



Cisco C880 M4 Server Service Guide for Server with E7-8800 v4 CPU

August, 2016

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© 2016 Cisco Systems, Inc. All rights reserved.

Revision history

Version number	Date	Description
01	August 8, 2016	

Setup Procedure (SET)

1	Adding a System Board	10
1.1	Conditions for adding Components	10
1.1.1	Number of mounted system boards	10
1.1.2	Conditions concerning combined use of system boards.....	10
1.1.3	Main unit status	10
1.2	Procedure for Adding a System Board	11
1.2.1	Checking the delivered items	11
1.2.2	Mounting the added options.....	11
2	Adding a CPU Module	22
2.1	Conditions for Adding Components.....	22
2.1.1	Number of mounted CPU modules	22
2.1.2	Conditions concerning mixing different types of CPU module.....	22
2.1.3	Main unit status	22
2.2	Procedure for Adding a CPU Module	23
2.2.1	Checking the delivered items	23
2.2.2	Mounting the adding options	23
3	Adding Memory.....	24
3.1	Conditions for Adding Components.....	24
3.1.1	Number of mounted DIMMs	24
3.1.2	Conditions on mixing different types of DIMMs	24
3.1.3	Memory mounting order.....	26
3.1.4	Main unit status	26
3.2	Procedure for Adding Memory.....	27
3.2.1	Checking the delivered items	27
3.2.2	Mounting the adding options (Existing SB)	27
3.2.3	Mounting the adding options (New SB).....	28
4	Adding a Memory Expansion Board.....	29
4.1	Conditions for Adding Components.....	29
4.1.1	Number of mounted memory expansion board.....	29
4.1.2	Conditions concerning combined use of memory expansion boards	29
4.1.3	Main unit status	29
4.2	Procedure for Adding Memory Expansion Board	30
4.2.1	Checking the delivered items	30
4.2.2	Mounting the added options.....	30

5	Adding an Internal Hard Disk Drive (HDD) / Internal Solid State Drive (SSD)....	31
5.1	Conditions for Adding Components.....	31
5.1.1	Number of mounted internal HDD / SSD	31
5.1.2	Conditions concerning combined use of HDD / SSD	31
5.1.3	Main unit status	31
5.2	Procedure for Adding HDD / SSD.....	32
5.2.1	Checking the delivered items	32
5.2.2	Mounting the adding options	32
6	Adding a Disk Unit (DU)	33
6.1	Conditions for Adding Components.....	33
6.1.1	Number of mounted DUs.....	33
6.1.2	Conditions concerning combined use of DUs.....	33
6.1.3	Main unit status	34
6.2	Procedure for Adding a DU.....	34
6.2.1	Checking the delivered items	34
6.2.2	Mounting the adding options	34
7	Adding an IOU	36
7.1	Conditions for Adding Components.....	36
7.1.1	Number of mounted IOUs	36
7.1.2	Conditions concerning combined use of IOUs	36
7.1.3	Main unit status	36
7.2	Procedure for Adding an IOUs	37
7.2.1	Checking the delivered items	37
7.2.2	Mounting the adding options	37
8	Adding a PSU	39
8.1	Conditions for Adding Components.....	39
8.1.1	Number of mounted PSUs.....	39
8.1.2	Conditions concerning mixing different types of PSUs.....	39
8.1.3	Main unit status	40
8.2	Procedure for adding a PSU	40
8.2.1	Checking the delivered items	40
8.2.2	Mounting the adding options	40
9	Adding a PCI Express Card.....	42
9.1	Conditions for Adding Components.....	42
9.1.1	Number of mounted PCI Express cards.....	42
9.1.2	Conditions concerning combined use of PCI Express cards.....	42

9.1.3	Main unit status	43
9.2	Procedure for Adding a PCI Express Card.....	43
9.2.1	Checking the delivered items	43
9.2.2	Mounting the adding options	43

Appendix

A	Customer's Distribution Panel Breaker Requirements (Only When Connected to a Power Distribution Box)	47
B	Various Operations	48
B.1	Maintenance Mode.....	48
B.1.1	Enabling maintenance mode.....	48
B.1.2	Disabling maintenance mode.....	53
B.2	FST Connection.....	56
B.2.1	FST Setup and Connection	56
B.2.2	Console Redirection	57
B.3	MMB Web-UI.....	60
B.3.1	Login.....	60
B.3.2	Logout	60
B.4	Video Redirection	61
B.5	System Power Control.....	62
B.5.1	System Power On	62
B.5.2	System Power Off	63
B.6	Status.....	64
B.6.1	System Status.....	64
B.6.2	SB.....	65
B.6.3	Power Supply	66
B.6.4	IOU.....	67
B.6.5	DU	68
B.7	Redundant Power Supply and Dual Power Feed Configuration.....	69
B.7.1	Redundant power supply.....	69
B.7.2	Dual power feed	71
B.8	System Event Log	72
B.8.1	Downloading the System Event Log.....	72
B.8.2	Clearing the System Event Log	74
B.9	Configuration Backup	75

B.9.1 MMB.....	75
B.9.2 BIOS.....	76
B.10 Main Unit Firmware Version	77
B.11 Memory type confirmation.....	78
B.12 Power Restoration Policy.....	79
C Handling the Units.....	80
C.1 The units mounting location.....	80
C.2 System Board	83
C.2.1 Installing the system board	83
C.2.2 Removing the system board	83
C.2.3 Installing the system board cover.....	84
C.2.4 Removing the system board cover	85
C.3 CPU.....	86
C.3.1 Installing and removing the CPU module.....	86
C.3.2 Locations of CPU module components.....	90
C.4 Memory.....	91
C.4.1 Installing the memory	91
C.4.2 Removing the memory.....	91
C.4.3 Locations of memory components	93
C.5 Memory Expansion Board	94
C.5.1 Installing the memory expansion board.....	94
C.5.2 Removing the memory expansion board.....	95
C.6 PCI Express Card.....	96
C.6.1 Installing the PCI Express card.....	96
C.6.2 Removing the PCI Express card	101
C.6.3 FBU (IOUL)	105
C.7 Internal Hard Disk Drive (HDD) / Internal Solid State Drive (SSD).....	108
C.7.1 Installing the HDD/SSD.....	108
C.7.2 Removing the HDD/SSD	108
C.8 PSU	109
C.8.1 Installing the PSU.....	109
C.8.2 Removing the PSU.....	110
C.9 IOU	111
C.9.1 Installing the IOU	111
C.9.2 Removing the IOU.....	111
C.10 DU.....	112

C.10.1	Installing the DU.....	112
C.10.2	Removing the DU	113
C.11	FANU	114
C.11.1	Installing the FANU	114
C.11.2	Removing the FANU.....	115
C.12	Dual Channel LAN Card (10G BASE)	116
C.12.1	Installing the 10G BASE-SR SFP+ module	116
C.12.2	Removing the 10G BASE-SR SFP+ module	116
C.12.3	Installing the 10G BASE-CR SFP+ cable.....	117
C.12.4	Removing the 10G BASE-CR SFP+ cable	117
C.13	Converged Network Adapter	118
C.13.1	Installing the 10G BASE-SR SFP+ module	118
C.13.2	Removing the 10G BASE-SR SFP+ module	118
C.13.3	Installing the 10G BASE-CR SFP+ cable.....	119
C.13.4	Removing the 10G BASE-CR SFP+ cable	119
C.13.5	Installing the 40G BASE-SR4 QSFP+ module.....	120
C.13.6	Installing the 40G BASE-CR4 QSFP+ cable	120
C.14	Installing the FBU	121
C.14.1	Installing the FBU.....	121
C.14.2	Installing the TFM module	123
C.14.3	FBU Cable Connection	125
C.15	Installing the SAS array controller card (DU).....	126
C.15.1	Installing the SAS Array Controller Card only into Slot#0.....	126
C.15.2	Installing the SAS Array Controller Card only into Slot#1	128
C.15.3	Installing the SAS Array Controller Card into both Slot#0 and Slot#1.....	130
D	Cable Routing	132
E	Input Power Systems.....	133
E.1	Cisco C880 M4.....	133
E.1.1	200V Non-redundant power supply	133
E.1.2	200V Redundant power supply	134
E.1.3	200V Dual power feed.....	135

Setup Procedure (SET)

SET0100000

1 Adding a System Board

This appendix describes various operations required for installation.

SET0101000

1.1 Conditions for adding Components

SET0101010

1.1.1 Number of mounted system boards

- The number of maximum mounting is four.

SET0101020

1.1.2 Conditions concerning combined use of system boards

- The conditions for adding components described in Chapter 2 "Adding a CPU Module (SET0200000) " must be satisfied.
- The conditions for adding components described in Chapter 3 "Adding Memory (SET0300000) " must be satisfied.
- The conditions for adding components described in Chapter 4 "Adding a Memory Expansion Board (SET0400000) " must be satisfied.

SET0101030

1.1.3 Main unit status

- Table 1.1.3 lists whether an SB addition can be added in each main unit status.

Table 1.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0102000

1.2 Procedure for Adding a System Board

SET0102010

1.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The specifications and version level of units delivered separately due to delivery considerations are available for the target functions.

SET0102020

1.2.2 Mounting the added options

Use the following steps to mount the added options.

ANNT) Confirm the quantities and installation locations with a system administrator.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options.

- (1) Connect the FST. See Appendix B.2.1 "FST Setup and Connection ([APP0202010](#))".
- (2) Login to the Web-UI.
Table 1.2.2 lists the values to be set to log in to Web-UI.
See Appendix B.3.1 "Login ([APP0203010](#))".

Table 1.2.2

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account password

- (3) Enter Maintenance Mode.
See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (4) Confirm the numbers and mounting locations of the options.
- (5) Remove the dummy system board, and install the system board.
See Appendix C.2 "System Board ([APP0302000](#))".
- (6) Wait about 1 minute and check that [Alarm] LED of the system board is not on after adding a system board.
- (7) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#))".
- (8) Click [Maintenance] on the navigation bar.
→ The window shown in Figure 1.2.2-1 appears.

Figure 1.2.2-1

Maintenance Wizard Help

Notice: Maintenance screen can only be used by one user at time.
Select the type of maintenance activity to perform.

Maintenance Type

- Replace Unit
(Replaces a failed unit or replaces a unit to prevent failure.)
- Enter Maintenance Mode
(Sets only Maintenance mode when Maintenance (excludes Replace) are performed.)
- Exit Maintenance Mode
(Cancels Maintenance mode when Maintenance (excludes Replace) are finished.)
- Raid Drive Maintenance Mode
(Replace failure physical drives or recover degraded logical drives.)
- Enter Quick Boot Maintenance Mode
(Enable Quick Boot mode for Maintenance.)

Next

(9) Select the [Replace Unit] radio button.

(10) Click the [Next] button.

→ The window shown in Figure 1.2.2-2 appears.

Figure 1.2.2-2

Maintenance Wizard (Unit Selection) Help

Select the unit to perform maintenance on.

Select Unit	
<input type="radio"/> Disk Enclosure(PSU)	<input type="radio"/> DU(PCISlot)
<input type="radio"/> FANM	<input type="radio"/> IOU(PCIC)
<input type="radio"/> MMB	<input type="radio"/> MP
<input type="radio"/> OPL	<input type="radio"/> PSU/FANU
<input checked="" type="radio"/> SB(BATTERY/CPU/DIMM/Mezz/PCISlot/FBU)	

Previous Next

- (11) Select the [SB(BATTERY/CPU/DIMM/Mezz/PCISlot/FBU)] radio button.
- (12) Click the [Next] button.
 - The window shown in Figure 1.2.2-3 appears.

Figure 1.2.2-3

Help

Maintenance Wizard (SB Selection)

Select the unit to perform maintenance on.
It is necessary for a definition of Reserved SB to have been released, when performing Maintenance of Reserved SB.

SB	Status
<input type="radio"/> SB#0	OK
<input type="radio"/> SB#1	OK
<input type="radio"/> SB#2	OK
<input checked="" type="radio"/> SB#3	OK

Previous
Next

- (13) Select the radio button in the [SB] column corresponding to the added SB.
- (14) Click the [Next] button.
- The window shown in Figure 1.2.2-4 appears.

Figure 1.2.2-4

Help

Maintenance Wizard (Pre-Check)

Check SB#3 status and configuration, and then click Next button.

Board Information

Status	OK
Power Status	Standby
Part Number	UVWXYZ0000
Serial Number	ABCDEF0000
Location LED	Off

CPUs

CPU#	Status	Model	Stepping	Serial Number
0	OK	Intel® Xeon® Processor xxx	C1	010203040506
1	OK	Intel® Xeon® Processor xxx	C1	010203040507

DIMMs

DIMM#	Status	Size	Rank	Data Rate	Part Number	Serial Number
0A0	OK	8GB	1	DDR3-1600	M393B5170EH1-CF8	05BB0D06
0A1	OK	8GB	1	DDR3-1600	M393B5170EH1-CF8	BE1C2948
0A2	OK	8GB	1	DDR3-1600	M393B5170EH1-CF8	851C2948
0A3	OK	8GB	1	DDR3-1600	M393B5170EH1-CF8	8D1C2948

Previous
Next

- (15) Click the [Next] button.
→ The window shown in Figure 1.2.2-5 appears.

Figure 1.2.2-5

Maintenance System Mode	
<input type="radio"/>	Hot System Maintenance (System powered on.)
<input checked="" type="radio"/>	Cold System Maintenance (System powered off, breakers on.)
<input type="radio"/>	Cold System Maintenance (System powered off, breakers off.)

Previous Next

- (16) Select the [Cold System Maintenance] radio button.
(17) Click the [Next] button.
→ The window shown in Figure 1.2.2-6 appears.

Figure 1.2.2-6

notice:
If you want to compare the Unit configuration before and after the replacement, please click on the View Configuration button first.
If you do so, the current Unit configuration will be display in a new window.

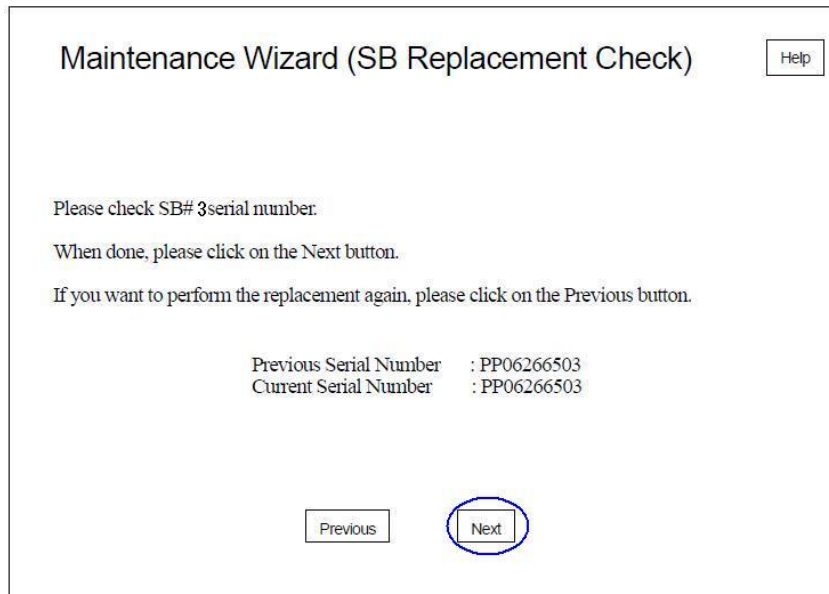
Please replace SB# 3.

When replacement operation is complete, please click on the Next button.

Previous Next View Configuration

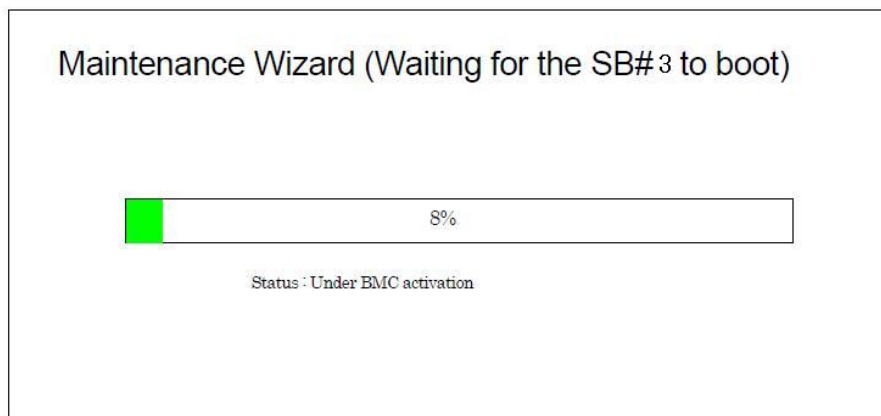
- (18) Click the [Next] button.
→ The window shown in Figure 1.2.2-7 appears.
Two identical serial numbers are displayed.

Figure 1.2.2-7



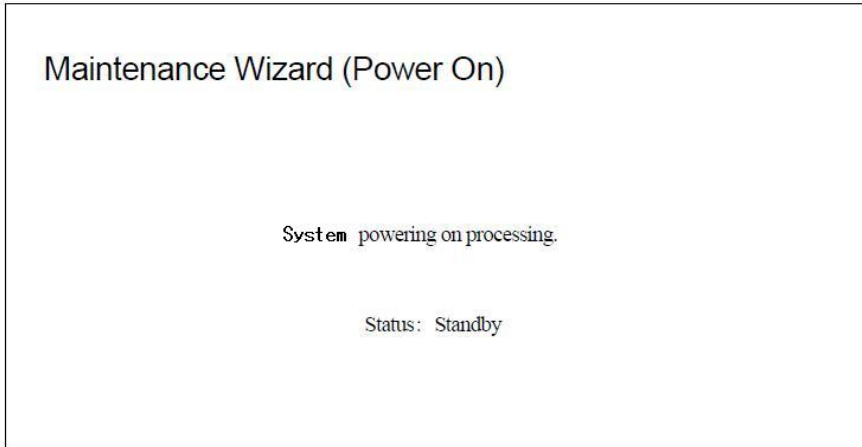
- (19) Click the [Next] button.
 - The dialog box [The current Serial Number is the same as the previous Serial Number Are you sure ?] appears.
- (20) Click the [OK] button.
 - The window shown in Figure 1.2.2-8 appears.

Figure1.2.2-8



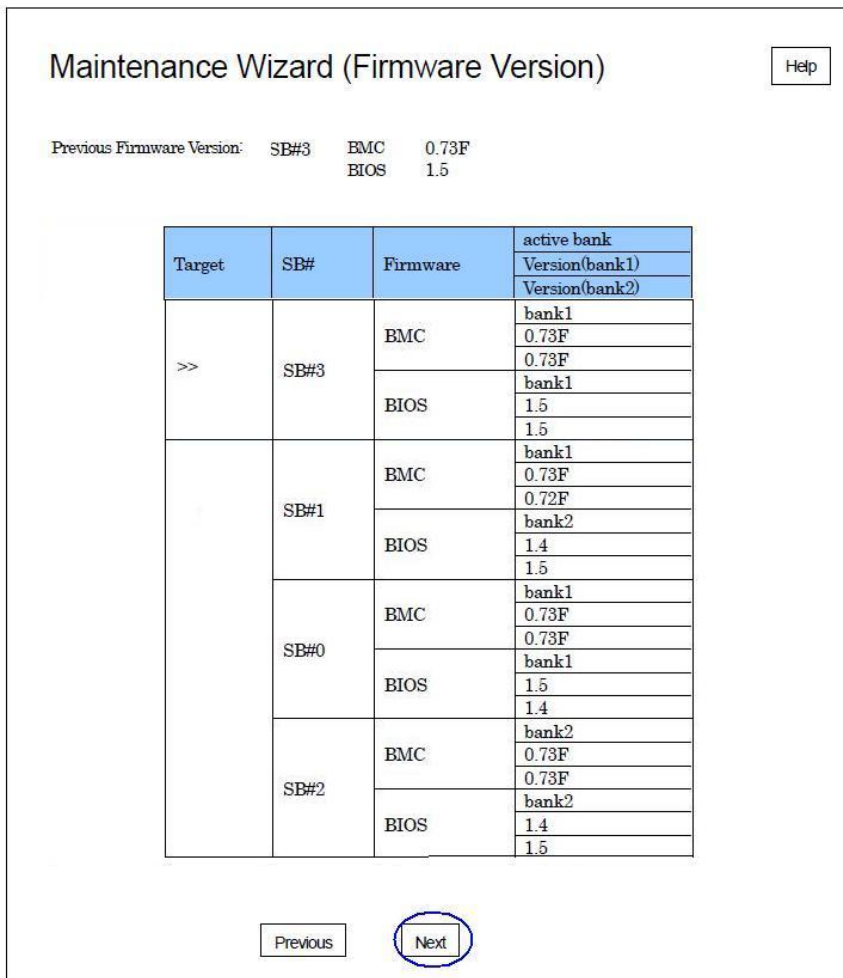
- The window shown in Figure 1.2.2-9 appears.

Figure 1.2.2-9



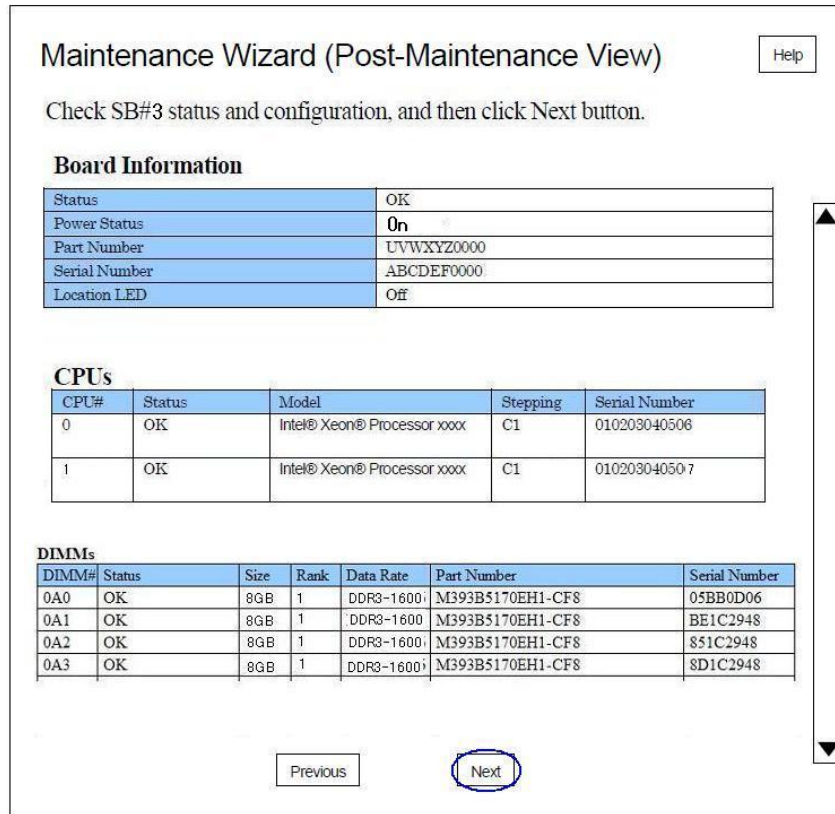
→ The window shown in Figure 1.2.2-10 appears.

Figure 2.2.2-10



- (21) Confirm the firmware version.
- (22) Click the [Next] button.
 - The window shown in Figure 1.2.2-11 appears.

Figure 1.2.2-11



- (23) Click the [Next] button.
 - The window shown in Figure 1.2.2-12 appears.

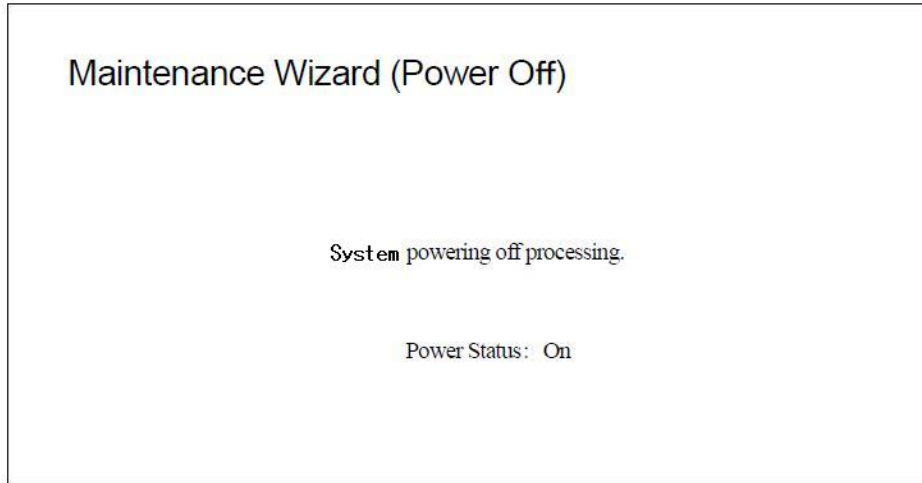
Figure 1.2.2-12



(24) Click the [OK] button.

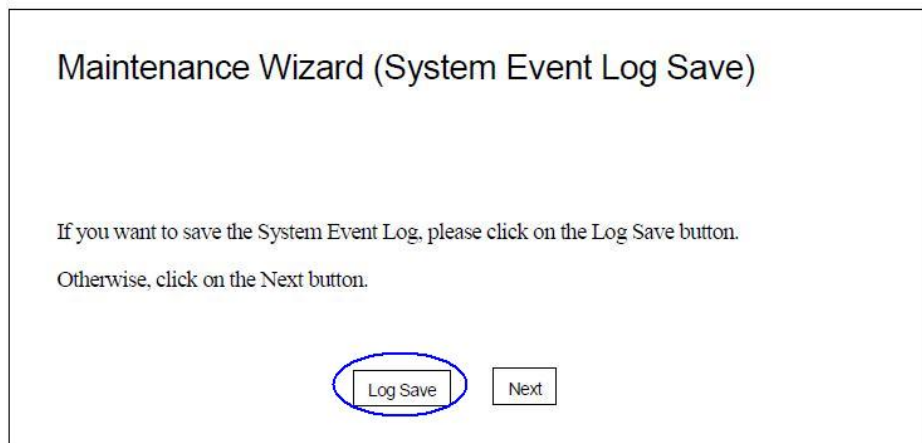
→ The window shown in Figure 1.2.2-13 appears.

Figure 1.2.2-13



→ The system board is powered off and the window shown in Figure 1.2.2-14 appears.

Figure 1.2.2-14

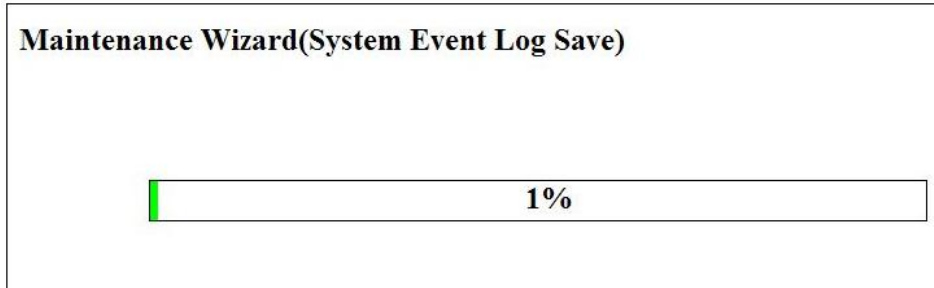


(25) Click the [Log Save] button.

→ The dialog box [Are you sure?] appears.

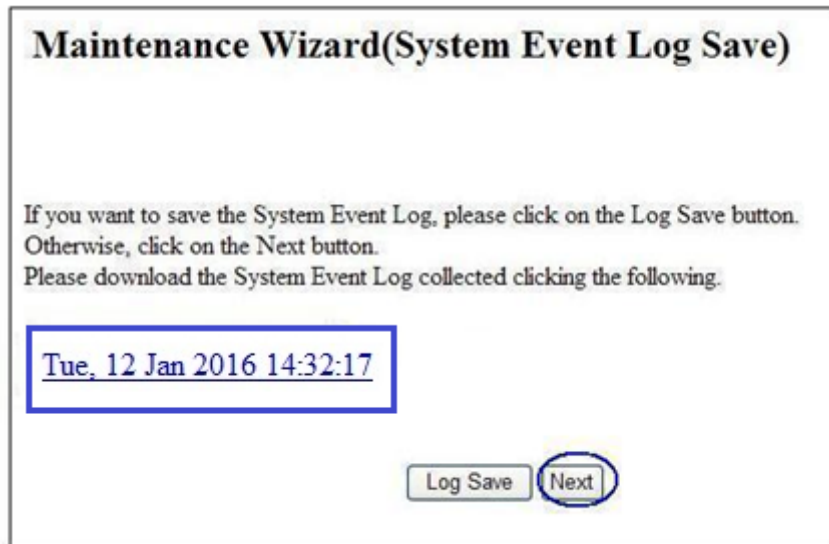
- (26) Click the [OK] button.
→ The window shown in Figure 1.2.2-15 appears.

Figure 1.2.2-15



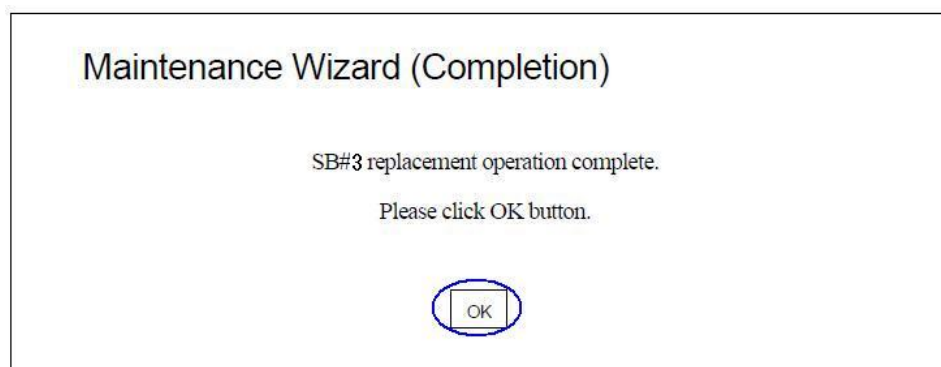
- (27) Wait about five minutes until the window shown in Figure 1.2.2-16 appears.

Figure 1.2.2-16



- (28) Click the [Anchor link].
(29) Save the log data to the FST terminal.
(30) Click the [Next] button.
→ The window shown in Figure 1.2.2-17 appears.

Figure 1.2.2-17



- (31) Click the [OK] button.
→ The system exits Maintenance Mode.

SET0200000

2 Adding a CPU Module

This chapter describes the procedure for adding a CPU module.
In this chapter, SB represents a System Board.

SET0201000

2.1 Conditions for Adding Components

SET0201010

2.1.1 Number of mounted CPU modules

- CPUs should be mounted CPU#0 and CPU#1. See Appendix C.3 "CPU ([APP0303000](#))".

SET0201020

2.1.2 Conditions concerning mixing different types of CPU module

- CPU modules mounted in the same model name.

SET0201030

2.1.3 Main unit status

- Table 2.1.3 lists whether an SB addition can be added in each main unit status.

Table 2.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0202000

2.2 Procedure for Adding a CPU Module

SET0202010

2.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The target functions can be used with the specifications and version level of units delivered separately due to delivery considerations.

SET0202020

2.2.2 Mounting the adding options

Use the following steps to mount the added options.

ANNT) Confirm the quantities and installation locations with a system administrator.

- (1) Prepare the system board (SB) to which the CPU module will be added.
See Appendix C.2 "System Board ([APP0302000](#))".
- (2) Confirm the numbers and mounting locations of the options.
See Appendix C.3 "CPU ([APP0303000](#))".
- (3) Remove the dummy CPU, and install the CPU module.
See Appendix C.3 "CPU module ([APP0303000](#))".
- (4) See Chapter 1 "Adding a System Board ([SET0100000](#)) " for the next instructions .

SET0300000

3 Adding Memory

This chapter describes the procedure for adding memory.

See Chapter 4 "Adding Memory Expansion Board ([SET0400000](#))" and add a memory for adding a memory at the memory mounting location ([0Cx],[0Dx],[1Cx],[1Dx]).
In this chapter, a SB represents a System Board.

SET0301000

3.1 Conditions for Adding Components

- Memory can be added only after the corresponding CPU module is mounted on the system board.

Table 3.1

CPU#	DIMM mounting locations corresponding to CPU (x=0,1,2,3,4,5)
0	0Ax,0Bx,0Cx,0Dx
1	1Ax,1Bx,1Cx,1Dx

ANNT)

Mounting a DIMM without mounting the corresponding CPU on the system board will cause the Alarm LED of the system board (SB) to go on when the SB is mounted in the main unit.

SET0301010

3.1.1 Number of mounted DIMMs

- Ask the system administrator a partition configuration and settings. See Table 3.1.1.

Table 3.1.1

Memory Operation Mode Setting			
Normal Mode	Full Mirror Mode	Address Range	Spare Mode
Performance Mode	Partial Mirror Mode	Mirror Mode	
1 set per addition	2 set per addition	8 set par addition	3 set per addition

SET0301020

3.1.2 Conditions on mixing different types of DIMMs

- When mixing DIMMs with different capacities within system, follow the specification in Figure 3.1.2-1.
- Confirm the status (capacity and mounting locations) of the DIMMs currently mounted on the SB. See Appendix B.6.2 "SB ([APP0206020](#))".

Table 3.1.2-1

	16GB memory (8GB-RDIMMx2)	32GB memory (16GB-RDIMMx2)	64GB memory (32GB-RDIMMx2)	128GB memory (64GB-LRDIMMx2)	256GB memory (128GB-LRDIMMx2)
16GB memory (8GB-RDIMMx2)	●	●			
32GB memory (16GB-RDIMMx2)	●	●			
64GB memory (32GB-RDIMMx2)			●		
128GB memory (64GB-LRDIMMx2)				●	
256GB memory (128GB-LRDIMMx2)					●

● : Permitted

Table 3.1.2-2

		CPU#0								CPU#1							
DIMM Slot#		0A0	0A3	0B0	0B3	0C0	0C3	0D0	0D3	1A0	1A3	1B0	1B3	1C0	1C3	1D0	
		0A1	0A4	0B1	0B4	0C1	0C4	0D1	0D4	1A1	1A4	1B1	1B4	1C1	1C4	1D1	
		0A2	0A5	0B2	0B5	0C2	0C5	0D2	0D5	1A2	1A5	1B2	1B5	1C2	1C5	1D2	
Memory Operation Mode	Normal Performance	□	□	○	○	△	△	☆	☆	■	■	●	●	▲	▲	★	
		□	□	○	○	△	△	☆	☆	■	■	●	●	▲	▲	★	
		□	□	○	○	△	△	☆	☆	■	■	●	●	▲	▲	★	
	Full Mirror Partial Mirror	□	□	□	□	△	△	△	△	■	■	■	■	▲	▲	▲	
		□	□	□	□	△	△	△	△	■	■	■	■	▲	▲	▲	
		□	□	□	□	△	△	△	△	■	■	■	■	▲	▲	▲	
	Address Range Mirror	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
		□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
		□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
	Spare	□	□	○	○	△	△	☆	☆	■	■	●	●	▲	▲	★	
		□	□	○	○	△	△	☆	☆	■	■	●	●	▲	▲	★	
		□	□	○	○	△	△	☆	☆	■	■	●	●	▲	▲	★	

RMRK)Symbol

The same symbol for each Memory Operation Mode represents the same type of DIMMs.
All DIMMs must have the same type.

3.1.3 Memory mounting order

- Memory mounting order is see Table 3.1.3.
- Ask the system administrator to confirm the partition configuration and Memory Operation Mode settings.
- Pay attention memory mounting order because DIMMs for a CPU are added to SB's onboard slot and memory expansion slot alternately.

Table 3.1.3

		CPU#0								CPU#1							
DIMM Slot#		0A0	0A3	0B0	0B3	0C0	0C3	0D0	0D3	1A0	1A3	1B0	1B3	1C0	1C3	1D0	
		0A1	0A4	0B1	0B4	0C1	0C4	0D1	0D4	1A1	1A4	1B1	1B4	1C1	1C4	1D1	
		0A2	0A5	0B2	0B5	0C2	0C5	0D2	0D5	1A2	1A5	1B2	1B5	1C2	1C5	1D2	
Memory Operation Mode	Normal Performance	1	1	4	4	2	2	6	6	1	1	5	5	3	3	7	
		8	8	12	12	10	10	14	14	9	9	13	13	11	11	15	
		16	16	20	20	18	18	22	22	17	17	21	21	19	19	23	
	Full Mirror Partial Mirror	1	1	1	1	2	2	2	2	1	1	1	1	3	3	3	
		4	4	4	4	6	6	6	6	5	5	5	5	7	7	7	
		8	8	8	8	10	10	10	10	9	9	9	9	11	11	11	
	Address Range Mirror	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
	Spare	1	1	4	4	2	2	6	6	1	1	5	5	3	3	7	
		1	1	4	4	2	2	6	6	1	1	5	5	3	3	7	
		1	1	4	4	2	2	6	6	1	1	5	5	3	3	7	

RMRK DIMM Slot

DIMM Slot# [xCx]/[xDx] are mounting locations on the Memory Expansion board side.

3.1.4 Main unit status

- Table 3.1.4 lists whether an SB addition can be added in each main unit status.

Table 3.1.4

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0302000

3.2 Procedure for Adding Memory

SET0302010

3.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The specifications and version level of units delivered separately due to delivery considerations are available for the target functions.
- (2) Use the following instruction for the next step.
 - Proceed to 3.2.2 "Mounting the adding options (Existing SB) (SET0302020)" when mounting the existing SB.
 - Proceed to 3.2.3 "Mounting the adding options (New SB) (SET0302030)" when mounting the new SB.

SET0302020

3.2.2 Mounting the adding options (Existing SB)

Use the following steps to mount the added options.

ANNT)

- If you are going to handle a power cable during power-on and power-off operations, be sure to confirm in advance the cable connection locations on the relevant equipment and on the customer distribution panels or power distribution boxes.
- Make sure that the system administrator has specified the number of options to be mounted and their mounting locations.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options.

- (1) Connect the FST. See Appendix B.2.1 "FST Setup and Connection (APP0202010)".
- (2) Login to the Web-UI.
Table 3.2.2-1 lists the values to be set to log in to Web-UI.
See Appendix B.3.1 "Login (APP0203010)".

Table 3.2.2-1

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account Password

- (3) Enter Maintenance Mode.
See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (4) Confirm that requirements for mounting the added options satisfy ones listed on table 3.2.2-2.
If requirements are not satisfied, check with the system administrator to satisfy the requirements.

Table 3.2.2-2

Section	Items to be confirmed
1	If mounting DIMMs and adding a new SB should be done, confirm that requirements on 3.1.2 "Conditions on mixing different types of DIMMs (SET0301020) " are satisfied.

- (5) Prepare the system board (SB) to which the DIMMs will be added.
See Appendix C.2 "System Board ([APP0302000](#))".
- (6) Mount the DIMMs.
See 3.1.3 "Memory mounting order ([SET0301030](#))". See Appendix C.4 "Memory ([APP0304000](#))".
- (7) Install the system board (SB) in the main unit.
See Appendix C.2 "System Board ([APP0302000](#))".
- (8) Wait about 1 minute and confirm that the Alarm LED of the system board is off.
- (9) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#)) ".

SET0302030

3.2.3 Mounting the adding options (New SB)

Use the following steps to mount the added options.

ANNT)Confirm the quantities and installation locations with a system administrator.

- (1) Confirm that requirements for mounting the added options satisfy ones listed on table 3.2.3. If requirements are not satisfied, check with the system administrator to satisfy the requirements.

Table 3.2.3

Section	Items to be confirmed
1	If mounting DIMMs and adding a new SB should be done, confirm that requirements on 3.1.2 "Conditions on mixing different types of DIMMs (SET0301020) " are satisfied.

- (2) Prepare the new system board (SB) to which the DIMMs will be added.
See Appendix C.2 "System Board ([APP0302000](#))".
- (3) Confirm the numbers and mounting locations of the options.
- (4) Mount the DIMMs.
See 3.1.3 "Memory mounting order ([SET0301030](#)) ". See Appendix C.4 "Memory ([APP0304000](#))".
- (5) See Chapter 1 "Adding a System Board ([SET0100000](#)) " for the next instructions.

SET0400000

4 Adding a Memory Expansion Board

This chapter describes the procedure for adding a memory expansion board. In this chapter, SB represents a system board.

ANNT)

- If you want to add some DIMMs at the same time, you may need to install DIMMs into SB onboard slots before adding a memory expansion board.
- See chapter 3 "Adding Memory ([SET0300000](#))" in order to confirm memory mounting order.

SET0401000

4.1 Conditions for Adding Components

SET0401010

4.1.1 Number of mounted memory expansion board

The maximum number of mounted units is 2 boards per system board.

SET0401020

4.1.2 Conditions concerning combined use of memory expansion boards

There are no conditions concerning combined use of memory expansion boards.

SET0401030

4.1.3 Main unit status

See Chapter 3 "Adding Memory ([SET0300000](#))".

SET0402000

4.2 Procedure for Adding Memory Expansion Board

SET0402010

4.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The specifications and version level of units delivered separately due to delivery considerations are available for the target functions.

SET0402020

4.2.2 Mounting the added options

See Appendix C.5 "Memory Expansion Board ([APP0305000](#))" for details on installing a memory expansion. See Chapter 3 "Adding Memory ([SET0300000](#))".

SET0500000

5 Adding an Internal Hard Disk Drive (HDD) / Internal Solid State Drive (SSD)

This chapter describes the procedure for adding the internal hard disk drive (HDD) and the internal solid state drive (SSD) into the disk unit (DU).
In this chapter, HDD and SSD represent the internal hard disk drive and the internal solid state drive.

SET0501000

5.1 Conditions for Adding Components

SET0501010

5.1.1 Number of mounted internal HDD / SSD

Table 5.1.1 lists the maximum number of HDD / SSD units that can be mounted in the unit.

Table 5.1.1

Mount units	Maximum number of mounted units
Disk Unit(DU)	4

SET0501020

5.1.2 Conditions concerning combined use of HDD / SSD

- There are no conditions concerning the combined use of HDD / SSD.

SET0501030

5.1.3 Main unit status

- Table 5.1.3 lists whether an SB addition can be added in each main unit status.

Table 5.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0502000

5.2 Procedure for Adding HDD / SSD

SET0502010

5.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 - 1. The types and quantities of delivered options match those written on the order sheet.
 - 2. The delivered items match those listed in the List of Accessories.
 - 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 - 4. The specifications and version level of units delivered separately due to delivery considerations are available for the target functions.

SET0502020

5.2.2 Mounting the adding options

Use the following steps to mount the added options.

ANNT) Confirm the quantities and installation locations with a system administrator.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options.

- (1) Connect the FST. See Appendix B.2.1 "FST Setup and Connection ([APP0202010](#))".
- (2) Login to the Web-UI.
Table 5.2.2 lists the values to be set to log in to Web-UI.
See Appendix B.3.1 "Login ([APP0203010](#))".

Table 5.2.2

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account password

- (3) Enter Maintenance Mode.
See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (4) Confirm the numbers and mounting locations of the options.
- (5) Remove the dummy hard disk drive unit, and install the HDD / SSD unit.
See Appendix C.7 "Internal Hard Disk Drive (HDD) / Internal Solid State Drive (SSD) ([APP0307000](#))".
- (6) Confirm that the Alarm LEDs are not on.
- (7) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#))".

SET0600000

6 Adding a Disk Unit (DU)

This chapter describes the procedure for adding a disk unit (DU).

In this chapter, DU represents a disk unit.

IOU represents both IOU_1GbE and IOU_10GbE.

This procedure include the procedure for adding a SAS array controller and a flash backup unit into a DU.

See Chapter 7 "Adding an IOU (SET0700000)" for the procedure for adding an IOU set.

SET0601000

6.1 Conditions for Adding Components

Table 6.1 lists connections between IOUs and DUs.

DU#-Slot# shows the mounting location of SAS array controller cards inside of DU.

However, when adding only 1 SAS array controller card inside of a DU, connect to HDD#0 to #3.

In addition, a DU installed into a partition which IOU installed.

Table 6.1

IOU mounting location	DU maunting location	Connected HDD mounting location	
		SAS array contoroller catds	
		2 cards	1 card
IOU#0	DU#0-Slot#0	DU#0-HDD#2,#3	DU#0-HDD#0,#1,#2,#3
IOU#1	DU#0-Slot#1	DU#0-HDD#0,#1	
IOU#2	DU#1-Slot#0	DU#1-HDD#2,#3	DU#1-HDD#0,#1,#2,#3
IOU#3	DU#1-Slot#1	DU#1-HDD#0,#1	

SET0601010

6.1.1 Number of mounted DUs

The maximum number of disk units for all main unit model type is 2 units.

SET0601020

6.1.2 Conditions concerning combined use of DUs

- There are no conditions concerning the combined use of DUs

SET0601030

6.1.3 Main unit status

- Table 6.1.3 lists whether an SB addition can be added in each main unit status.

Table 6.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0602000

6.2 Procedure for Adding a DU

SET0602010

6.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The specifications and version level of units delivered separately due to delivery considerations are available for the target functions.

SET0602020

6.2.2 Mounting the adding options

Use the following steps to mount the added options.

ANNT)

If you are going to handle a power cable during power-on and power-off operations, be sure to confirm in advance the cable connection locations on the relevant equipment and on the customer distribution panels or power distribution boxes.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options..

- (1) Connect the FST. See Appendix B.2.1 "FST Setup and Connection ([APP0202010](#))".
- (2) Login to the Web-UI.
Table 6.2.2 lists the values to be set to log in to Web-UI.
See Appendix B.3.1 "Login ([APP0203010](#))".

Table 6.2.2

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account password

- (3) Enter Maintenance Mode.
See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (4) Prepare disk units which added SAS array controller cards and flash backup units into.
- (5) Remove the DU cover.
See Appendix C.10.2 "Removing the DU ([APP0310020](#))".
- (6) Installing the flash backup unit, if there is a flash backup unit.
See Appendix C.14.1 "Installing the FBU ([APP0314010](#))" and Appendix C.14.2 "Installing TFM module ([APP0314020](#))".
- (7) Install SAS array controller cards into the DU.
See Appendix C.15 "Installing the SAS array controller card (DU) ([APP0315000](#))".
- (8) Reinstall the DU cover.
See Appendix C.10.1 "Installing the DU ([APP0310010](#))".
- (9) If a HDD/SSD is added at the same time, verify the operations to the procedure in chapter 5 "Adding an Internal Hard Disk Drive (HDD) / Internal Solid State Drive ([SET0500000](#))".
- (10) Remove the dummy DU.
- (11) Install the DU.
See Appendix C.10.1 "Installing the DU ([APP0310010](#))".
- (12) Confirm that the Alarm LEDs are not on.
- (13) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#))".

SET0700000

7 Adding an IOU

This chapter describes the procedure for adding an IOU.
In this chapter, IOU represents both IOU_1GbE and IOU_10GbE.

SET0701000

7.1 Conditions for Adding Components

SET0701010

7.1.1 Number of mounted IOUs

- The number of maximum mounting is four.

SET0701020

7.1.2 Conditions concerning combined use of IOUs

- There are no conditions concerning the combined use of IOUs.

SET0701030

7.1.3 Main unit status

- Table 7.1.3 lists whether an SB addition can be added in each main unit status.

Table 7.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0702000

7.2 Procedure for Adding an IOUs

SET0702010

7.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The specifications and version level of units delivered separately due to delivery considerations are available for the target functions.

SET0702020

7.2.2 Mounting the adding options

Use the following steps to mount the added options.

ANNT) Confirm the quantities and installation locations with a system administrator.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options.

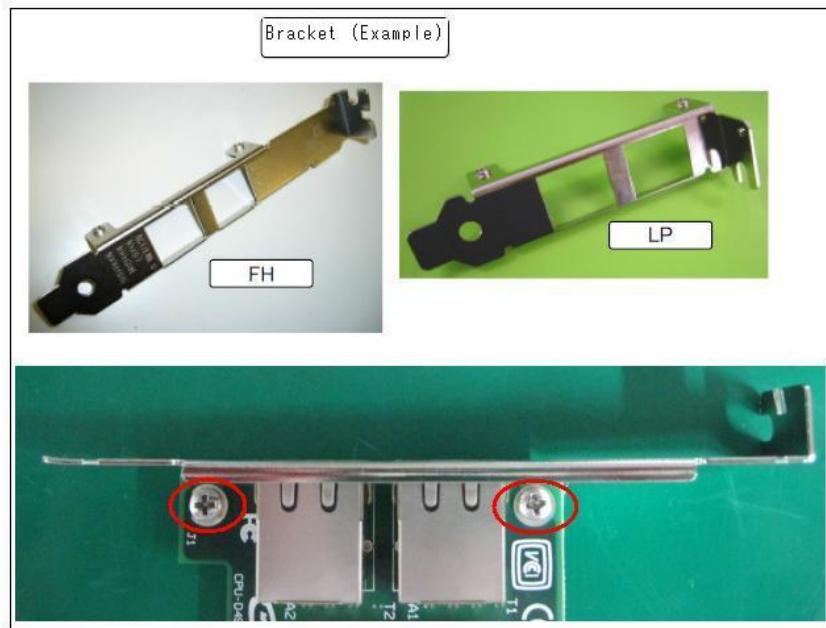
- (1) Connect the FST. See Appendix B.2.1 "FST Setup and Connection ([APP0202010](#))".
- (2) Login to the Web-UI.
 Table 7.2.2 lists the values to be set to log in to Web-UI.
 See Appendix B.3.1 "Login ([APP0203010](#))".

Table 7.2.2

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account password

- (3) Enter Maintenance Mode.
 See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (4) Confirm the quantities and installation locations.
- (5) Prepare the IOU.
- (6) If installing a PCI Express card, change the PCI Express brackets depending on your situation.
 PCI Express brackets and screws are attached items. See Figure 7.2.2.
 See Appendix C.6.1 "Installing the PCI Express card ([APP0306010](#))".

Figure 7.2.2



- (7) Remove the dummy IOU, and install the IOU.
See Appendix C.9.1 "Installing the IOU ([APP0309010](#))".
- (8) Confirm that the Alarm LEDs are not on.
- (9) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#))".

SET0800000

8 Adding a PSU

This chapter describes the procedure for adding a high-efficiency PSU (200V), a PSU (200V). Need to prepare power supply cables which match input AC cables. See Table 9 and confirm the power supply configuration. The power supply configuration depends on the total number of power supply units in the main unit including the PSU added.

Table 9

Prepared Power Supply Unit		PSU Configuration
Product Name	Qty.	
High-efficiency Power Supply Unit (200V)	3	200V Non-redundant power supply
	4	200V Redundant power supply
	6	200V Dual power feed
Power Supply Unit(200V)	3	200V Non-redundant power supply
	4	200V Redundant power supply
	6	200V Dual power feed

SET0801000

8.1 Conditions for Adding Components

SET0801010

8.1.1 Number of mounted PSUs

A maximum of six PSUs can be mounted in the main unit.

SET0801020

8.1.2 Conditions concerning mixing different types of PSUs

A high-efficiency PSU (200V), a PSU (200V) cannot be mounted together in the main unit.

SET0801030

8.1.3 Main unit status

- Table 8.1.3 lists whether an SB addition can be added in each main unit status.

Table 8.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	Yes

SET0802000

8.2 Procedure for adding a PSU

SET0802010

8.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The target functions can be used with the specifications and version level of units delivered separately due to delivery considerations.

SET0802020

8.2.2 Mounting the adding options

Use the following steps to mount the added options.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options.

- (1) Connect the FST. See Appendix B.2.1 "FST Setup and Connection ([APP0202010](#))".
- (2) Login to the Web-UI.

Table 8.2.2-1 lists the values to be set to log in to Web-UI.
See Appendix B.3.1 "Login ([APP0203010](#))".

Table 8.2.2-1

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account password

- (3) Enter Maintenance Mode.
See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (4) Confirm the mounting locations of the PSUs. See table 8.2.2-2.
- (5) Remove FAN units at the mounting locations of PSUs.
See Appendix C.11 "FANU ([APP0311000](#))".

Do not remove more than a FAN unit at the same time.

- (6) Mount the PSU. See Appendix C.8 "PSU ([APP0308000](#))".
- (7) Install the power cable to the main unit. See Table 8.2.2-2.

Table 8.2.2-2

Unit type	Power Supply configuration	Refer to "Input Power Systems"
Cisco C880 M4	200V Non-redundant power supply	(APP0501010)
	200V Redundant power supply	(APP0501020)
	200V Dual power feed	(APP0501030)

- (8) Turn on AC power of the added PSUs.
- (9) Navigation Bar [System] → Click on Sub Menu [System Setup].
→ The window shown in [System Setup] appears.
- (10) Change the appropriate radio buttons under [Power Feed Mode] and [PSU Redundant Mode].
See Appendix B.7 "Redundant Power Supply and Dual Power Feed Configuration ([APP0207000](#))".
- (11) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#))".

SET0900000

9 Adding a PCI Express Card

This chapter describes the procedure for adding a PCI Express card into an IOU. There are adding only a PCI Express card and adding a PCI Express card with IOU. See Chapter 7 "Adding an IOU ([SET0700000](#))" for details of the procedure for adding a PCI Express card with I/O unit. In this chapter, IOU may represent IOU_1GbE or IOU_10GbE. Use the specified procedure for adding a PCI Express card on Table 9 because the procedure is different with the one on the this manual.

Table 9

Product name	Use the specified procedure
SAS array controller card (DU)	See Chapter 6 "Adding a Disk Unit (DU) (SET0600000)".

SET0901000

9.1 Conditions for Adding Components

SET0901010

9.1.1 Number of mounted PCI Express cards

Table 9.1.1 lists the maximum number of PCI Express cards that can be mounted in the IOU.

Table 9.1.1

IOU type	Maximum number of mounted units
IOU_1GbE	16
IOU_10GbE	12

SET0901020

9.1.2 Conditions concerning combined use of PCI Express cards

- There are no conditions concerning the combined use of PCI Express cards.

SET0901030

9.1.3 Main unit status

- Table 9.1.3 lists whether an SB addition can be added in each main unit status.

Table 9.1.3

Main unit status	Work possible?
- AC power to the main unit is off (Cold maintenance (AC power off))	Yes
- AC power to the main unit is on - System Powered Off (Cold maintenance (standby))	Yes
- AC power to the main unit is on - System Powered On (Hot maintenance)	No

SET0902000

9.2 Procedure for Adding a PCI Express Card

SET0902010

9.2.1 Checking the delivered items

- (1) Check the delivered items by confirming the following.
 1. The types and quantities of delivered options match those written on the order sheet.
 2. The delivered items match those listed in the List of Accessories.
 3. All cabinets are free of any abnormalities such as scratches, dents, or dirt.
 4. The target functions can be used with the specifications and version level of the units delivered separately due to delivery considerations.

SET0902020

9.2.2 Mounting the adding options

Use the following steps to mount the added options.

ANNT) Confirm the quantities and installation locations with a system administrator.

ANNT) If you start the work with the main unit powered off, turn on the AC power and mount the added options.

- (1) Install the bracket of the PCI Express card (FH or LP) into the mounting slot according to Table 9.2.2-1. See Figure 9.2.2.
The bracket and screws are parts of the PCI Express card.

A PCI Express card which does not fit other brackets can only be mounted into the mounting slot suitable for attached bracket.

Table 9.2.2-1

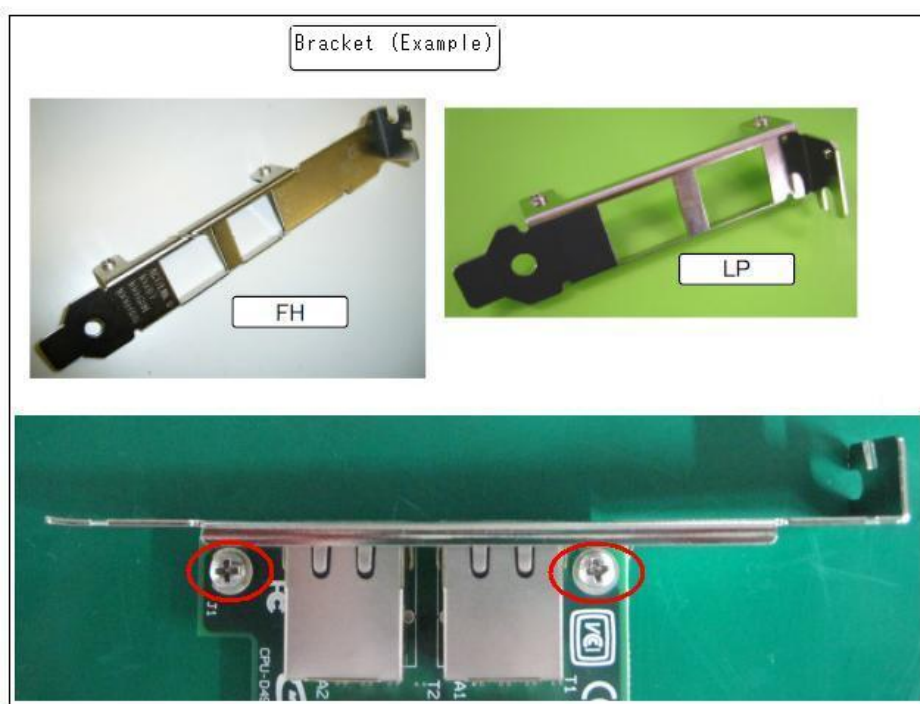
IOU type	PCI Express card slot			
	#0	#1	#2	#3
IOU_1GbE	LP	LP	LP	LP
IOU_10GbE	FH	FH	LP	-

[Symbol]

FH : Full Height

LP : Low Profile

Figure 9.2.2



(2) Connect the FST. See Appendix B.2.1 "FST Setup and Connection (APP0202010)".

(3) Login to the Web-UI.

Table 9.2.2-2 lists the values to be set to log in to Web-UI.

See Appendix B.3.1 "Login (APP0203010)".

Table 9.2.2-2

Item	Setting values
URL	<p>http://<Maintenance IP Address>:<http port#> or https://<Maintenance IP Address>:<https port#></p> <p>This depends on the system configuration. http port#:Default(8081) https port#:Default(432)</p>
Username	Account username
Password	Account password

- (4) Enter Maintenance Mode.
See Appendix B.1.1 "Enabling maintenance Mode ([APP0201010](#))".
- (5) Confirm the numbers and mounting locations of a PCI Express card.
- (6) Remove the IOU which is installed the PCI Express card into.
See Appendix C.9.2 "Removing the IOU ([APP0309020](#))".
- (7) Install a PCI Express card.
If the PCI Express card has attached options, install them.
 - See Appendix C.6.1 "Installing the PCI Express card ([APP0306010](#))".
 - See Appendix C.6.3 "FBU (IOUL) ([APP0306030](#))".
 - See Appendix C.12 "Dual Channel LAN Card (10G BASE) ([APP0312000](#))".
 - See Appendix C.13 "Converged Network Adapter ([APP0313000](#))".

ANNT) Work noting the surface-mounted component in the vicinity of position of the screw that fixes the subunit. The subunit is a unit to mount PCI Express card.

- (8) Install the IOU.
See Appendix C.9.1, "Installing the IOU ([APP0309010](#))".
- (9) Confirm that the Alarm LEDs are not on.
- (10) Change Maintenance Mode disabled. See Appendix B.1.2 "Disabling maintenance mode ([APP0201020](#))".

Appendix

A Customer's Distribution Panel Breaker Requirements (Only When Connected to a Power Distribution Box)

This appendix describes the requirements for the breaker in the customer's distribution panel.

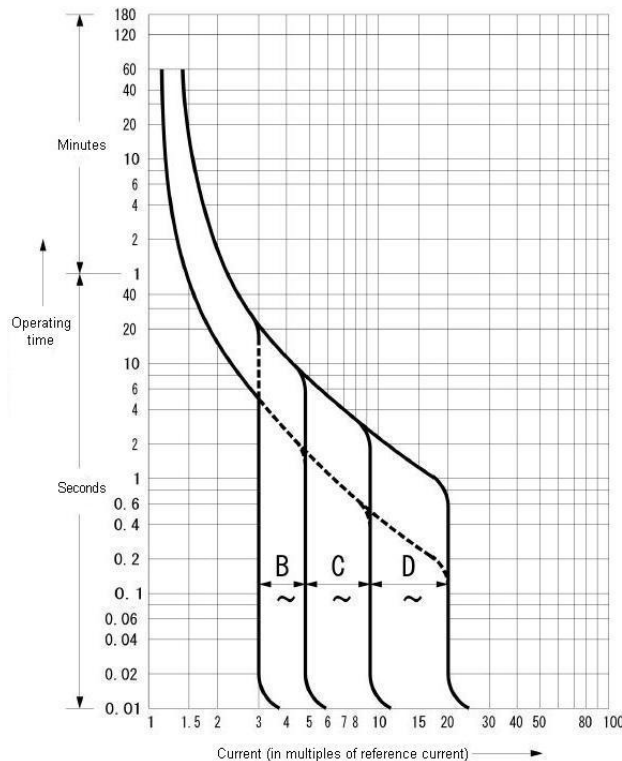
To protect the device when it is connected to the customer's distribution panel through a power distribution box, the corresponding breaker in the customer's power distribution panel must meet the following characteristic requirements so that the breaker of the device (or the power distribution box) trips before the corresponding breaker in the customer's distribution panel. Use a breaker that meets these requirements in the customer's distribution panel.

Table A.1

Power input	Device name	Capacity of breaker in customer's distribution panel (for use in countries other than European countries)	Capacity of breaker in customer's distribution panel (for use in Europe)
200 to 240 VAC	Power distribution box	30A	32A

Use a long-time-delay type breaker whose characteristics correspond to phase D shown in Figure A.1 Breaker characteristics (IEC898 or DIN0641 Part II). Alternatively, use a slower breaker.

Figure A.1 Distribution panel breaker characteristics



B Various Operations

This appendix describes various operations required for installation.

B.1 Maintenance Mode

This section describes how to enable and disable maintenance mode.

B.1.1 Enabling maintenance mode

(1) Common operations

1. Click [Maintenance] on the navigation bar.
→ The window shown in Figure B.1.1-1 appears.

Figure B.1.1-1 Maintenance Wizard (Example)

Maintenance Wizard Help

Notice: Maintenance screen can only be used by one user at time.
Select the type of maintenance activity to perform.

Maintenance Type
<input type="radio"/> Replace Unit (Replaces a failed unit or replaces a unit to prevent failure.)
<input type="radio"/> Enter Maintenance Mode (Sets only Maintenance mode when Maintenance (excludes Replace) are performed.)
<input type="radio"/> Exit Maintenance Mode (Cancels Maintenance mode when Maintenance (excludes Replace) are finished.)
<input type="radio"/> Raid Drive Maintenance Mode (Replace failure physical drives or recover degraded logical drives.)
<input type="radio"/> Enter Quick Boot Maintenance Mode (Enable Quick Boot mode for Maintenance.)

Next

2. Select the [Enter Maintenance Mode] radio button.
3. Confirm that the [Enter Maintenance Mode] radio button is selected. See Figure B.1.1-2.

Figure B.1.1-2 Maintenance Wizard (Example)

Maintenance Wizard Help

Notice: Maintenance screen can only be used by one user at time.
Select the type of maintenance activity to perform.

Maintenance Type
<input type="radio"/> Replace Unit (Replaces a failed unit or replaces a unit to prevent failure.)
<input checked="" type="radio"/> Enter Maintenance Mode (Sets only Maintenance mode when Maintenance (excludes Replace) are performed.)
<input type="radio"/> Exit Maintenance Mode (Cancels Maintenance mode when Maintenance (excludes Replace) are finished.)
<input type="radio"/> Raid Drive Maintenance Mode (Replace failure physical drives or recover degraded logical drives.)
<input type="radio"/> Enter Quick Boot Maintenance Mode (Enable Quick Boot mode for Maintenance.)

Next

4. Click the [Next] button.
→ The window shown in Figure B.1.1-3 appears.

Figure B.1.1-3 Maintenance Wizard (Maintenance System State) (Example)

Maintenance System Mode	
<input type="radio"/>	Hot System Maintenance (System powered on.)
<input type="radio"/>	Cold System Maintenance (System powered off, breakers on.)
<input type="radio"/>	Cold System Maintenance (System powered off, breakers off.)

ANNT)

The procedure for enabling maintenance mode varies depending on the state of the main unit. Follow the procedure for cold maintenance, hot maintenance, according to the state of the main unit.

(2) Procedure for cold system maintenance

1. Select the [Cold System Maintenance] radio button.
2. Confirm that the [Cold System Maintenance] radio button is selected. See Figure B.1.1-4.

Figure B.1.1-4 Maintenance Wizard (Maintenance System State) (Example)

Maintenance Wizard (Maintenance System State) Help

Select the maintenance system mode.

Maintenance System Mode	
<input type="radio"/>	Hot System Maintenance (System powered on.)
<input checked="" type="radio"/>	Cold System Maintenance (System powered off, breakers on.)
<input type="radio"/>	Cold System Maintenance (System powered off, breakers off.)

Previous Next

3. Click the [Next] button.
 4. Confirm that the background color of the Information area is gray and that [Under Maintenance] is displayed.
- (3) Procedure for hot system maintenance.
1. Select the [Hot System Maintenance] radio button.
 2. Confirm that the [Hot System Maintenance] radio button is selected. See Figure B.1.1-5.

Figure B.1.1-5 Maintenance Wizard (Maintenance System State) (Example)

Maintenance Wizard (Maintenance System State) Help

Select the maintenance system mode.

Maintenance System Mode
<input checked="" type="radio"/> Hot System Maintenance (System powered on.)
<input type="radio"/> Cold System Maintenance (System powered off, breakers on.)
<input type="radio"/> Cold System Maintenance (System powered off, breakers off.)

Previous Next

3. Click the [Next] button.
4. Confirm that the background color of the Information area is gray and that [Under Maintenance] is displayed.

B.1.2 Disabling maintenance mode

(1) Common operations

1. Click [Maintenance] on the navigation bar.
→ The window shown in Figure B.1.2-1 appears.

Figure B.1.2-1 Maintenance Wizard (Example)

Maintenance Wizard Help

Notice: Maintenance screen can only be used by one user at time.
Select the type of maintenance activity to perform.

Maintenance Type
<input type="radio"/> Replace Unit (Replaces a failed unit or replaces a unit to prevent failure.)
<input type="radio"/> Enter Maintenance Mode (Sets only Maintenance mode when Maintenance (excludes Replace) are performed.)
<input type="radio"/> Exit Maintenance Mode (Cancels Maintenance mode when Maintenance (excludes Replace) are finished.)
<input type="radio"/> Raid Drive Maintenance Mode (Replace failure physical drives or recover degraded logical drives.)
<input type="radio"/> Enter Quick Boot Maintenance Mode (Enable Quick Boot mode for Maintenance.)

Next

2. Select the [Exit Maintenance Mode] radio button.
3. Confirm that the [Exit Maintenance Mode] radio button is selected. See Figure B.1.2-2.

Figure B.1.2-2 Maintenance Wizard (Example)

Maintenance Wizard Help

Notice: Maintenance screen can only be used by one user at time.
Select the type of maintenance activity to perform.

Maintenance Type
<input type="radio"/> Replace Unit (Replaces a failed unit or replaces a unit to prevent failure.)
<input type="radio"/> Enter Maintenance Mode (Sets only Maintenance mode when Maintenance (excludes Replace) are performed.)
<input checked="" type="radio"/> Exit Maintenance Mode (Cancels Maintenance mode when Maintenance (excludes Replace) are finished.)
<input type="radio"/> Raid Drive Maintenance Mode (Replace failure physical drives or recover degraded logical drives.)
<input type="radio"/> Enter Quick Boot Maintenance Mode (Enable Quick Boot mode for Maintenance.)

Next

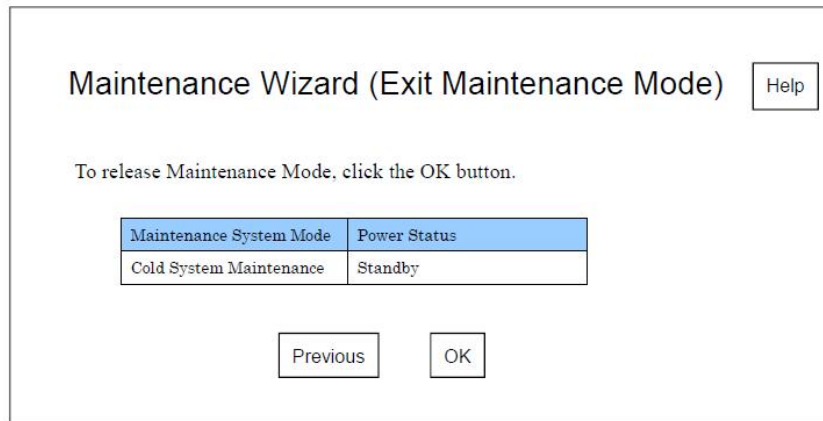
ANNT)

The procedure for enabling maintenance mode varies depending on the state of the main unit. Follow the procedure for cold maintenance, hot maintenance, according to the state of the main unit.

(2) Procedure for cold system maintenance.

1. Click the [Next] button.
 - The window shown in Figure B.1.2-3 appears.

Figure B.1.2-3 Maintenance Wizard (Exit Maintenance Mode) (Example)

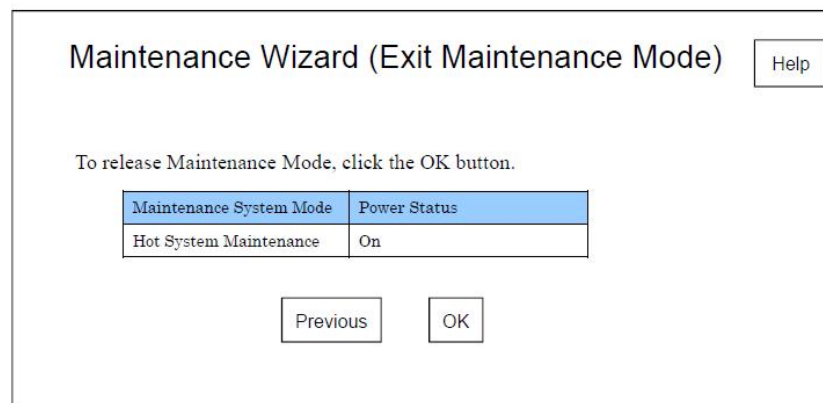


2. Click the [OK] button.
→ The dialog box [The system will leave Maintenance Mode. Are you sure?] appears.
3. Click the [OK] button.
4. Confirm that the background color of the Information area is white and that [Under Maintenance] is not displayed.

(3) Procedure for hot system maintenance.

1. Click the [Next] button.
→ The window shown in Figure B.1.2-4 appears.

Figure B.1.2-4 Maintenance Wizard (Exit Maintenance Mode) (Example)



2. Click the [OK] button.
→ The dialog box [The system will leave Maintenance Mode. Are you sure?] appears.
3. Click the [OK] button.
4. Confirm that the background color of the Information area is white and that [Under Maintenance] is not displayed.

B.2 FST Connection

This section describes connection between the main unit and the FST.

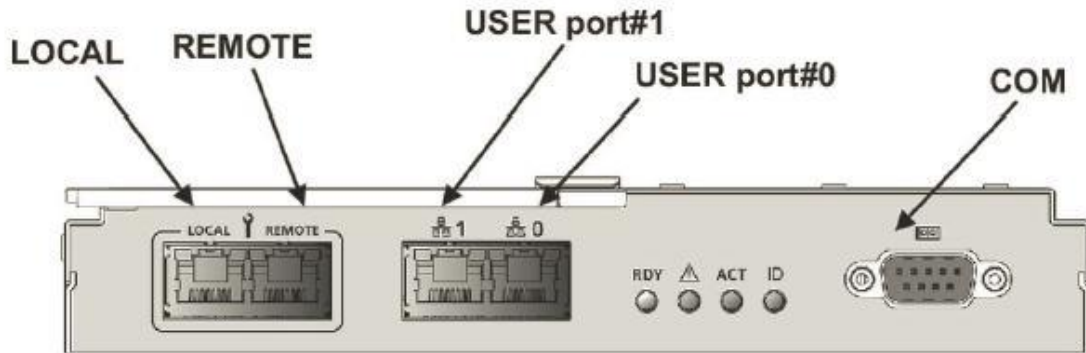
B.2.1 FST Setup and Connection

Use the following instructions for setting the FST and connecting between the FST and the MMB.

- (1) Connect a LAN straight cable between the FST LAN port and the MMB LOCAL port on the MMB. See Figure B.2.1 "MMB external interface".

ANNT) Do not connect the cables to the MMB User ports.

Figure B.2.1 MMB external interface



- (2) Start the FST.
- (3) Configure FST with the "IP Address" and "Subnet mask".
- (4) Specify the Web browser security settings.
Set for the file download dialog box not to be blocked.

ANNT) Web browser security settings may be ignored.

- (5) When OS for FST is Windows Vista or newer version, disable UAP (User Account Protection) or UAC (User Account Control). Check each Windows OS manual and etc.... for more details.

B.2.2 Console Redirection

- (1) Start the FST terminal software.
- (2) Specify the [Maintenance IP Address] in terminal software [Host].
- (3) Enter “23” in terminal software [TCP Port#].
- (4) Make a telnet connection. See Figure B.2.2-1.

Figure B.2.2-1



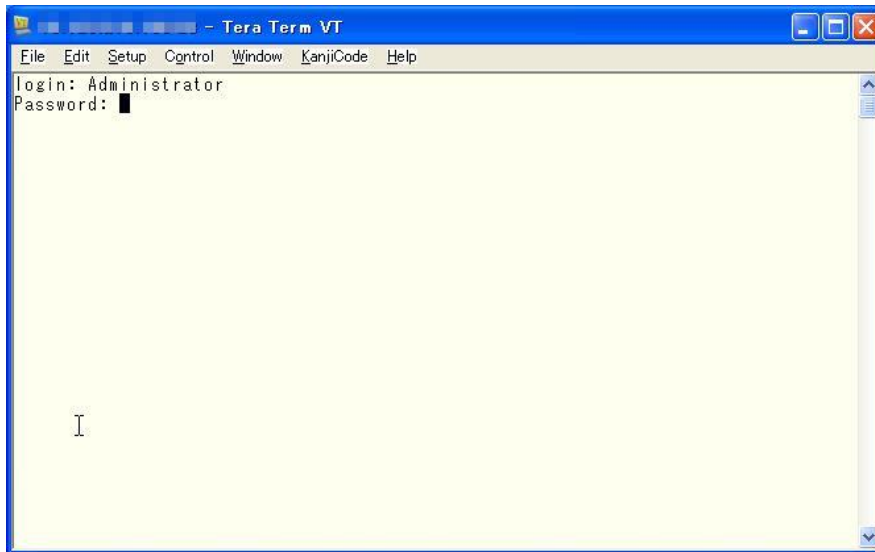
→ The window shown in Figure B.2.2-2 appears.

Figure B.2.2-2



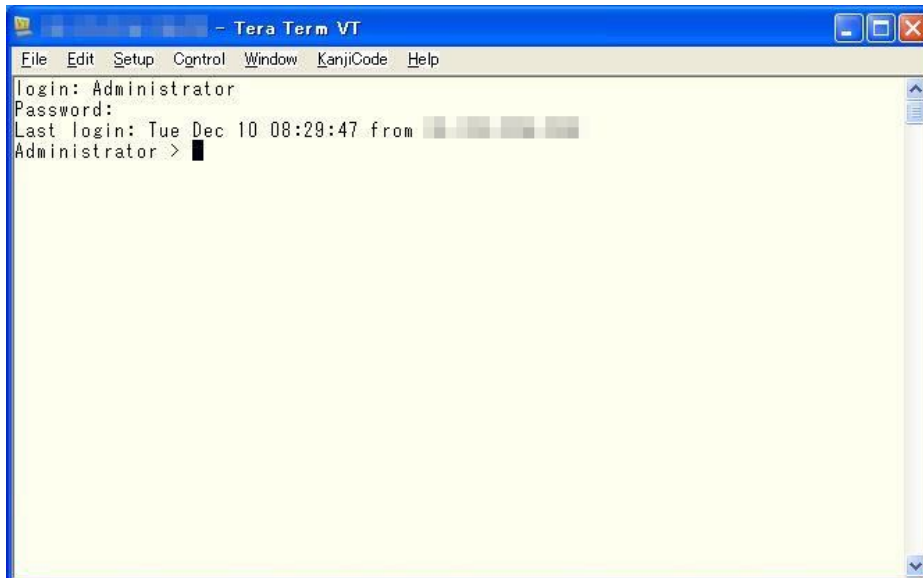
- (5) Enter account username in [login:] and press the [Enter] key.
→ The display shown in Figure B.2.2-3 appears.

Figure B.2.2-3



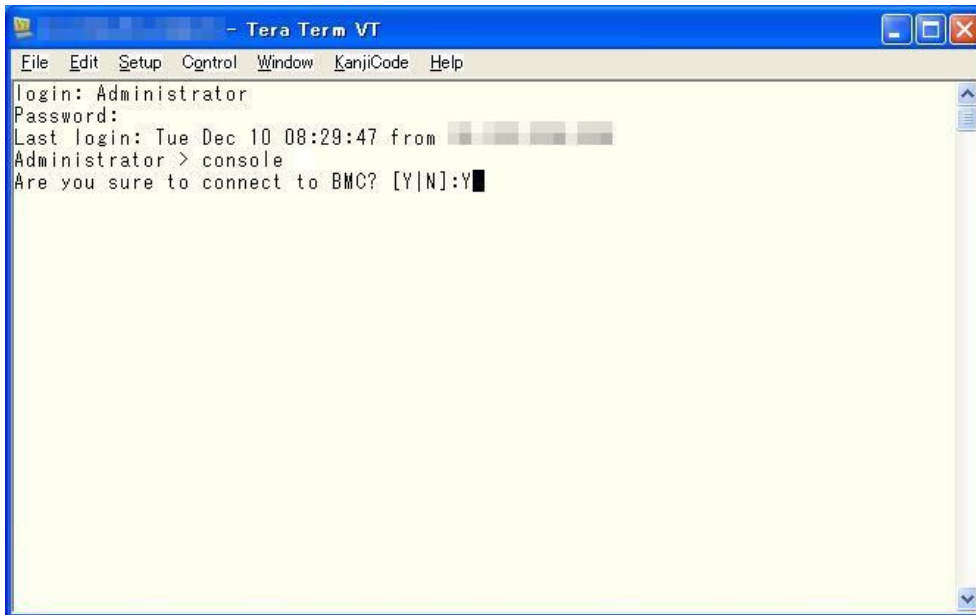
- (6) Enter account password in [login:] and press the [Enter] key.
→ The display shown in Figure B.2.2-4 appears.

Figure B.2.2-4



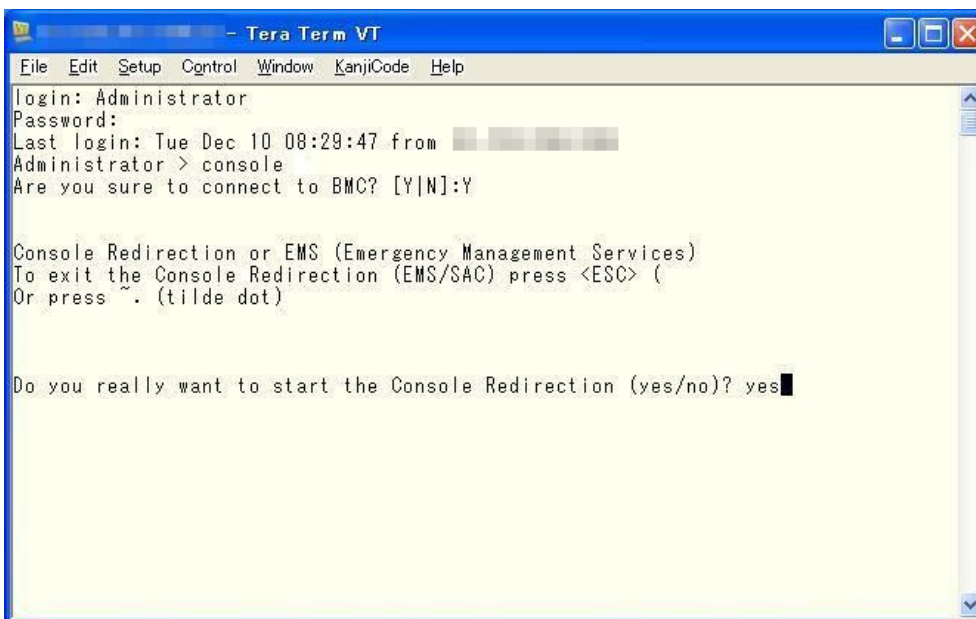
- (7) Enter console command and press the Enter key.
Command : console <timeout>
timeout = 0 is disable timeout. Example) console 0
→ The display shown in Figure B.2.2-5 appears.

Figure B.2.2-5 Connecting console (Example)



- (8) Enter "Y" and press the [Enter] key.
→ The display shown in Figure B.2.2-6 appears.

Figure B.2.2-6



- (9) Enter "yes" and press the [Enter] key.
The display will be updated after powering on the appropriate partition and booting UEFI.

ANNT)Console connection

- The console connection will be disconnected if you do not enter within 10 minutes.
- If the message "There is an active serial redirection session on the card. Please terminate it first to be able to start a new session" are displayed, go back to Step (7).

APP0203000

B.3 MMB Web-UI

APP0203010

B.3.1 Login

This section describes how to log in to the Web-UI.

- (1) Start the Web browser on the FST.
- (2) Specify the URL in the Web browser.
 <URL example> http://192.168.1.1:8081
- (3) Press the [Enter] key.
- (4) Enter the user name in the [Username] field.
- (5) Enter the password in the [Password] field.
- (6) Click the [Login] button.
- (7) Confirm that the [System Status] window is displayed.

APP0203020

B.3.2 Logout

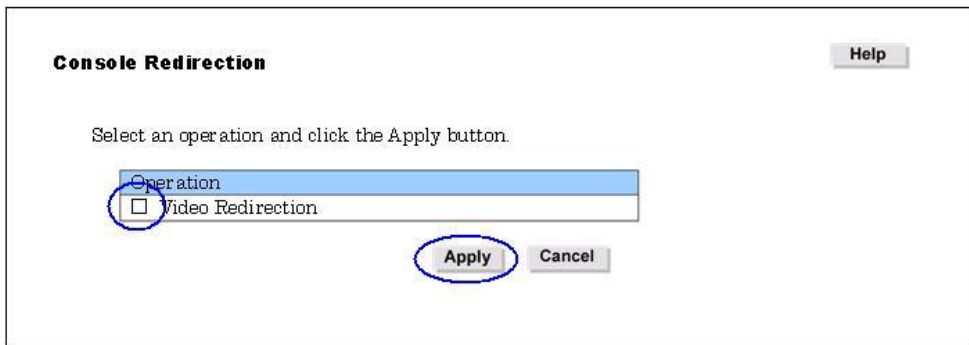
- (1) Click [Logout] on the navigation bar.
 → The dialog box [Are you sure?] appears.
- (2) Click the [OK] button.

B.4 Video Redirection

Follow the instructions below and start the Video Redirection.

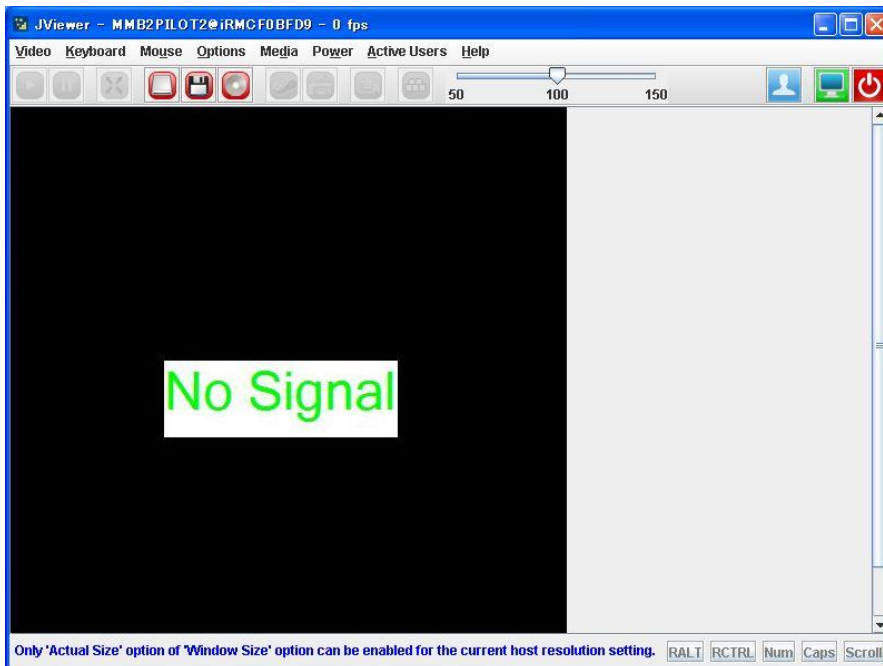
- (1) Navigation Bar [Partition] → Click on Sub Menu [Console Redirection].
→ The window shown in Figure B.4-1 appears.

Figure B.4-1



- (2) Check the check box [Video Redirection].
- (3) Click the [Apply] button.
→ The dialog box [Are you sure?] appears.
- (4) Click the [OK] button.
→ The window shown in Figure B.4-2 appears.

Figure B.4-2



B.5 System Power Control

This section describes how to power on/off system.

B.5.1 System Power On

- (1) Navigation Bar [System] → Click on Sub Menu [Power Control].
→ The window shown in Figure B.5.1-1 appears.

Figure B.5.1-1 Power Control (Example)

Status	Normal
Power Status	Standby
System Progress	Power Off
Power Control	(Not specified) ▼
Force Power Off Delay	<input type="checkbox"/> [] min
Boot Selector	No Override ▼

- (2) Select [Power On] from the [Power Control] pull-down list box.
- (3) Click the [Apply] button.
→ The dialog box [Are you sure?] appears.
- (4) Click the [OK] button.
- (5) Confirm that the indication under [System Status] changed to [On].

B.5.2 System Power Off

- (1) Navigation Bar [System] → Click on Sub Menu [Power Control].
 → The window shown in Figure B.5.2-1 appears.

Figure B.5.2-1 Power Control (Example)

Power Control Refresh Help

Select a Power Control option, then click the Apply button to take effect.

Status	Normal
Power Status	On
System Progress	EFI
Power Control	(Not specified) ▼
Force Power Off Delay	<input type="checkbox"/> 1 min
Boot Selector	No Override ▼

Apply Cancel

- (2) Select [Power Off] from the [Power Control] pull-down list box.
 (3) Click the [Apply] button.
 → The dialog box [Are you sure?] appears.
- (4) Click the [OK] button.
 (5) Confirm that the indication under [System Progress] changed to [Power Off].

APP0206000

B.6 Status

APP0206010

B.6.1 System Status

- (1) Navigation Bar [System] → Click on Sub Menu [System Status].
→ The window shown in Figure B.6.1 appears.

Figure B.6.1 System Status (Example)

System Status

[Refresh](#) [Help](#)

Click a link below to view detailed information about each unit.

Power Supply	Fans	Temperature
OK	OK	OK

SB#0	SB#1	SB#2	SB#3
OK	OK	OK	OK

IOU#0	IOU#1	IOU#2	IOU#3
OK	OK	OK	OK

DU#0	DU#1
OK	OK

OPL
OK

MMB
OK

B.6.2 SB

- (1) Navigation Bar [System] → Sub Menu [SB] → Click on [SB#].
 → The window shown in Figure B.6.2 appears.

Figure B.6.2 SB (Example)

SB#0
Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	On
Home	Yes
Part Number	CA07803-0802 A2
Serial Number	PP132100GA
Location LED	Off <input type="checkbox"/> On <input type="checkbox"/>

CPUs

CPU#	Status	Core / Max Core	Model	Stepping	Part Number	Serial Number
0	OK	15/15	Intel® Xeon® Processor		01213506	C0ADFD67199EDB00
1	OK	15/15	Intel® Xeon® Processor		01213506	61730EE1D5A06100

DIMMs

DIMM#	Status	Size	Rank	Data Rate	Part Number	Serial Number
0A0	OK	8GB	1	DDR3-1600	M393B1G70BH0-YK0	21480CE1
0A1	OK	8GB	1	DDR3-1600	M393B1G70BH0-YK0	2149CDAE
0A2	OK	8GB	1	DDR3-1600	M393B1G70BH0-YK0	2149CD26

B.6.3 Power Supply

- (1) Navigation Bar [System] → Click on Sub Menu [Power Supply].
 → The window shown in Figure B.6.3 appears.

Figure B.6.3 Power Supply (Example)

Power Supply
Refresh Help

Click the Status Clear button to clear the status.

System Power Status	On
Power Supply Redundancy	Redundant

PSU

PSU/FANU Slot	Status	Power Status	Type	Part Number	Serial Number
0	OK	On	PSU_P	A3C40124969	G743LD0009AEF
1	OK	On	PSU_P	A3C40124969	G743LE0066AEF
2	-	-	FANU	A3C40094164	G818L6004D05F
3	OK	On	PSU_P	A3C40124969	G743LD0014AEF
4	OK	On	PSU_P	A3C40124969	G743LE00WAEF
5	-	-	FANU	A3C40094164	G818L6005205F

Power Consumption

System Power Consumption(W)	1880
-----------------------------	------

Status Clear

The [Type] display in the [Power Supply] window represents the meaning below.

- PSU_P : High-efficiency Power Supply Unit (200V)
- PSU_S : Power Supply Unit (200V)
- FANU : FAN Unit

Do not mix PSU P and PSU S when mounting.

B.6.4 IOU

- (1) Navigation Bar [System] → Sub Menu [IOU] → Click on [IOU#].
 → The window shown in Figure B.6.4 appears.

Figure B.6.4 IOU (Example)

IOU#0
Refresh Help

Click the Status Clear button to clear the status.

Board Information

Type	IOU_1GbE
Status	OK
Power Status	On
Part Number	CA07603-D012 A2
Serial Number	PP132003FC
Location LED	Off <input type="checkbox"/> <input type="checkbox"/>

On board LAN

LAN#	MAC Address
0	2C:D4:44:F1:44:B0
1	2C:D4:44:F1:44:B1

PCI_Box connection

PCIC#	Status	Connected to	
		PCI_Box#	Connector
2	OK	0	0
3	OK	0	1

DU connection

PCIC#	Status	Connector
0	Not-connected	

B.6.5 DU

- (1) Navigation Bar [System] → Sub Menu [DU] → Click on [DU#].
 → The window shown in Figure B.6.5 appears.

Figure B.6.5 DU (Example)

DU#0 Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	Standby
Part Number	-
Serial Number	-

RAID Slot

RAID Slot#	Power Status	Slot Status	Link Width	Seg/Bus/Dev
0	On	OK	x4	0/67/0
1	Standby	Not-present		

RAID Card

Slot#	Status	BBU Status	Vendor ID	Device ID	Physical Drives Count	Logical Drives Count	Serial Number	Firmware Version
0	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-

Physical Drives

Slot#	Status	Vendor	Model	Capacity	RAID Card#
0	-	-	-	-	-
1	-	-	-	-	-
2	-	-	-	-	-
3	-	-	-	-	-

B.7 Redundant Power Supply and Dual Power Feed Configuration

This section describes how to set the redundant power supply and dual power feed settings for the main unit.

B.7.1 Redundant power supply

- (1) Navigation Bar [System] → Click on Sub Menu [System Setup].
→ The window shown in Figure B.7.1-1 appears.

Figure B.7.1-1 System Setup (Example)

System Setup Help

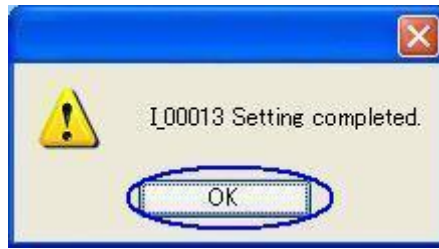
Click the Apply Button to apply all changes.

Input Voltage	200V
Power Feed Mode	<input checked="" type="radio"/> Single <input type="radio"/> Dual
Power Restoration Policy	<p>Always ON - chassis always powers up after AC is restored.</p> <p>Always OFF - chassis remains powered off after AC is restored.</p> <p>Restore - power is returned to the state that was in effect before AC was removed or lost.</p> <p>Schedule Sync - Synchronize with the schedule.</p> <p style="text-align: right;">Restore ▾</p>
System Power On Delay	<input type="text"/> sec
Altitude	Altitude <= 1000m ▾
PSU Redundancy Mode	<input checked="" type="radio"/> Redundant <input type="radio"/> Non-redundant
System Power Save Control	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
System Power Saving Threshold	<input type="text"/> W

Apply Cancel

- (2) Select the [Redundant] radio button under [PSU Redundancy Mode].
- (3) Click the [Apply] button.
→ The dialog box [Are you sure?] appears.
- (4) Click the [OK] button.
→ The window shown in Figure B.7.1-2 appears.

Figure B.7.1-2



(5) Click the [OK] button.

B.7.2 Dual power feed

- (1) Navigation Bar [System] → Click on Sub Menu [System Setup].
 → The window shown in Figure B.7.2-1 appears.

Figure B.7.2-1 System Setup (Example)

Input Voltage	200V
Power Feed Mode	<input type="radio"/> Single <input checked="" type="radio"/> Dual
Power Restoration Policy	Always ON - chassis always powers up after AC is restored. Always OFF - chassis remains powered off after AC is restored. Restore- power is returned to the state that was in effect before AC was removed or lost. Schedule Sync- Synchronize with the schedule. Restore ▼
System Power On Delay	0 sec
Altitude	Altitude <= 1000m ▼
PSU Redundancy Mode	<input checked="" type="radio"/> Redundant <input type="radio"/> Non-redundant
System Power Save Control	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
System Power Saving Threshold	W

Apply Cancel

- (2) Select the [Dual] radio button under [Power Feed Mode].
 (3) Click the [Apply] button.
 → The dialog box [Are you sure?] appears.
 (4) Click the [OK] button.
 → The window shown in Figure B.7.2-2 appears.

Figure B.7.2-2



- (5) Click the [OK] button.

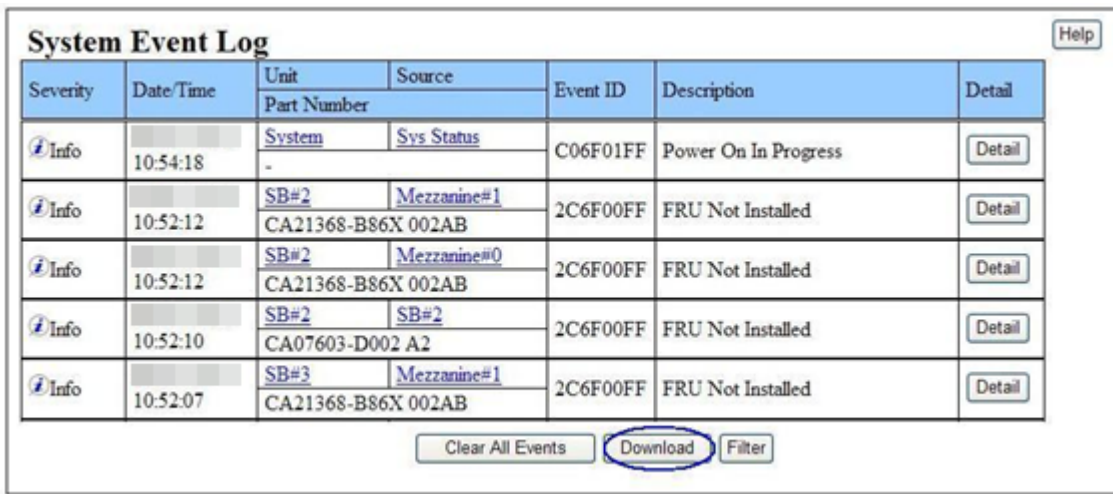
B.8 System Event Log

This section describes how to download and clear the system event log.

B.8.1 Downloading the System Event Log

- (1) Navigation Bar [System] → Click on Sub Menu [System Event Log].
→ The window shown in Figure B.8.1-1 appears.

Figure B.8.1-1 System Event Log (Example)



The screenshot shows a window titled "System Event Log" with a "Help" button in the top right corner. The window contains a table with the following columns: Severity, Date Time, Unit, Source, Event ID, Description, and Detail. The "Unit" and "Source" columns are further divided into "Part Number" sub-columns. Below the table are three buttons: "Clear All Events", "Download" (which is circled in blue), and "Filter".

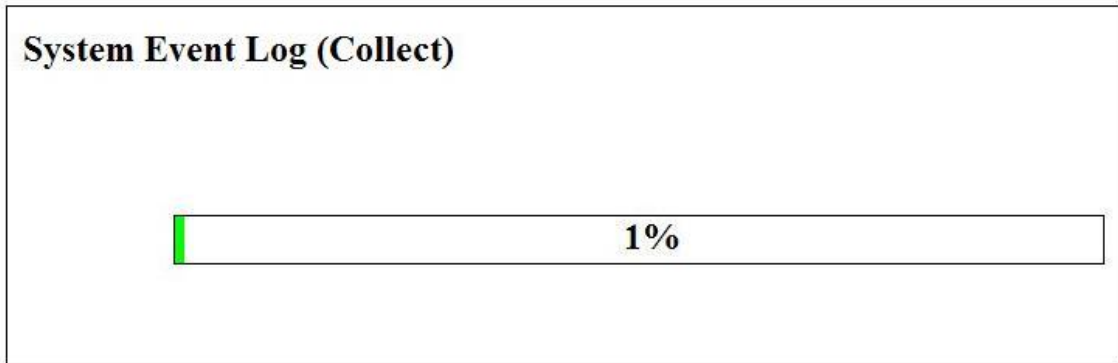
Severity	Date Time	Unit	Source	Event ID	Description	Detail
		Part Number				
Info	10:54:18	System	Sys Status	C06F01FF	Power On In Progress	Detail
Info	10:52:12	SB#2	Mezzanine#1	2C6F00FF	FRU Not Installed	Detail
		CA21368-B86X 002AB				
Info	10:52:12	SB#2	Mezzanine#0	2C6F00FF	FRU Not Installed	Detail
		CA21368-B86X 002AB				
Info	10:52:10	SB#2	SB#2	2C6F00FF	FRU Not Installed	Detail
		CA07603-D002 A2				
Info	10:52:07	SB#3	Mezzanine#1	2C6F00FF	FRU Not Installed	Detail
		CA21368-B86X 002AB				

- (2) Click the [Download] button.
→ The dialog box [Are you sure?] appears.
- (3) Click the [OK] button.
→ The window shown in Figure B.8.1-2 appears.

ANNT) If the window shown in Figure B.8.1-2 does not appear.

If you already download the System Event Log to the FST, the window shown in Figure B.8.1-3 appears. If so, click the [Collect] button and start from the step (3).

Figure B.8.1-2



(4) Wait about five minutes until the window shown in Figure B.8.1-3 appears.

Figure B.8.1-3



(5) Click the [Download Link] in the window shown in Figure F.8.1-3.

(6) Save the [System Event Log].

B.8.2 Clearing the System Event Log

- (1) Navigation Bar [System] → Click on Sub Menu [System Event Log].
→ The window shown in Figure B.8.2-1 appears.

Figure B.8.2-1 System Event Log (Example)

The screenshot shows a window titled "System Event Log" with a "Help" button in the top right corner. The main content is a table with the following columns: Severity, Date/Time, Unit (with sub-column Part Number), Source, Event ID, Description, and Detail. Below the table are three buttons: "Clear All Events" (circled in blue), "Download", and "Filter".

Severity	Date/Time	Unit	Source	Event ID	Description	Detail
		Part Number				
Info	10:54:18	System	Sys Status	C06F01FF	Power On In Progress	Detail
Info	10:52:12	SB#2 CA21368-B86X 002AB	Mezzanine#1	2C6F00FF	FRU Not Installed	Detail
Info	10:52:12	SB#2 CA21368-B86X 002AB	Mezzanine#0	2C6F00FF	FRU Not Installed	Detail
Info	10:52:10	SB#2 CA07603-D002 A2	SB#2	2C6F00FF	FRU Not Installed	Detail
Info	10:52:07	SB#3 CA21368-B86X 002AB	Mezzanine#1	2C6F00FF	FRU Not Installed	Detail

- (2) Click the [Clear All Events] button.
→ The dialog box [Are you sure want to clear the SEL?] appears.
- (3) Click the [OK] button.
- (4) Confirm [System Event Log] is cleared.

APP0209000

B.9 Configuration Backup

This section describes MMB/BIOS configuration backup.

APP0209010

B.9.1 MMB

- (1) Navigation Bar [Maintenance] → Sub Menu [Backup/Restore Configuration] → Click on [Backup/Restore MMB Configuration].
→ The window shown in Figure B.9.1-1 appears.

Figure B.9.1-1 Backup/Restore MMB Configuration (Example)

Backup MMB Configuration Help

To backup the MMB Configuration, click "Backup" button. Backup

Restore MMB Configuration

To restore the MMB Configuration, select a file and click "Restore" button.

参照...

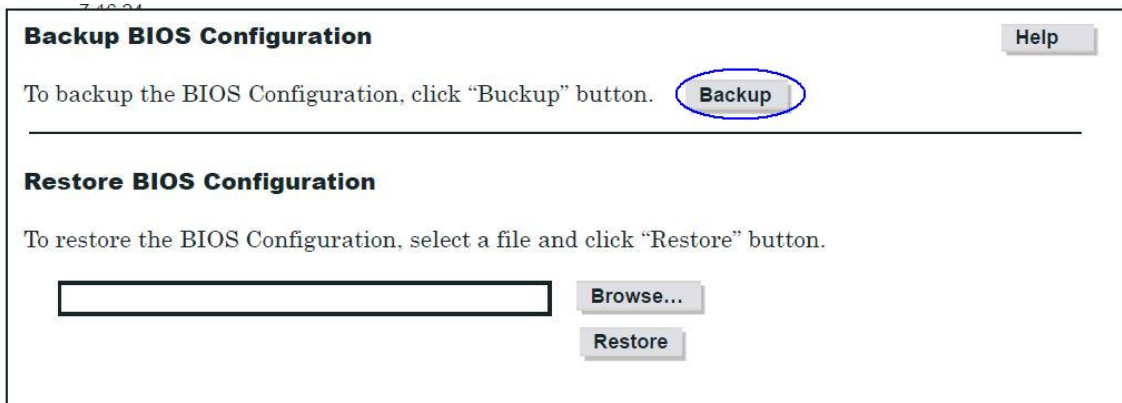
Restore

- (2) Click the [Backup] button.
- (3) Save the MMB Configuration file.

B.9.2 BIOS

- (1) Navigation Bar [Maintenance] → Sub Menu [Backup/Restore Configuration] →
Click on [Backup/Restore BIOS Configuration].
→ The window shown in Figure B.9.2-1 appears.

Figure B.9.2-1 Backup BIOS Configuration (Example)



- (2) Click the [Backup] button
- (4) Save the BIOS Configuration file.

B.10 Main Unit Firmware Version

- (1) Navigation Bar [System] → Click on Sub Menu [Firmware Information].
 → The window shown in Figure B.10 appears.

Figure B.10 Example

Firmware Information			
Unified Firmware Version		BC16012	
Current Firmware			
Unit	Firmware	active bank	Unified Firmware Version
		Version(bank1)	
		Version(bank2)	
SB#0	BMC	bank1	BC16012
		1.05	
		1.05	
	BIOS	bank1	BC16012
		1.04	
		1.04	
SB#1	BMC	bank1	BC16012
		1.05	
		1.05	
	BIOS	bank1	BC16012
		1.04	
		1.04	
MMB	MMB	bank1	BC16012
		1.05	
		1.05	

- (2) Confirm that the [Unified Firmware Version].

B.11 Memory type confirmation

- (1) Navigation Bar [System] → Sub Menu [SB] → Click on [SB#].
 → The window shown in Figure B.11-1 appears.

Figure B.11-1 Example

SB#0

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	On
Home	Yes
Part Number	
Serial Number	PP132100GA
Location LED	Off <input type="button" value="On"/> <input type="button" value="Off"/>

CPU's

CPU#	Status	Core / Max Core	Model	Stepping	Part Number	Serial Number
0	OK	15/15	Intel® Xeon® Processor		01213506	C0ADFD67199EDB00
1	OK	15/15	Intel® Xeon® Processor		01213506	61730EE1D5A06100

DIMMs

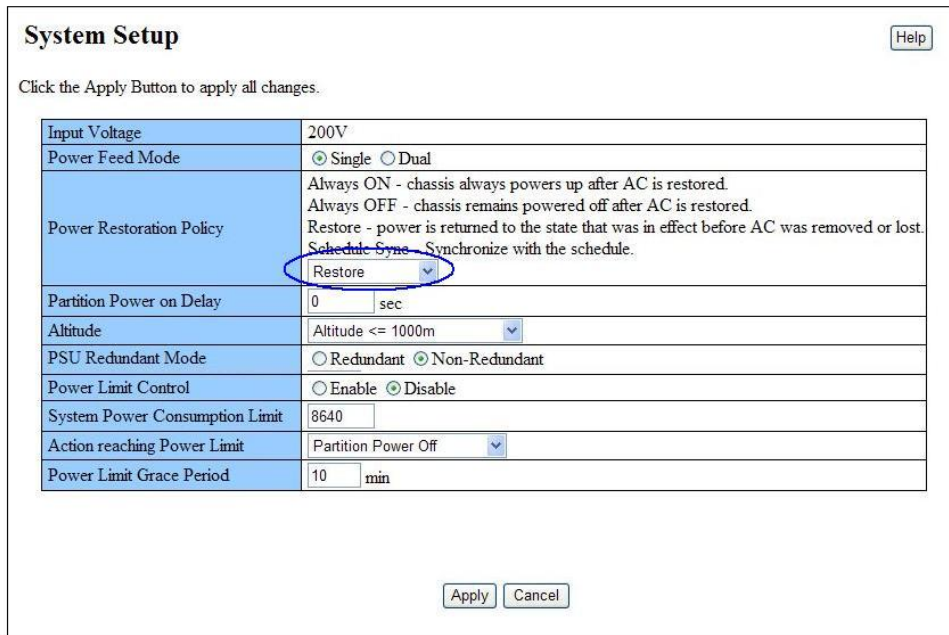
DIMM#	Status	Size	Rank	Data Rate	Part Number	Serial Number
0A0	OK	8GB	1		M393B1G70BH0-YK0	21480CE1
0A1	OK	8GB	1		M393B1G70BH0-YK0	2149CDAE
0A2	OK	8GB	1		M393B1G70BH0-YK0	2149CD26

- (2) Check the product name and serial number according to [Size] and [Rank] under the [DIMMs] display.
- (3) Same as above check all SB.

B.12 Power Restoration Policy

- (1) Navigation Bar [System] → Click on Sub Menu [System Setup].
→ The window shown in Figure B.12-1 appears.

Figure B.12-1



- (2) Select the setup value from the [Power Restoration Policy] pull-down list.
- (3) Click the [Apply] button.
→ The dialog box [Are you sure?] appears.
- (4) Click the [OK] button.
→ The window shown in Figure B.12-2 appears.

Figure B.12-2



- (5) Click the [OK] button.

APP0300000

C Handling the Units

This appendix describes the handling of the units mounted on the main unit.

APP0301000

C.1 The units mounting location

Figure C.1-1 FRONT

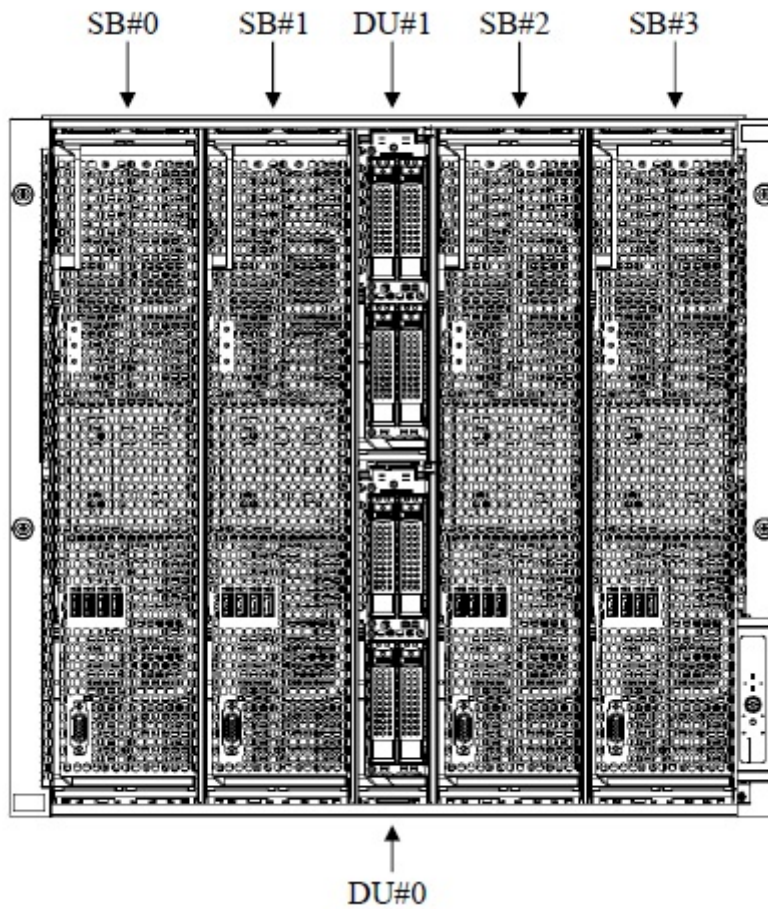


Figure C.1-2 REAR

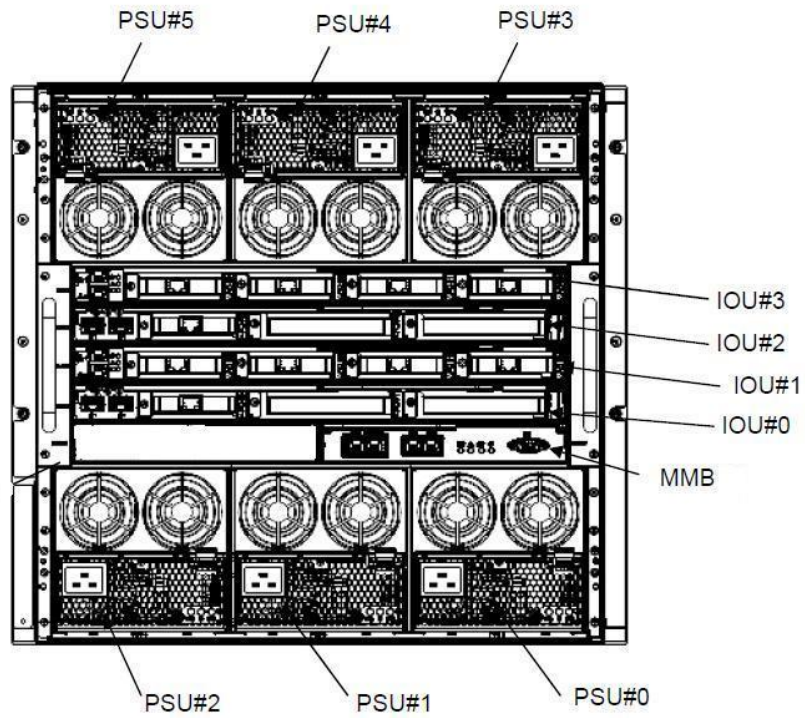


Figure C.1-3 IOU_1GbE

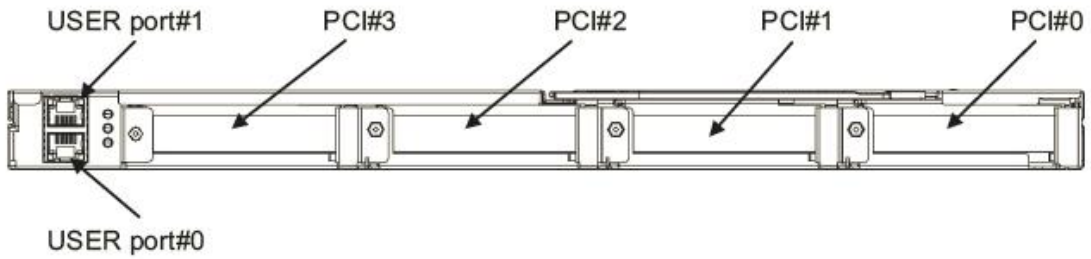


Figure C.1-4 IOU_10GbE

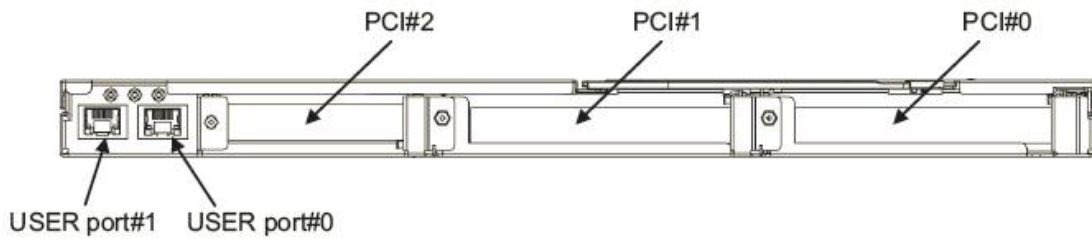
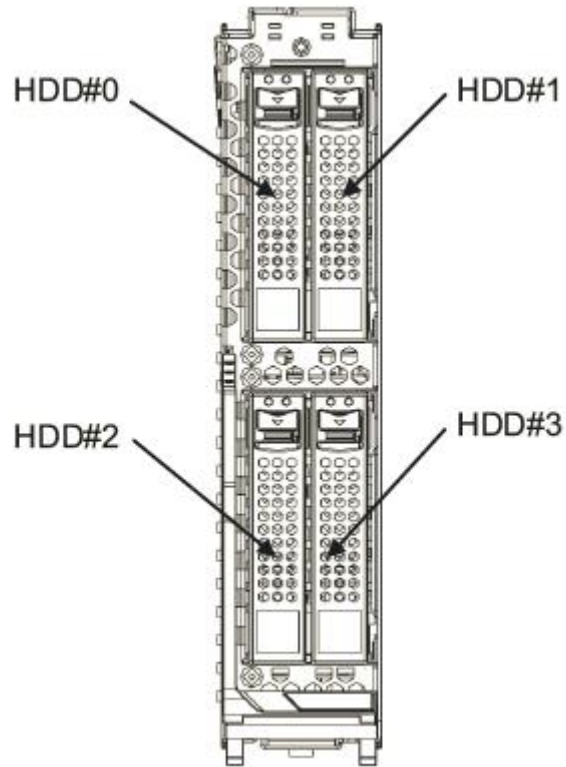


Figure C.1-5 Disk Unit



APP0302000

C.2 System Board

APP0302010

C.2.1 Installing the system board

(1) Installing the system board. See Figure C.2.1.

1. Move section C of the top and bottom of a SB inward with both hands.

Figure C.2.1



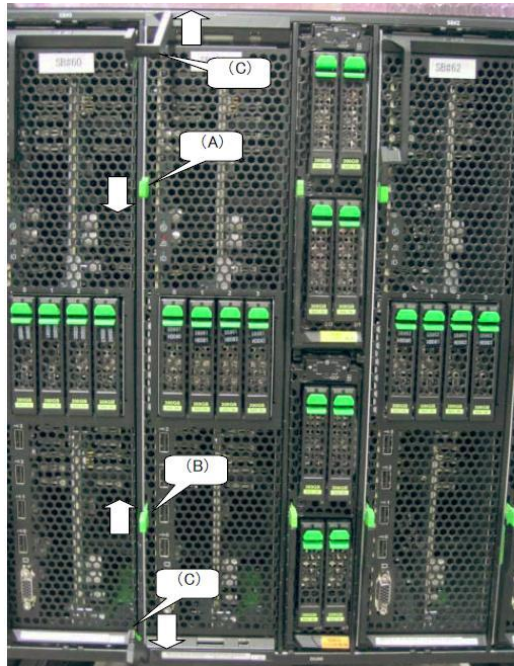
APP0302020

C.2.2 Removing the system board

(1) Removing the system board. See Figure C.2.2.

1. Move section A downward with both hands. (Unlocked)
2. Move section B upward with both hands.
3. Move section C of the top and bottom of the system board outward with both hands.

Figure C.2.2



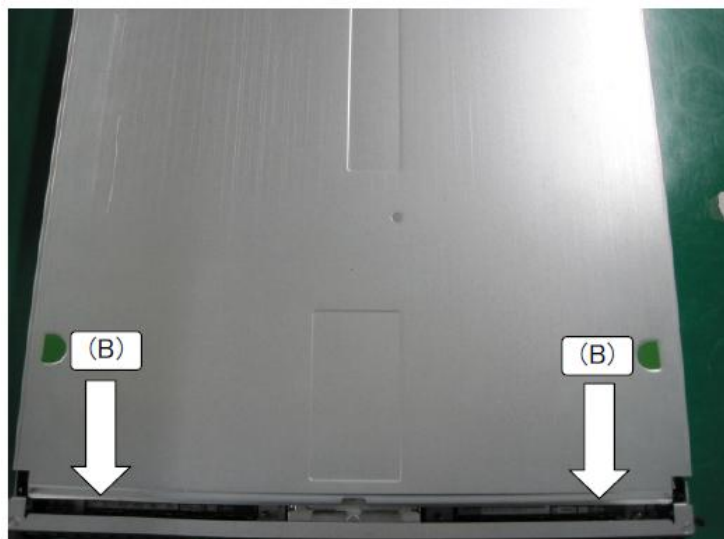
APP0302030

C.2.3 Installing the system board cover

(1) Installing the system board cover. See Figure C.2.3.

1. Set the system board cover at the removed location.
2. While pressing section B in the top of the system board cover, move the system board cover.

Figure C.2.3

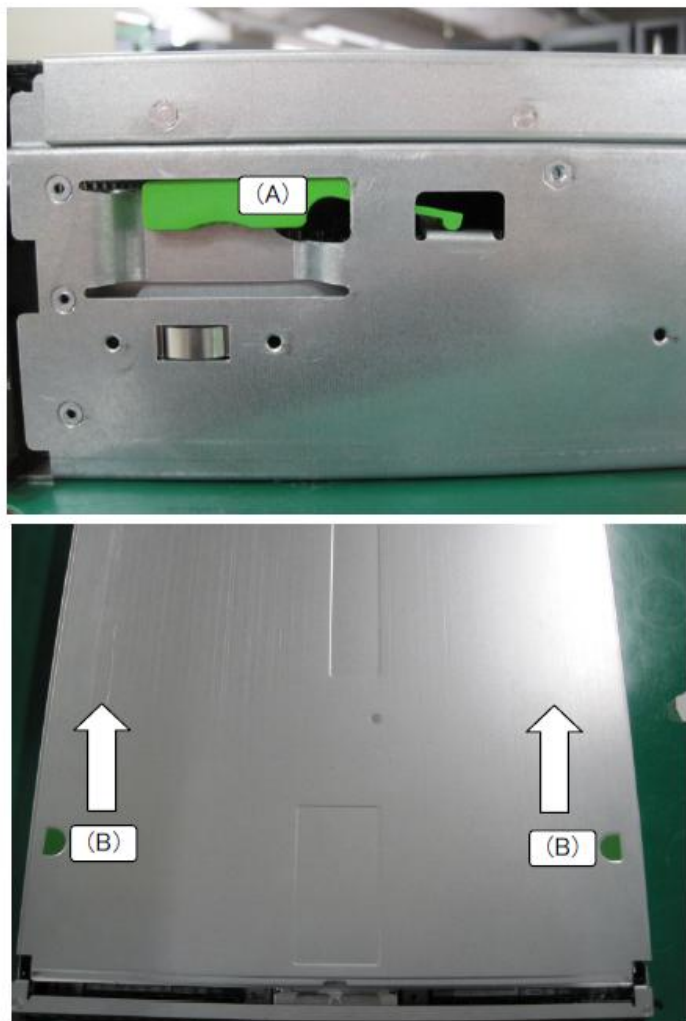


C.2.4 Removing the system board cover

(1) Removing the system board cover. See Figure C.2.4.

1. While moving section A of the left and right of the system board upward, press section B of the top of the system board cover and pull the system board cover out in the direction indicated by the arrow.
2. Move the system board cover upward.

Figure C.2.4



APP0303000

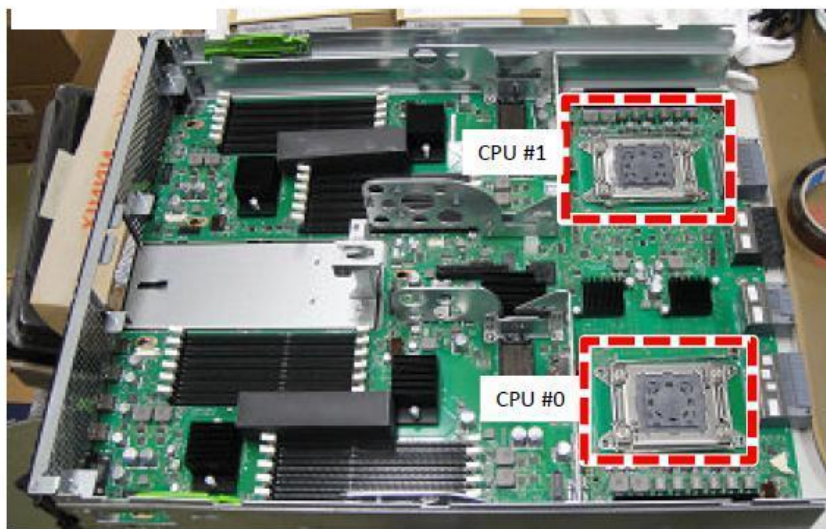
C.3 CPU

APP0303010

C.3.1 Installing and removing the CPU module

- Appearance.

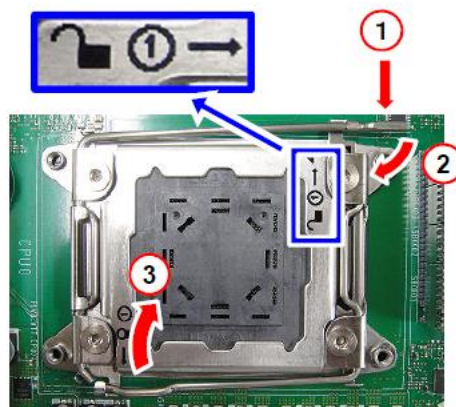
Figure C.3.1-1



(1) Installing the CPU module.

1. Unlock the lever lock using the unlocking sequence shown in Figure C.3.1-2 and raise the lever.

Figure C.3.1-2

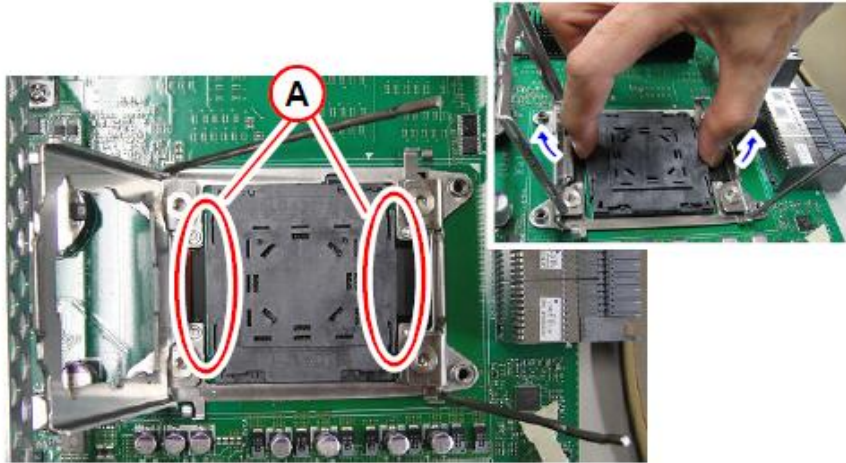


2. Open the holder of the socket cover. Grasp section A according to Figure C.3.1-3 and lift up one end and then the other to remove the cover.

ANNT)

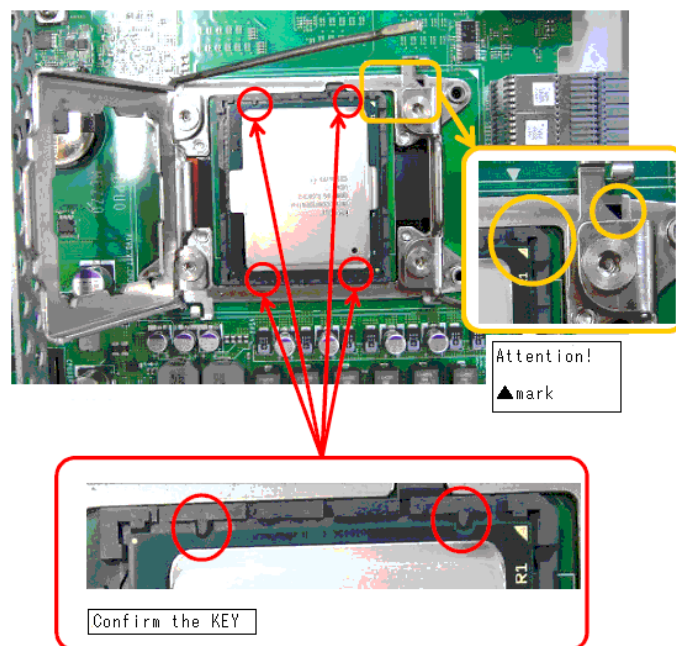
- When removing the cover, do not move it in a horizontal direction but rather lift it up vertically to prevent the pins from being bent.
- Be careful not to drop the removed cover on the socket.

Figure C.3.1-3



3. Install the CPU according to Figure C.3.1-4.

Figure C.3.1-4



4. Close the holder according to Figure C.3.1-5.

Figure C.3.1-5



5. Lock the lock lever in reverse order of opening the CPU holder and secure the CPU.

6. Set the heat sink in the holes of the heat sink shown in Figure C.3.1-6 and mount the heat sink according to Figure C.3.1-7.

Figure C.3.1-6

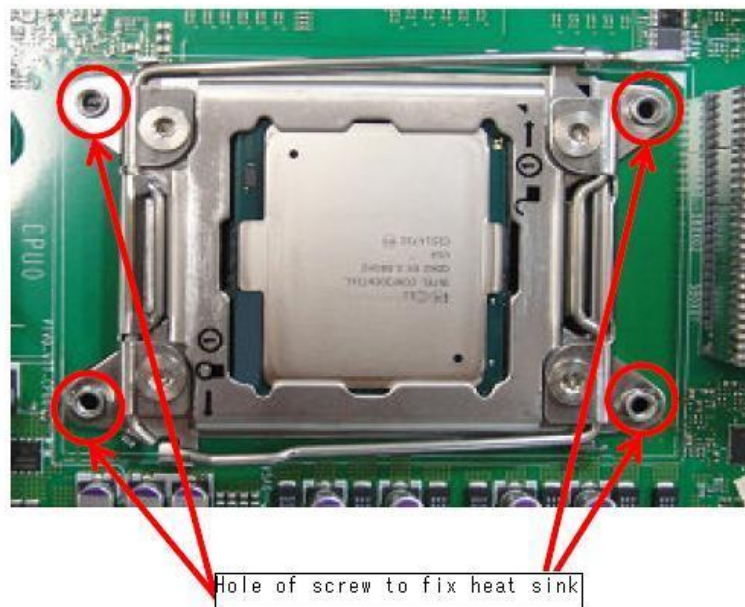
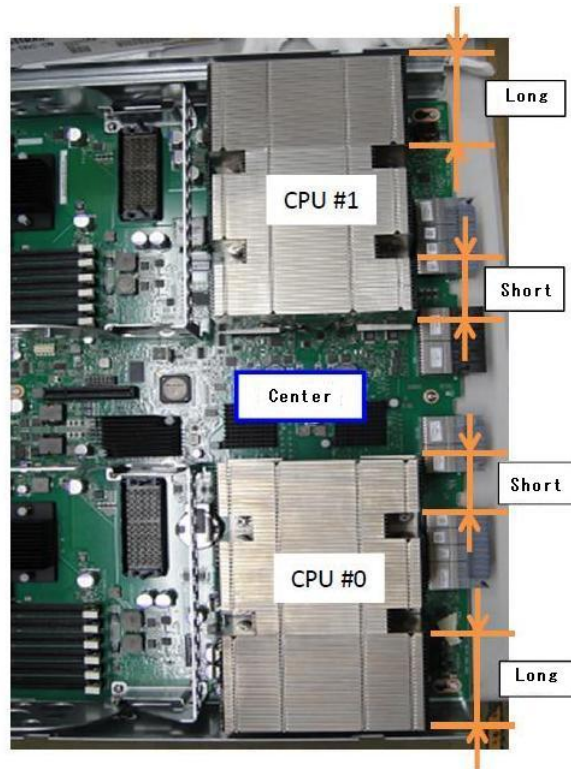


Figure C.3.1-7

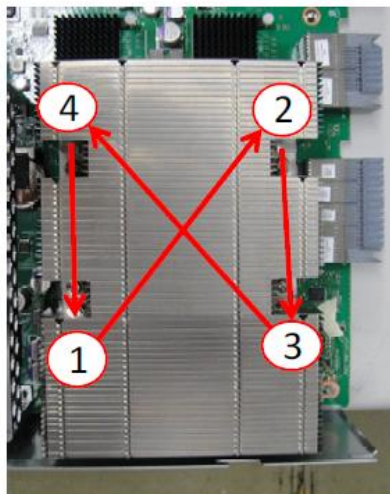


7. While placing your hand on the heat sink and keeping the horizontal position, tighten the screws using the tightening sequence shown in Figure C.3.1-8. Repeat the sequence several times.

ANNT)

- When mounting the heat sink, make sure that the screws engaged.
- Do not tighten one of the screws too much.

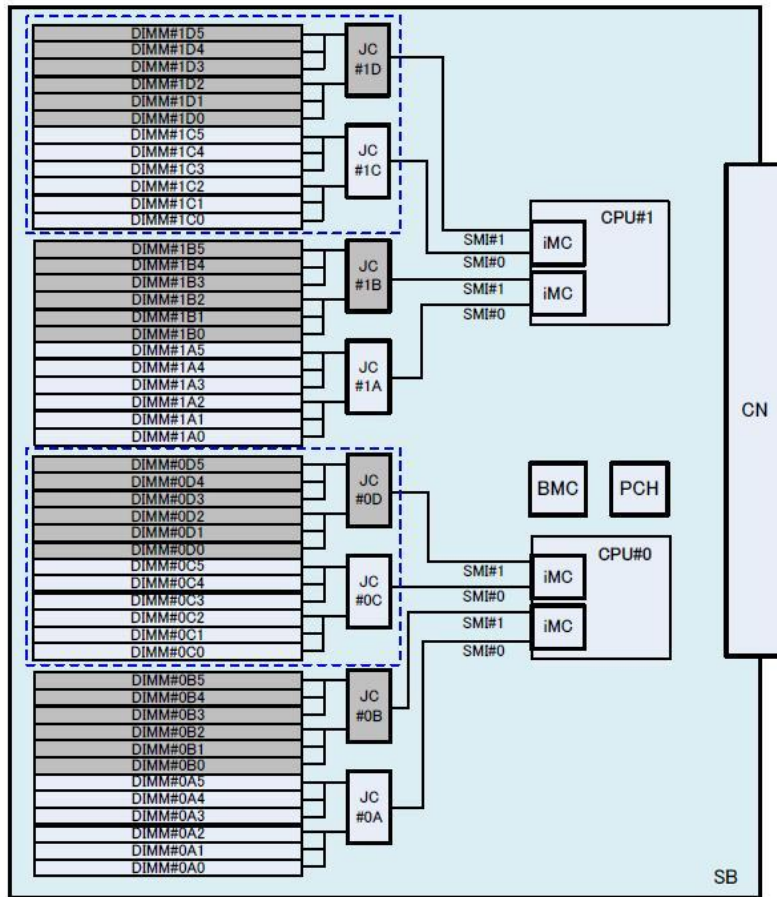
Figure C.3.1-8



C.3.2 Locations of CPU module components

- (1) Locations of CPU module components
See Figure C.3.2.

Figure C.3.2



APP0304000

C.4 Memory

APP0304010

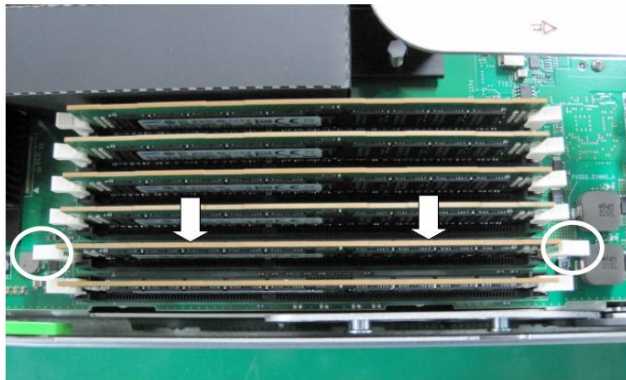
C.4.1 Installing the memory

(1) Installing the memory. See Figure C.4.1.

1. Open the right and left latches, and install the memory by pressing it downward with both hands.
2. Confirm that the memory is latched.

ANN T) Be careful not to open the connector lever beyond its limit position. Otherwise, the connector may be damaged.

Figure C.4.1



APP0304020

C.4.2 Removing the memory

(1) Removing the memory. See Figure C.4.2.

1. Open the left and right latches with both hands.
2. Remove the memory.

ANN T) Be careful not to open the connector lever beyond its limit position. Otherwise, the connector may be damaged.

Figure C.4.2

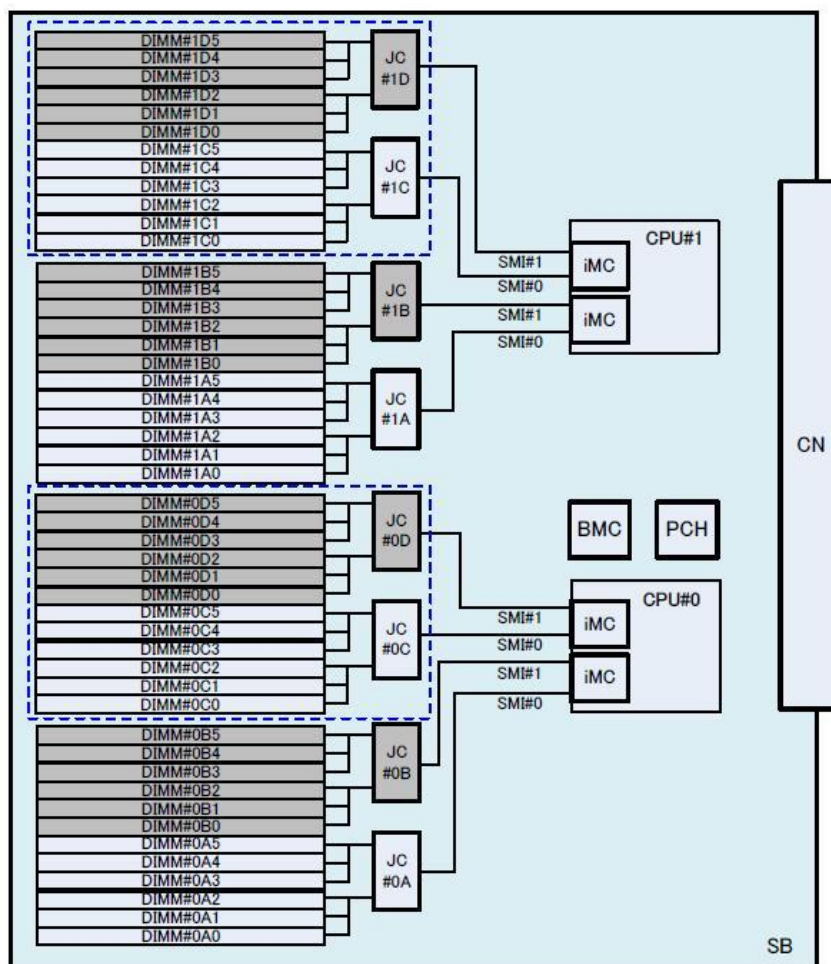


C.4.3 Locations of memory components

(1) Mounting locations. See Figure C.4.3.

DIMM#xCxx,DIMM#xDxx is memory mounted memory expansion board.

Figure C.4.3 Locations of memory components



C.5 Memory Expansion Board

C.5.1 Installing the memory expansion board

- (1) Installing the memory expansion board. See Figure C.5.1-2.
1. Move Section A to the right end position.
 2. Hold section A and section B and move the memory expansion board to the mounting locations.
 3. Set the notch of the memory expansion board in the guide pin of the SB.
 4. Pull section A left-downward.

Figure C.5.1-1

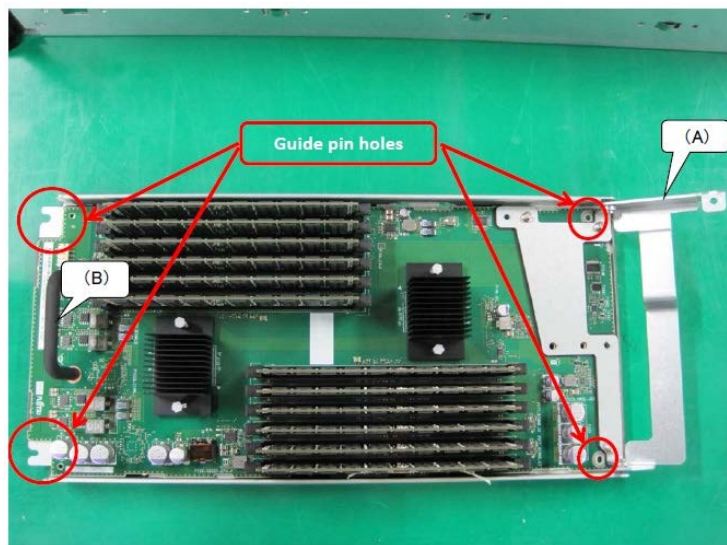
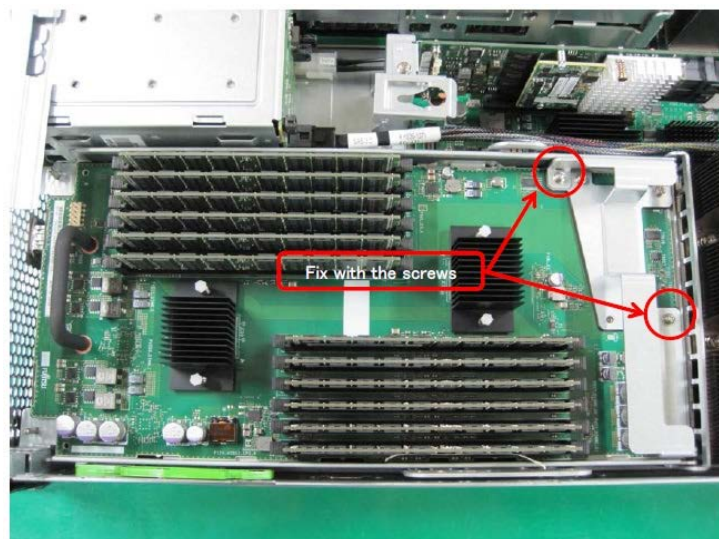


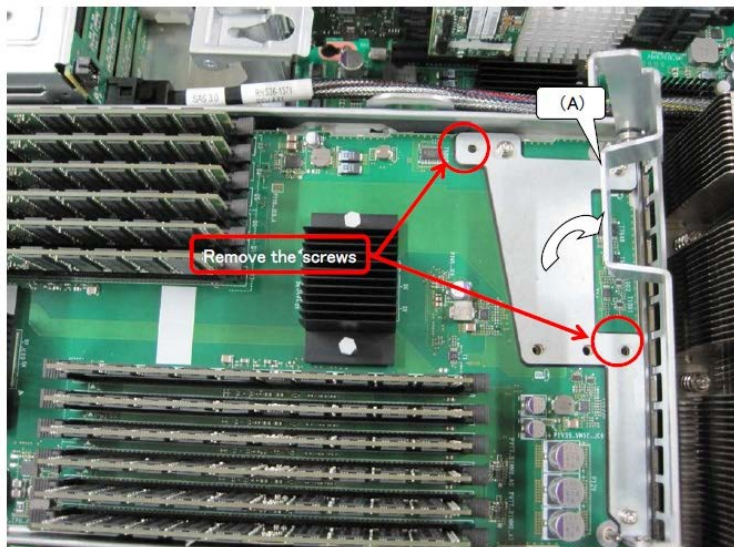
Figure C.5.1-2



C.5.2 Removing the memory expansion board

- (1) Removing the memory expansion board. See Figure C.5.2.
1. Pull section A rightward.
 2. Hold section A and B and lift it up vertically.

Figure C.5.2



APP0306000

C.6 PCI Express Card

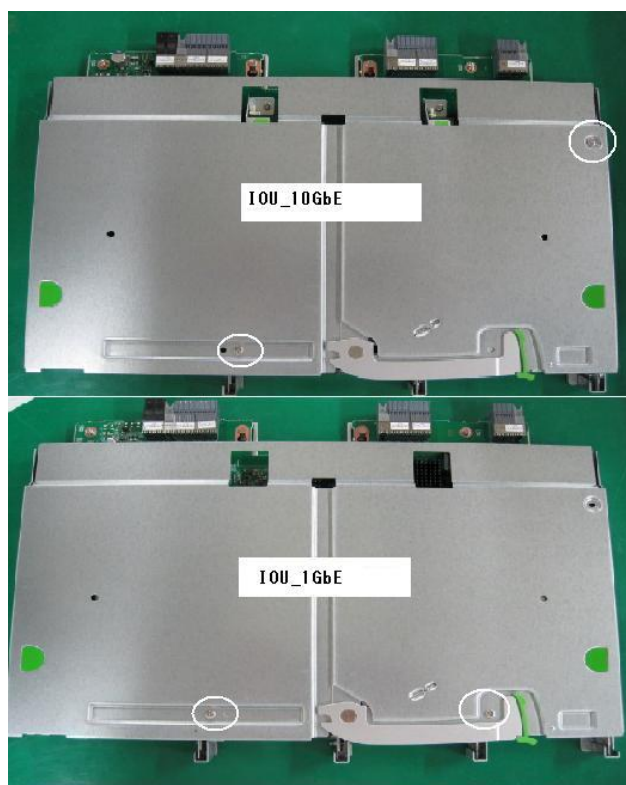
APP0306010

C.6.1 Installing the PCI Express card

(1) Installing the PCI Express card.

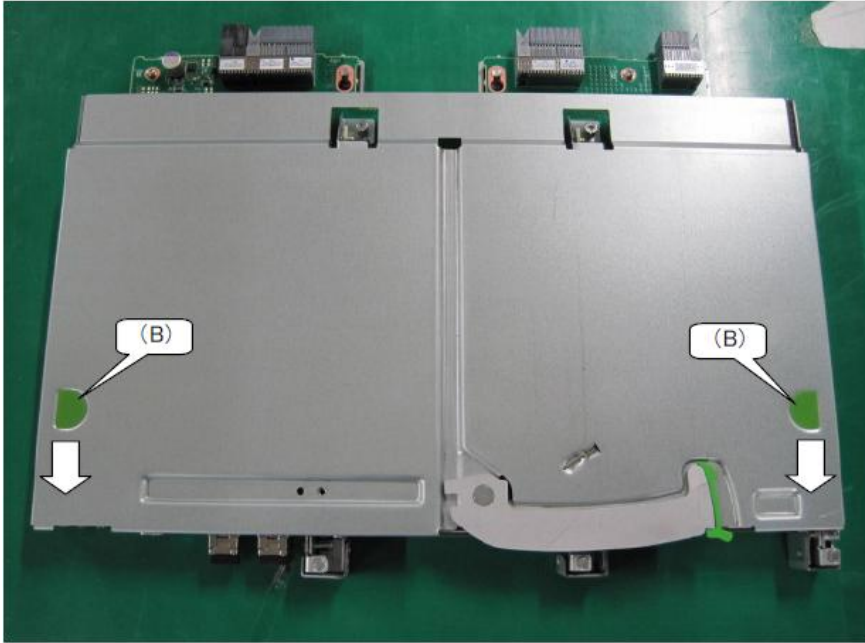
1. Remove two screws of the cover shown in Figure C.6.1-1.

Figure C.6.1-1



2. While pressing section B shown in Figure C.6.1-2 and moving it in the direction indicated by the arrow, remove the cover.

Figure C.6.1-2



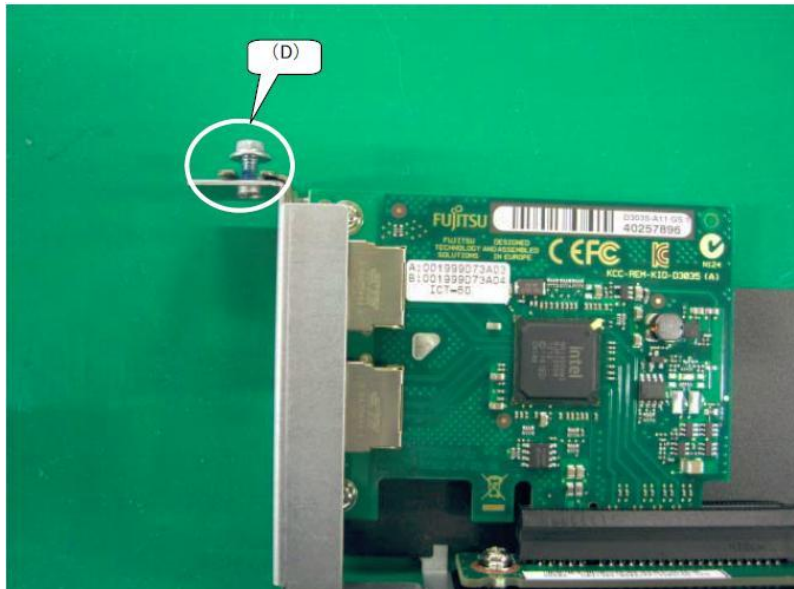
3. Remove the screw at section C which is secured to the ground shown in Figure C.6.1-3 and pull the sub unit for installing the PCI Express card upward.

Figure C.6.1-3



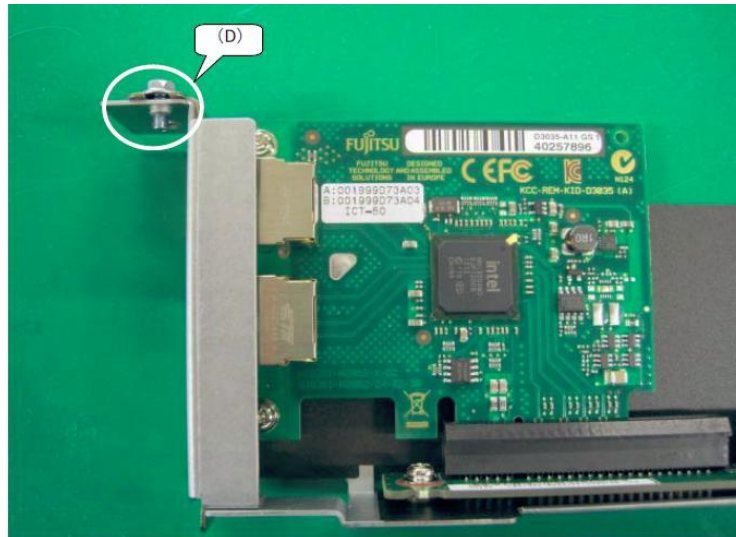
4. Remove the screw at section D of the sub unit for installing the PCI Express card shown in Figure C.6.1-4 and install the PCI Express card.

Figure C.6.1-4



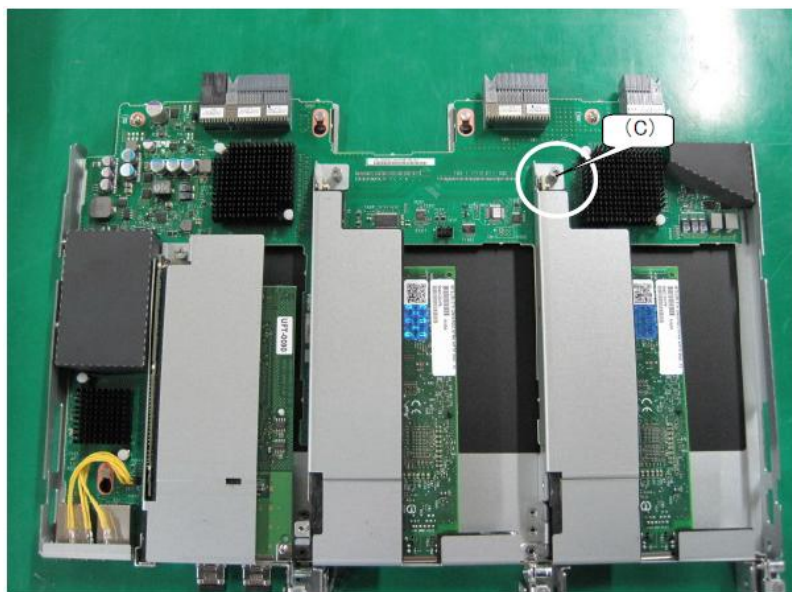
5. Tighten the screw at section D shown in Figure C.6.1-5 and secure the PCI Express card.

Figure G.6.1-5



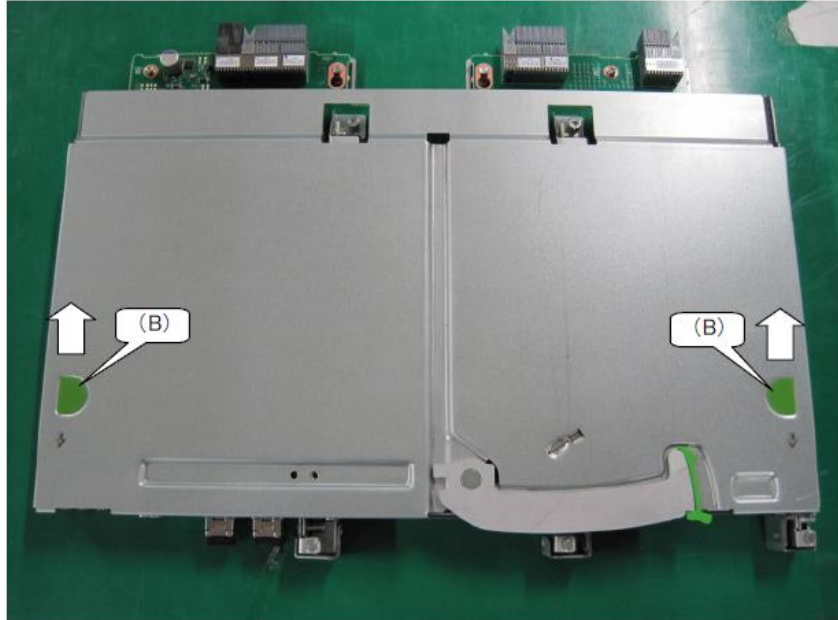
6. Install the sub unit for installing the PCI Express card in the IOU.
7. Tighten the screws at section C which is secured to the ground shown in Figure C.6.1-6.

Figure C.6.1-6



8. While pressing section B shown in Figure C.6.1-7 and moving it in the direction indicated by the arrow, install the cover.

Figure C.6.1-7

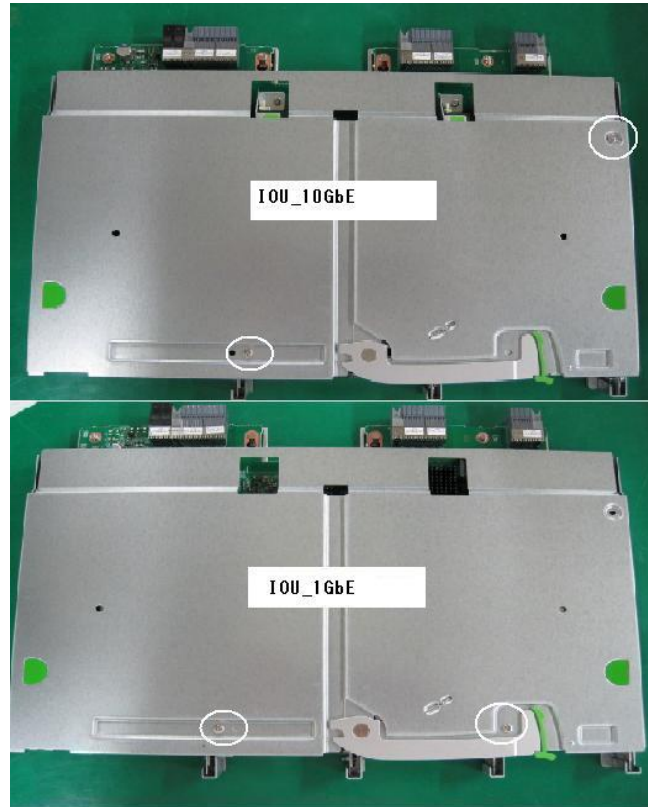


C.6.2 Removing the PCI Express card

(1) Removing the PCI Express card.

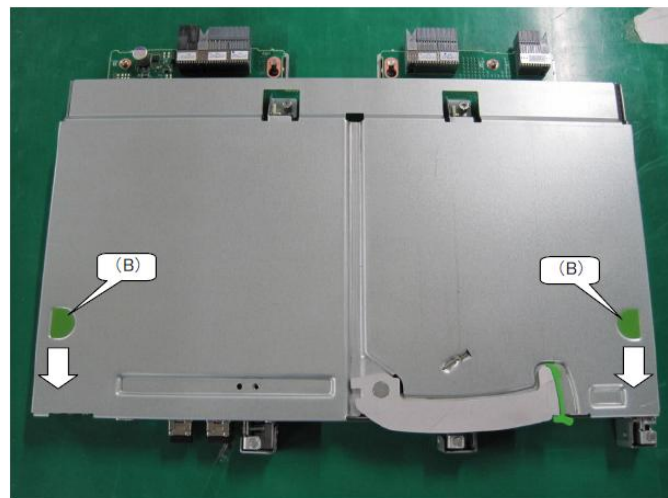
1. Remove two screws of the cover shown in Figure C.6.2-1.

Figure C.6.2-1



2. While pressing section B shown in Figure C.6.2-2 and moving it in the direction indicated by the arrow, remove the cover.

Figure C.6.2-2



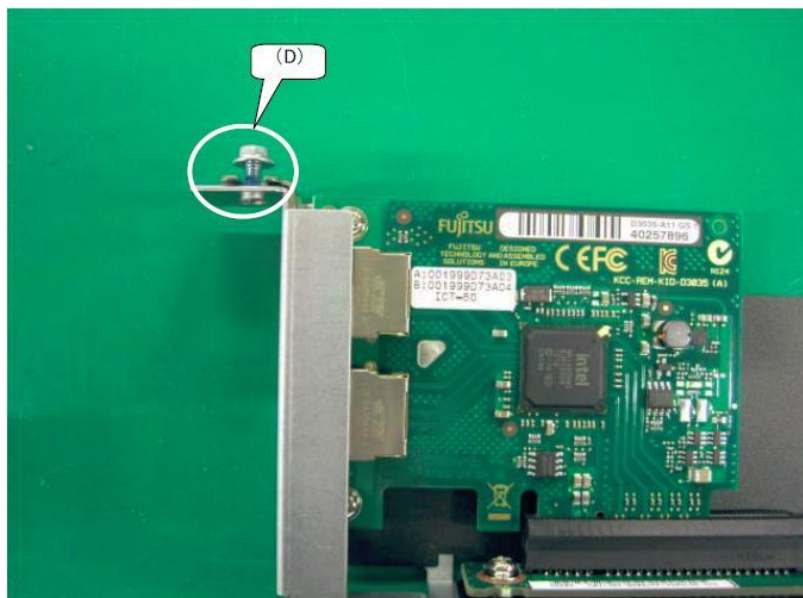
3. Remove the screw at section C which is secured to the ground shown in Figure C.6.2-3 and pull the sub unit for installing the PCI Express card upward.

Figure C.6.2-3



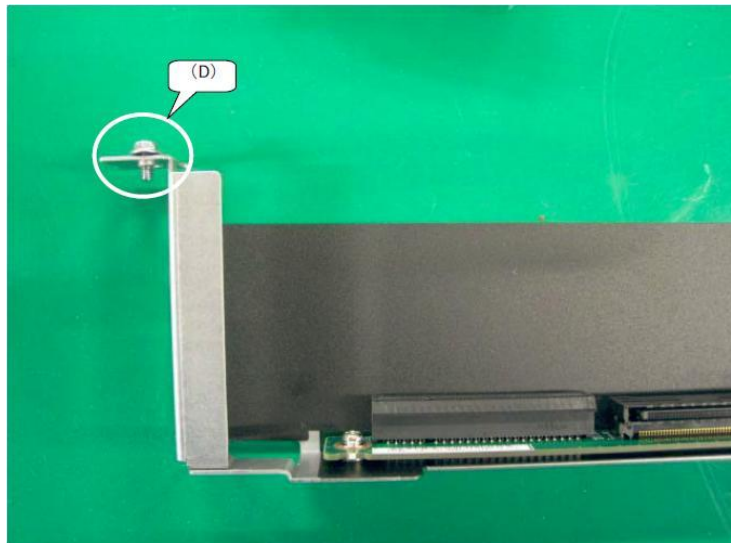
4. Remove the screw at section D of the sub unit for installing the PCI Express card shown in Figure C.6.2-4 and remove the PCI Express card.

Figure C.6.2-4



5. Install the bracket, tighten the screw at section D shown in Figure C.6.2-5.

Figure C.6.2-5



6. Install the sub unit for installing the PCI Express card in the IOU.

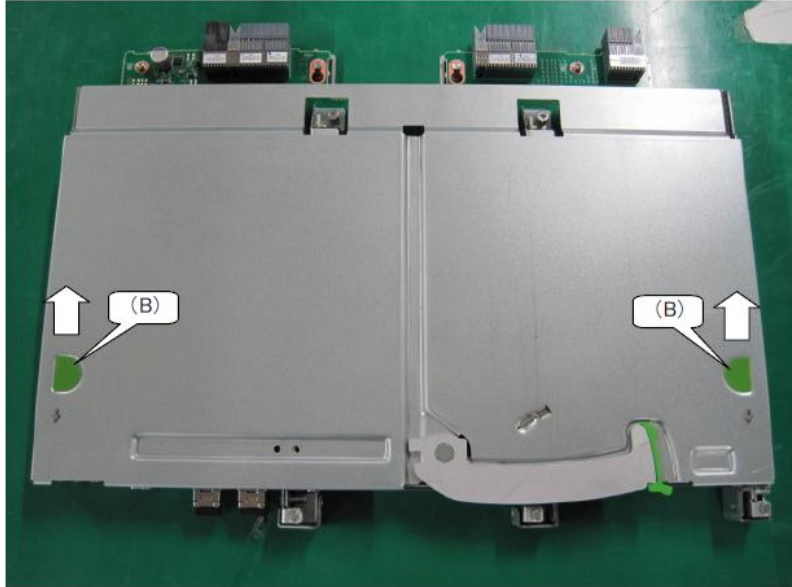
7. Tighten the screw at section C which is secured to the ground shown in Figure C.6.2-6.

Figure C.6.2-6



8. While pressing section B shown in Figure C.6.2-7 and moving it in the direction indicated by the arrow, install the cover.

Figure C.6.2-7



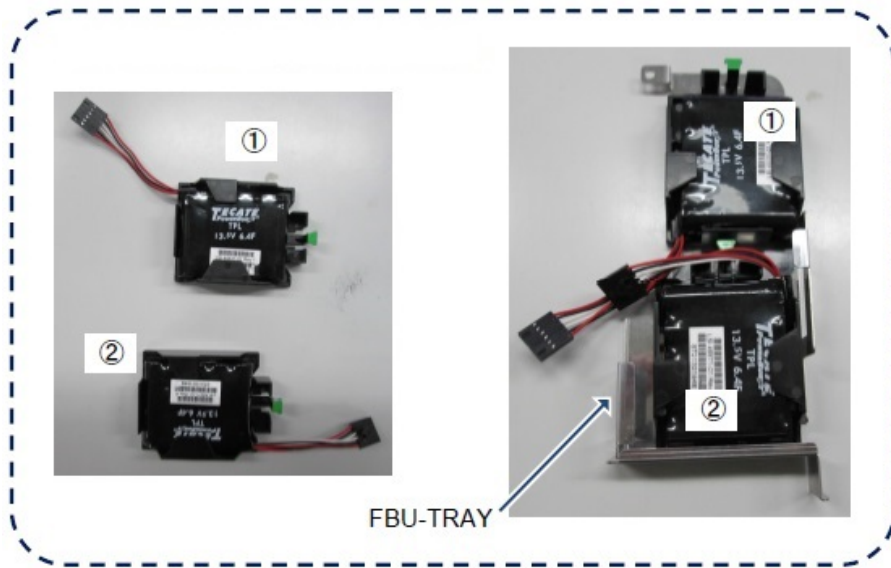
9. Tighten two screws on the cover.

C.6.3 FBU (IOUL)

It explains the procedure for installing FBU (flash backup unit) in IOU_1GbE. It is necessary to arrange kit (FBU-TRAY) equipped with the flash backup unit besides FBU for the installation.

- (1) The direction of FBU to FBU HOLDER decides the direction of ① and ② as shown by Figure C.6.3-1. because there are two kinds by the position installed in FBU-TRAY.

Figure C.6.3-1



- (2) It matches it under the maintenance bracket on both sides of FBU HOLDER while inclining FBU a little referring to Figure C.6.3-2.

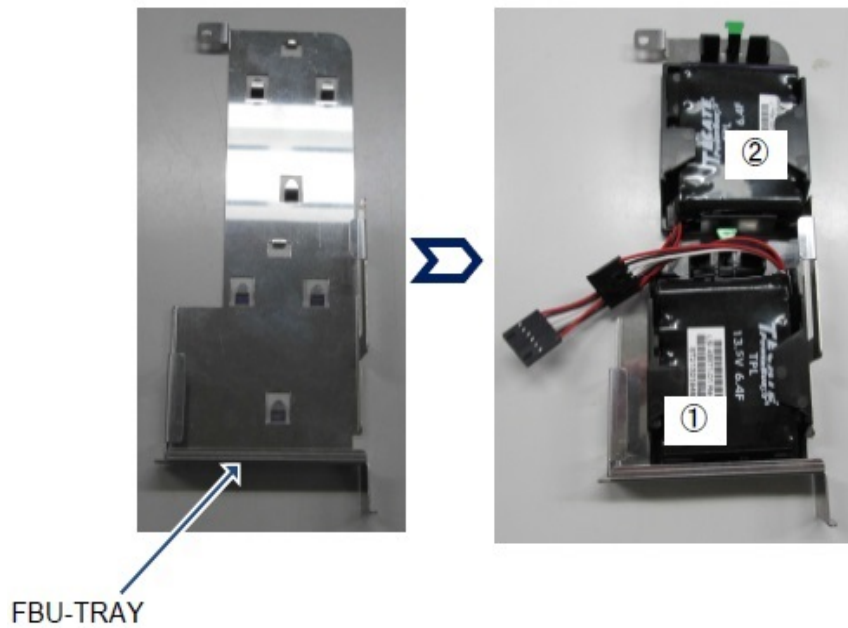
- (3) FBU is inserted until being fixed to the position.

Figure C.6.3-2



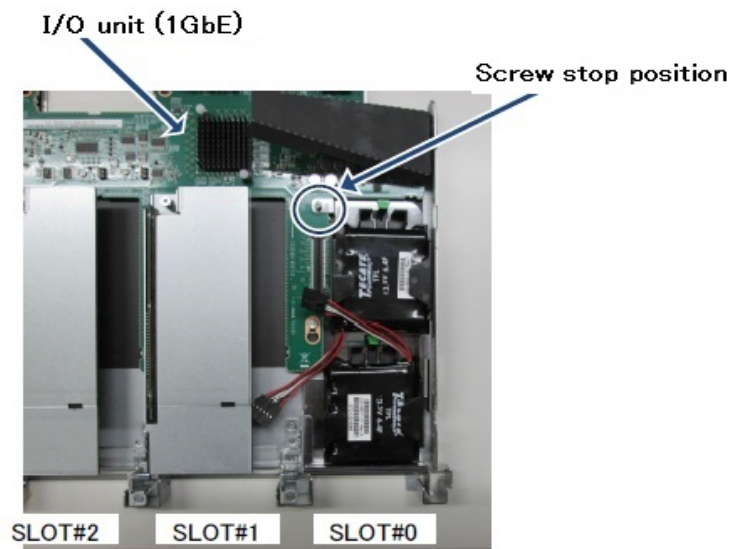
- (4) FBU that has installed FBU HOLDER referring to Figure C.6.3-3 is installed in FBU-TRAY. When two pieces are installed, it installs it in order of ①→②.

Figure C.6.3-3



- (5) FBU-TRAY is installed in SLOT#0 of I/O unit (1GbE) referring to Figure C.6.3-4.
The screw that is the fixation of riser who detached it from I/O unit (1GbE) is used.

Figure C.6.3-4



- (6) FBU ① connects SLOT#1 and FBU ② with dual channel SAS array controller card of SLOT#2 with the FBU cable referring to Figure C.6.3-5.

The FBU cable makes it not get on the heat sink.
When the cover of input-output unit (1GbE) is obtained like Figure C.6.3-6, the FBU cable only has not to be seen from the outside.

Figure G.6.3-5

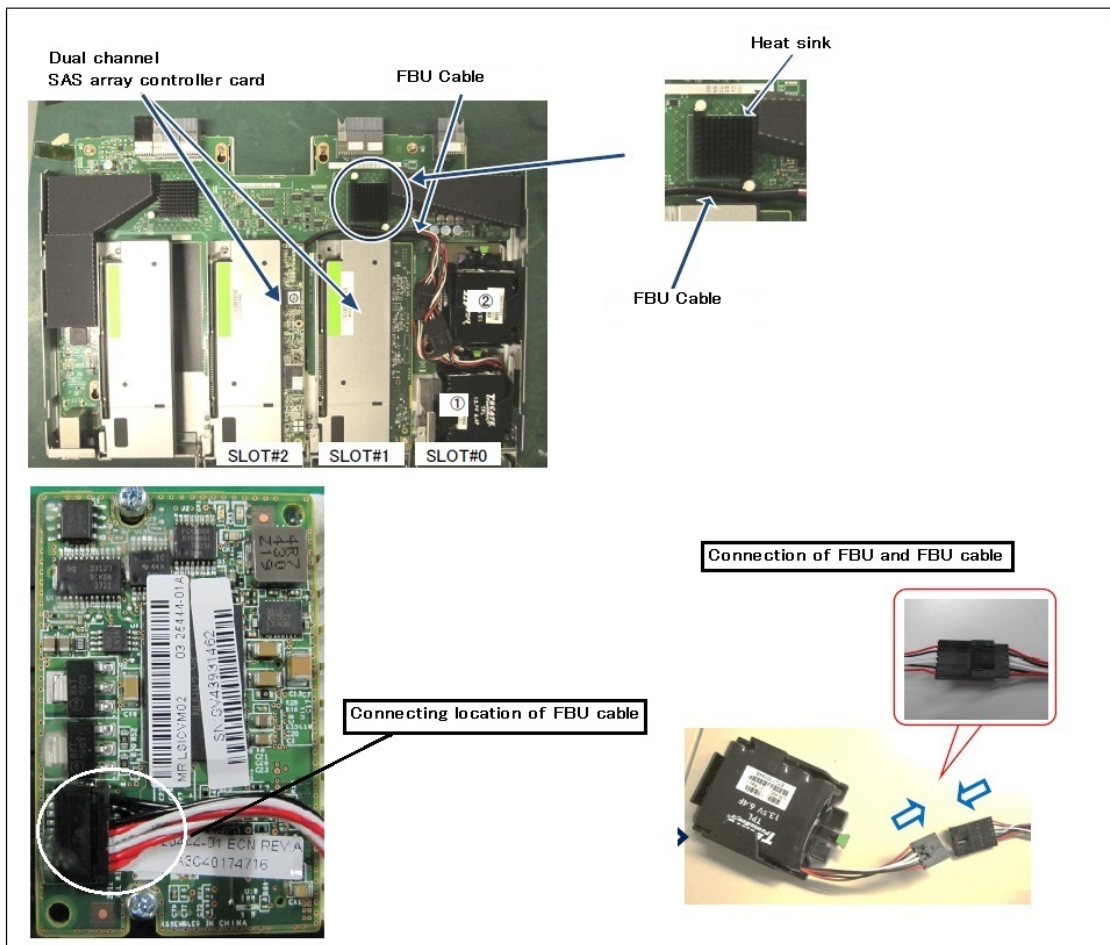
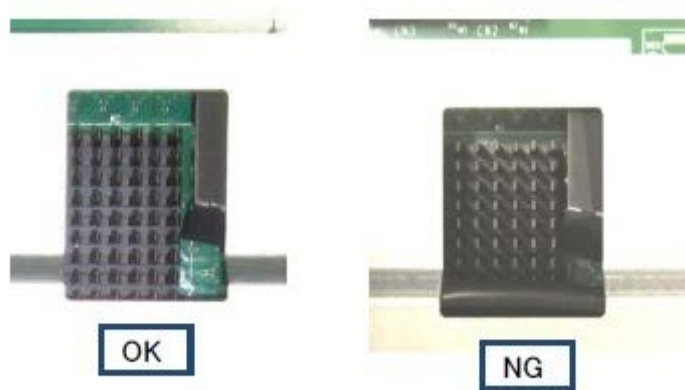


Figure G.6.3-6



APP0307000

C.7 Internal Hard Disk Drive (HDD) / Internal Solid State Drive (SSD)

APP0307010

C.7.1 Installing the HDD/SSD

(1) Installing the HDD / SSD

1. Push the lever inward. See Figure C.7.1.

Figure C.7.1



APP0307020

C.7.2 Removing the HDD/SSD

(1) Removing the HDD / SSD

1. Pull the green latch outward while pushing on it. See Figure C.7.2.

Figure G.7.2



APP0308000

C.8 PSU

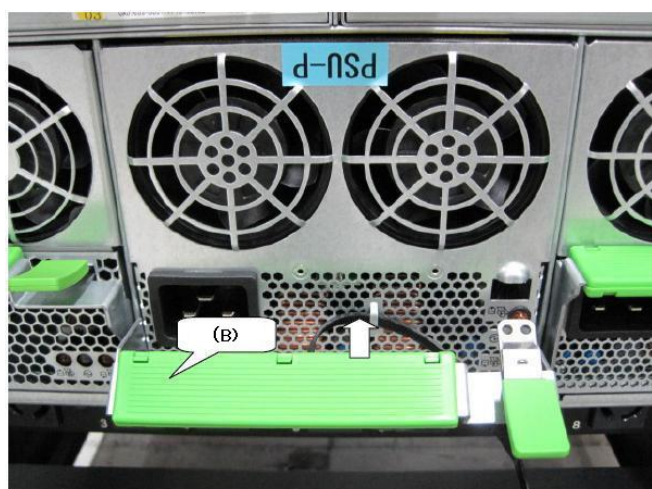
APP0308010

C.8.1 Installing the PSU

(1) Installing the PSU (PSU#0 to PSU#2). See Figure C.8.1-1

1. Push section B upward.
2. Install the power cable.
3. Fix the power cable with the reusable tie.

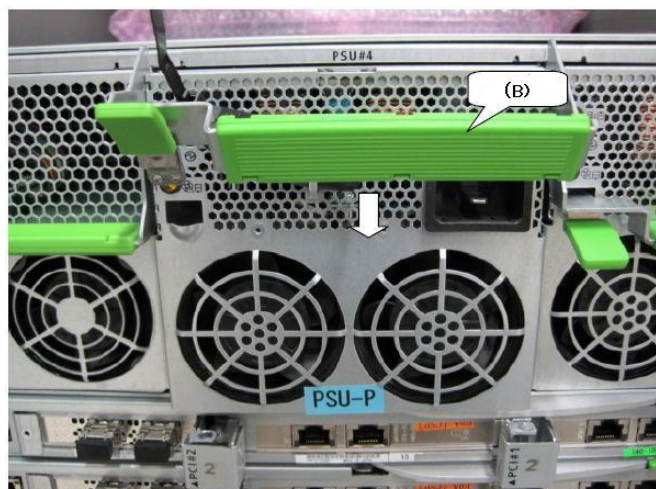
Figure C.8.1-1



(2) Installing the PSU (PSU#3 to PSU#5). See Figure C.8.1-2

1. Push section B downward.
2. Install the power cable.
3. Fix the power cable with the reusable tie.

Figure C.8.1-2



C.8.2 Removing the PSU

(1) Removing the PSU (PSU#0 to PSU#02). See Figure C.8.2-1.

1. Loosen the reusable tie which fixed the power cable.
2. Remove the power cable.
3. Pull section A downward. (Unlocked)
4. Pull section B downward.

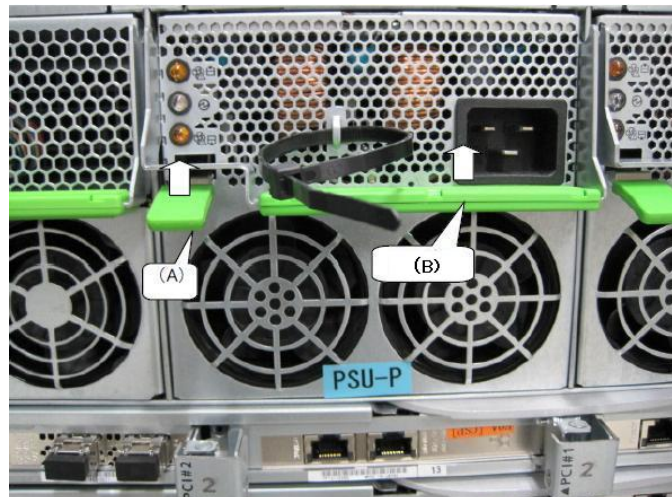
Figure C.8.2-1



(2) Removing the PSU (PSU#3 to PSU#05). See Figure C.8.2-2.

1. Loosen the reusable tie which fixed the power cable.
2. Remove the power cable.
3. Pull section A upward. (Unlocked)
4. Pull section B upward.

Figure C.8.2-2



APP0309000

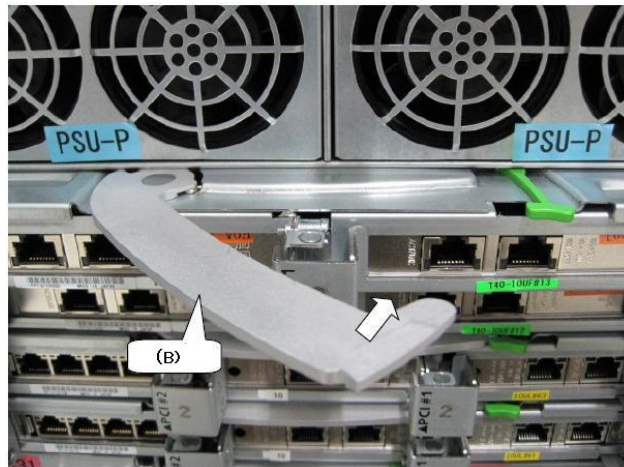
C.9 IOU

APP0309010

C.9.1 Installing the IOU

- (1) Installing the IOU. See Figure C.9.1.
1. Push section B inward.

Figure C.9.1

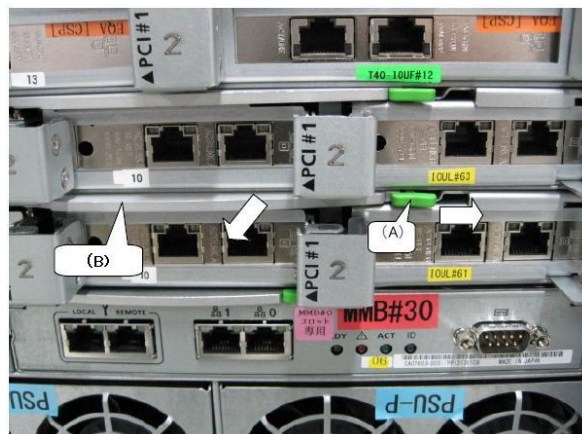


APP0309020

C.9.2 Removing the IOU

- (1) Removing the IOU. See Figure C.9.2.
1. Pull section A rightward.
2. Pull section B outward.

Figure C.9.2



APP0310000

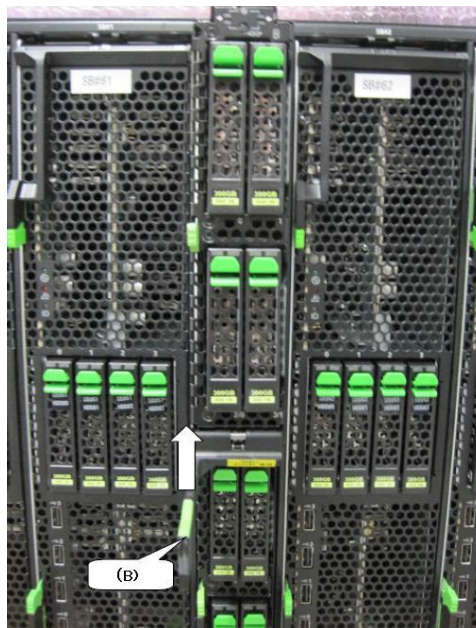
C.10 DU

APP0310010

C.10.1 Installing the DU

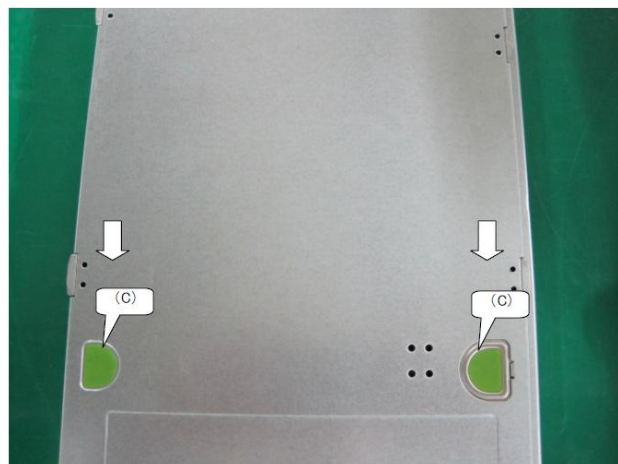
- (1) Installing the DU. See Figure C.10.1-1.
 1. Push section B inward.

Figure C.10.1-1



- (2) Installing the cover. See Figure C.10.1-2.
 1. While pressing section C, push it in the direction indicated by the arrow.

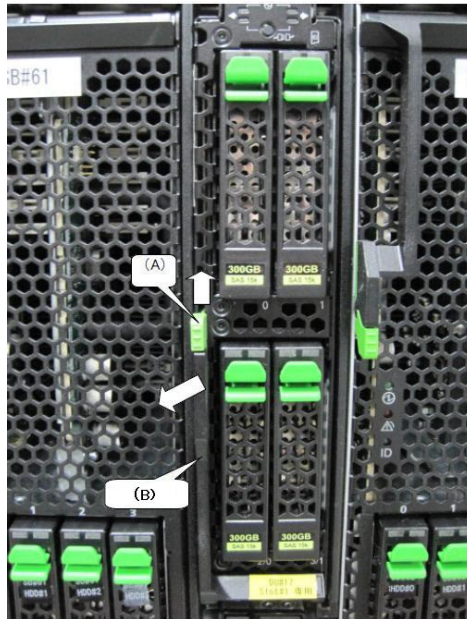
Figure C.10.1-2



C.10.2 Removing the DU

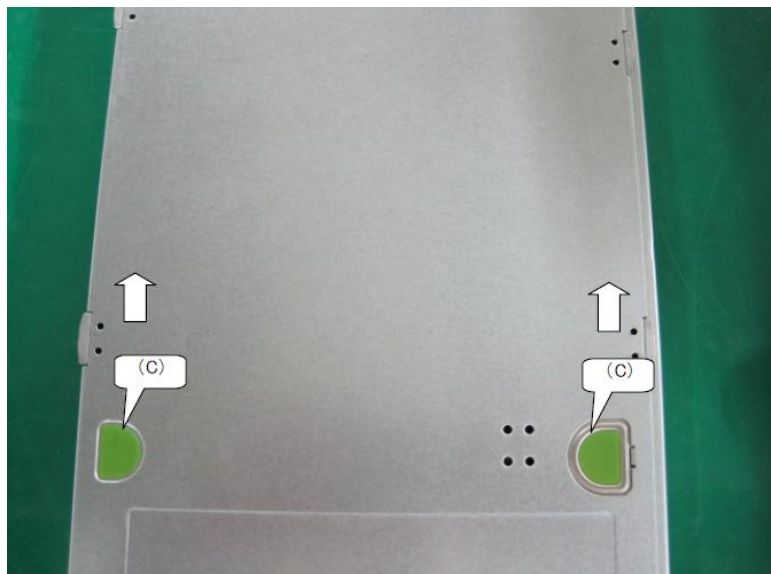
- (1) Removing the DU. See Figure C.10.2-1
 1. Pull section A upward. (Unlocked)
 2. Pull section B outward.

Figure C.10.2-1



- (2) Removing the cover. See Figure C.10.2-2.
 1. While pressing section C, pull it out in the direction indicated by the arrow.

Figure G.10.2-2



APP0311000

C.11 FANU

APP0311010

C.11.1 Installing the FANU

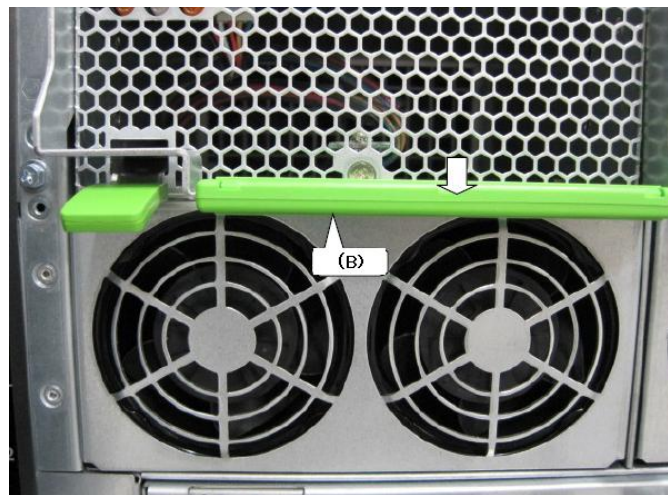
- (1) Installing the FANU (PSU#0 to PSU#2). See Figure C.11.1-1.
1. Push section B upward.

Figure C.11.1-1



- (2) Installing the FANU (PSU#3 to PSU#5). See Figure C.11.1-2.
1. Push section B downward.

Figure C.11.1-2



C.11.2 Removing the FANU

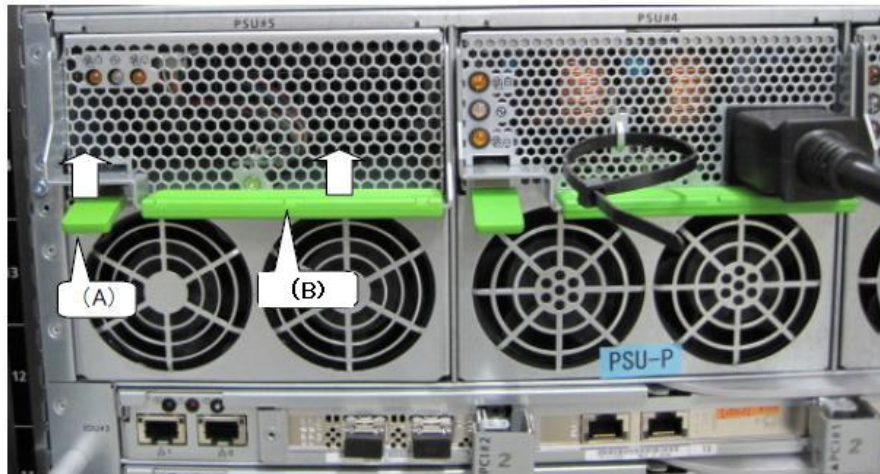
- (1) Removing the FANU (PSU#0 to PSU#2). See Figure C.11.2-1.
1. Pull section A downward. (Unlocked)
 2. Pull section B downward.

Figure C.11.2-1



- (2) Removing the FANU (PSU#3 to PSU#5). See Figure C.11.2-2.
1. Pull section A upward. (Unlocked)
 2. Pull section B upward.

Figure C.11.2-2



APP0312000

C.12 Dual Channel LAN Card (10G BASE)

APP0312010

C.12.1 Installing the 10G BASE-SR SFP+ module

(1) Installing the SFP+ module

See Figure C.12.1.

1. Insert the module to the card.
2. Remove the dust cap when the cable is connected.

Figure C.12.1



APP0312020

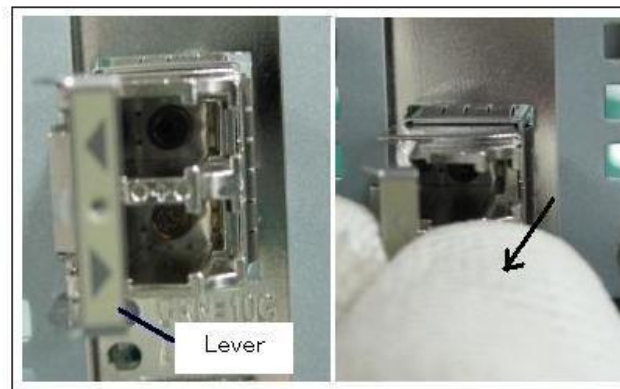
C.12.2 Removing the 10G BASE-SR SFP+ module

(1) Removing the SFP+ module

See Figure C.12.2.

1. Open the lever.
2. Pull the lever open.

Figure C.12.2

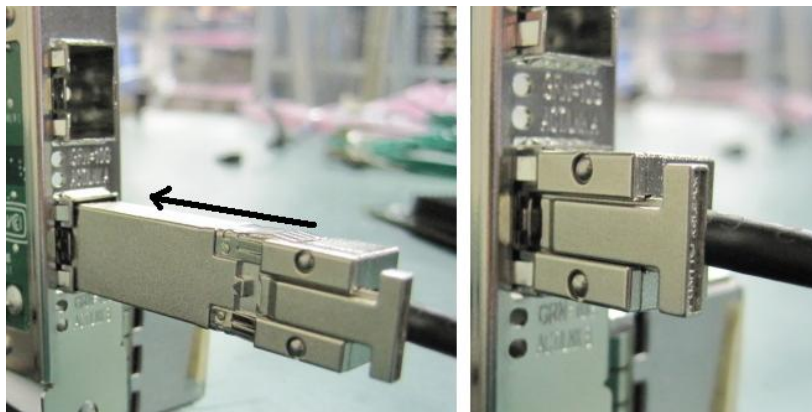


C.12.3 Installing the 10G BASE-CR SFP+ cable

(1) Installing the SFP+ cable

1. Grasp the module, and work it toward and into the rear of the card. See Figure C.12.3.

Figure C.12.3

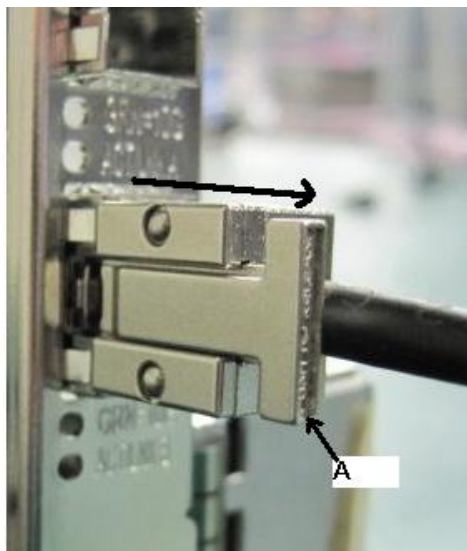


C.12.4 Removing the 10G BASE-CR SFP+ cable

(1) Removing the SFP+ cable

1. While pressing part A, pull out the module. See Figure C.12.4.

Figure C.12.4



APP0313000

C.13 Converged Network Adapter

APP0313010

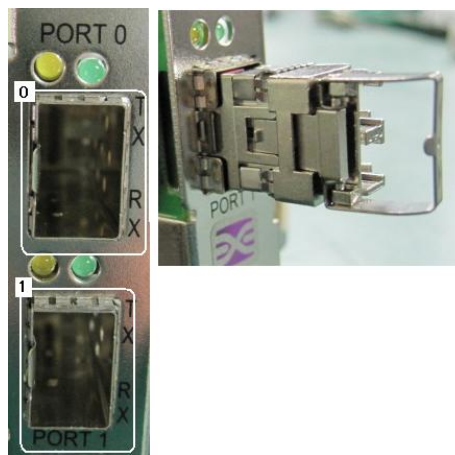
C.13.1 Installing the 10G BASE-SR SFP+ module

(1) Installing the SFP+ module

See Figure C.13.1.

1. Grasp the module, and work it toward and into the rear of the card.
2. To connect a cable, remove the dust cap.

Figure G.13.1



APP0313020

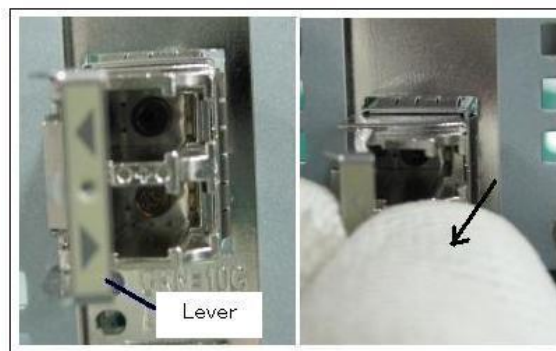
C.13.2 Removing the 10G BASE-SR SFP+ module

(1) Removing the SFP+ module

See Figure C.13.2.

1. Operate the lever to open it.
2. Hold the lever and pull it out.

Figure C.13.2



C.13.3 Installing the 10G BASE-CR SFP+ cable

(1) Installing the SFP+ cable

1. Grasp the module, and work it toward and into the rear of the card. See Figure C.13.3.

Figure C.13.3

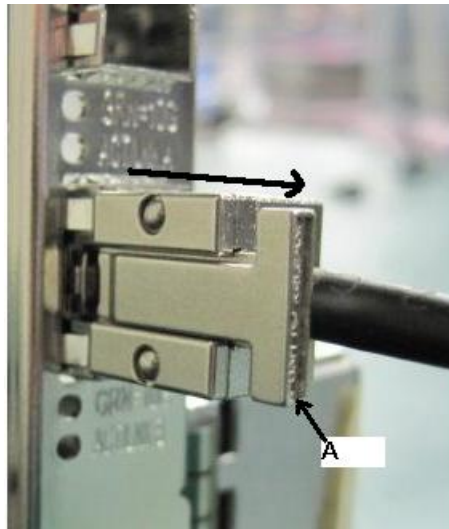


C.13.4 Removing the 10G BASE-CR SFP+ cable

(1) Removing the SFP+ cable

1. While pressing part A, pull out the module. See Figure C.13.4.

Figure C.13.4

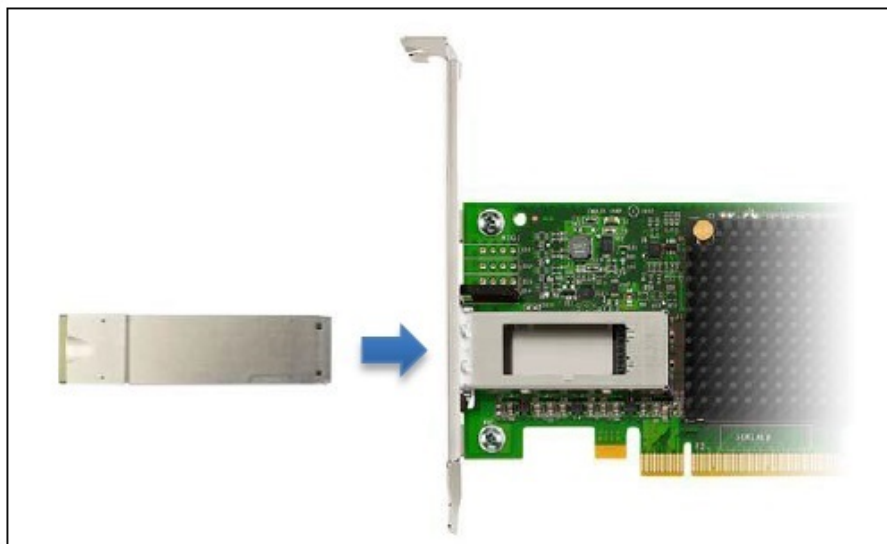


APP0313050

C.13.5 Installing the 40G BASE-SR4 QSFP+ module

See Figure C.13.5.

Figure C.13.5

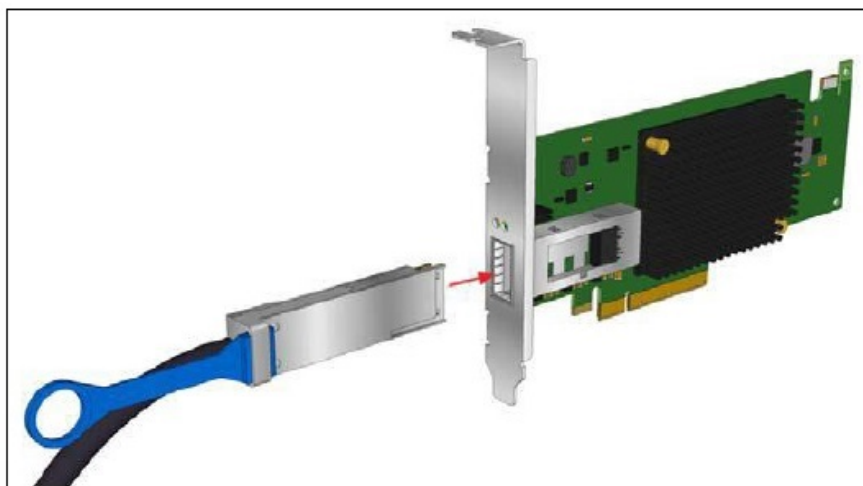


APP0313060

C.13.6 Installing the 40G BASE-CR4 QSFP+ cable

See Figure C.13.6.

Figure C.13.6



APP0314000

C.14 Installing the FBU

APP0314010

C.14.1 Installing the FBU

- (1) At a slight angle, fit the FBU under both retaining brackets of the FBU holder as shown in Figure C.14.1-1.

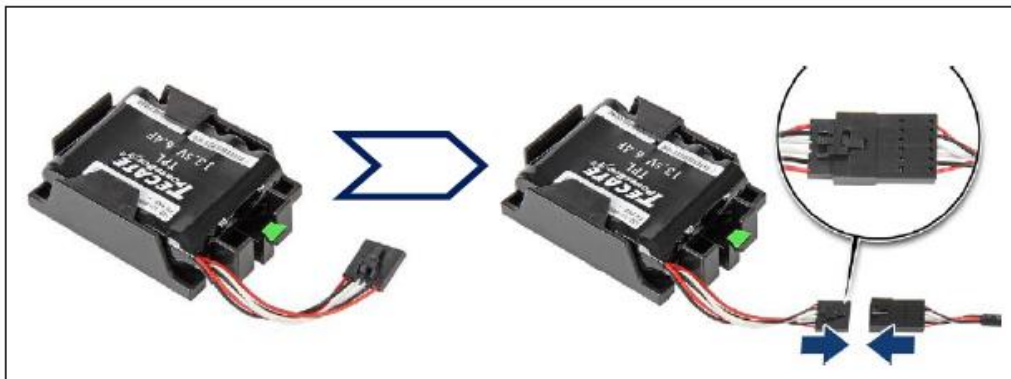
Push in the FBU until it locks in place. See Figure C.14.1-1.

Figure C.14.1-1



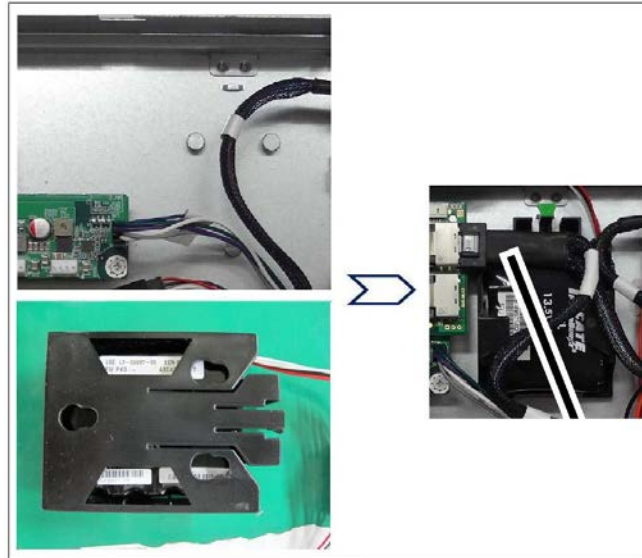
- (2) Connect the FBU cable. See Figure C.14.1-2.

Figure C.14.1-2



- (3) Secure the FBU. See Figure C.14.1-3.

Figure C.14.1-3



C.14.2 Installing the TFM module

- (1) Install the TFM module to the SAS array controller card or Dual SAS array controller card.
See Figure C.14.2-1 and Figure C.14.2-2.

Figure C.14.2-1

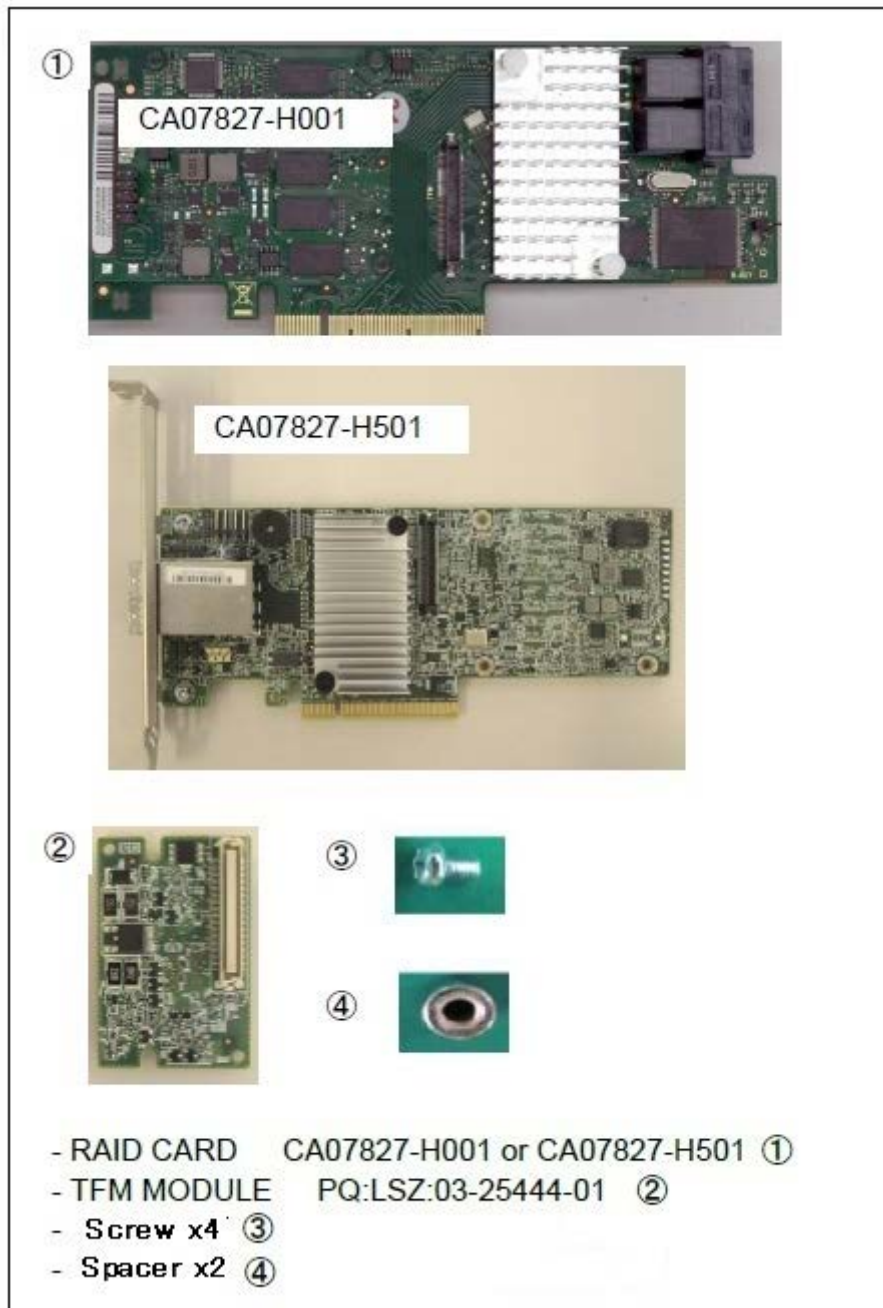
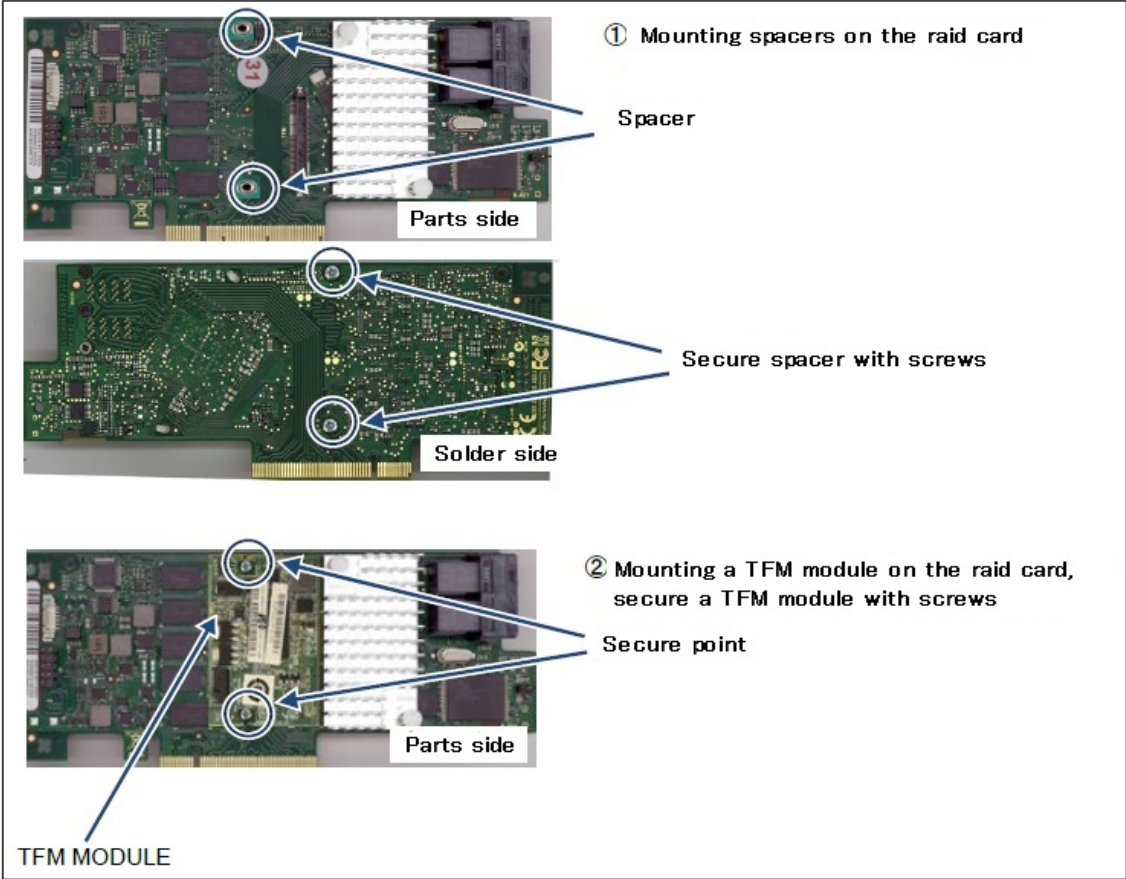


Figure C.14.2-2



C.14.3 FBU Cable Connection

- (1) Connect between the FBU and the TFM module with the FBU cable.
See Figure C.14.3-1.
The FBU cable are the attached items of the flash backup unit.

Figure C.14.3-1



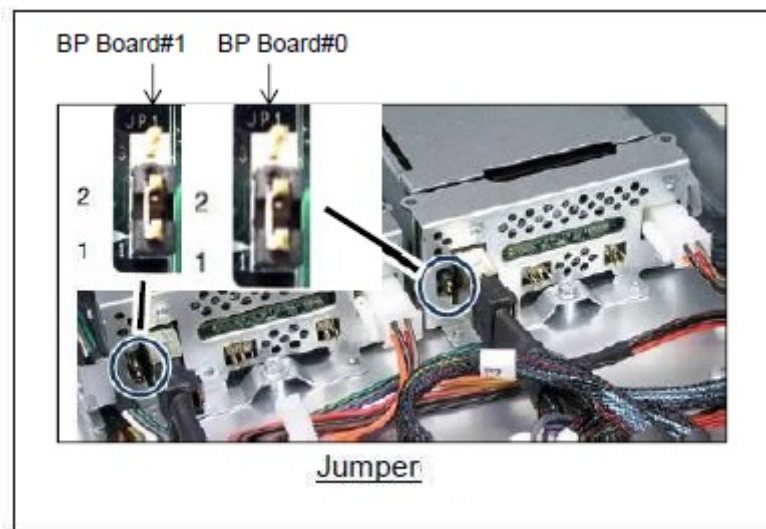
C.15 Installing the SAS array controller card (DU)

There are three ways of installing the SAS array controller card. Select one of them with the system administrator. RAID CARD shown in the following figure indicates a SAS array controller card.

C.15.1 Installing the SAS Array Controller Card only into Slot#0

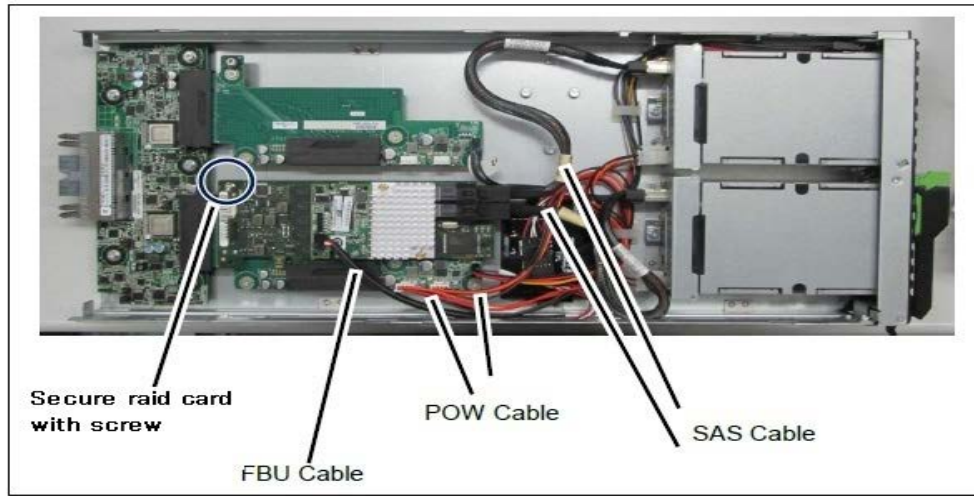
- (1) Confirm the jumper setting of BP Board#0 and #1. See Figure C.15.1-1.

Figure C.15.1-1



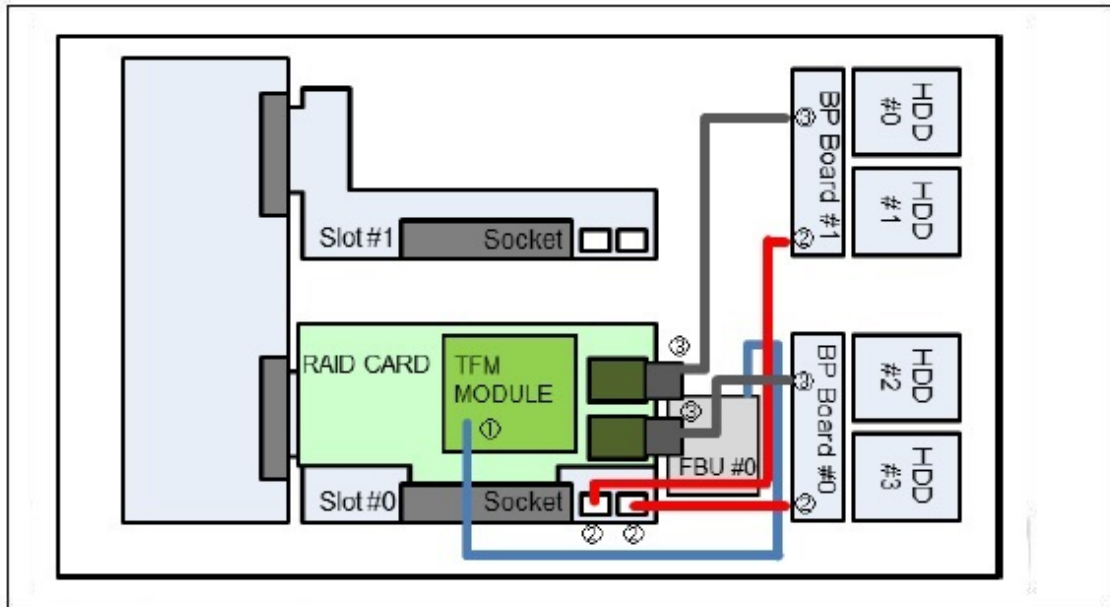
- (2) Installing the FBU and TFM module if flash backup unit is used.
See Appendix C.14.1 "Installing the FBU ([APP0314010](#))".
See Appendix C.14.2 "Installing the TFM module ([APP0314020](#))".
- (3) Install the SAS array controller card into Slot#0 and secure it with the screws. See Figure C.15.1-2.

Figure C.15.1-2



- (4) Connect FBU cable and TFM module if flash backup unit is used.
See Appendix C.14.3 "FBU Cable Connection ([APP0314030](#))".
- (5) Connect POW Cable as shown in Figure C.15.1-3 ② and BP Board#0 and #1.
- (6) Connect SAS Cable as shown in Figure C.15.1-3 ③.

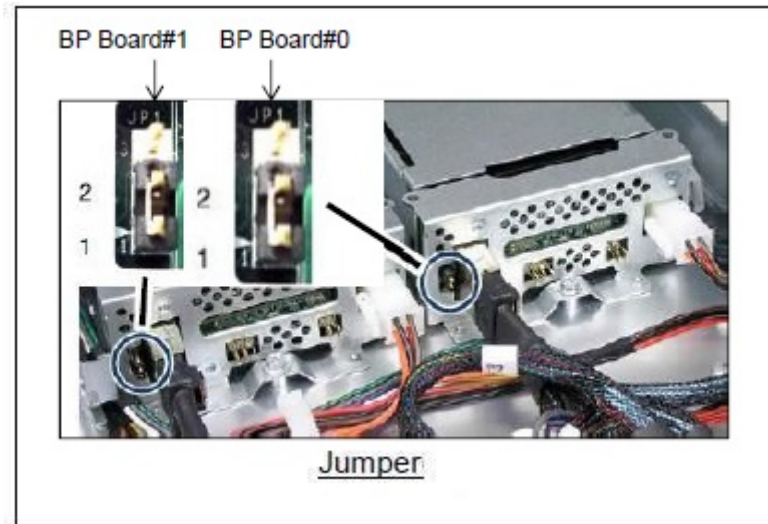
Figure C.15.1-3



C.15.2 Installing the SAS Array Controller Card only into Slot#1

(1) Confirm the jumper setting of BP Board#0 and #1. See Figure C.15.2-1.

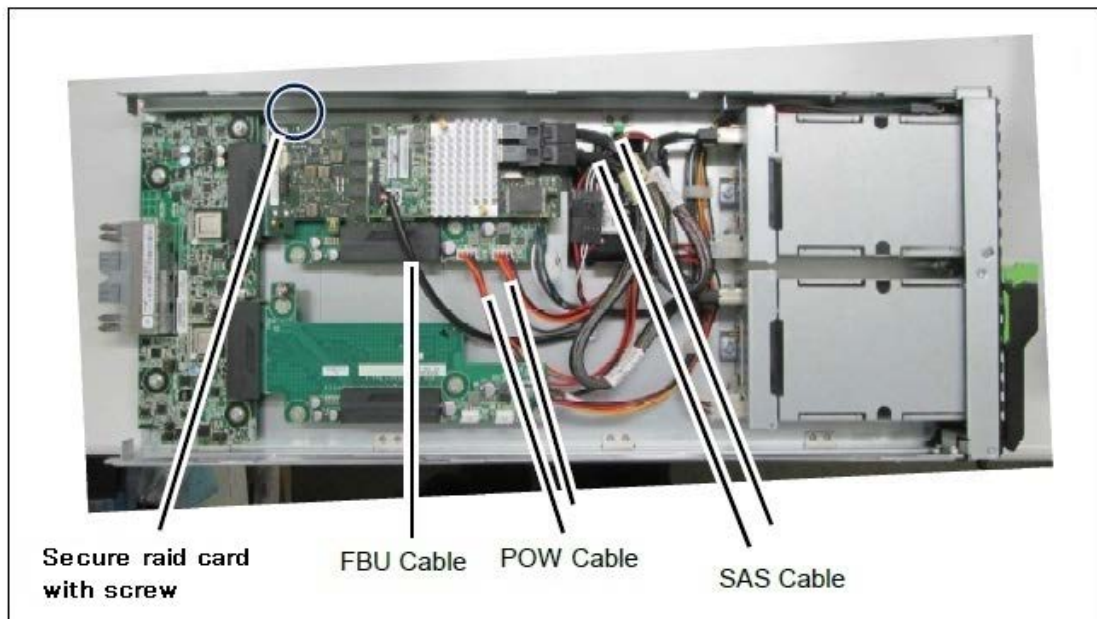
Figure C.15.2-1



(2) Installing the FBU and TFM module if flash backup unit is used.
See Appendix C.14.1 "Installing the FBU ([APP0314010](#))".
See Appendix C.14.2 "Installing the TFM module ([APP0314020](#))".

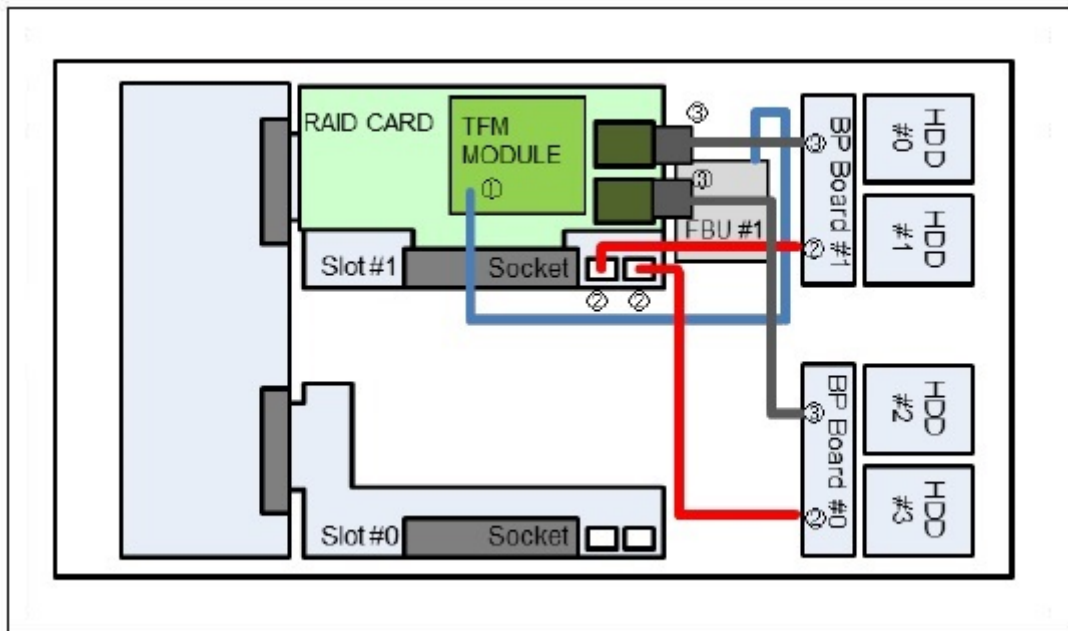
(3) Install the SAS array controller card into Slot#1 and secure it with the screws. See Figure C.15.2-2.

Figure C.15.2-2



- (4) Connect FBU cable and TFM module if flash backup unit is used.
See Appendix C.14.3 "FBU Cable Connection (APP0314030)".
- (5) Connect POW Cable as shown in Figure C.15.2-3 ② and BP Board#0 and #1.
- (6) Connect SAS Cable as shown in Figure C.15.2-3 ③.

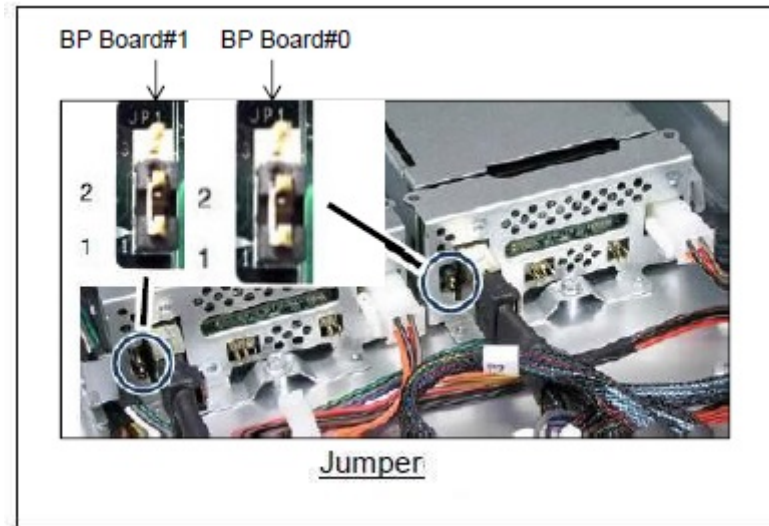
Figure C.15.2-3



C.15.3 Installing the SAS Array Controller Card into both Slot#0 and Slot#1

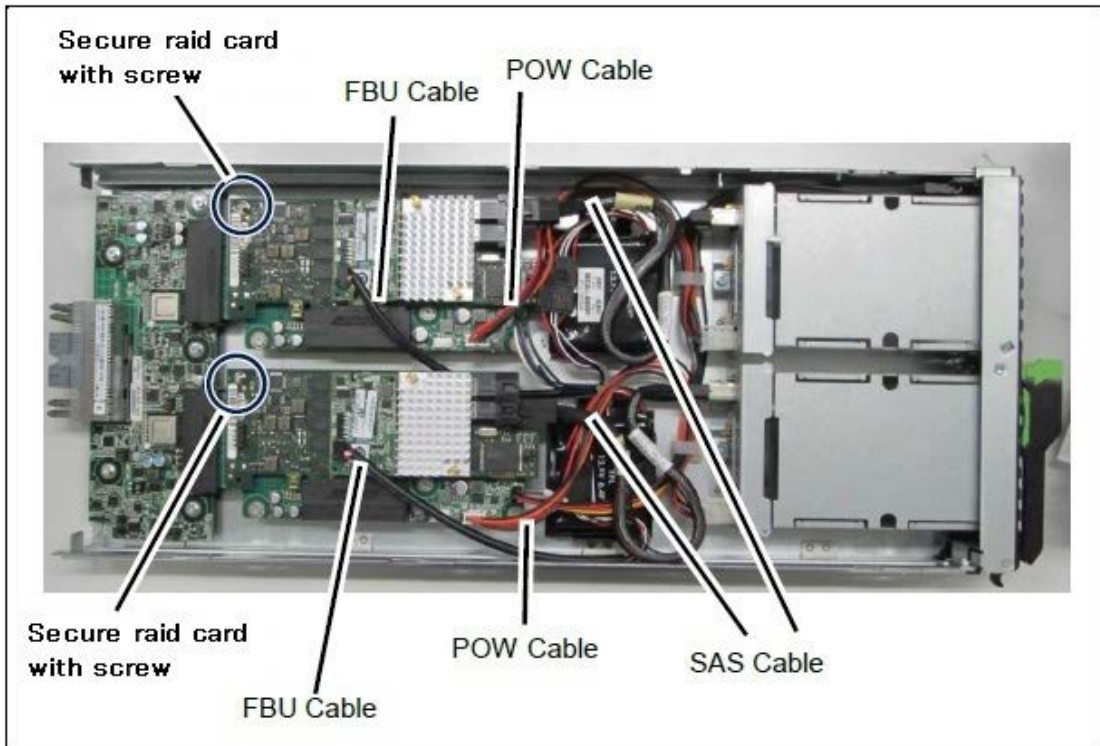
- (1) Confirm the jumper setting of BP Board#0 and #1. See Figure C.15.3-1.

Figure C.15.3-1



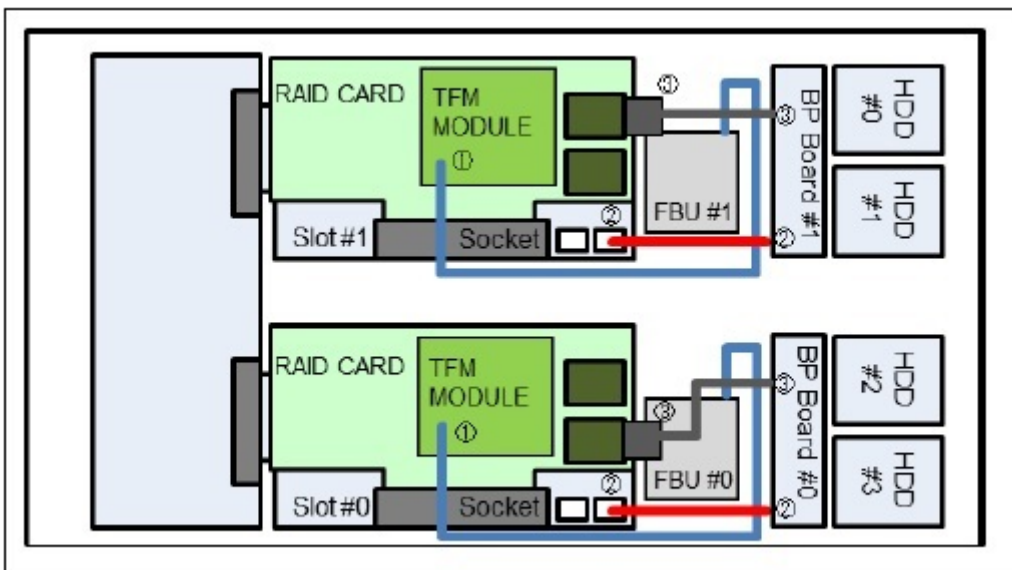
- (2) Installing the FBU and TFM module if flash backup unit is used.
See Appendix C.14.1 "Installing the FBU ([APP0314010](#))".
See Appendix C.14.2 "Installing the TFM module ([APP0314020](#))".
- (3) Install the SAS array controller card into Slot#0 and Slot#1, and secure it with the screws.
See Figure C.15.3-2.

Figure C.15.3-2



- (4) Connect FBU cable and TFM module if flash backup unit is used.
See Appendix C.14.3 "FBU Cable Connection ([APP0314030](#))".
- (5) Connect POW Cable as shown in Figure C.15.3-3 ② and BP Board#0 and #1.
- (6) Connect SAS Cable as shown in Figure C.15.3-3 ③.

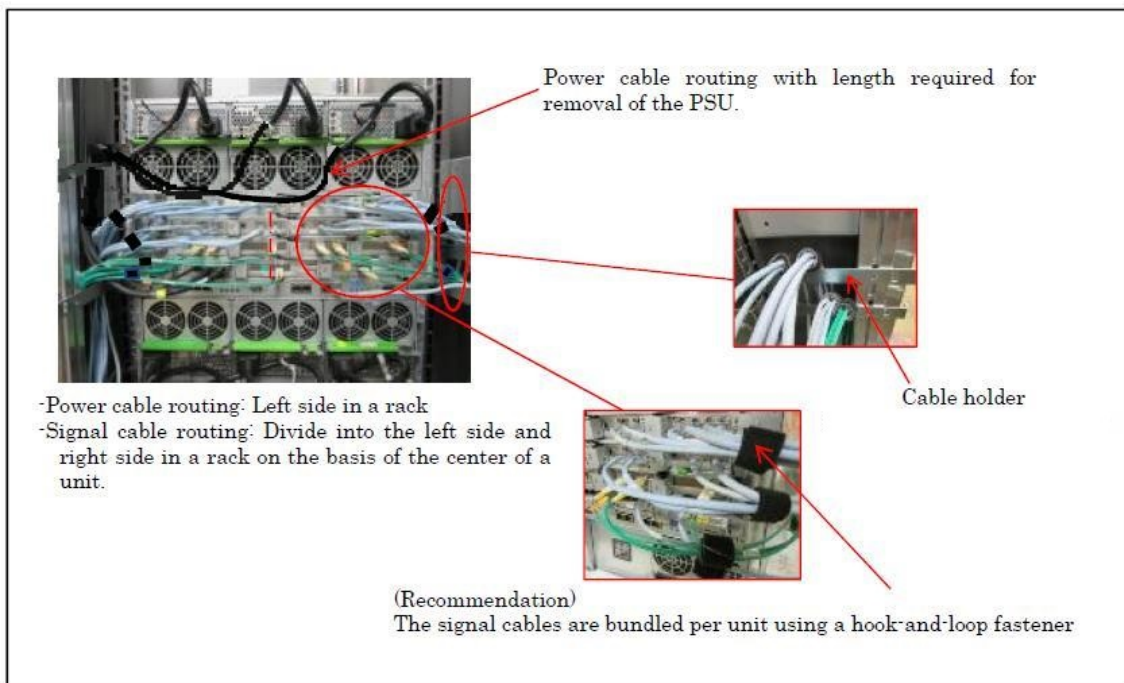
Figure C.15.3-3



D Cable Routing

- The power cables and the signal cables (such as LAN, SAS cable and FC cables) must be fixed in place.
- Secure an enough space where the maintenance of the unit is possible for cable routing.
See Figure D.
- To ensure sufficient clearance for inserting and removing the units, leave some extra cable length when routing the cables so that they do not overlap the units, which must be visible from the front.
- The AC cable must be fixed to reusable cable tie of PSU firmly.

Figure D The example of cable routing (recommendation)



E Input Power Systems

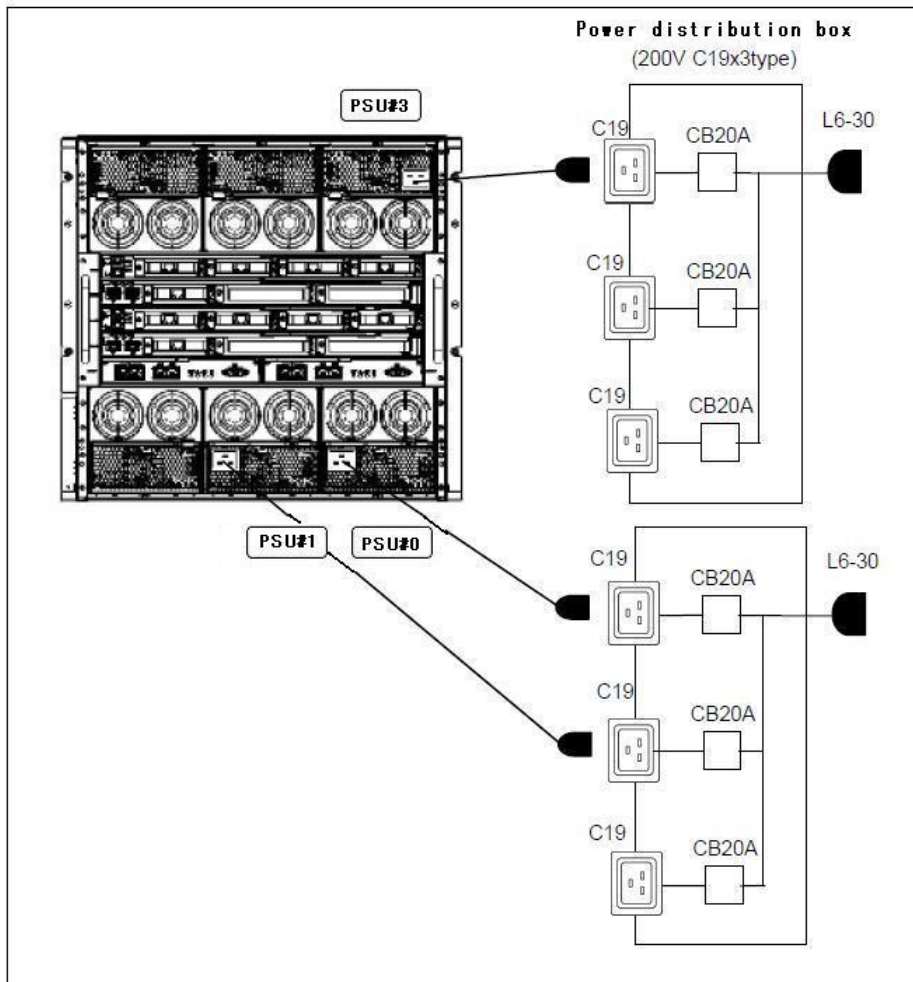
It explains the input power source system of the main unit.
In this chapter, the power supply unit is written as PSU and the FAN unit are written as FANU.

E.1 Cisco C880 M4

E.1.1 200V Non-redundant power supply

Power cable bundled to the main unit as shown by Figure E.1.1 is connected.

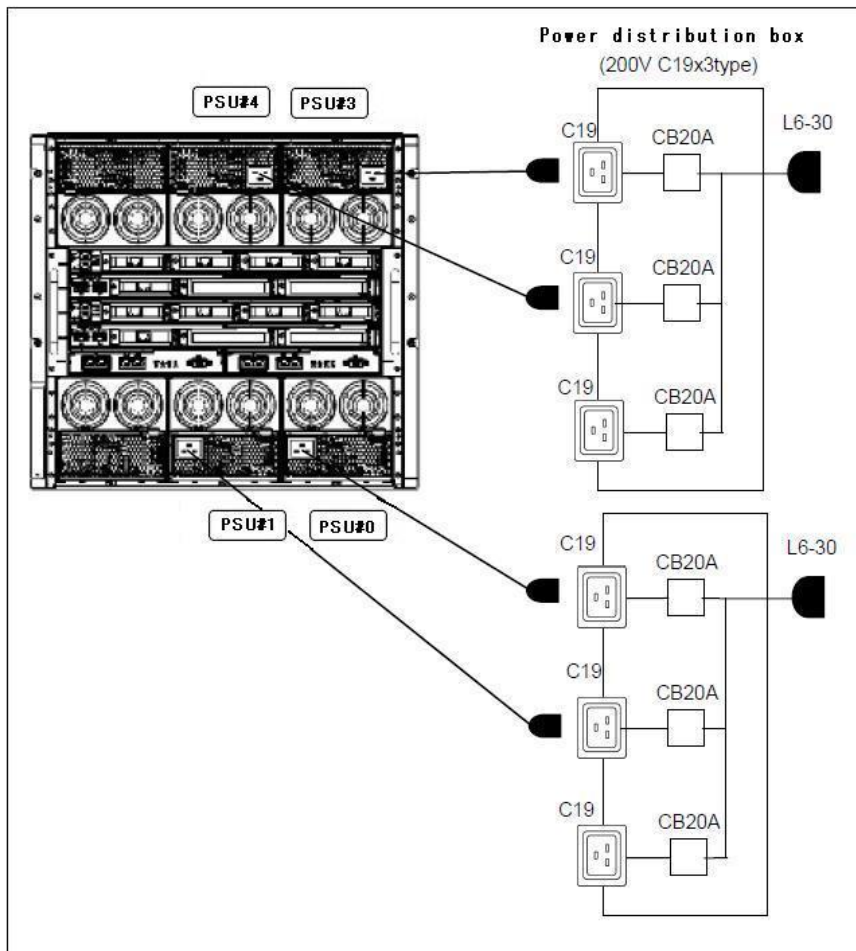
Figure E.1.1



E.1.2 200V Redundant power supply

Power cable bundled to the main unit as shown by Figure E.1.2 is connected.

Figure E.1.2



E.1.3 200V Dual power feed

Power cable bundled to the main unit as shown by Figure E.1.3 is connected.

Figure E.1.3

