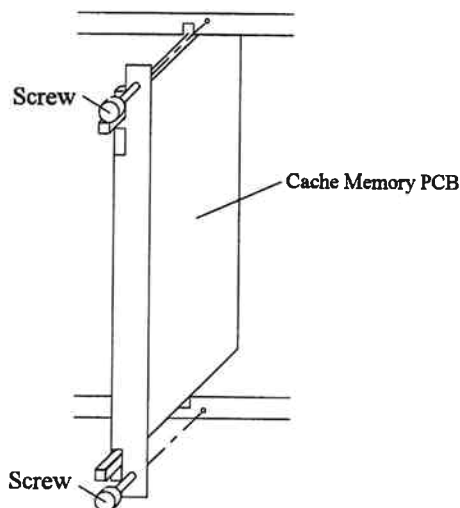


Fig. 3.3.7.3.2-6 Removal of the Cache Memory PCB

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

3. Insert the PCBs.

- a. While referring to Table 3.3.7.3.2-7, insert the Cache memory PCB(location D) in the Cache Box.

Table 3.3.7.3.2-7 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
2	WP008-A /WP018-A	Cache Box-2	D	CACHE-C2D	Cache Memory PCB

- b. Insert the CPM PCB into the Logic Box and fasten the two screws.
 c. Connect the sub-edge cables to the PCB.
 d. Bind the sub-edge cables with the repeat binders to prevent them from sagging and fix them with the cable clips.
 e. Button up the cable cover.

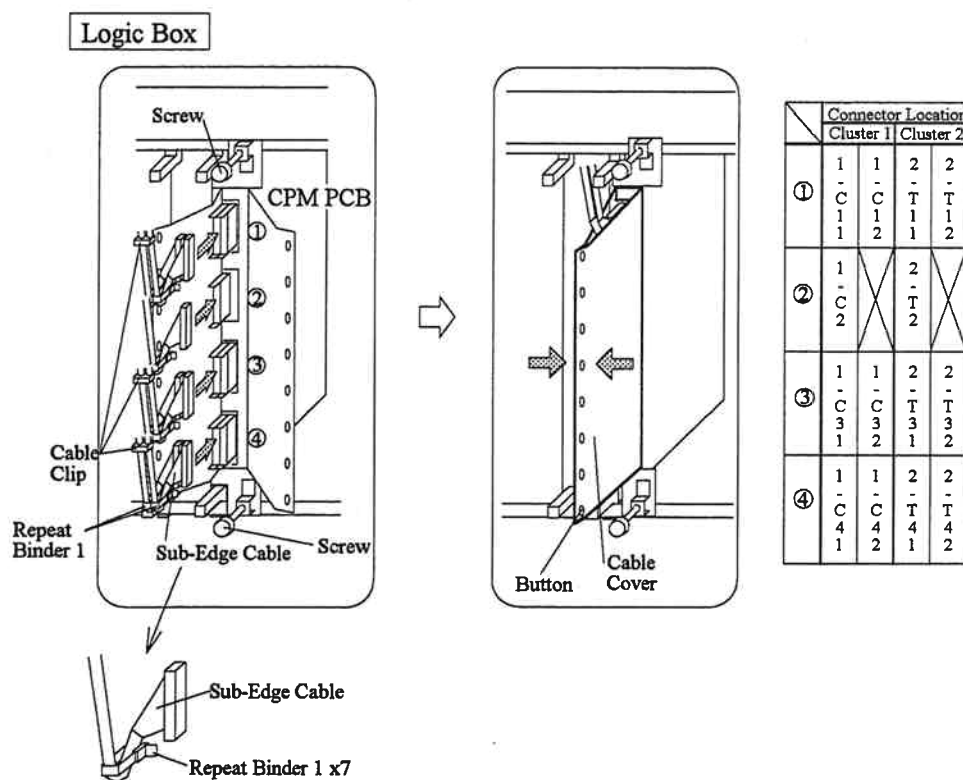


Fig. 3.3.7.3.2-8 Insertion of the CPM PCB

Table 3.3.7.3.2-8 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

4. Change the nameplate.

- a. When the DKC-F310I-32 is to be newly installed, attach a nameplate according to Figure 3.3.7.3.2-9.
When the nameplate is already attached, go to the next step.
- b. Refer to Fig. 3.3.7.3.2-9 and Table 3.3.7.3.2-9 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.

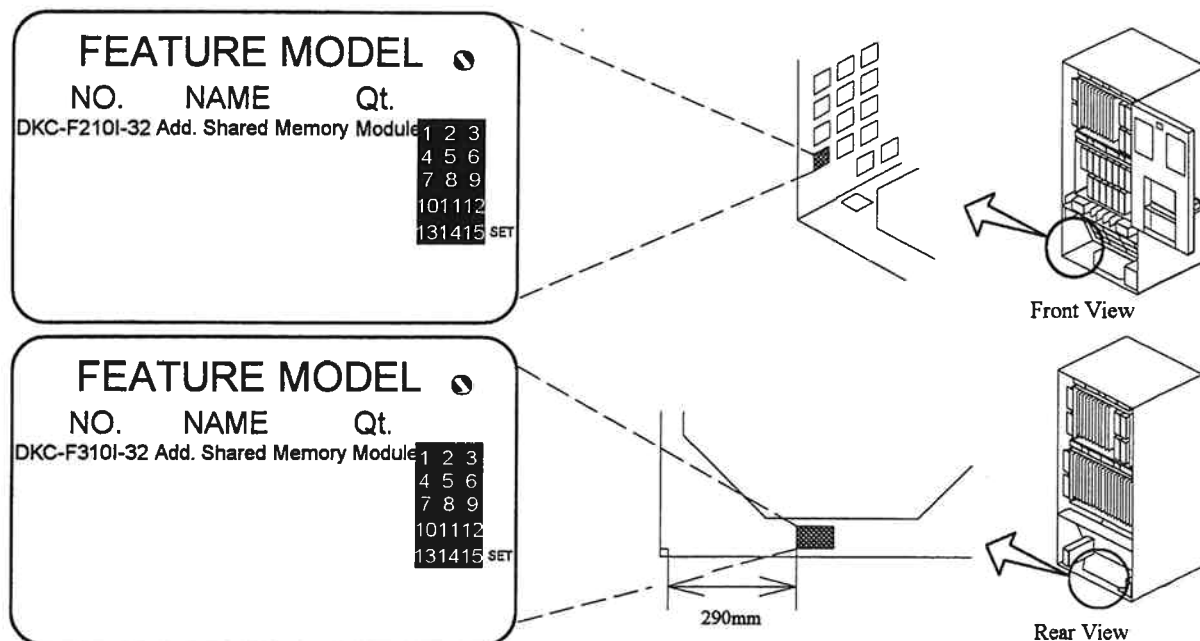


Fig. 3.3.7.3.2-9 Location of the Nameplate

Table 3.3.7.3.2-9 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
6	7 sets	7

c. See Table 3.3.7.3.2-9A to go to flowchart.

Table 3.3.7.3.2-9A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	4GB or less	6GB or more	INST03-1040 step(12)

Case3 When Increasing the capacity of Cache Memory to 6 GB or More (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. 3.3.7.3.2-10 and Table 3.3.7.3.2-10, 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. (This procedure [1. a.] is not valid for a New Installation.)

! CAUTION

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

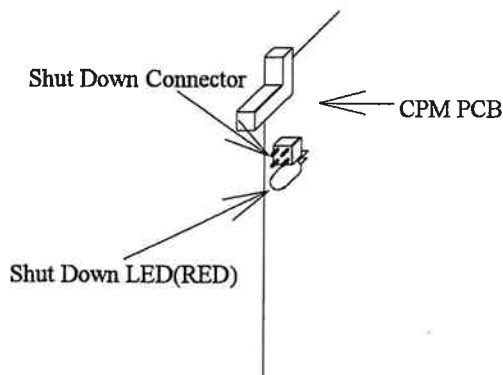


Fig. 3.3.7.3.2-10 Location of the Shut Down LED

Table 3.3.7.3.2-10 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.

Logic Box

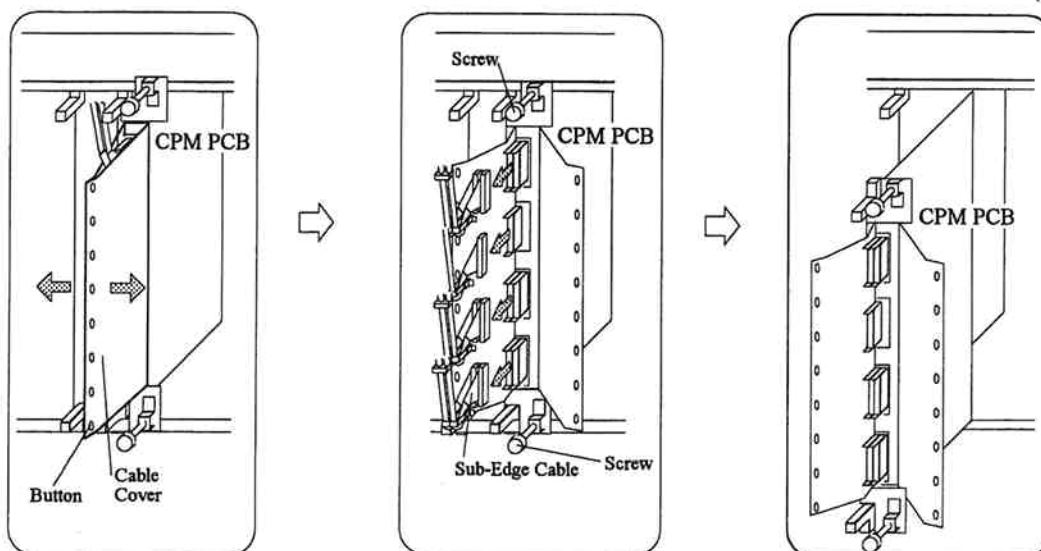


Fig. 3.3.7.3.2-11 Removal of the CPM PCB

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

2. Insert the Shared Memory Modules.

a. Insert Shared Memory Modules into the removed CPM PCB referring to Fig. 3.3.7.3.2-12 and Table 3.3.7.3.2-11.

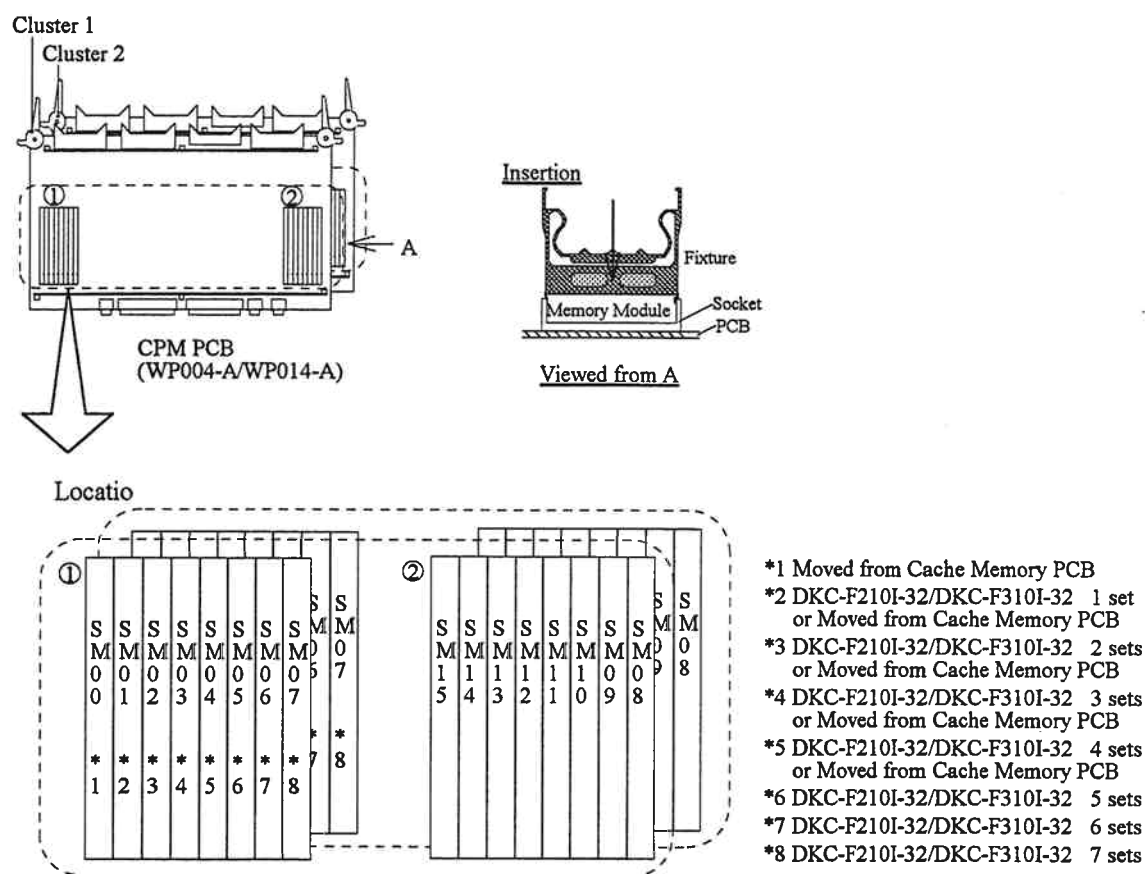


Fig. 3.3.7.3.2-12 Inserting Location of the Shared Memory Module

Table 3.3.7.3.2-11 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	64MB	Basic & DKC-F210I-32/DKC-F310I-32 1 set	SM Module	2	SM Module	2
2	64MB	96MB	DKC-F210I-32/DKC-F310I-32 2 sets	SM Module	1	SM Module	1
3	96MB	128MB	DKC-F210I-32/DKC-F310I-32 3 sets	SM Module	1	SM Module	1
4	128MB	160MB	DKC-F210I-32/DKC-F310I-32 4 sets	SM Module	1	SM Module	1
5	160MB	192MB	DKC-F210I-32/DKC-F310I-32 5 sets	SM Module	1	SM Module	1
6	192MB	224MB	DKC-F210I-32/DKC-F310I-32 6 sets	SM Module	1	SM Module	1
7	224MB	256MB	DKC-F210I-32/DKC-F310I-32 7 sets	SM Module	1	SM Module	1

Note. SM : Shared Memory

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.

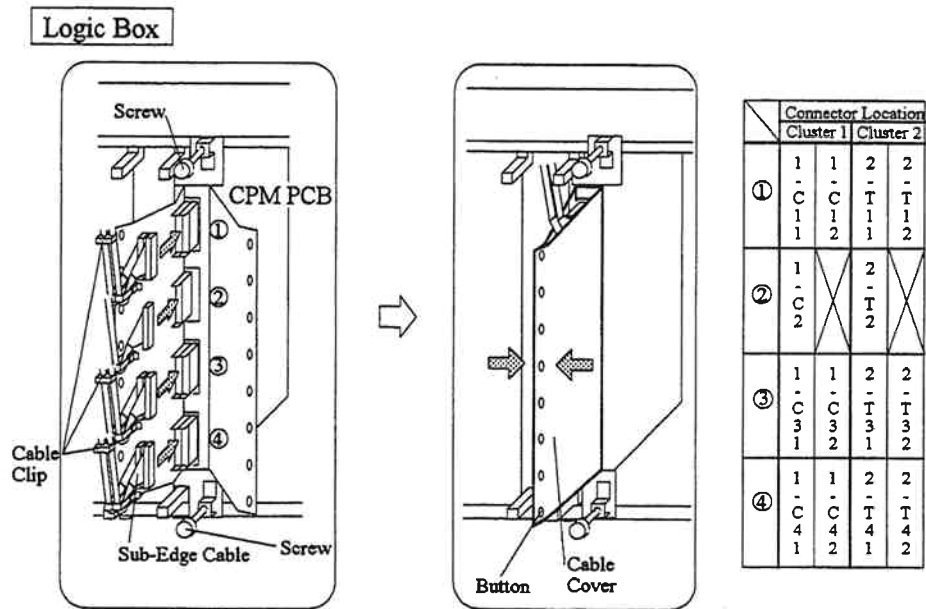


Fig. 3.3.7.3.2-13 Insertion of the CPM PCB

Table 3.3.7.3.2-12 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

d. See Table 3.3.7.3.2-12A to go to flowchart.

Table 3.3.7.3.2-12A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	6GB or more	8GB or more	INST03-1050 step ②	INST03-1050 step ⑤

4. Change the nameplate.

- a. When the DKC-F310I-32 is to be newly installed, attach a nameplate according to Figure 3.3.7.3.2-14. When the nameplate is already attached, go to the next step.
- b. Refer to Fig. 3.3.7.3.2-14 and Table 3.3.7.3.2-13 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.

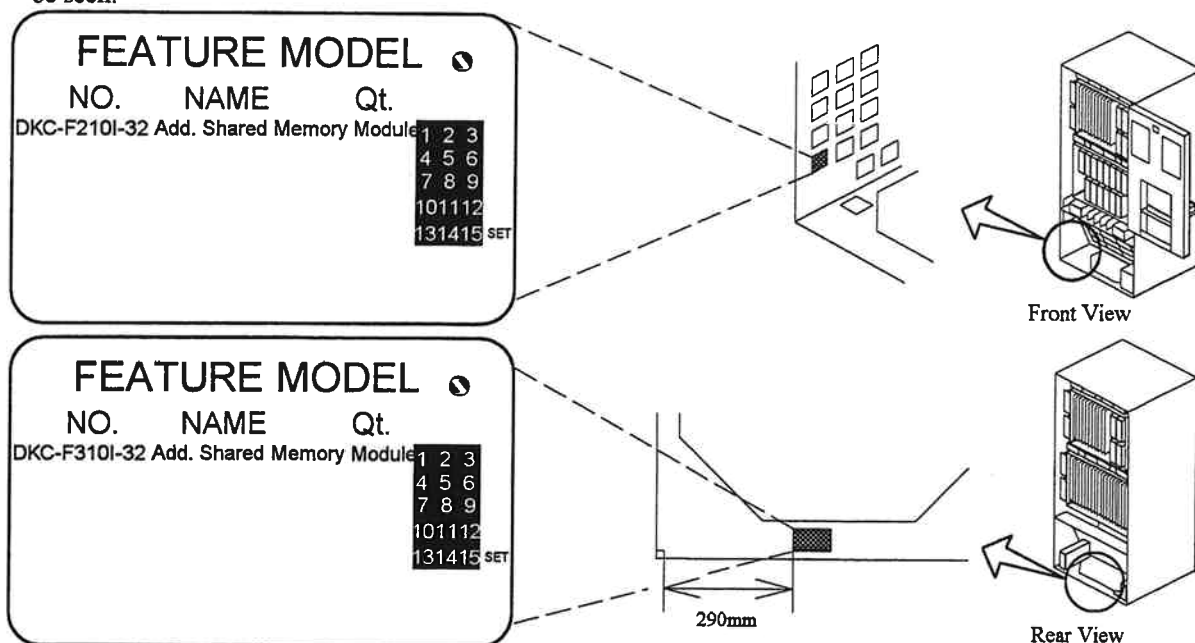


Fig. 3.3.7.3.2-14 Location of the Nameplate

Table 3.3.7.3.2-13 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
6	7 sets	7

c. See Table 3.3.7.3.2-13A to go to flowchart.

Table 3.3.7.3.2-13A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	6GB or more	8GB or more	INST03-1051 step ⑧

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

3.3.7.4.1 Parts List

Table 3.3.7.4.1-1 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

3.3.7.4.2 Installation Procedure of Additional Cache Memory

Case1 When Increasing the capacity of Cache Memory to 2048 MB or Less

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. 3.3.7.4.2-1 and Table 3.3.7.4.2-1, 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. (This procedure [1. a.] is not valid for a New Installation.)

⚠ CAUTION

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

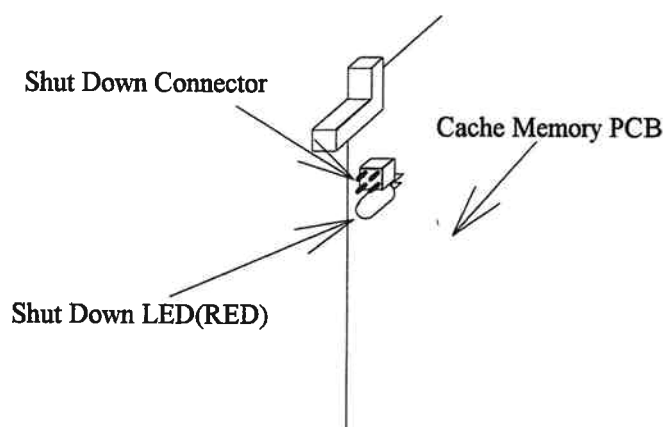


Fig. 3.3.7.4.2-1 Location of the Shut Down LED

Table 3.3.7.4.2-1 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.

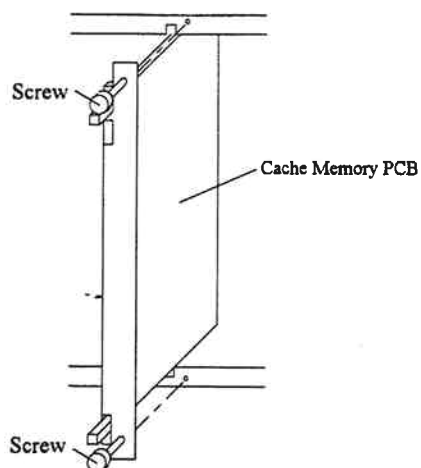


Fig. 3.3.7.4.2-2 Removal of the Cache Memory PCB

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

3. Insert the PCBs.

- Install the Cache Memory PCB in the Logic Box referring to Table 3.3.7.4.2-3.
- Fasten the two screws.

Table 3.3.7.4.2-3 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 3.3.7.4.2-3A to go to flowchart.

Table 3.3.7.4.2-3A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	1792MB or less	512 through 2048	INST03-970 step ③	INST03-980 step ⑥

4. Change the nameplate.

- When the DKC-F310I-256 is to be newly installed, attach a nameplate according to Figure 3.3.7.4.2-4.

When the nameplate is already attached, go to the next step.

- Refer to Fig. 3.3.7.4.2-4 and Table 3.3.7.4.2-4 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-256/DKC-F310I-256 can be seen.

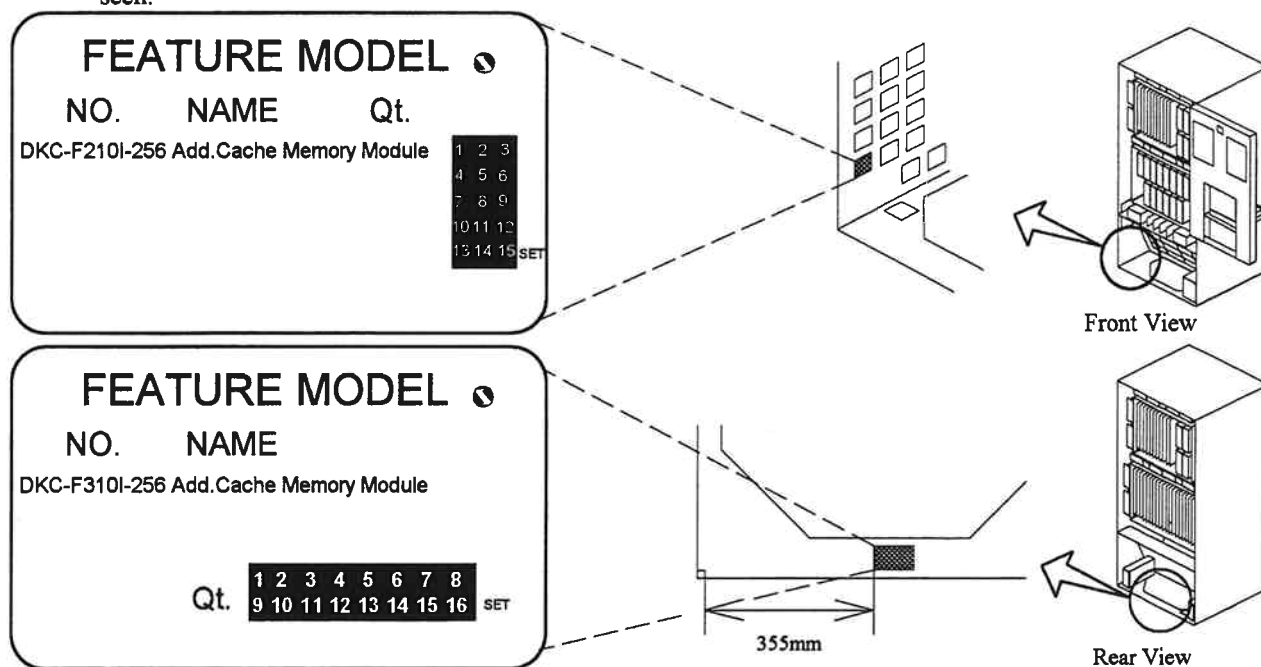
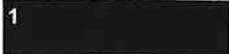
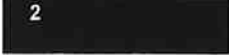


Fig. 3.3.7.4.2-4 Location of the Nameplate

Table 3.3.7.4.2-4 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	1 set		
2	2 sets		
3	3 sets		
4	4 sets		
5	5 sets		
6	6 sets		
7	7 sets		

c. See Table 3.3.7.4.2-4A to go to flowchart.

Table 3.3.7.4.2-4A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	1792MB or less	512 through 2048MB	INST03-980 step ⑨

Case2 When Increasing the capacity of Cache Memory to 2304 through 4096MB

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. 3.3.7.4.2-5 and Table 3.3.7.4.2-5, 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. (This procedure [1. a.] is not valid for a New Installation.)

! CAUTION

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

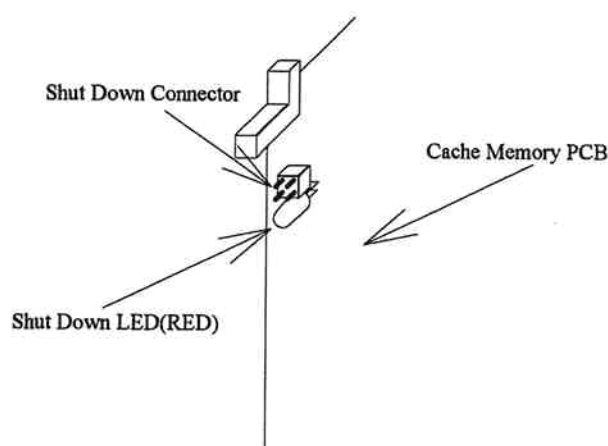


Fig. 3.3.7.4.2-5 Location of the Shut Down LED

Table 3.3.7.4.2-5 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)
2304	O(Note 1)	-	O(Note 1)	-
2560	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)
2816	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)
3072	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)
3328	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)
3584	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)
3840	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)
4096	O(Note 1)	O(Note 2)	O(Note 1)	O(Note 2)

Note 1: No PCB needs to be removed if 7 or more DKC-F210I-256 and DKC-F310I-256 sets are installed (2,048 MB), except when installing DKC-F210I-32 or DKC-F310I-32 sets.

Note 2: Remove the PCB only when it is installed.

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

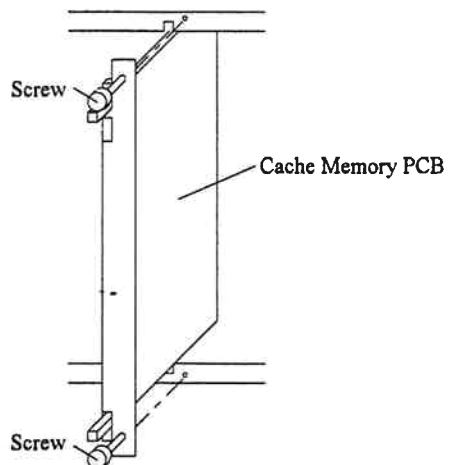


Fig. 3.3.7.4.2-6 Removal of the Cache Memory PCB

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

Table 3.3.7.4.2-6 Number 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	256MB	2048MB	DKC-F210I-256/DKC-F310I-256 (1-7 sets)	CM Module	28	CM Module	28
2	2048MB	2304MB	DKC-F210I-256/DKC-F310I-256 8 sets	CM Module	4	CM Module	4
3	2304MB	2560MB	DKC-F210I-256/DKC-F310I-256 9 sets	CM Module	4	CM Module	4
4	2560MB	2816MB	DKC-F210I-256/DKC-F310I-256 10 sets	CM Module	4	CM Module	4
5	2816MB	3072MB	DKC-F210I-256/DKC-F310I-256 11 sets	CM Module	4	CM Module	4
6	3072MB	3328MB	DKC-F210I-256/DKC-F310I-256 12 sets	CM Module	4	CM Module	4
7	3328MB	3584MB	DKC-F210I-256/DKC-F310I-256 13 sets	CM Module	4	CM Module	4
8	3584MB	3840MB	DKC-F210I-256/DKC-F310I-256 14 sets	CM Module	4	CM Module	4
9	3840MB	4096MB	DKC-F210I-256/DKC-F310I-256 15 sets	CM Module	4	CM Module	4

Note. CM : Cache Memory

3. Insert the PCBs.

- Insert the Cache Memory PCB in the Logic Box while referring to Table 3.3.7.4.2-7 .
- Fasten the two screws.

Table 3.3.7.4.2-7 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
	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 3.3.7.4.2-7A to go to flowchart.

Table 3.3.7.4.2-7A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	3840MB or less	2304 through 4096MB	INST03-990 step ③	INST03-1000 step ⑦

4. Change the nameplate.

- When the DKC-F310I-256 is to be newly installed, attach a nameplate according to Figure 3.3.7.4.2-8. When the nameplate is already attached, go to the next step.
- Refer to Fig. 3.3.7.4.2-8 and Table 3.3.7.4.2-8 to paint out unnecessary numbers and wipe off a necessary number painted previously so that the "Qt." marking for the corresponding DKC-F210I-256/DKC-F310I-256 can be seen.

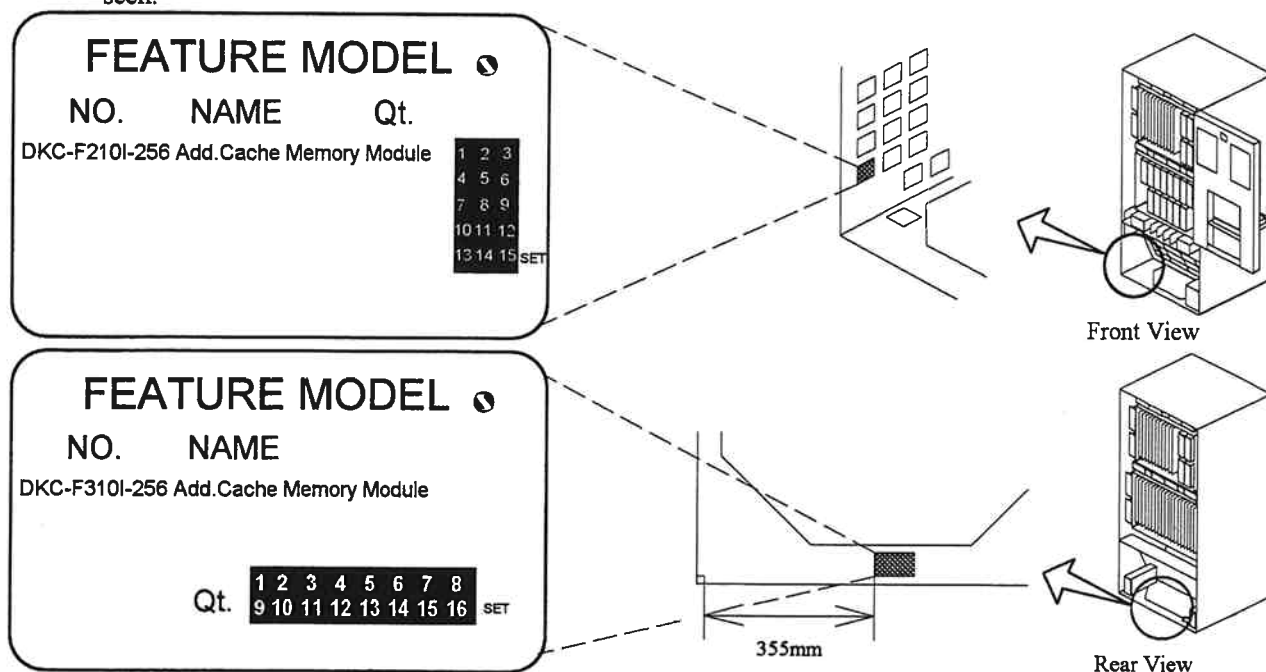


Fig. 3.3.7.4.2-8 Location of the Nameplate

Table 3.3.7.4.2-8 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	8 sets	8	8
2	9 sets	9	9
3	10 sets	10	10
4	11 sets	11	11

(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
5	12 sets	12	12
6	13 sets	13	13
7	14 sets	14	14
8	15 sets	15	15

c. See Table 3.3.7.4.2-8A to go to flowchart.

Table 3.3.7.4.2-8A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	1792MB or less	512 through 2048MB	INST03-1010 step ⑪

Case3 When Increasing 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. 3.3.7.4.2-9 and Table 3.3.7.4.2-9, check the Shut Down LED on the Cache Memory PCB in the Logic Box. See "Connection of Shut Down Jumper (INST03-2600)" if Shut Down LED is not on. (This procedure [1. a.] is not valid for a New Installation.)



CAUTION

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

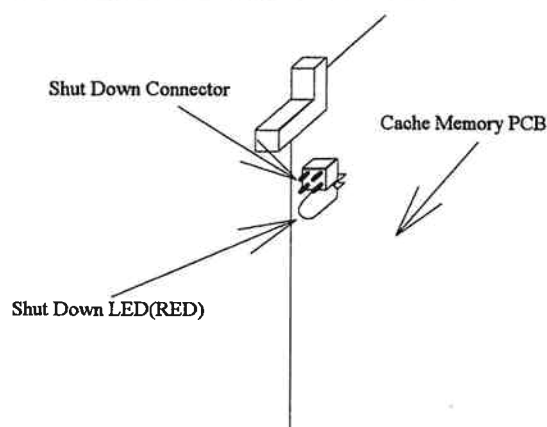


Fig. 3.3.7.4.2-9 Location of the Shut Down LED

Table 3.3.7.4.2-9 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
	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

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

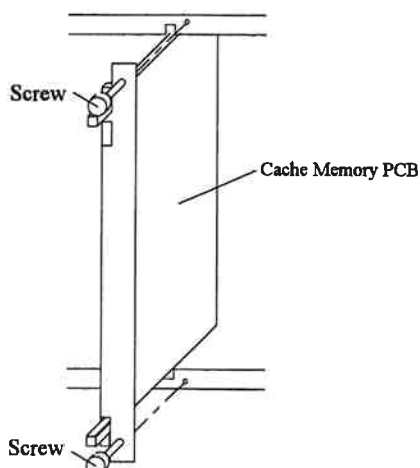


Fig. 3.3.7.4.2-10 Removal of the Cache Memory PCB

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

2. Insert the Cache Memory Modules.

- a. Insert all the Cache Memory Modules referring to Fig. 3.3.7.4.2-11. Use the DKC-F210I-20 Cache Memory PCB if no PCB is installed at a location (D or S) in the Logic Box.

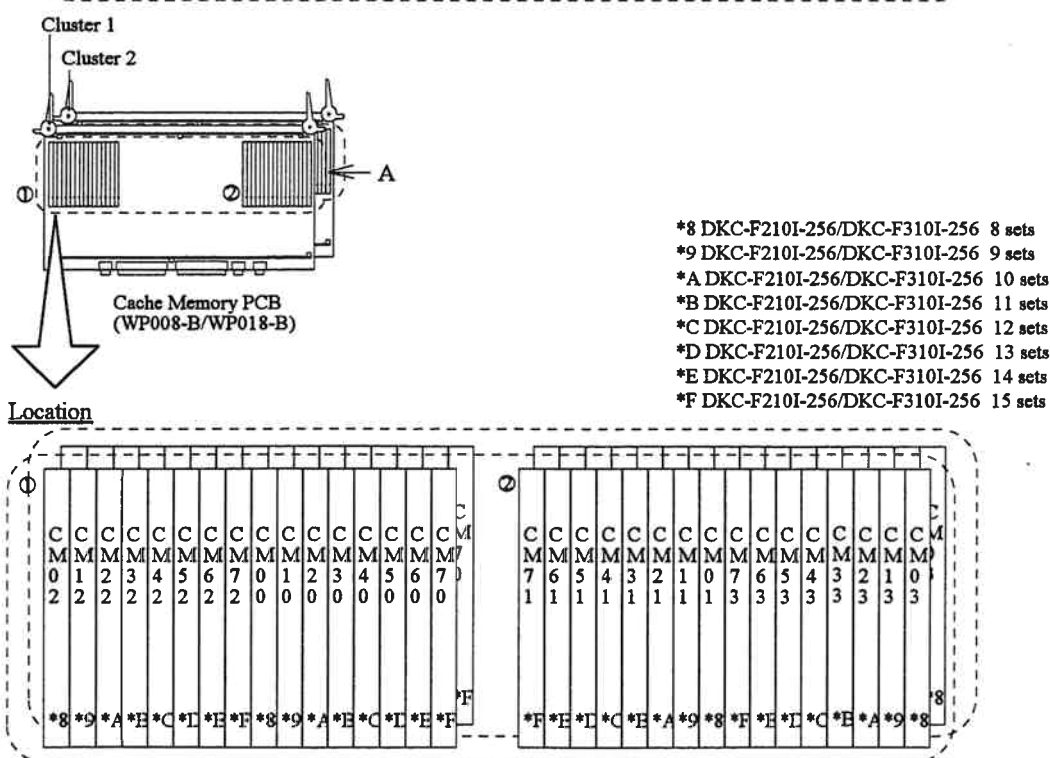
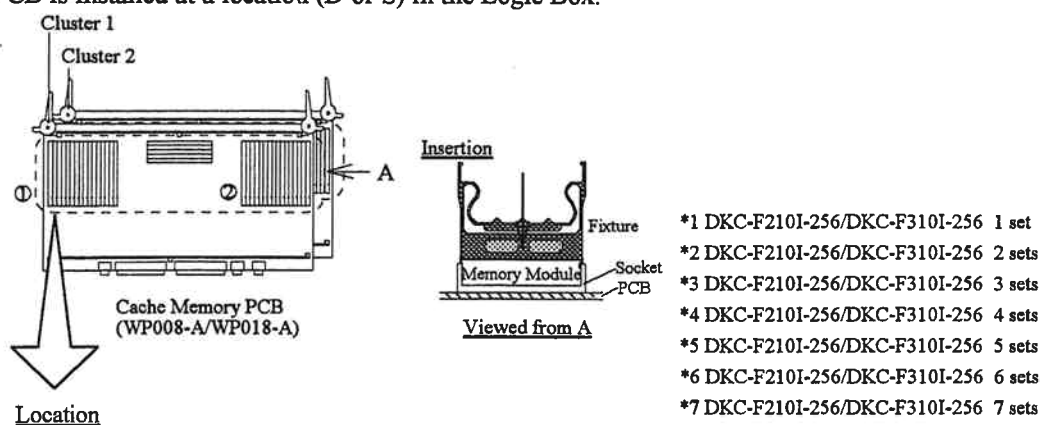


Fig. 3.3.7.4.2-11 Inserting Location of the Cache Memory Module

- b. See Table 3.3.7.4.2-9A to go to flowchart.

Table 3.3.7.4.2-9A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	4GB or less	6GB or more	INST03-1020 step ③	INST03-1030 step ⑧

3. Insert the PCBs.
 - a. Insert the Cache Memory PCB while referring to Table 3.3.7.4.2-10.
 - b. Fasten the two screws.

Table 3.3.7.4.2-10 Location of the Cache Memory 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

4. Change the nameplate.
 - a. When the DKC-F310I-256 is to be newly installed, attach a nameplate according to Figure 3.3.7.4.2-12. When the nameplate is already attached, go to the next step.
 - b. Refer to Fig. 3.3.7.4.2-12 and Table 3.3.7.4.2-11 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.

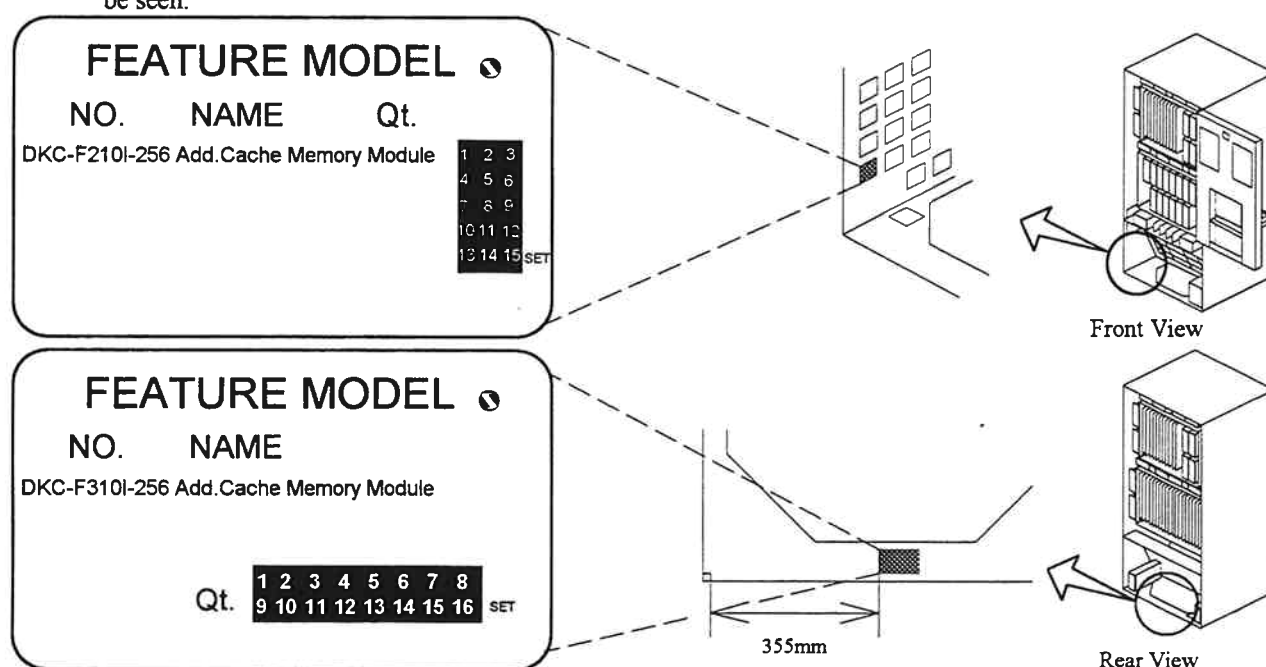


Fig. 3.3.7.4.2-12 Location of the Nameplate

Table 3.3.7.4.2-11 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	15 sets	15	15

- c. See Table 3.3.7.4.2-11A to go to flowchart.

Table 3.3.7.4.2-11A Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	4GB or less	6GB or more	INST03-1040 step ⑬

3.3.7.5 Installation of Additional Cache Assembly (DKC-F210I-2048)

3.3.7.5.1 Parts List

Table 3.3.7.5.1-1 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-A / SH024-A	5472694-3 / 2099862-A / 1505404-A	64	Cache Memory Module (32MB) (Note)

Note : Installed to Cache Memory PCBs

3.3.7.5.2 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. Insert the PCBs.

- a. Install the Cache Box referring to 'Installation of Cache Box Assembly (DKC-F210I-40)', then insert the Cache Memory PCB at the correct location according to Table 3.3.7.5.2-1.

Table 3.3.7.5.2-1 PCB Locations 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. Fasten the two screws.

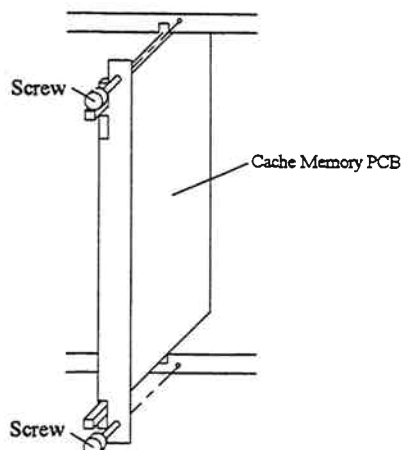


Fig. 3.3.7.5.2-1 Insertion of the Cache Memory PCB

c. See Table 3.3.7.5.2-2 to go to flowchart.

Table 3.3.7.5.2-2 Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	4GB or less	6GB or more	INST03-1020 step ④	INST03-1030 step ⑤
2	6GB or more	8GB or more	INST03-1050 step ③	INST03-1050 step ⑥

2. Change the nameplate.

- a. Refer to Fig. 3.3.7.5.2-2 and Table 3.3.7.5.2-3 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.

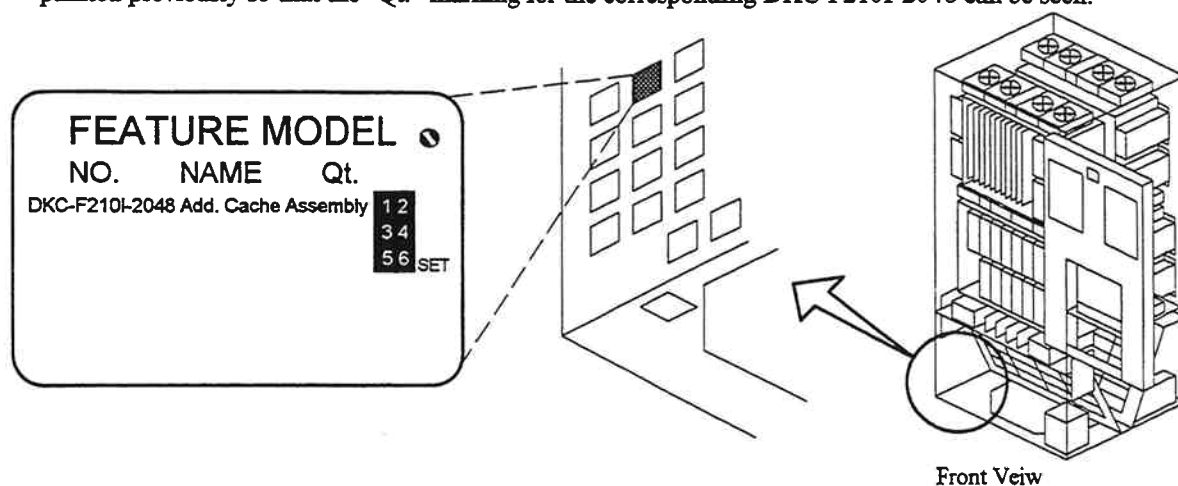


Fig. 3.3.7.5.2-2 Location of the Nameplate

Table 3.3.7.5.2-3 Quantity Marking

No.	Cache Memory Capacity	Quantity Marking	
		Number of DKC-F210I-2048 sets	Qt.
1	6GB	1 set	1
2	8GB	2 sets	2
3	10GB	3 sets	3
4	12GB	4 sets	4
5	14GB	5 sets	5
6	16GB	6 sets	6

- b. See Table 3.3.7.5.2-4 to go to flowchart.

Table 3.3.7.5.2-4 Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	4GB or less	6GB or more	INST03-1040 step ⑩
2	6GB or more	8GB or more	INST03-1051 step ⑨

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

3.3.7.6.1 Parts List

Table 3.3.7.6.1-1 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	

3.3.7.6.2 Installation Procedure of Additional Cache Platform Board

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. Insert the PCBs.

- a. After inserting Cache Memory Modules into the Cache Memory PCB, install the Cache Memory PCB in the correct location (refer to 'Installation of Additional Cache Memory (DKC-F210I-256)').

Table 3.3.7.6.2-1 Location of the Cache Memory PCB(DKC-F210I-40 not installed)

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

Table 3.3.7.6.2-2 Location of the Cache Memory PCB(DKC-F210I-40 installed)

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

2. Attach the nameplate.

- a. Attach the nameplate of DKC-F210I-20.

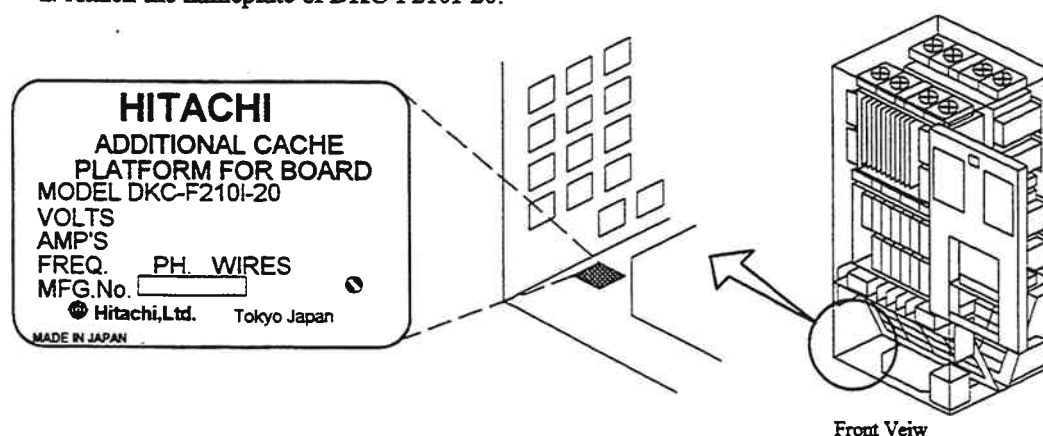


Fig. 3.3.7.6.2-1 Location of the Nameplate

- b. See Table 3.3.7.6.2-3 to go to flowchart.

Table 3.3.7.6.2-3 Flowchart page

No.	Cache Memory Capacity		Flowchart page
	Before Installation	After Installation	
1	3840MB or less	2304 through 4096MB	INST03-1010 step ⑫
2	4GB or less	6GB or more	INST03-1040 step ⑭

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

3.3.7.7.1 Parts List

Table 3.3.7.7.1-1 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	Cache Box Cover
		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

3.3.7.7.2 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.

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

1. Connect the cables to Cache Box-1 and Cache Box-2

- a. Remove the cable from the cable box in the front side. Loosen screws ① and ② to remove the cable box.
(When 2nd DKU is installed, there is no cable inside the cable box.)

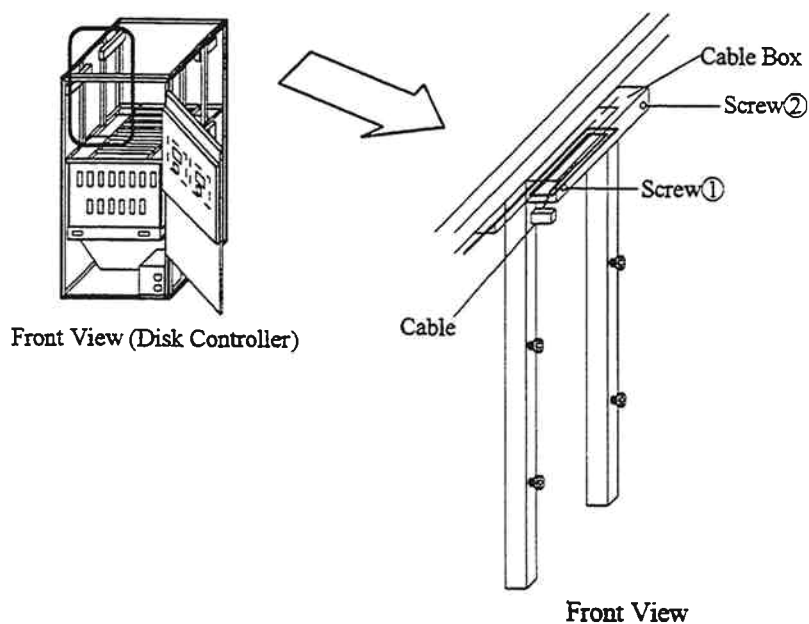


Fig. 3.3.7.7.2-1 Removal of the Cable Box

- b. Loosen screws ③ through ⑥. Attach the battery box and then attach the cable box. Secure screws ① through ⑥ and insert the cable into the cable box. (When 2nd DKU is installed, there is no cable inside the cable box.)

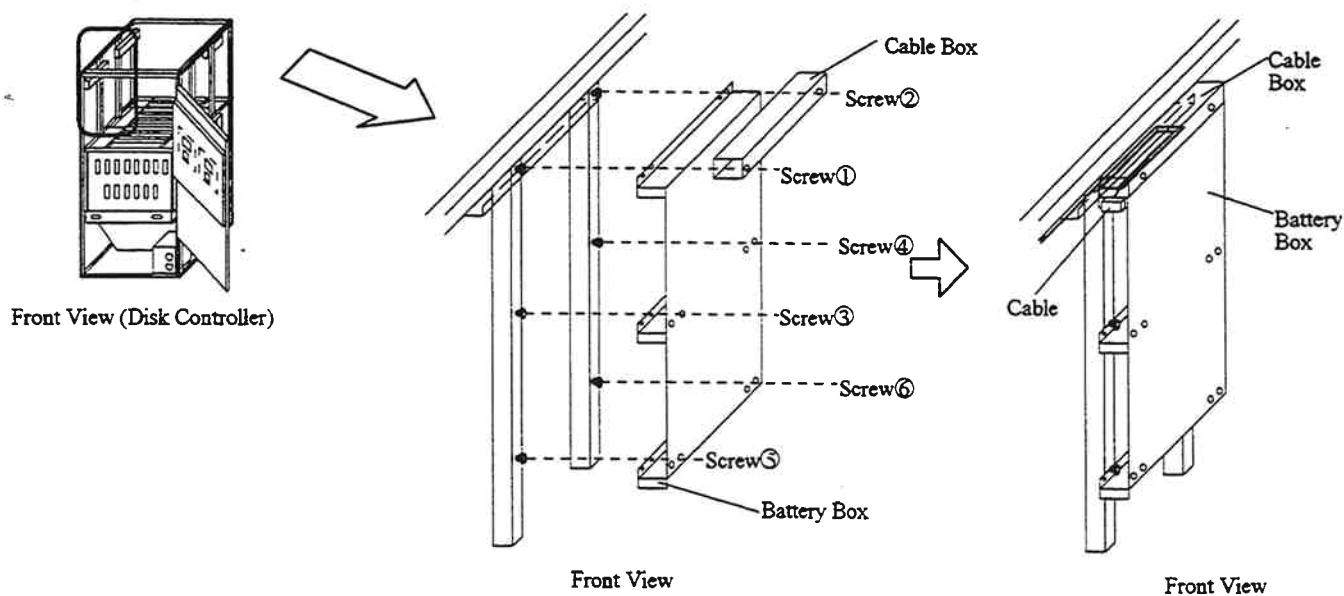


Fig. 3.3.7.7.2-2 Attachment of the Battery Box

- c. Remove the cable from the cable box in the rear side. Loosen screws ① and ② to remove the cable box.
(When basic DKU is installed, there is no cable inside the cable box.)

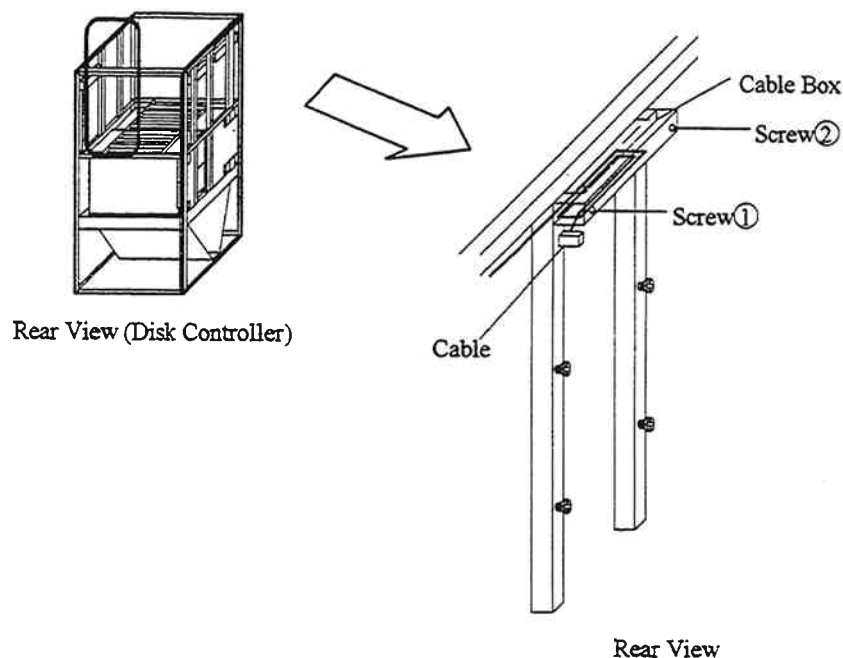


Fig. 3.3.7.7.2-3 Removal of the Cable Box

- d. Loosen screws ③ through ⑥. Attach the battery box and then attach the cable box. Secure screws ① through ⑥ and insert the cable into the cable box. (When basic DKU is installed, there is no cable inside the cable box.)

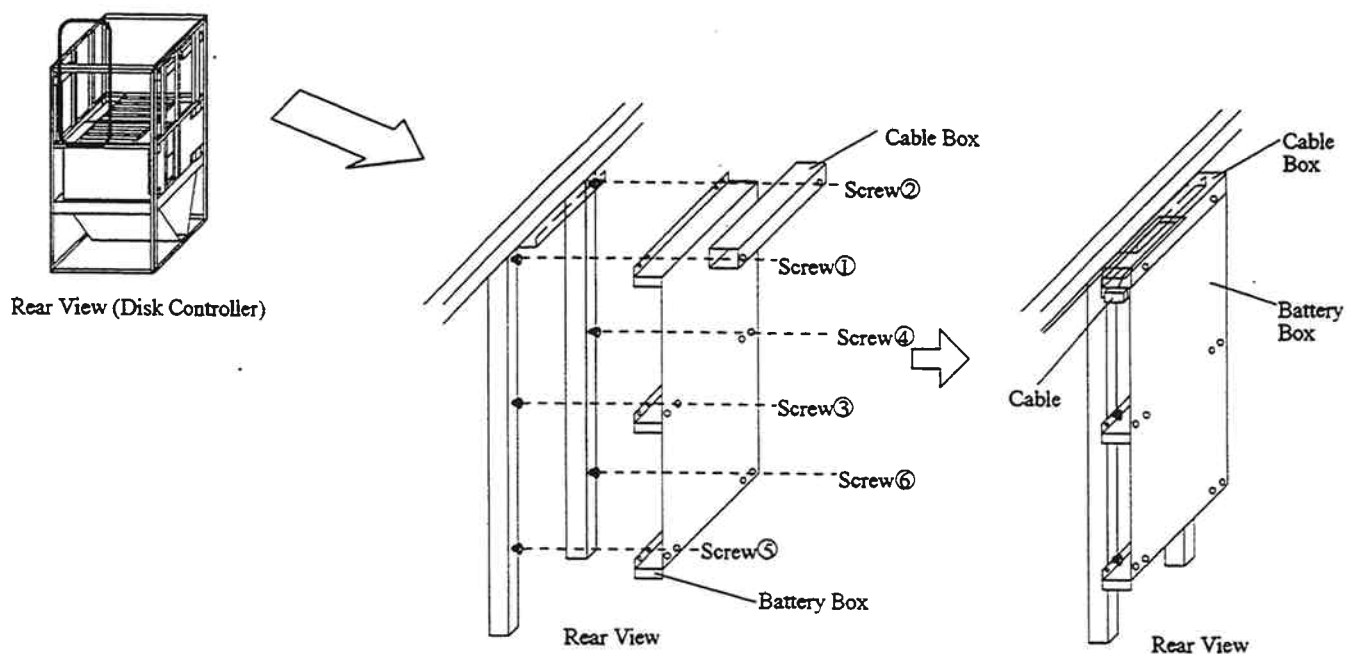


Fig. 3.3.7.7.2-4 Removal of the Battery Box

- e. Remove repeat binder and cable (C1•N6). Open the repeat binders (x3) to remove cable (C2•N6).

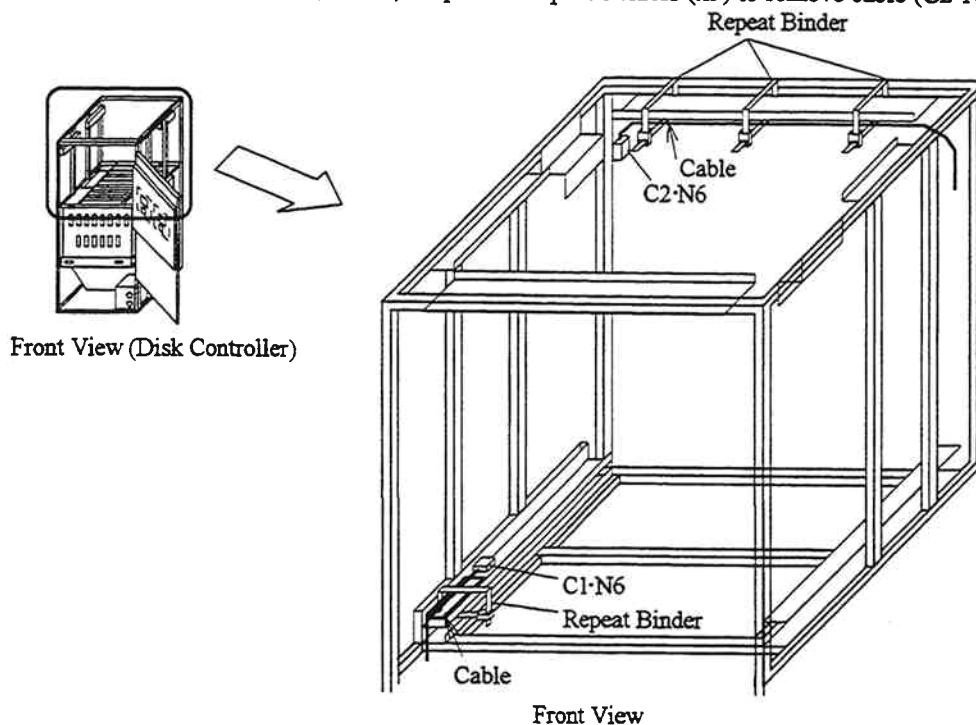


Fig. 3.3.7.7.2-5 Removal of the Cables

- f. Open the seven repeat binders. Place Cable Assembly 1 on the four plates at the top of the frame so that Cable Assembly 1 fits to labels 1 to 3. Fix the cables on the plates with the ten repeat binders.

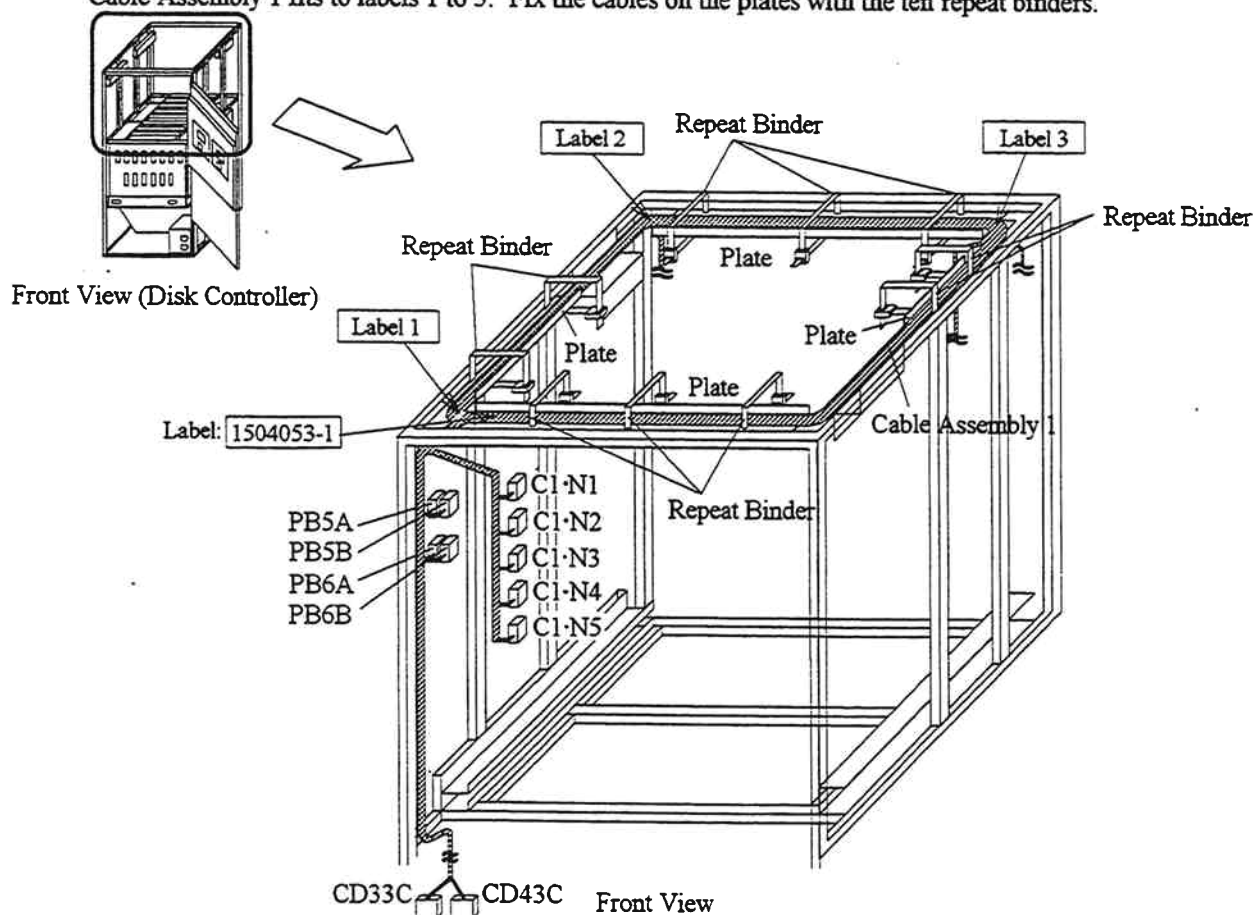


Fig. 3.3.7.7.2-6 Attachment of the Cable Assembly 1

- g. Bind Cable Assembly 1 on the cables on the frame by using the three repeat binders. Be sure to turn the repeat binder edges toward the inside of the frame so that they do not disturb inserting the Cache Box.

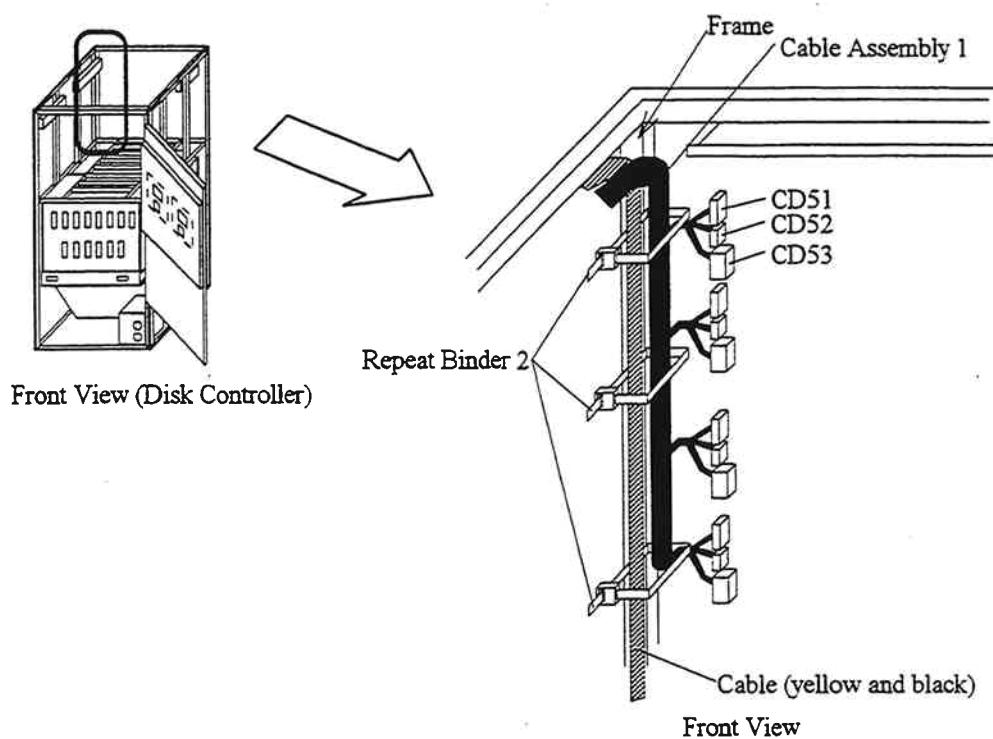


Fig. 3.3.7.7.2-7 Attachment of the Cable Assembly 1

- h. Attach the cable clamp 1 to the frame to fix Cable Assembly 1.

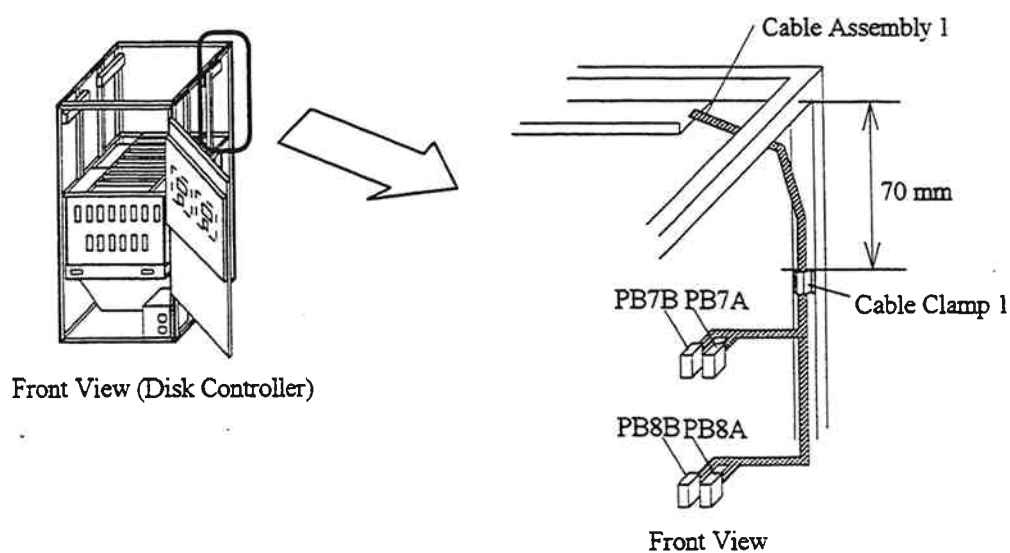


Fig. 3.3.7.7.2-8 Attachment of the Cable Assembly 1

- i. Bind Cable Assembly 1 and cable (C1-N6) on the cables on the frame by using the three repeat binders. Be sure to turn the repeat binder edges toward the inside of the frame so that they do not disturb inserting the Cache Box. Bind Cable Assembly 1 on the cables on the Logic PS Box by using the two repeat binders.

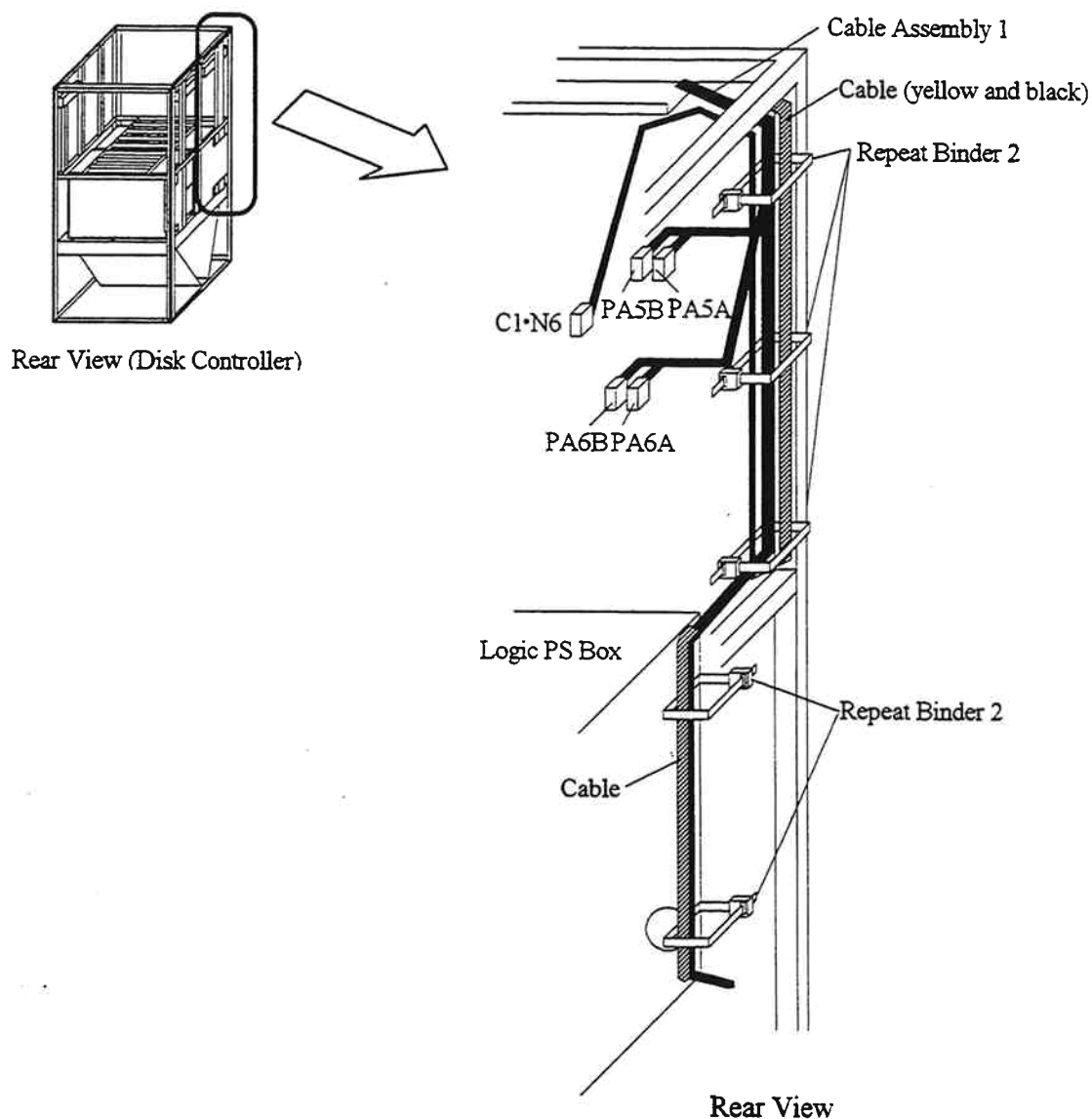


Fig. 3.3.7.7.2-9 Attachment of the Cable Assembly 1

- j. Attach the three cable clamps to the cable duct to fix the cables.

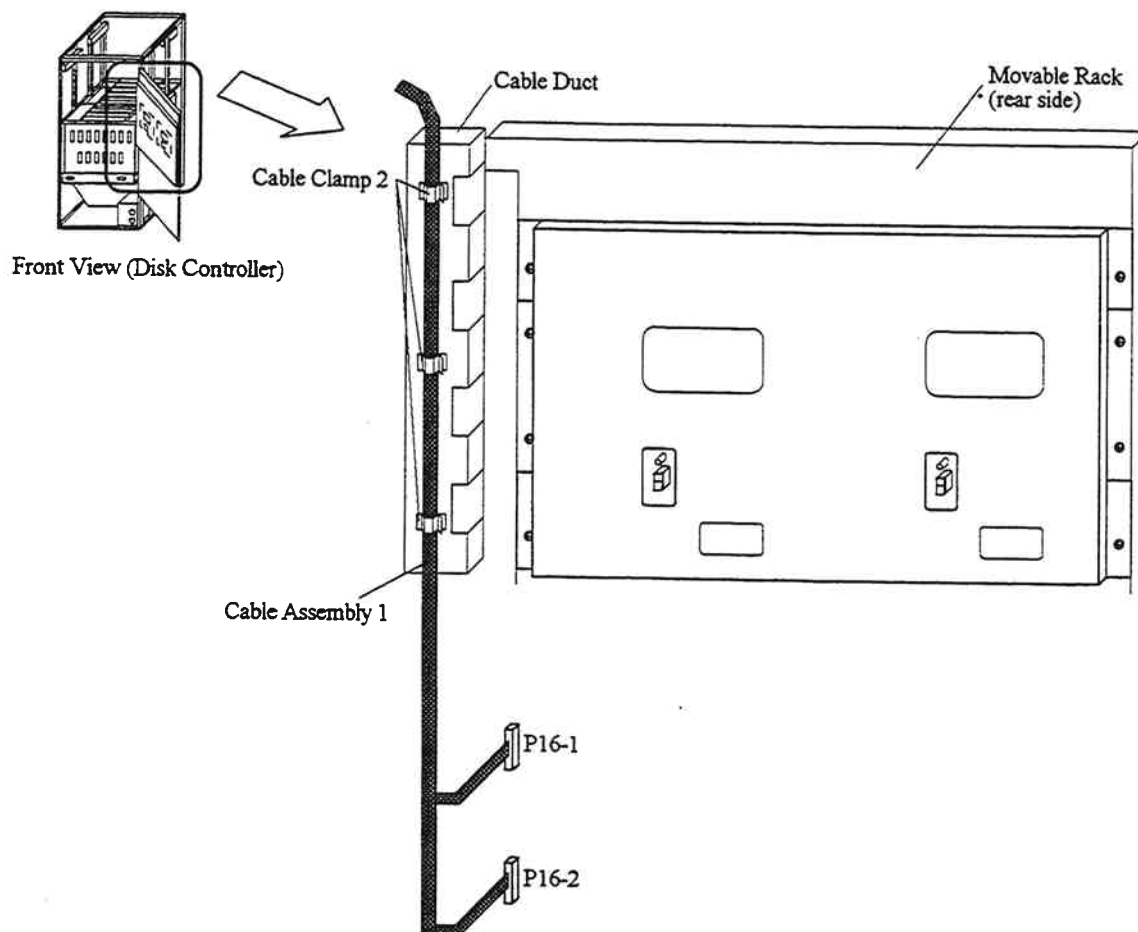


Fig. 3.3.7.7.2-10 Attachment of the Cable Assembly 1

k. Remove Logic PS Box Cover 1 and Logic PS Box Cover 2. (Refer to INST03-10.)

l. Exchange the supports.

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

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

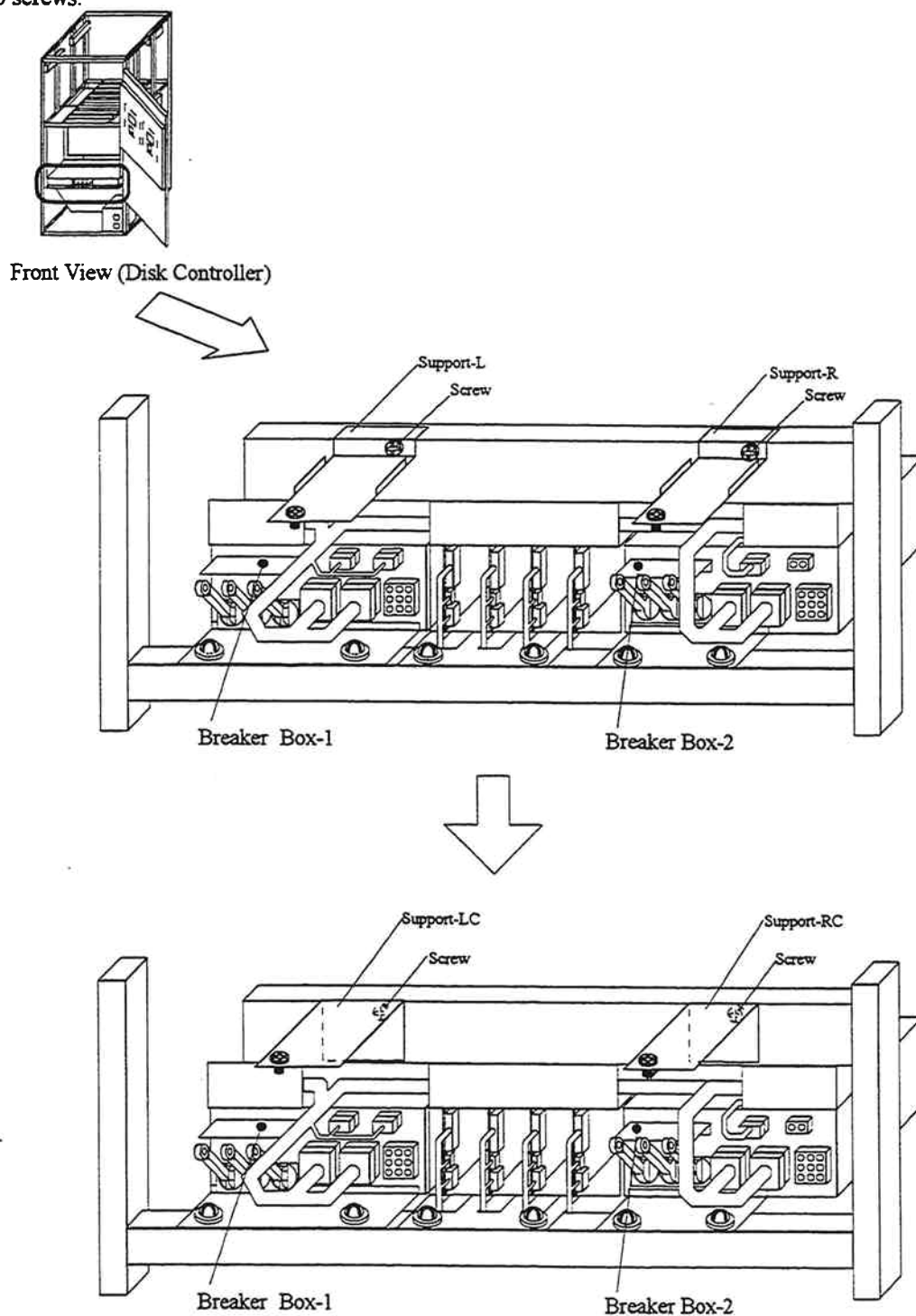


Fig. 3.3.7.7.2-11 Removal of the Supports

② In case of DKC210I S/N 30205 - 30434, 40003-40218, 50003 - 50175

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



Front View (Disk Controller)

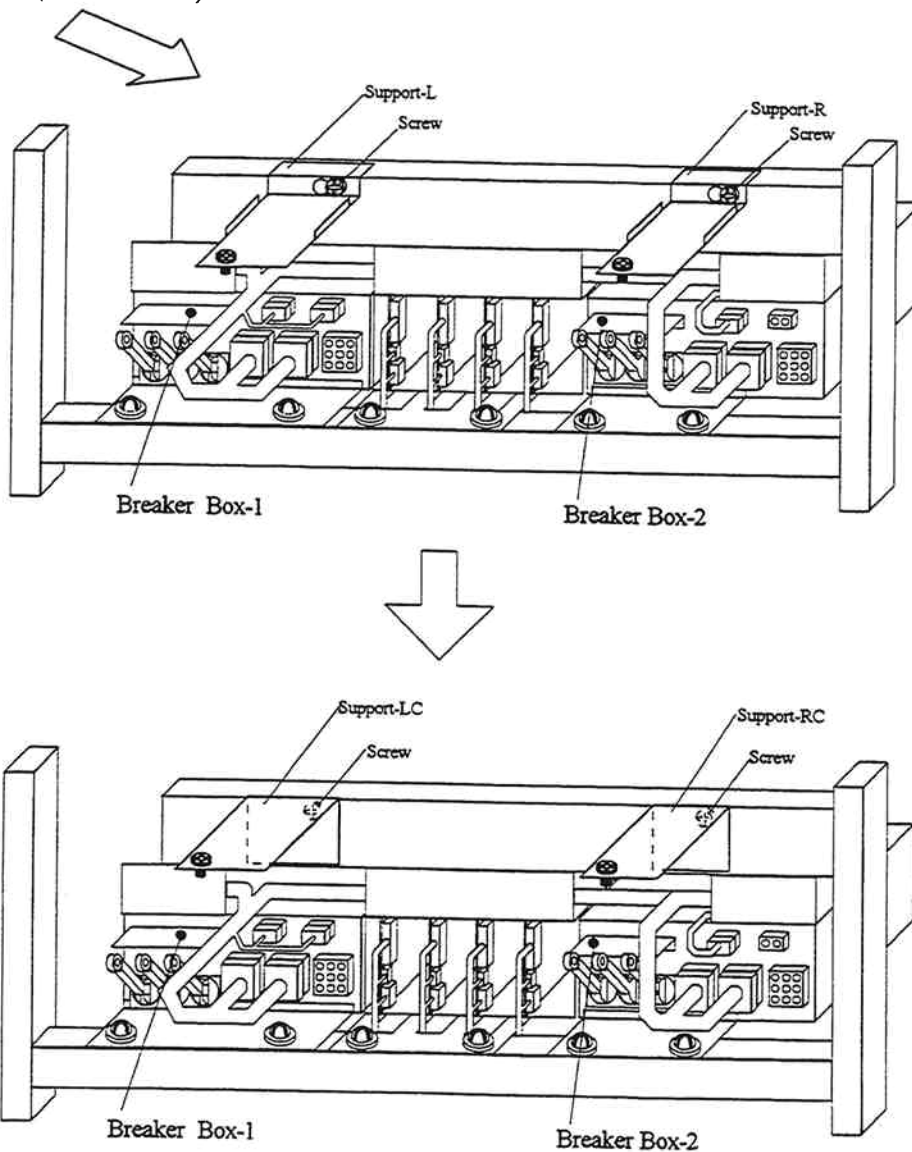
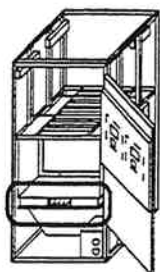


Fig. 3.3.7.2-12 Removal of the Supports

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

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



Front View (Disk Controller)

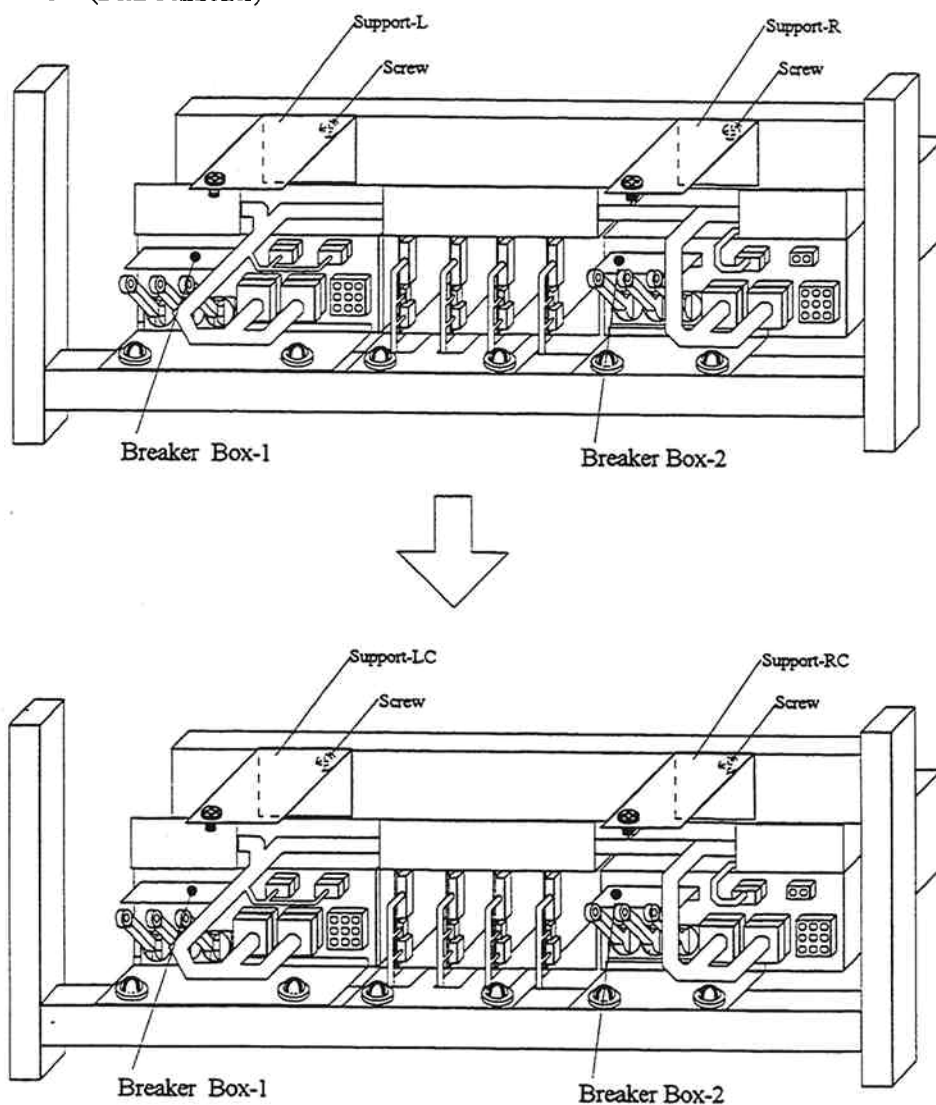


Fig. 3.3.7.7.2-12A Attachment of the Supports

- m. Fit Cable Assembly 2 and Cable Assembly 3. Attach the four cable clamps to the left side of the plate to fix Cable Assembly 2 and Cable Assembly 3. Open the four repeat binders at the bottom of the Logic PS Box, attach Cable Assembly 2, Cable Assembly 3, and cables (CD33C and CD43C) to the cable duct, and bind them with the four repeat binder.

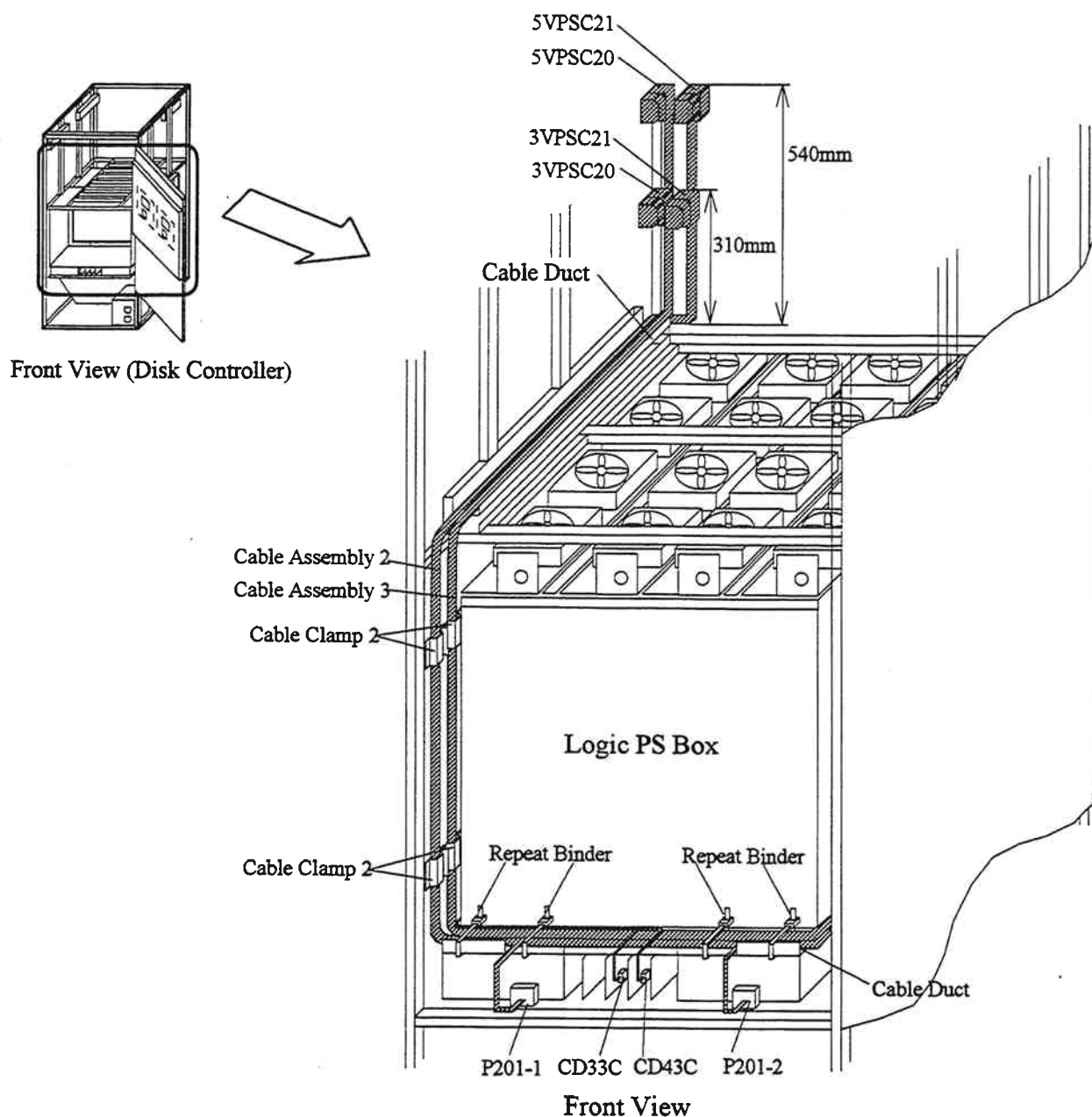


Fig. 3.3.7.2-13 Attachment of the Cables

n. Fix the Cable Assembly 2 and Cable Assembly 3.

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

Attach the four cable clamps on the cable duct to fix Cable Assembly 2 and Cable Assembly 3.

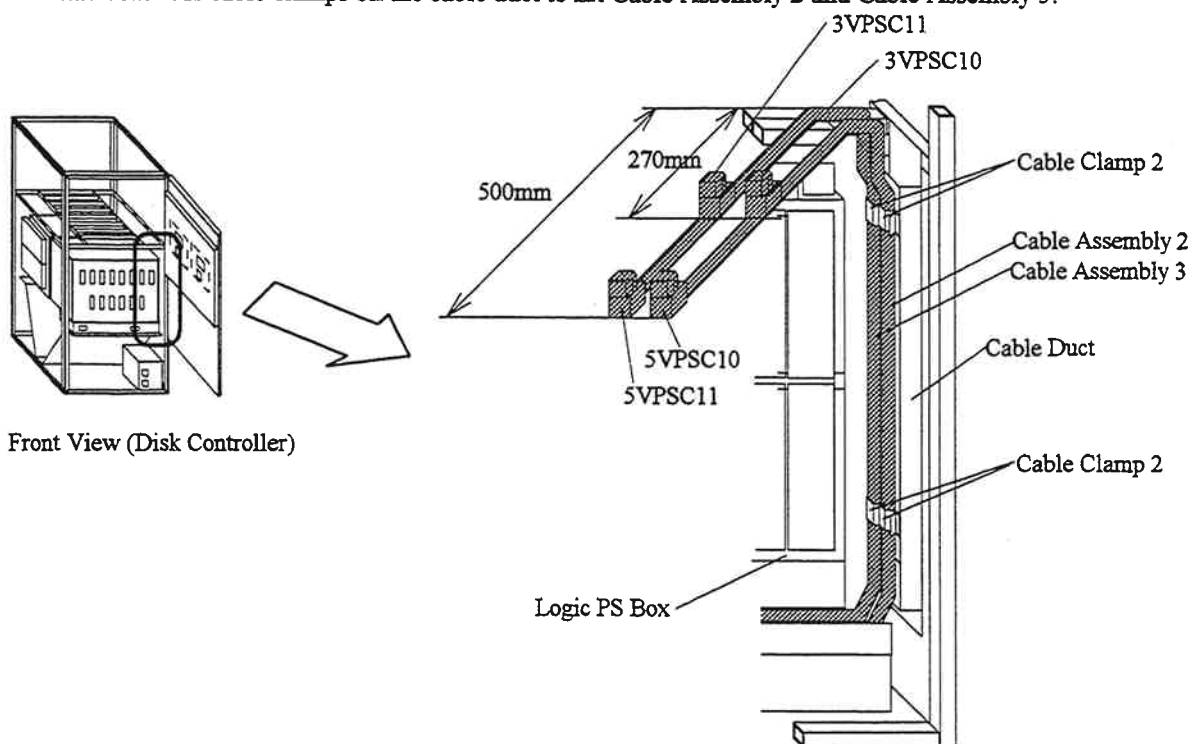


Fig. 3.3.7.7.2-14 Attachment of the Cables

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

Open the three repeat binders in the right side of the plate. Bind Cable Assembly 2 and Cable Assembly 3 with the three repeat binders.

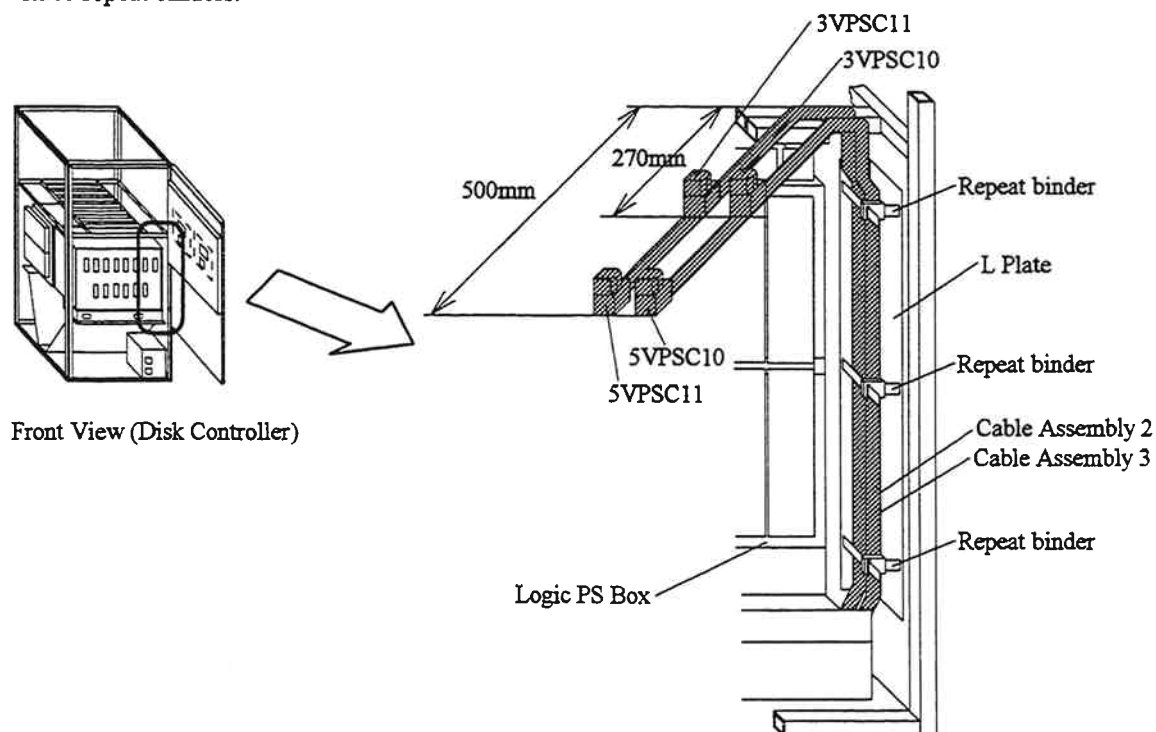


Fig. 3.3.7.7.2-14A Attachment of the Cables

- p. Place the seven cables at the bottom of the cable duct.

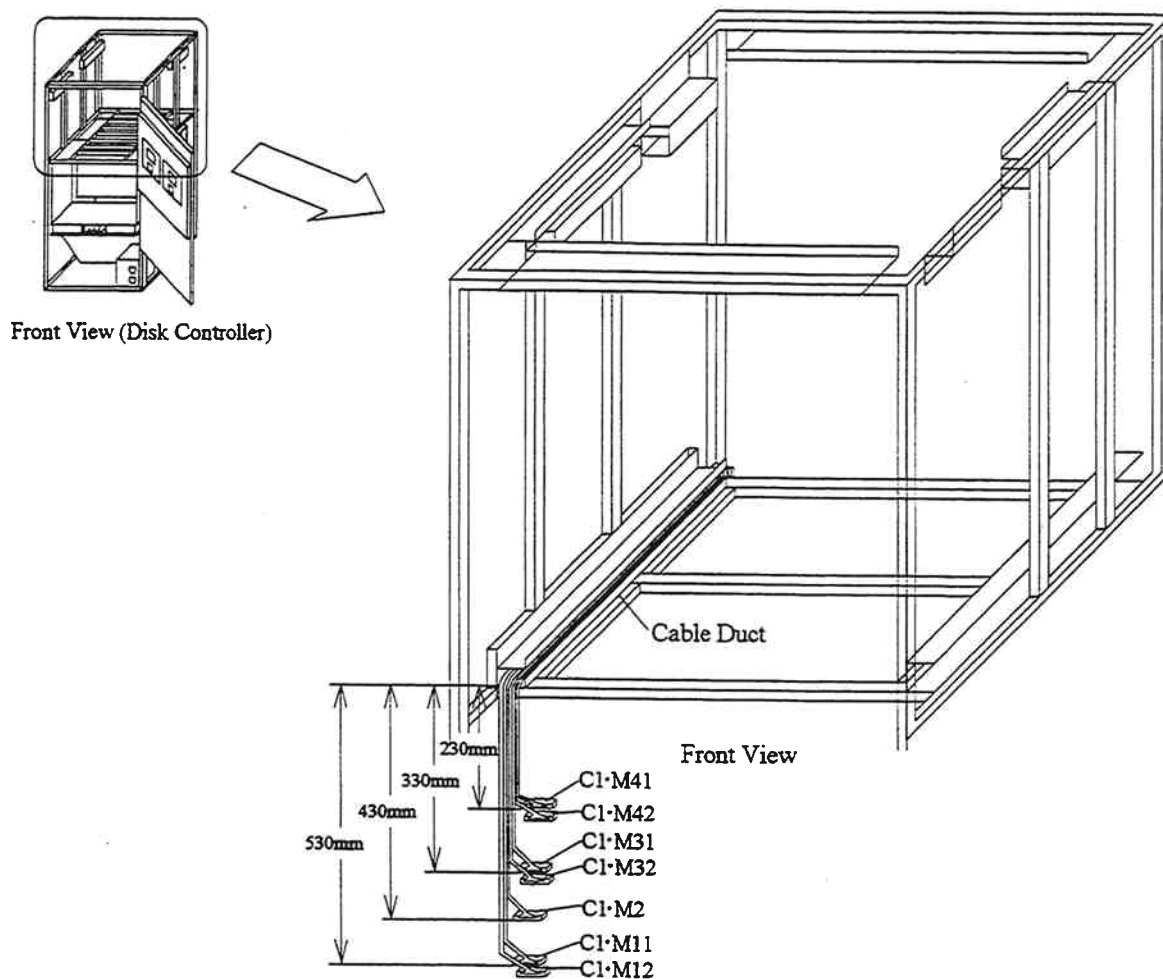


Fig. 3.3.7.7.2-15 Attachment of the Cables

- q. Use the three repeat binders to bind the surplus cables projecting from the front and rear sides of the frame. If the cable (C1•N6 or C2•N6) is too long, secure it with the repeat binder. Be sure to turn the repeat binder edges toward the inside of the frame so that they do not disturb inserting the Cache Box.

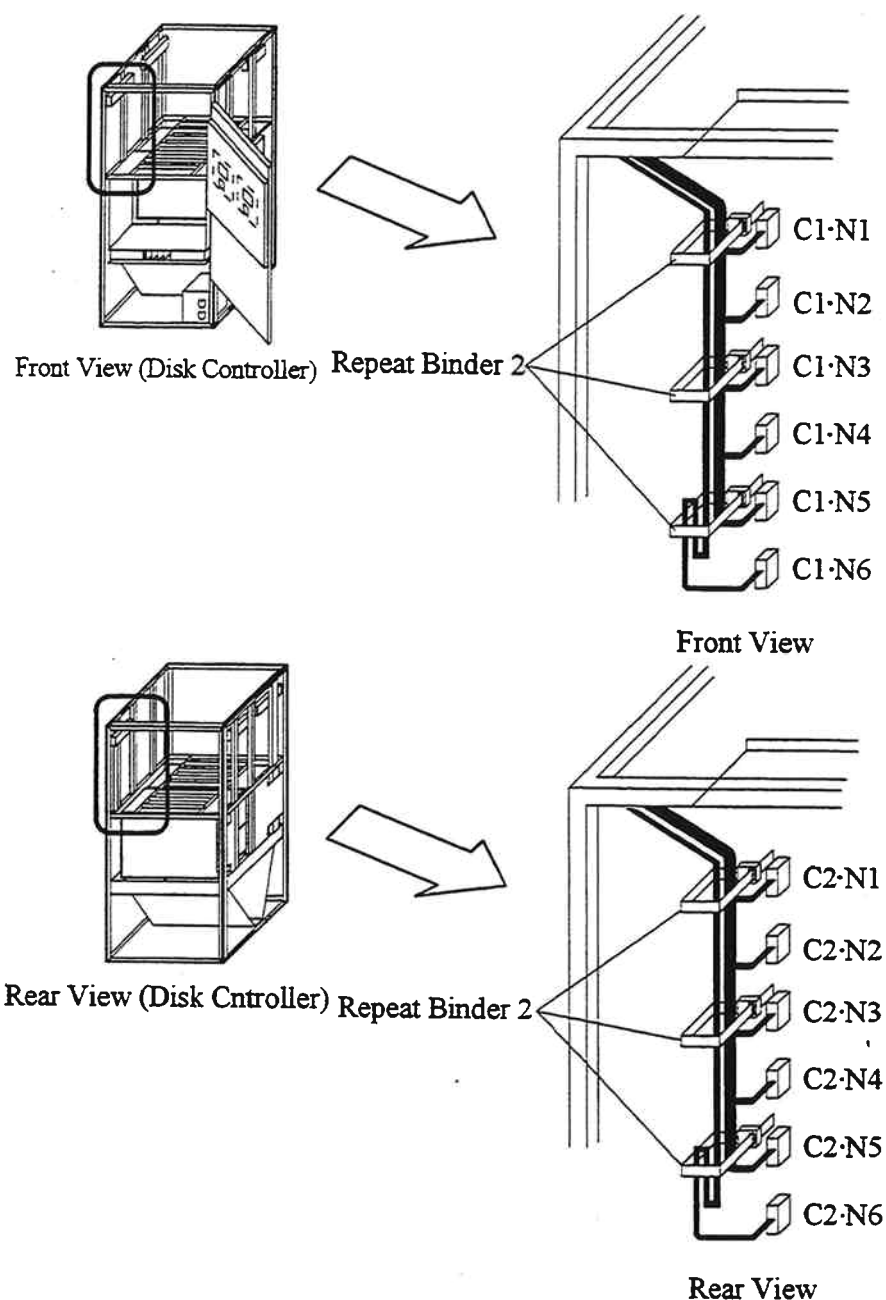


Fig. 3.3.7.7.2-16 Attachment of the Cables

2. Attach the Cache Boxes. (See "3.3.7.8 Connection of Handling Vehicle(INST03-1680)")

- a. Loosen the four screws. Attach the two rails and secure the four screws. Refer to Fig. 3.3.7.2-17 or Fig. 3.3.7.2-18.

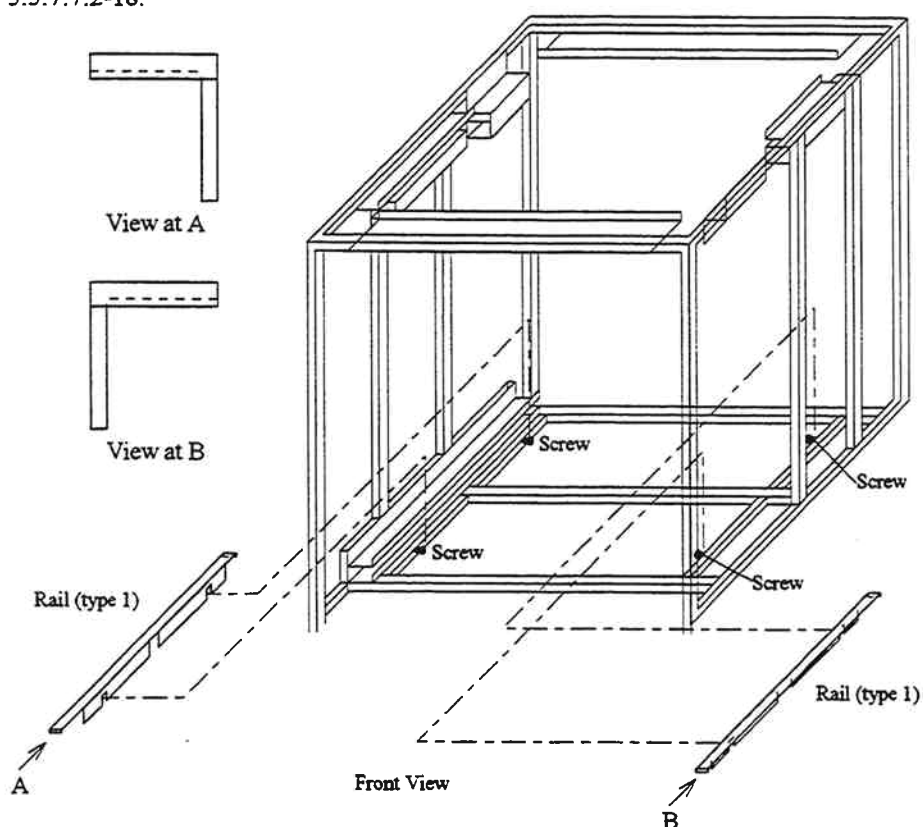


Fig. 3.3.7.2-17 Attachment of the Rails

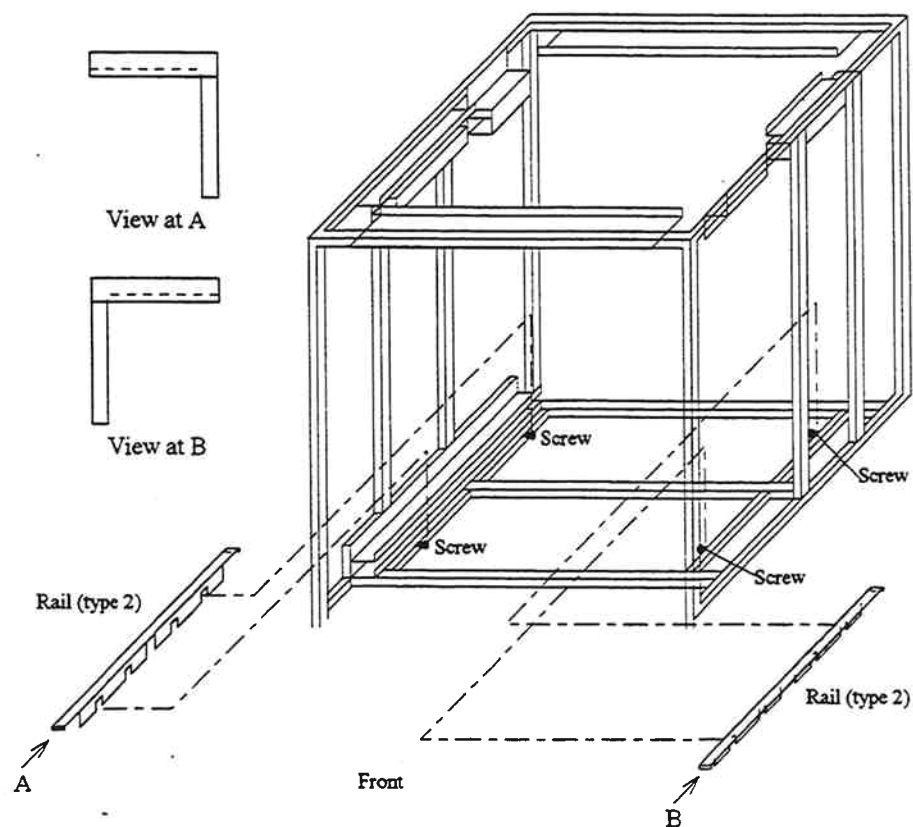


Fig. 3.3.7.2-18 Attachment of the Rails

- b. Loosen the five screws to remove the FAN and Thermostat Assemblies from Cache Box-1 and Cache Box-2.

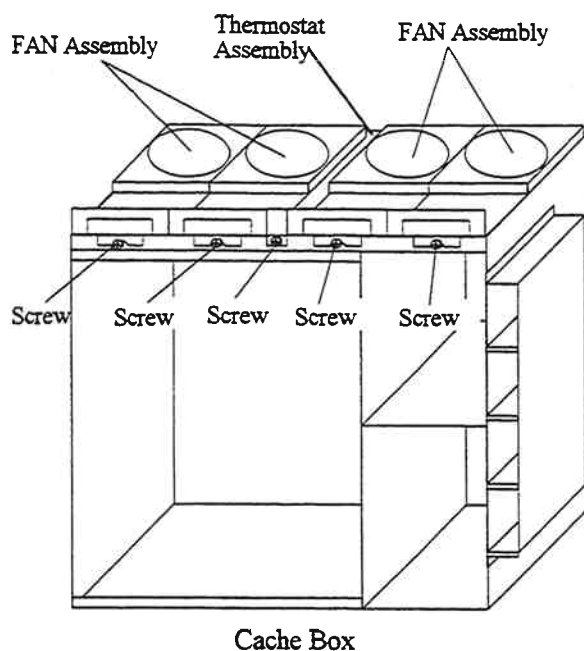


Fig. 3.3.7.7.2-19 Removal of the Parts

- c. Put the Cache Box-1 on the rear of the frame. Move up to 50 mm apart from the center frame.

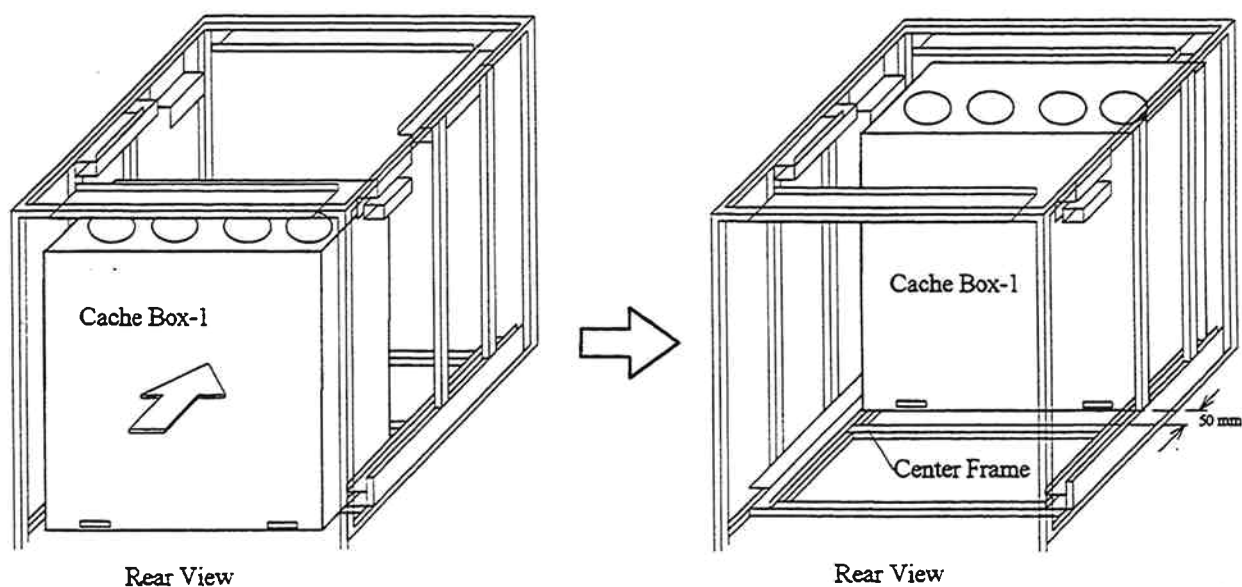


Fig. 3.3.7.7.2-20 Attachment of the Cable Box-1

- d. Loosen the four screws. Attach the two stoppers and secure the four screws.

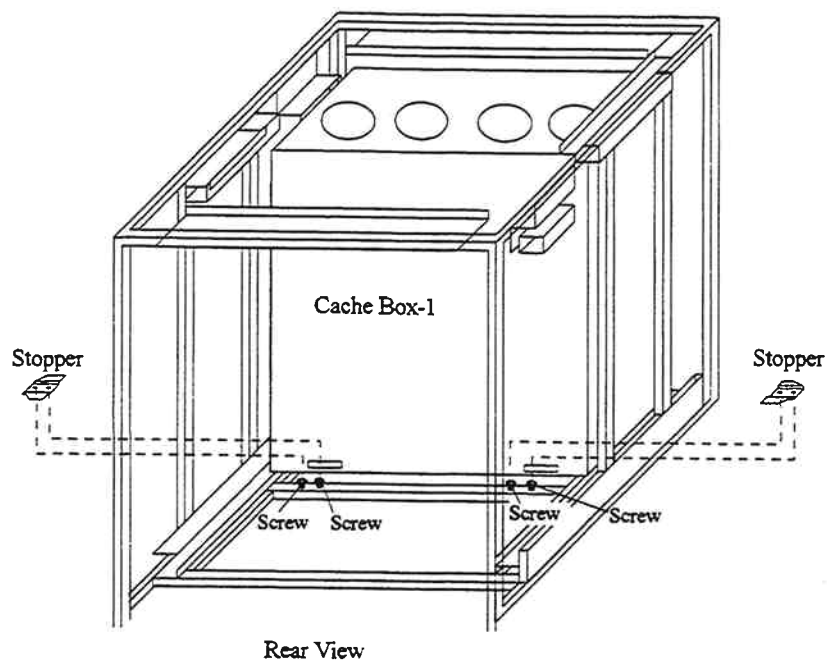


Fig. 3.3.7.7.2-21 Attachment of the Stopper

- e. Press the Cache Box-1 toward the rear side of the frame until the box reaches the stopper.

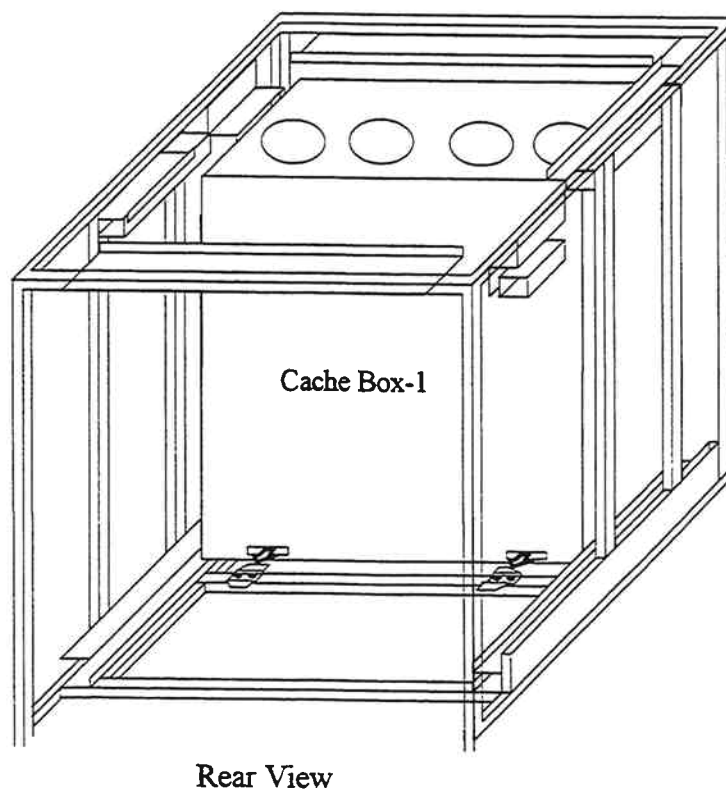
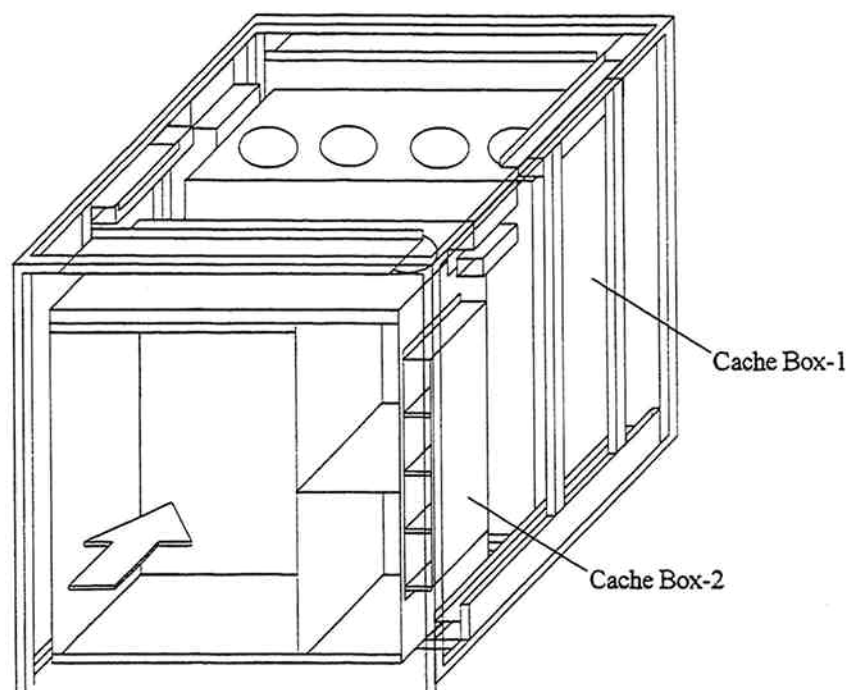


Fig. 3.3.7.7.2-22 Attachment of the Cache Box-1

- f. Insert Cache Box-2 from the rear side of the frame and press the box until it reaches the stopper.



Rear View

Fig. 3.3.7.7.2-23 Attachment of the Cache Box-2

- g. Loosen the four screws at the bottom of Cache Box-1 (in the front side) and on the frame. Attach the plate to fix the Cache Box and secure the four screws. Repeat this procedure for Cache Box-2 (in the rear side).

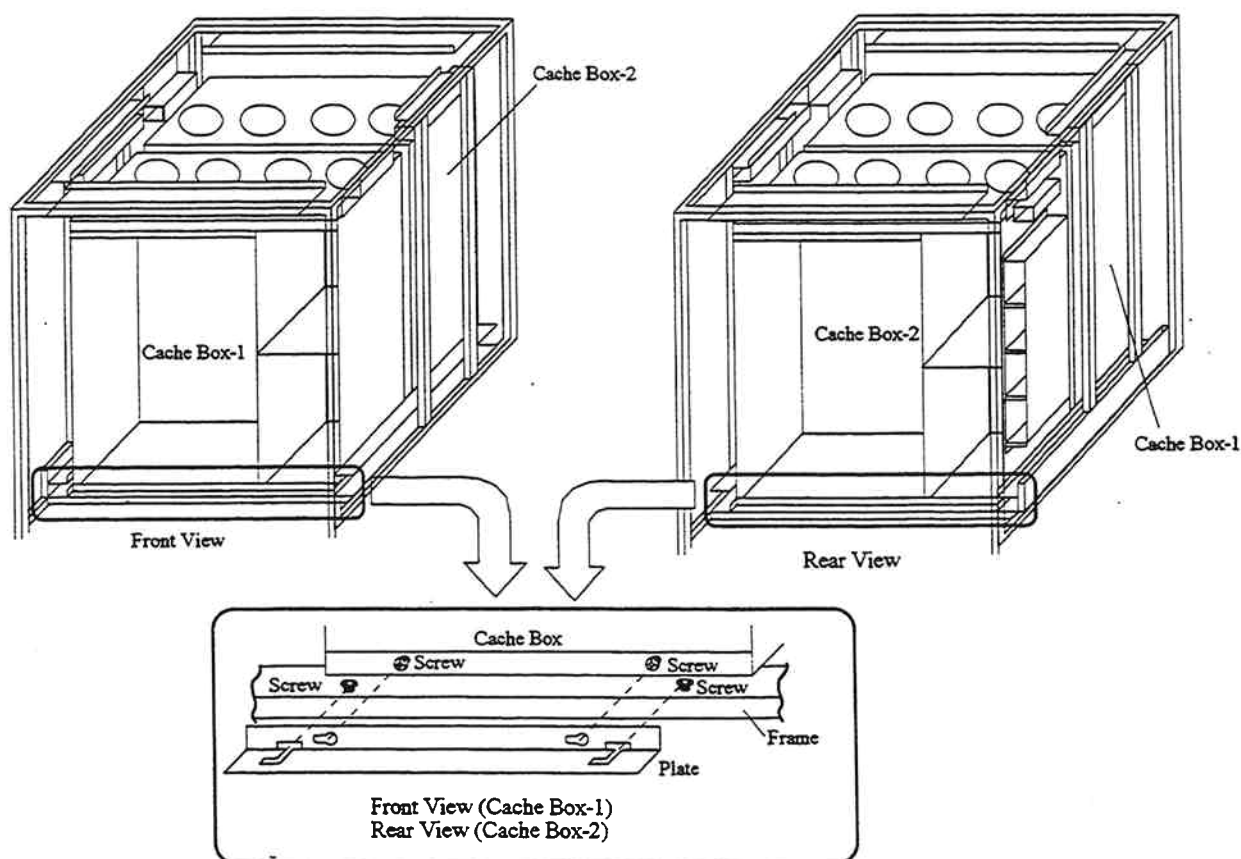


Fig. 3.3.7.7.2-24 Attachment of the Plates

- h. Loosen the four screws at the top of the Cache Box-1 (in the front side) and on the frame. Attach the two brackets to fix the Cache Box and secure the four screws. Repeat this procedure for Cache Box-2 (in the rear side).

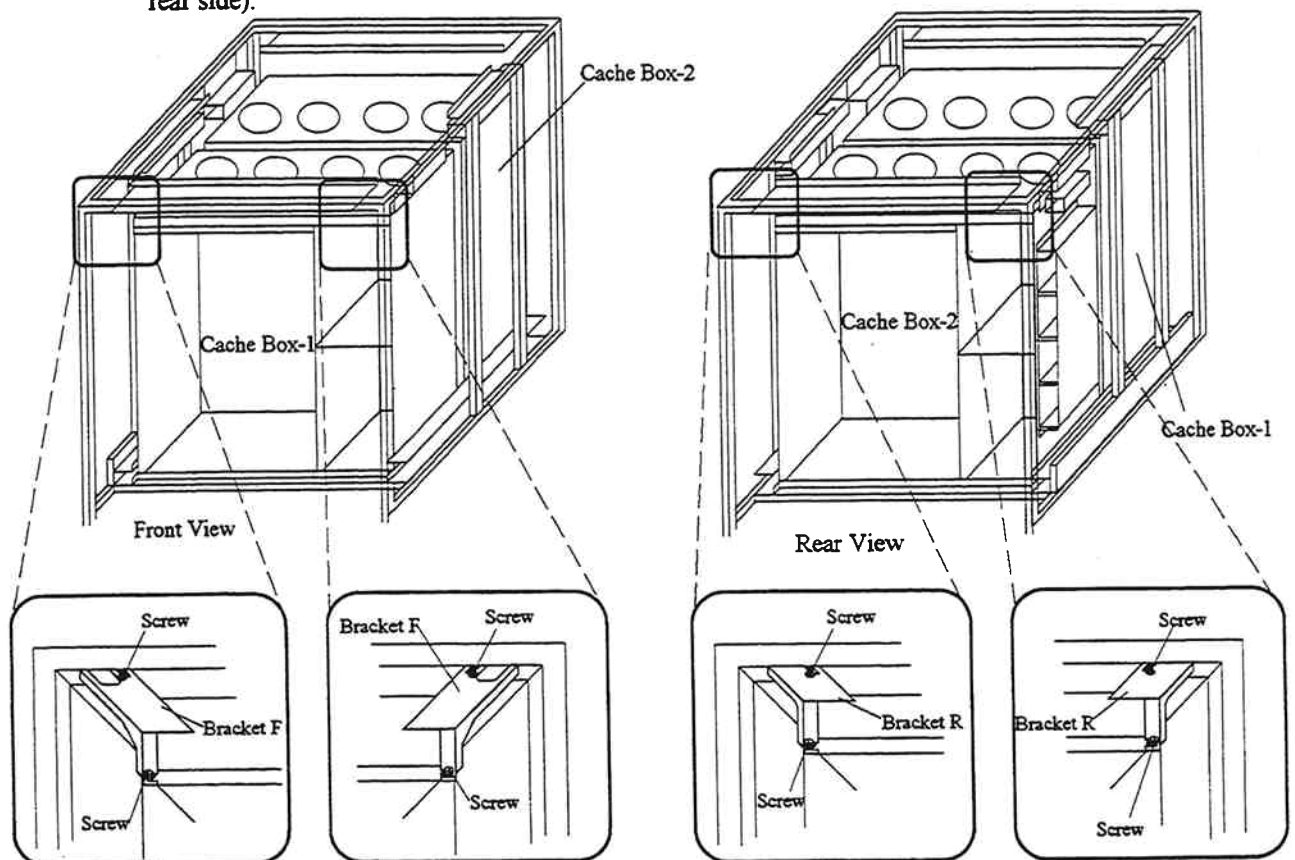


Fig. 3.3.7.7.2-25 Attachment of the Brackets

3. Attach the necessary parts to Cache Box-1 and Cache Box-2. Refer to Fig.3.3.7.7.2-26.

- a. Loosen the screws ①. Attach the FAN Assemblies (x4 for each box) and secure the screws ①.
- b. Loosen the screws ②. Attach the Thermostat Assemblies (x1 for each box) and secure the screws ②.
- c. Loosen the screws ③ and ④. Attach the Battery Assemblies (x2 for each box) and secure the screws ③ and ④.
- d. Check that the PS Enable/Disable Switch on the 3.3V and 5V power supplies is set to (Down) Disable. Loosen the screws ⑤ and ⑥. Attach the 3.3V and 5V power supplies (x1 for each box) and secure the screws ⑤ and ⑥.
- e. When the Cache redundant power supply (DKC-F210I-72) is not installed, loosen the screws ⑦ and ⑧. Attach the Dummy Plates (x2 for each box) and secure the screws ⑦ and ⑧.
When the Cache redundant power supply (DKC-F210I-72) is installed, Check that the PS Enable/Disable Switch on the 3.3V and 5V power supplies is set to (DOWN) Disable. Loosen the screws ⑦ and ⑧. Attach the 3.3V and 5V power supplies (x1 for each box) and secure the screws ⑦ and ⑧.
- f. Loosen the screws ⑨ and ⑩. Attach the four Battery Controller PCBs to the Cache Box-2, rotate the clamp 90 degrees, and secure the screws ⑨ and ⑩. (Cache Box-2 only)
- g. **New Installation:** Go to general flow INST02-10 step (5).
Non-Disruptive Installation: Go to general flow INST02-21 step (7).
Disruptive Installation: Go to general flow INST02- 40 step (5).

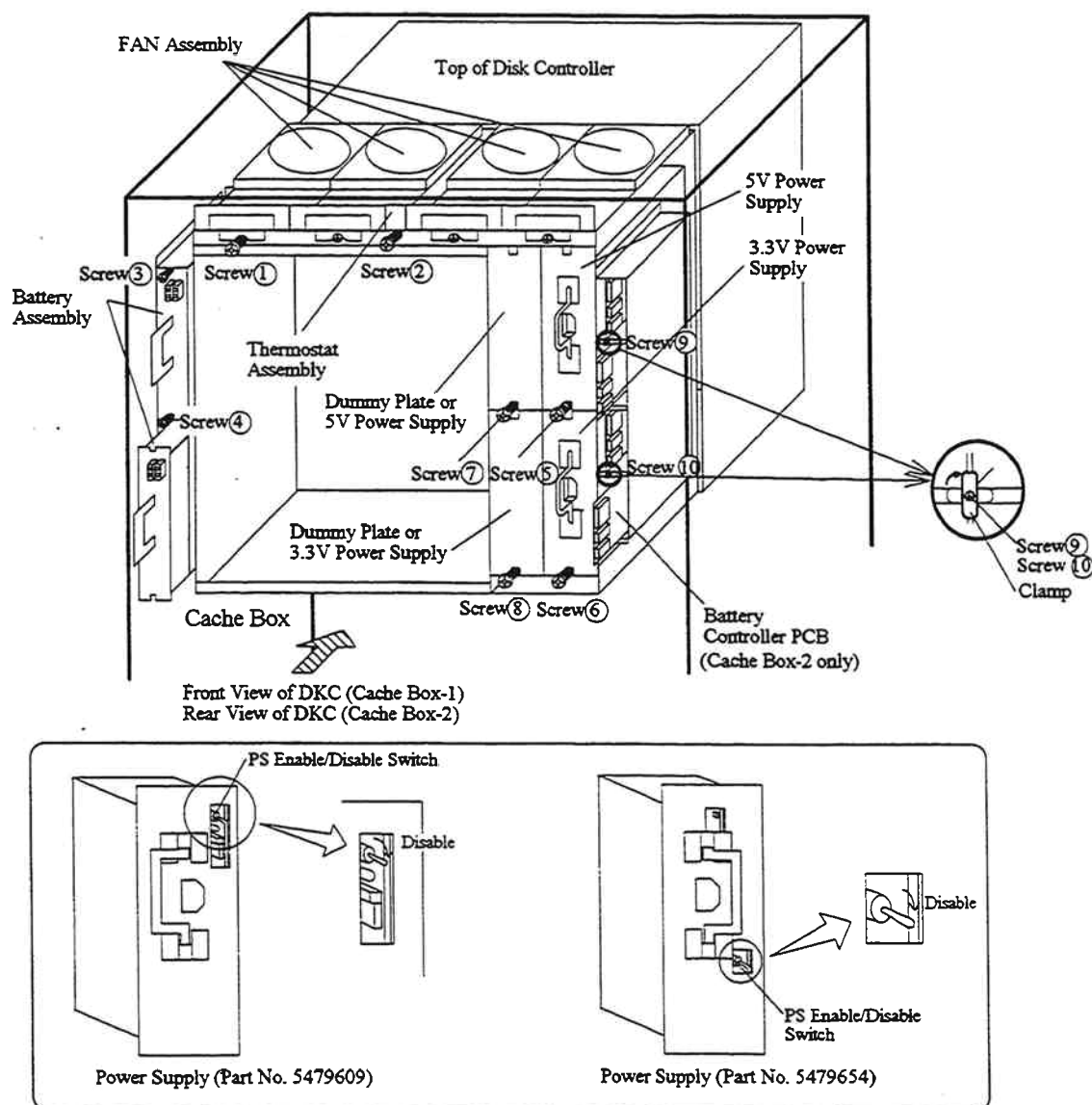


Fig. 3.3.7.7.2-26 Attachment of the Parts

4. Connect the cables to the correct connectors.

IF the cables cannot reach their connectors, loosen the repeat binders or cable clamps, and adjust the cable positions.

When connecting the cables on Cluster 2, go to INST03-1600.

i. Cluster 1

Follow procedures 1 to 7 shown below.

Procedure 1

- a. Disconnect the cable (CD33) from the Battery Controller PCB (BATT CTR-3) and connect the cable (CD33C).

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 dummy connector (P201) and connect the cable (P201-1) into the Breaker Box (Breaker Box-1).

- c. Disconnect the dummy connector (P201) and connect the cable (P201-2) into the Breaker Box (Breaker Box-2).

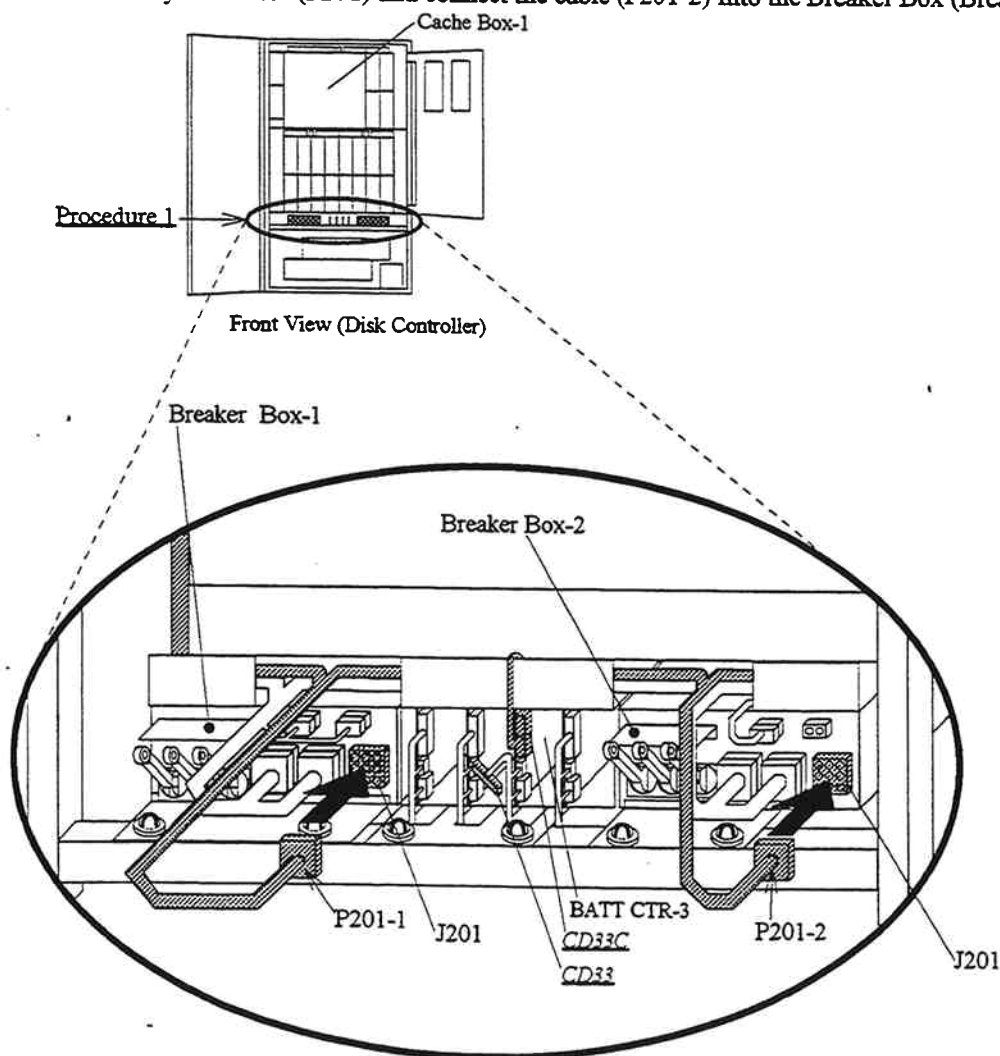


Fig. 3.3.7.7.2-27 Connection of the Cables

Procedure 2

- a. Connect the inlet cables (5VPSC10 and 3VPSC10) to the Power Supplies (5VPSC10 and 3VPSC10), respectively and lock them with the lever.
- b. When the Cache redundant power supply (DKC-F210I-72) is not installed, thread the inlet cables (5VPSC11 and 3VPSC11) through the Dummy Plate and secure them with the cable clamps.
When the Cache redundant power supply (DKC-F210I-72) is installed, connect the inlet cables (5VPSC11 and 3VPSC11) to the Power Supplies (5VPSC11 and 3VPSC11), respectively and lock them with the lever.
- c. Pass the repeat binder into the cleat mounted right below the Cache Box-1. Bind the four inlet cables with the repeat binder.
- d. Connect the cables (PB5A, PB5B, PB6A, and PB6B) to the Battery Assemblies (Battery-5 and Battery-6).

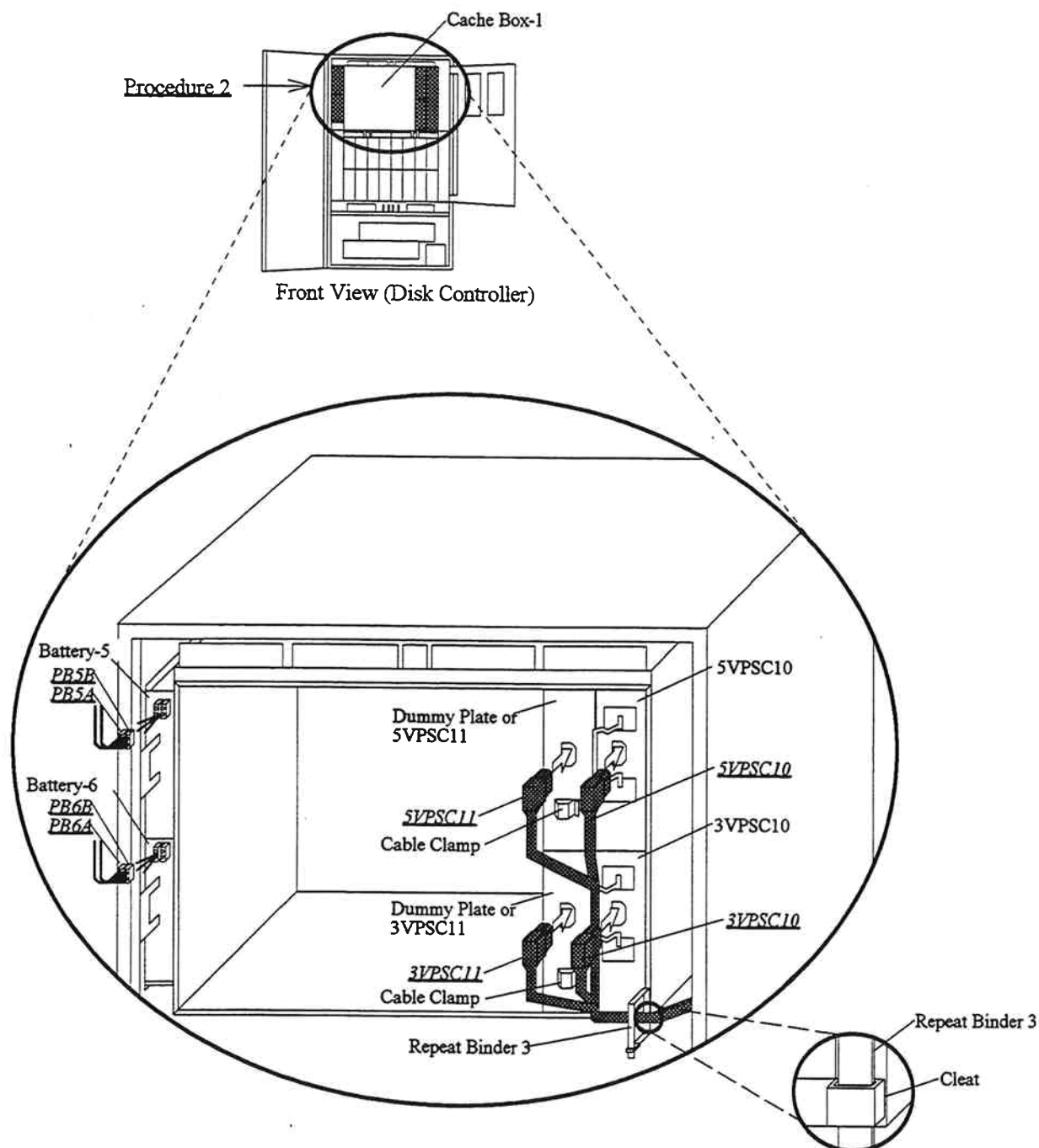


Fig. 3.3.7.7.2-28 Connection of the Cables

Procedure 3

- a. Connect the cables (FC11, FC12, FC13, and FC14) to the FAN Assemblies (FANC11, FANC12, FANC13, and FANC14), respectively.
- b. Connect the cable (PTHC1) to the Thermostat Assembly (THC 1).

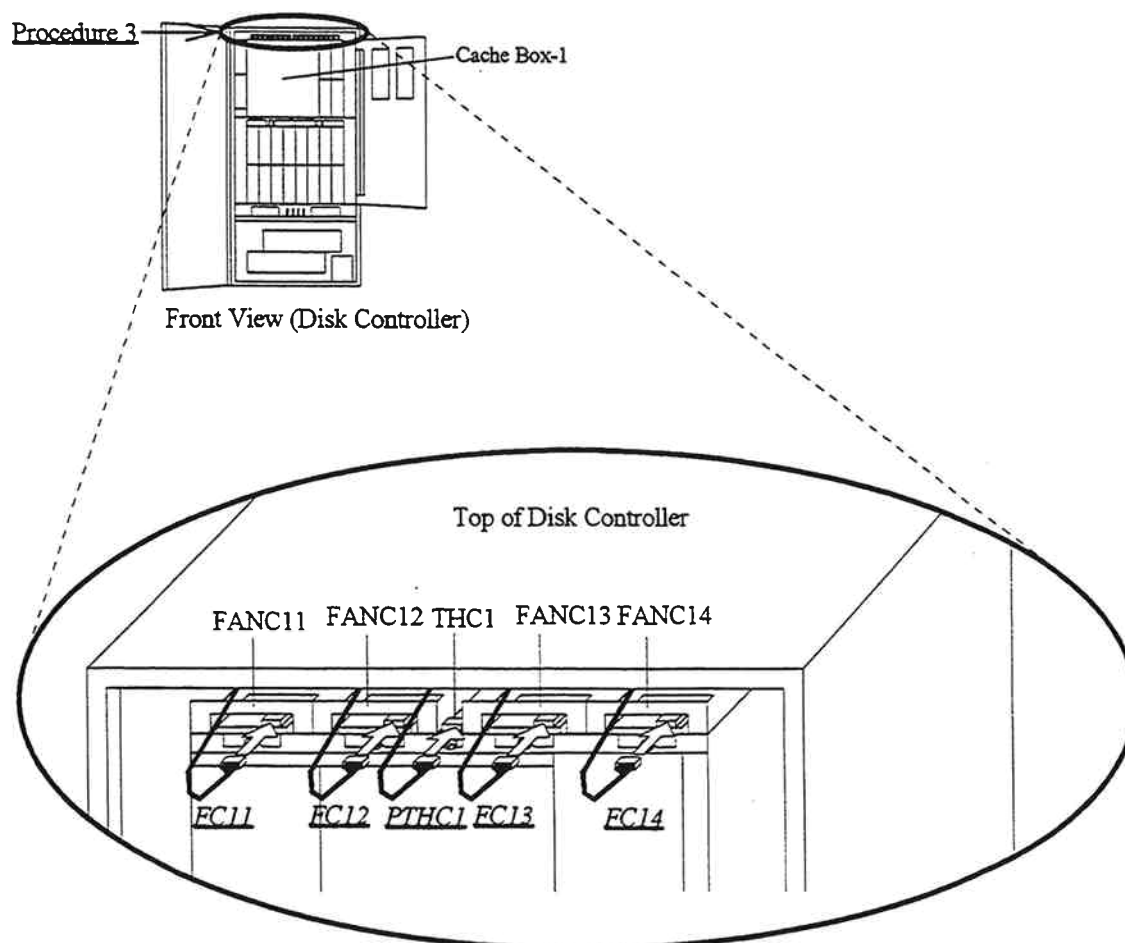


Fig. 3.3.7.7.2-29 Connection of the Cables

Procedure 4

- a. Remove Movable Rack Cover 2. (Refer to INST03-40.)
- b. Remove the cable covers from the gray cable duct, insert the cables into the duct.
- c. Connect the cable (P16-1) into PWRCTL-1.
- d. Connect the cable (P16-2) into PWRCTL-2.
- e. Attach the cable covers.
- f. Attach Movable Rack Cover 2. (Refer to INST03-40.)

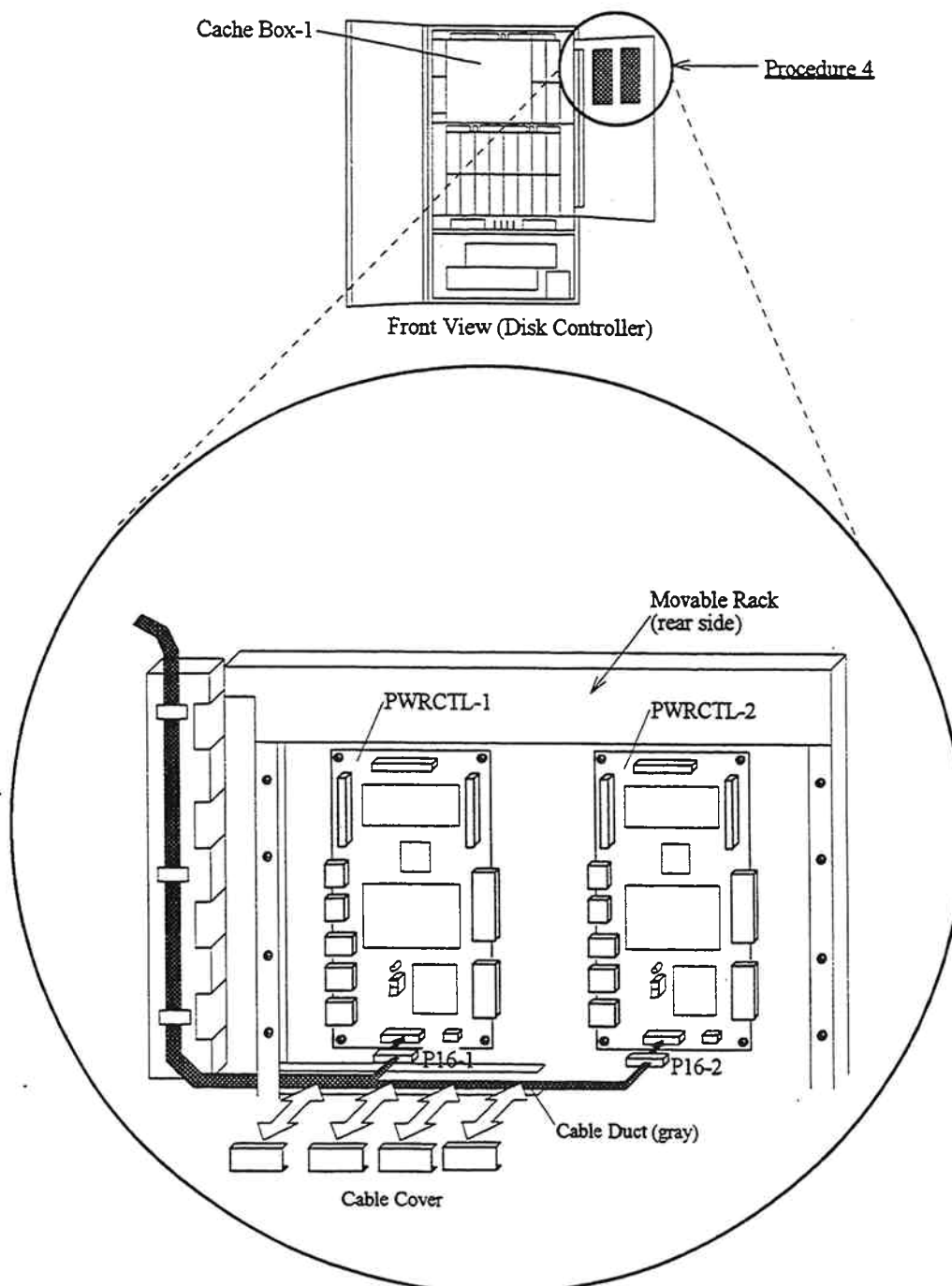


Fig. 3.3.7.7.2-30 Connection of the Cables

Procedure 5

- a. Connect the inlet cables (5VPSC20 and 3VPSC20) to the Power Supplies (5VPSC20 and 3VPSC20), respectively and lock them with the lever.
- b. When the Cache redundant power supply (DKC-F210I-72) is not installed, thread the inlet cables (5VPSC21 and 3VPSC21) through the Dummy Plate and secure them with the cable clamps.
When the Cache redundant power supply (DKC-F210I-72) is installed, connect the inlet cables (5VPSC21 and 3VPSC21) to the Power Supplies (5VPSC21 and 3VPSC21), respectively and lock them with the lever.
- c. Pass the repeat binder into the cleat mounted right below the Cache Box-2. Bind the four inlet cables with the repeat binder.
- d. Connect the cables (PB7A, PB7B, PB8A, and PB8B) to the Battery Assemblies (Battery-7 and Battery-8).

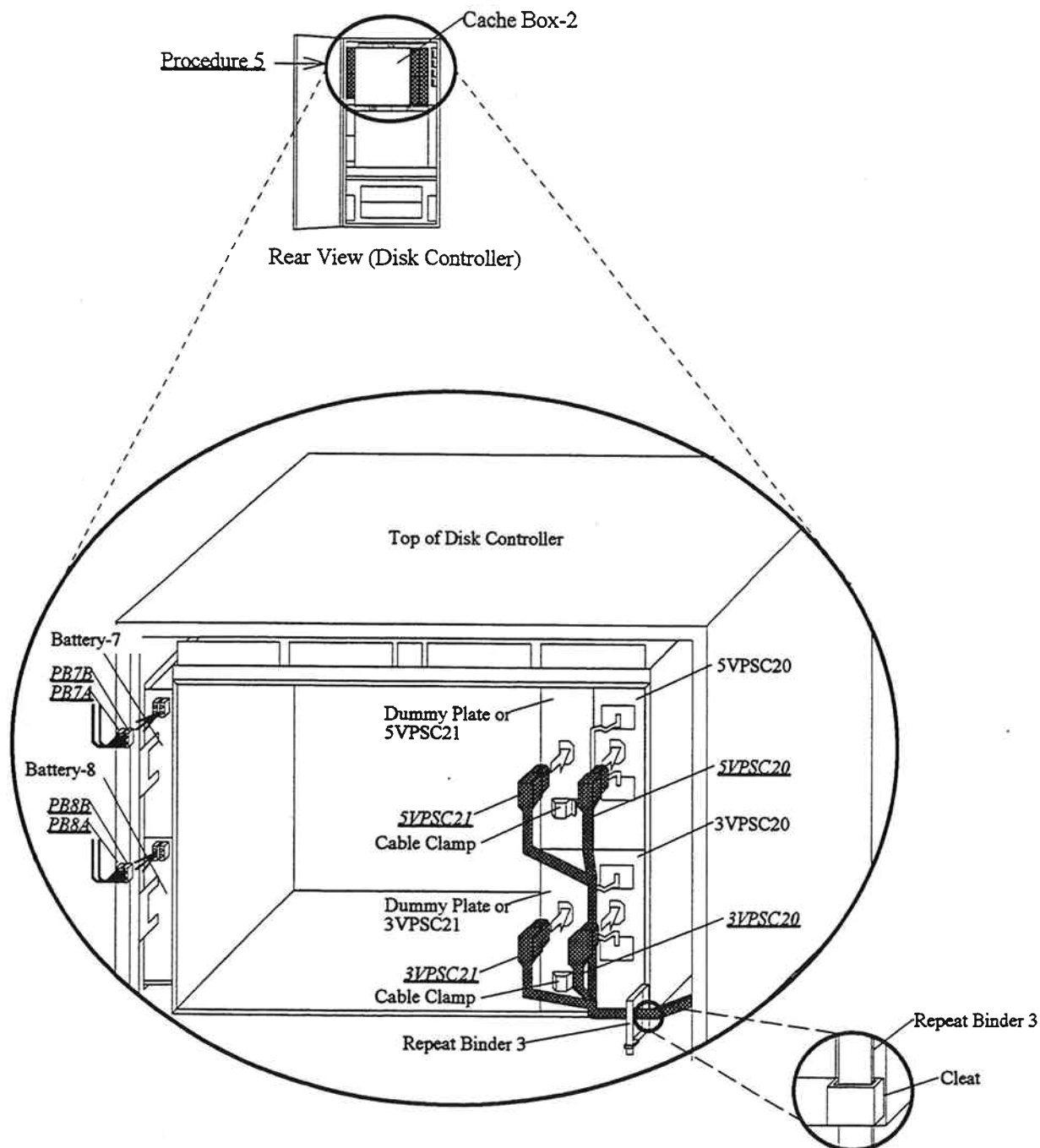


Fig. 3.3.7.7.2-31 Connection of the Cables

- e. Insert the pins of the digital voltmeter into the cable (CDX1) connector to make sure that battery voltage is within the allowable voltage.

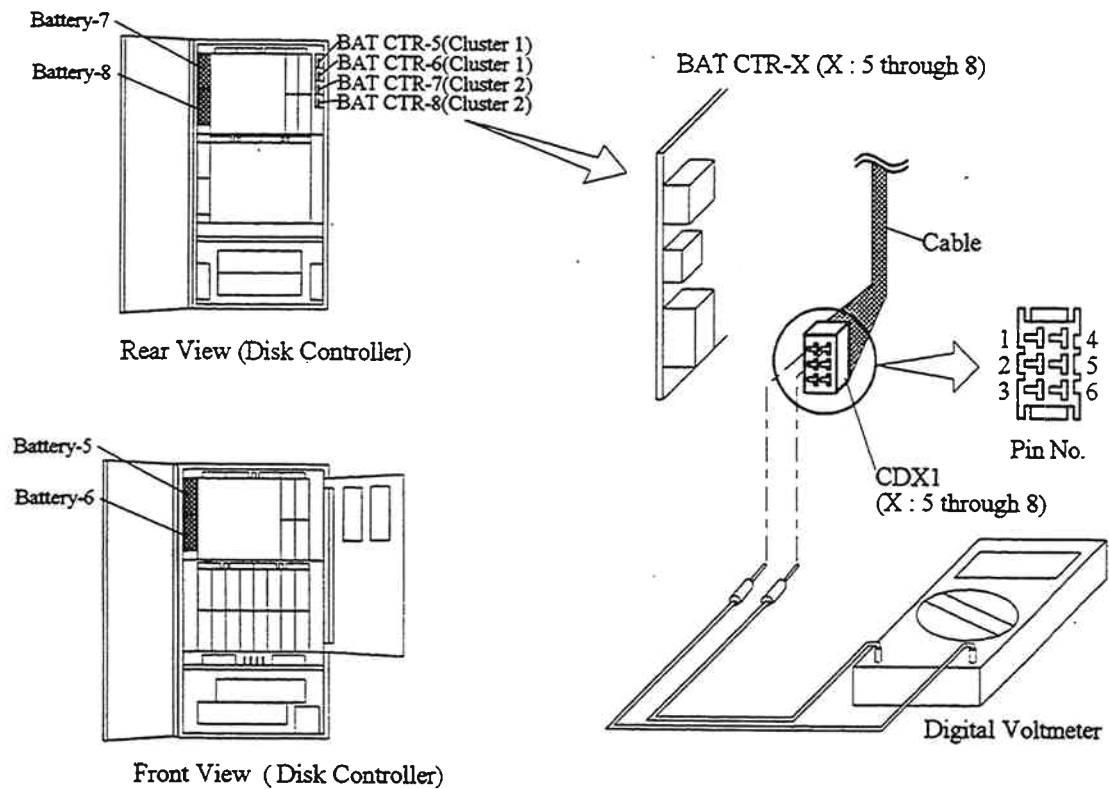


Fig. 3.3.7.2-32 Battery Voltmeter Check

Table 3.3.7.2-1 Voltage Checkpoint and Allowable Voltage

No.	PIN No. (CDX1)		Allowable battery voltage
	-	+	
1	④	①	3.0V through 5.0V
2	⑤	②	3.0V through 5.0V

- f. If the Battery voltage is not within the allowable voltage, replace the battery assembly seeing Table 3.3.7.2-2 and Fig. 3.3.7.2-32. For replacement, loosen the two screws locking the battery assembly and replace the battery assembly with a new one. Then recheck the battery voltage in step e.

Table 3.3.7.2-2 Cable and corresponding Battery Assembly

No.	Cable	Replacement Battery Assembly
1	CD51	Battery-5
2	CD61	Battery-6
3	CD71	Battery-7
4	CD81	Battery-8

Procedure 6

- a. Connect the cables (FC21, FC22, FC23, and FC24) to the FAN Assemblies (FANC21, FANC22, FANC23, and FANC24), respectively.
- b. Connect the cable (PTHC2) to the Thermostat Assembly (THC2).

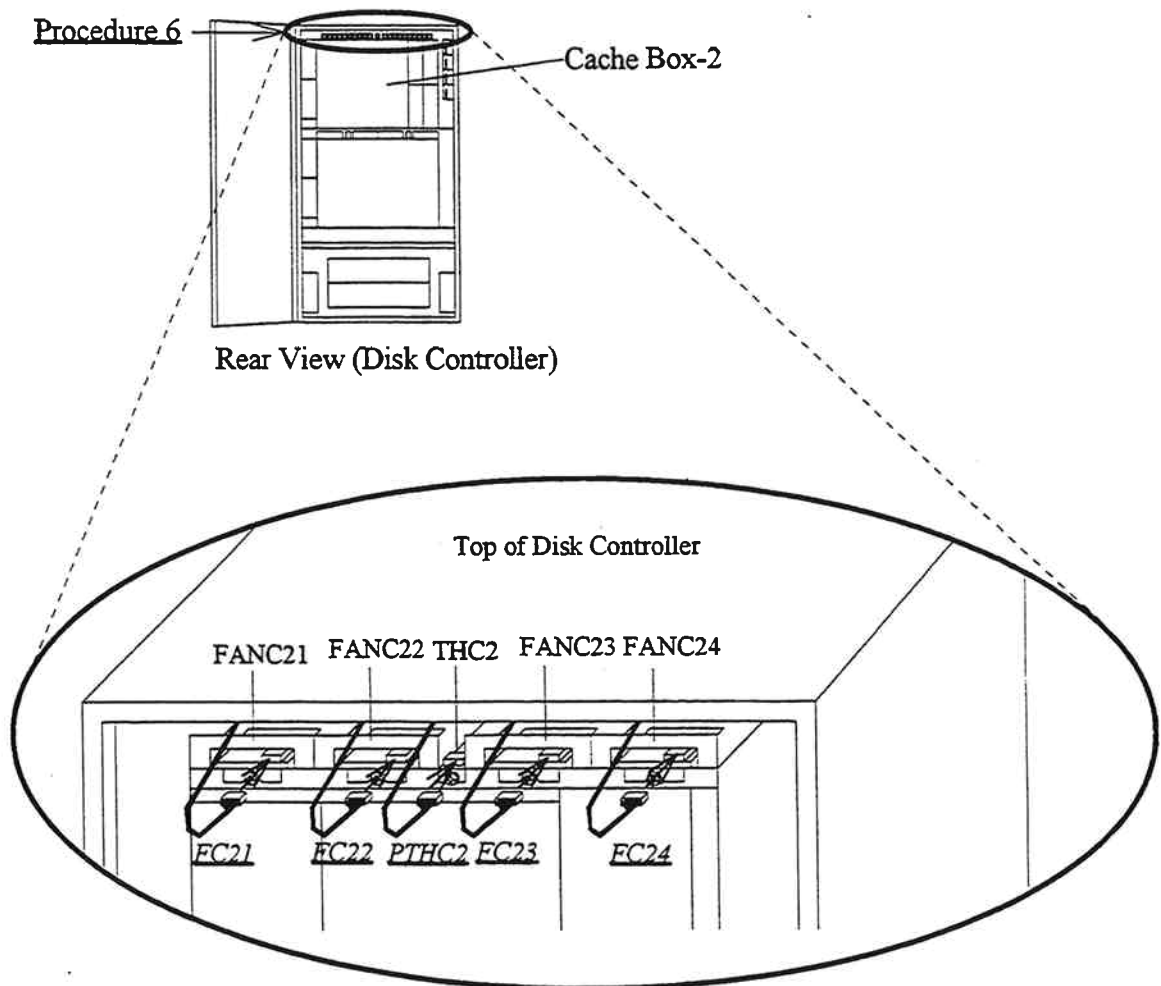


Fig. 3.3.7.7.2-33 Connection of the Cables

Procedure 7

- a. Connect the cables (CD51-CD53, CD61-CD63, CD71-CD73, and CD81-CD83) to the Battery Controller PCBs (BATT CTR-5, BATT CTR-6, BATT CTR-7, and BATT CTR-8). Connect the cables in the order of ①, ②, and ③.

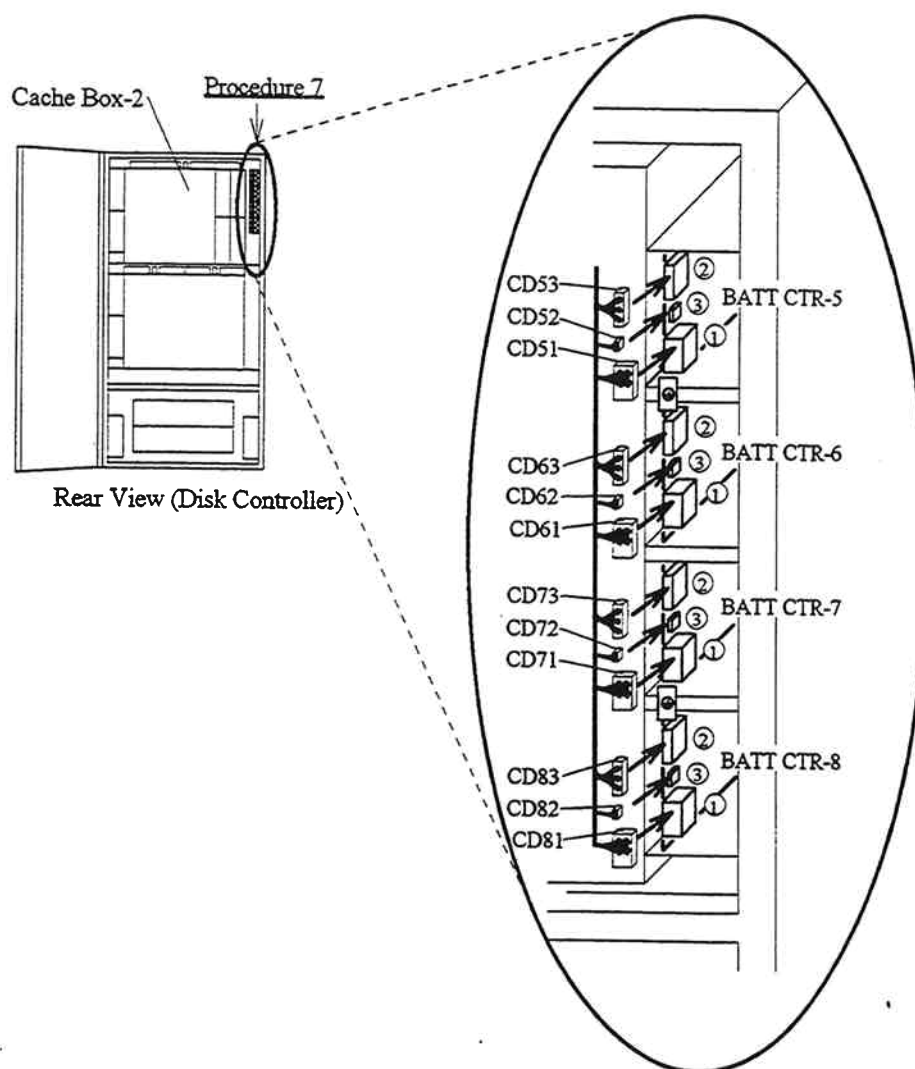


Fig. 3.3.7.7.2-34 Connection of the Cables

- b. When installing additional cache memory on Cluster 1, go to INST03-1610.

ii. Cluster 2

If the cables cannot reach their connectors, loosen the repeat binders or cable clamps, and adjust the cable positions.

When installing additional cache memory on Cluster 1, go to INST03-1610.

Follow procedure 1 shown below.

Procedure 1

- a. Disconnect the cable (CD43) from the Battery Controller PCB (BATT CTR-4) and connect the cable (CD43C).
- b. Attach Logic PS Box Cover 1 (type 2) and Logic PS Box Cover 2 (type 2). (Refer to INST03-10.)

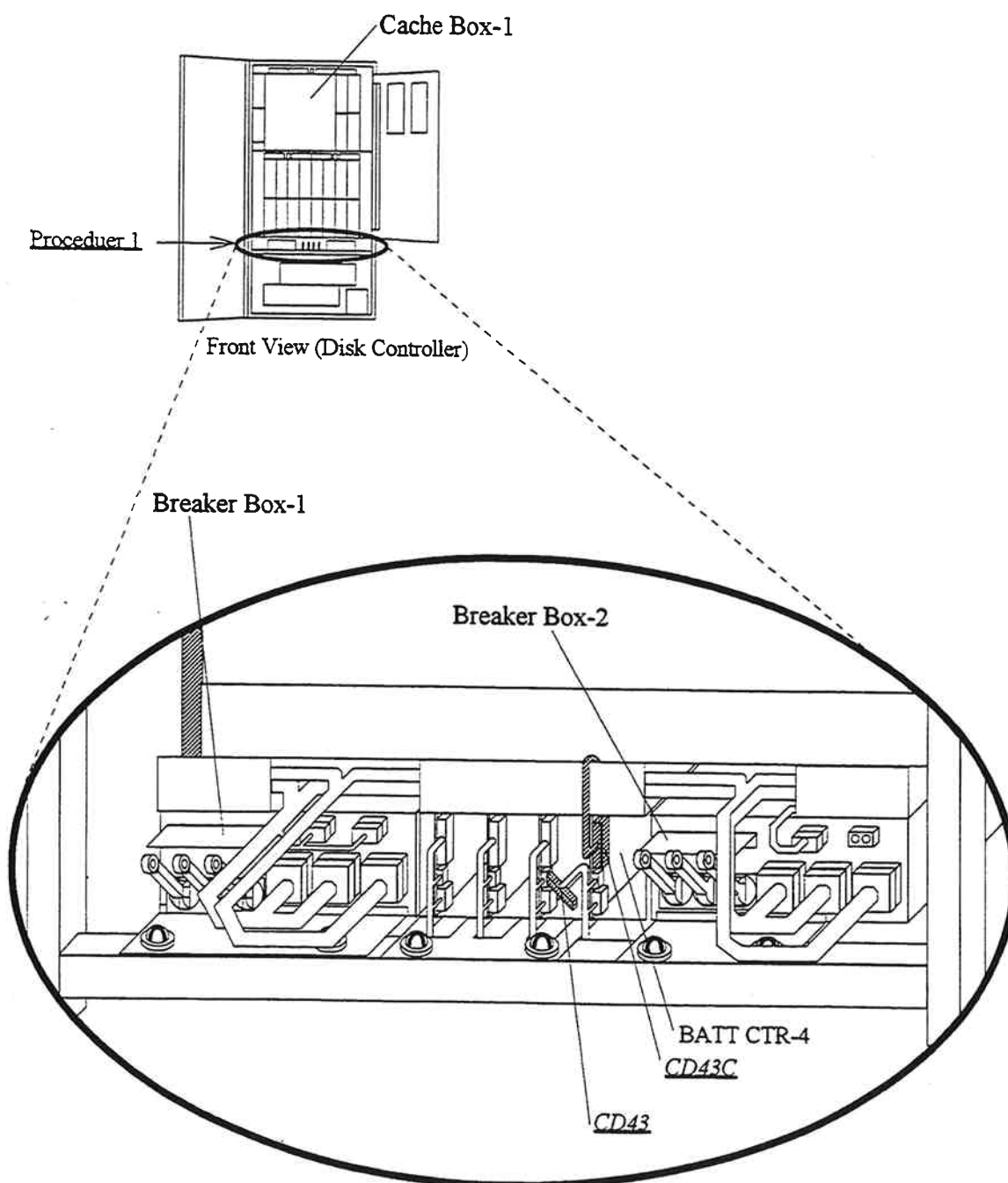


Fig. 3.3.7.7.2-35 Connection of the Cables

5. Remove the PCBs.

- a. While referring to Fig. 3.3.7.7.2-36 and Table 3.3.7.7.2-3, 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. (This procedure [5. a.] is not valid for a New Installation.)

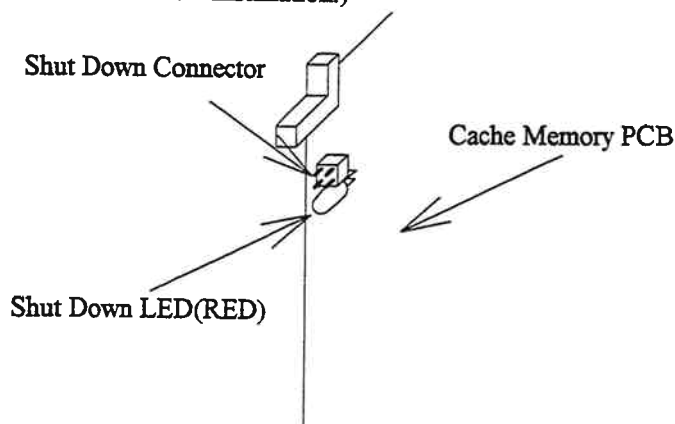


Fig. 3.3.7.7.2-36 Location of the Shut Down LED

Table 3.3.7.7.2-3 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
	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: Remove the PCB only when it is installed.

- b. Remove the two screws and remove the Cache Memory PCBs from the Logic Box.

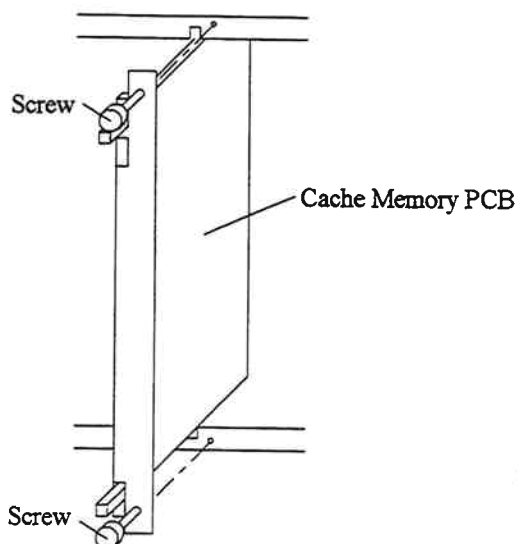


Fig. 3.3.7.7.2-37 Removal of the Cache Memory PCB

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

6. Insert the Shared Memory Modules.

- a. Move the Shared Memory Modules from the Cache Memory PCBs you removed to the CPM PCB.

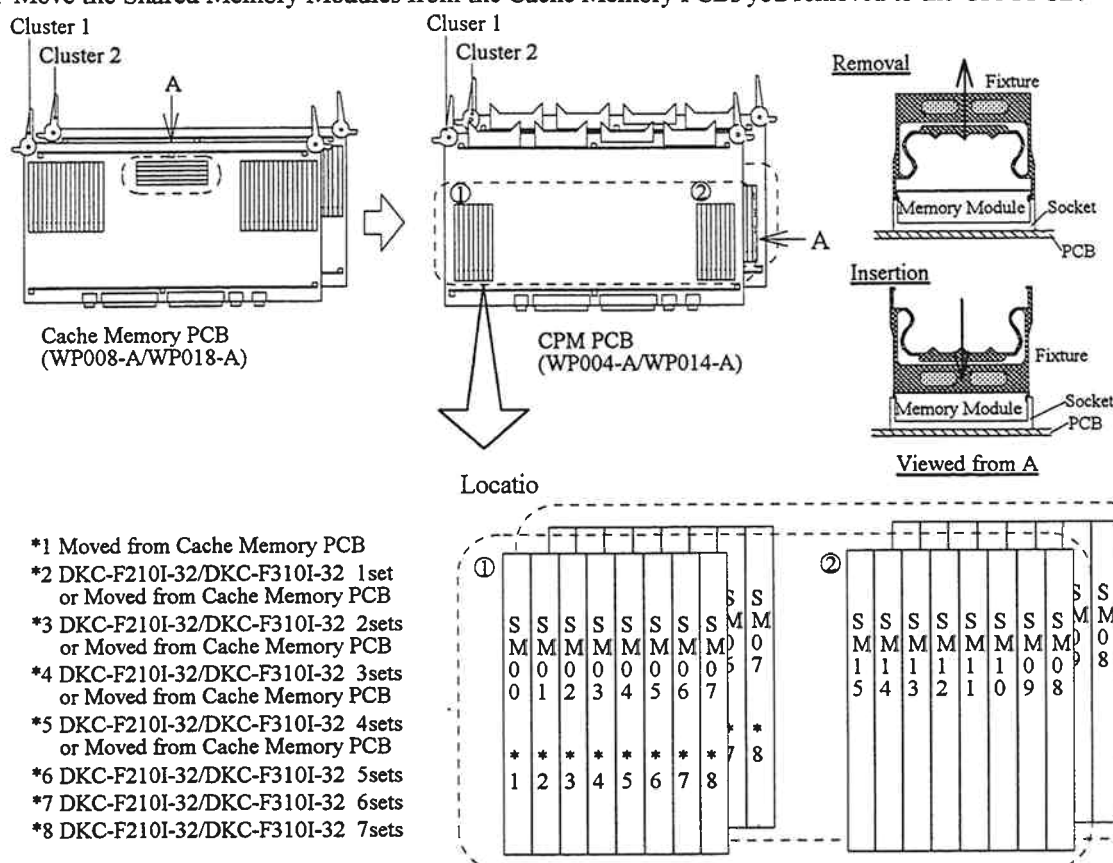


Fig. 3.3.7.7.2-38 Inserting Location of the Shared Memory Module

Table 3.3.7.7.2-4 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	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
6	160MB	192MB	DKC-F210I-32/DKC-F310I-32 5 sets	SM Module	1	SM Module	1
7	192MB	224MB	DKC-F210I-32/DKC-F310I-32 6 sets	SM Module	1	SM Module	1
8	224MB	256MB	DKC-F210I-32/DKC-F310I-32 7 sets	SM Module	1	SM Module	1

Note. SM : Shared Memory

- b. See Table 3.3.7.7.2-4A to go to flowchart.

Table 3.3.7.7.2-4A Flowchart page

No.	Cache Memory Capacity		Flowchart page	
	Before Installation	After Installation	Cluster 1	Cluster 2
1	4GB or less	6GB or more	INST03-1020 step ②	INST03-1030 step ②