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Cisco C880 M5 Server Service Guide

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Americas Headquarters

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1 Preparations

This chapter provides an overview, including the addition procedure and addition preparations.

ANNT)

If the work procedure for upgrading starts with AC power off status, set power restoration policy setting "Restore to powered state prior to power loss" or "Always off" before AC power off. Make sure the setting with the system administrator and modify it if necessary. Set the default setting after completing the work procedure for upgrading. See Appendix E.9 "Power Restore Policy setting" for more information.

SET0101000

1.1 Outline

This chapter provides an overview, including the installation procedure and installation preparations.

SET0101010

1.1.1 Scope

This section describes the scope of the addition instructions, typical time required for assembling options, work assignment, and notes.

SET0101020

1.1.2 Typical time required for assembling options

The following table lists the typical time required for assembling options.

Option	Option work time (minute)
System board	46 / unit
CPU	20 / set
Memory	31 / set
PCI card	36 / card
I/O unit B (IOUB)	36 / unit
Disk unit for SAS (DU_SAS)	46 / unit
Disk unit for PCIe SFF (DU_PCIE)	46 / unit
Internal hard disk drive (HDD)	31 / drive
Internal solid state drive (SSD)	
Internal PCIe SSD SFF	31 / drive
Power Supply Unit (PSU)	27 / unit
M.2 Flash Device	36 / unit
eLCM Activation License	36 / unit
TPM	36 / unit

Table 1.1.2 Typical time required for assembling options

1.1.3 Work assignment

"Table 1.1.3-1" lists the relevant addition work items and how they are to be assigned.

Work item	Person or department in charge
Preparing for addition work	Service Engineer
Checking the delivered items	Service Engineer
Installing options	Service Engineer
Setup	Service Engineer
Verifying operation	Service Engineer
Preparation of handing over to the System	Service Engineer
Administrator	
Handover to system administrator	System Administrator and Service Engineer

SET0101040

1.1.4 Notes

ANNT) Notes on unit delivery

If, after bringing the unit to the installation site, condensation due to differences between the internal and external temperatures can be anticipated on the magnetic surface of the disk unit, wait for the unit to be sufficiently acclimatized to the indoor environment before turning it on.

ANNT) Notes on handling the unit

The components mounted in the unit are sensitive to mechanical forces and static electricity. When handling these components, take the following precautions.

- Before handling the unit, ground it and then wear a wrist strap to ground your body.
- To extract a component from the unit, extract it from the unit placed on a static dissipative mat laid out on a flat workbench before starting to work on it.
- After removing a unit from the system board, store it in an antistatic bag.

ANNT) Notes on using an antistatic bag

- Make sure that the antistatic bag is not ripped or torn.
- Confirm that no part of the unit sticks out from the antistatic bag.
- When the opening of the antistatic bag is folded, the fold must be at least 30 mm.

ANNT) Antistatic measures for connecting twisted pair cables for LAN

When connecting a twisted pair cable for LAN to a device, ensure the following measures are fully taken to avoid the risk of equipment destruction caused by electrostatic discharge:

- (1) Before connecting twisted pair cables, first connect the modular connector to the specified jig, and then bring the end of the jig cable into contact with the FG for at least one minute to remove any static electricity from the cables. (Tool name: LAN cable ESD tool.)
- (2) After the electro-static discharging is finished, promptly connect the twisted pair cable to the equipment.
- (3) Connect the cables to the building ground, power system FG, and water pipe whenever possible, and avoid connecting them to the FG of the electronic equipment.
- (4) When using the power system FG, be careful to avoid any short-circuiting with the AC power supply.

<Detail of static-electricity removal from twisted pair cables> The time required to remove static electricity is over one minute.

Outline drawing of LAN cable ESD tool



RMRK) Body grounding

When connecting a twisted pair cable, wear a wrist strap to ground your body, just as when handling printed circuit assemblies.

ANNT) Connecting a twisted pair cable to a network environment

Do not connect a twisted pair cable to network devices such as a hub in the customer's network environment until the completion of its setup. (This precaution helps avoid a possible network failure triggered by network congestion.)

ANNT) Connecting cables

To prevent incorrect cable connections, affix a "destination label" to the cable and cabinet. See Appendix H "Prevention of Improper Cable Connections"

SET0102000

1.2 Preparing Tools for Installation

This section covers the tools, measuring instruments, test program, references, and other items to be prepared in advance.

SET0102010

1.2.1 Tools and measuring instruments

"Table 1.2.1" lists the tools and measuring instruments to be prepared in advance.

Table 1.2.1

Tool or measuring instrument name	Remarks
General tool set for maintenance worker	
FST (PC for maintenance worker)	
Wrist strap	
LAN cable ESD tool	
LAN straight cable in category 5 or higher	
Digital voltmeter	
Cable labels	To prevent incorrect cable connections
Cable labels with ties	To prevent incorrect cable connections

1.2.2 Configuration and setting information

"Table 1.2.2" lists the information to be obtained in advance from the sales representative or SE in charge.

Verify the information got in advance.

	Table 1.2.2
Configuration and setting information	Remarks
Installation Instructions Sheet	This sheet provides such customer-specified information as IP addresses and passwords provided through sales/SE departments.

SET0103000

1.3 Checking Installation Requirements

This section describes requirements for installing the Base Unit. If you find any problems, contact the related department and take appropriate action.

SET0103010

1.3.1 Environmental requirements

Confirm that the environmental requirements for installing the system fall within the range listed in "Table 1.3.1-1".

To make sure the operating environments are satisfied, check them when the system is operating.

Table 1.3.1-1 System environmental rec	uirements
--	-----------

Operating		Non-operating	
Temperature [°C]	Humidity [%RH]	Temperature [°C]	Humidity [%RH]
5 to 35 (without ATD) 5 to 40 (with ATD)	20 to 80	0 to 50	8 to 80

ANNT) The temperature requirements depend on the altitude of the installation location.

- When the system is installed at an altitude of 0 to 1000 m (0 to 3,281 ft.) above sea level: 5 to 40 °C (41 to 104.0 °F)

- When the system is installed at an altitude of 1,000 to 1,500 m (3,281 to 4,921 ft.) above sea level: 5 to 38 °C (41 to 100 °F)
- When the system is installed at an altitude of 1, 500 to 2,000 m (4, 921 to 6,562 ft.) above sea level: 5 to 36 °C (41 to 96.8 °F)
- When the system is installed at an altitude of 2,000 to 3, 000 m (6,562 to 9, 843 ft.) above sea level: 5 to 33 °C (41 to 91.4 °F)

The service engineer department should make the following checks related to environmental requirements.

If there is a problem with the installation environment, ask the customer to implement the required improvements.

- Measure items related to the installation environment (humidity and leakage current).
- Check the installation conditions (location, computer room, power supply facility, and air conditioning).
- Confirm that the cold air flow from air conditioning and the hot equipment exhaust do not collide,

resulting in a degraded cooling effect.

- Check the operation conditions (operating time, system and facility ON/OFF control methods, extent of disaster handling facilities, etc.)

"Table 1.3.1-2" lists the specific check items and examples of failures that occurred in the past.

Environmental condition	Check item	Example of failure
Dust	There should be no electric conductive matter such as concrete particles or iron dust under the device floor.	There was a large amount of iron dust under the device floor, some of which penetrated the unit and triggered a failure. Numeral parts had to be replaced.
	There should be no foreign matter that may clog the filter.	A plastic bag on the floor was drawn in and ended up clogging the filter. Parts were damaged due to the resulting rise in temperature.
Temperature and humidity	The temperature, relative humidity, and maximum wet-bulb temperature gradient should comply with the specifications.	The power could not be turned on because of high humidity levels in a new building.
	The room temperature should be evenly maintained throughout the room.	A temperature alarm was triggered because heat was not dissipated, because of the poor layout of the air conditioning for the units.
	A sufficient amount of cool air should be provided through the floor outlets.	-
	There should be sufficient clearance under the device floor.	The temperature rose because cables under the device floor were blocking the air conditioning inlets.
Air conditioner	The air velocity should be even.	The air velocity was unusually high because of installation next to an air conditioner, which generated an air wall inside the unit. This caused the temperature to rise, which in turn triggered an alarm.
Humidifier	Only pure water should be used for ultrasonic humidifiers.	There was a buildup of a white residue because of the use of tap water, which resulted in a failure caused by leakage.

Table 1 3 1-2 Check items and exam	nles of na	st problems
	pics of pu	st problems

SET0103020

1.3.2 Input power

Confirm the allowable range of input power supplied to the Base Unit. (See "Table 1.3.2".)

Table 1.3.2 Input power r	equirements
Input power voltage	Frequency
200 to 240 VAC ±10% single phase	50/60Hz +2%/-4%

Table 1.3.2 Input power requirements

1.3.3 Input power system

- For the power shutoff feature of the circuit breakers, see Appendix B "Customer's Distribution Panel Breaker Requirements". Also confirm the connection configuration of the customer distribution panels and check the power

outlet shapes and power shutoff feature of the circuit breakers.

- For the power outlet shapes, see Appendix C "Plug Types".

- For connection configurations for customer distribution panels, see "Table 1.3.3".

Table 1.3	.3
Amount of PSU	Refer to "Input Power Systems"
2	See Appendix D.1 "2 PSUs"
3	See Appendix D.2 "3 PSUs"
4	See Appendix D.3 "4 PSUs"

1.3.4 Installation area

Confirm installation area when 19-inch rack mounted.



Figure 1.3.4

1.4 Setting the FST

This chapter describes setting the FST used for installation.

(1) Web browser

Figure 1.4-1

Confirmation and set item	IE11
Disable pop-up block.	0
Enable cookie.	0
Disable XSS filter.	0
Enable JAVAscript.	0
Disable SmartScreen filter.	0
Enable file download.	0
Disable "Display intranet sites in Compatibility View" of Compatibility View Settings	0

O: It applies.

Figure 1.4-2 Compatibility View Settings

Compatibility View Settings	×
Change Compatibility View Settings	
Agu this website:	Add
Websites you've added to Compatibility View:	Remove
☐ Display intranet sites in Compatibility View ✓ Use Microsoft compatibility lists Learn more by reading the <u>Internet Explorer privacy</u>	<u>statement</u> <u>C</u> lose

RMRK) If Internet Explorer v11 cannot be used, the following web browsers can be used.

When the following browsers are used, the setting of a browser like Internet Explorer v11 is not needed.

- Microsoft Edge Browser
- Google Chrome v50 and higher version
- Firefox v46 and higher version

1.5 Request to system administrator

Request the following items to the system administrator.

(1) Get iRMC connection information.

The server has no maintenance dedicated LAN port.

It is necessary to connect FST with the network switch port according to the network environment. See Appendix E.1 "Operation terminal connection" for details.

- (2) Confirm unit location and quantity with installing to the system administrator.
- (3) When the BitLocker function enable, request to suspend the BitLocker function.
- (4) When the BIOS password enable, request to disable the BIOS password.
- (5) When expansion of unit cannot work possible in the state of system power on, request system power off.
- (6) When the [Email Alerting] function enable, request to the disable it.
- (7) Obtain the permission of the use of the Video Redirection (HTML5) to the system administrator.

2 Installing System Board

100

This chapter describes the procedure for installing System Board.

SET0201000

2.1 Conditions for installing components

- Confirm completion of the work described in Chapter 3 "Installing CPUs".

- Confirm completion of the work described in Chapter 4 "Installing Memory".

SET0201010

2.1.1 Firmware version

- No conditions.

$\operatorname{SET0201020}$

2.1.2 Maximum installation amount

- 4 system boards.

SET0201030

2.1.3 Conditions concerning combined use of System Board

The conditions for installing components described in Chapter 3 "Installing CPUs" must be satisfied.
The conditions for installing components described in Chapter 4 "Installing Memory" must be satisfied.

SET0201040

2.1.4 Base Unit state

- AC power to the Base Unit is off.

2.2 Work Items, Work Assignment, and Work Time

"Table 2.2" lists the work items, standard work time, and the person in charge of these types of work.

Table	2.2	
Work item	Person in charge	Work time (minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	30
Verifying operation	Service engineer	5
Preparation of handing over to the system administrator	Service engineer	1
Handover to the system administrator	System administrator and Service engineer	5

SET0203000

2.3 Procedure for installing a system board

SET0203010

2.3.1 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) Proceed to "2.3.2 Installing option".

SET0203020

2.3.2 Installing option

Install according to the following procedures.

ANNT)

The installation location and quantity have to indicate by the system administrator.
Confirm connecting position of power cable of the Base Unit beforehand.

(1) Turn off AC power of the Base Unit.

- (2) Remove the system board dummy.
- (3) Install the system board.
- (4) Turn on AC power of the Base Unit.
- \rightarrow Wait about a minute until green indicator of the "System Power" is turned off.
- (5) Make sure that the Alarm indicator of the system board is not lit. (See "Figure 2.3.2".)





(6) Proceed to "2.4 Verifying operation".

SET0204000

2.4 Verifying operation

Confirm the installed system board according to the following procedures.

- (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection". (2) Log in to the iRMC S5 Web from the operation terminal.
- See Appendix E.2.1 "Login". (3) Start Video Redirection.
- See Appendix E.3.1"Video Redirection start". (4) Set "BIOS Setup" at "Boot Device Selector". See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power. See Appendix E.5.1 "Power On".
 - \rightarrow Wait for a few minutes until "Figure 2.4-1" is displayed. (Max. 10 minutes)



Figure 2.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.

(8) Open the "config.txt" with text editor.
See "Table 2.4-1", for CPU. See "Table 2.4-2", for DIMM type.
A slot with (Install) indicates that the slot is populated, and (

) not populated.

Figure 2.4-2 Example

SB#2 (Insta	II)	: A3C40	2022	23	:	QM17108065	5	:			
SB#2-CPU#0 SB#2-CPU#1	(Ins (Ins	tall) : tall) :	Int Int	el (R) el (R)	Xeon (R) Xeon (R)	Platinum Platinum	8180 8180	CPU CPU	a 2. a 2.	50GHz 50GHz	
SB#2-DIMM#0) OA	Install) :	DPRD-	0016014						
SB#2-DIMM#0)A1 (Install) :	DPRD-	0016014						
SB#2-DIMM#0)B0 (Install) :	DPRD-	0016014						
SB#2-DIMM#0)B1 (Install) :	DPRD-	0016014						
SB#2-DIMM#C	000 (Install) :	DPRD-	0016014						
SB#2-DIMM#C	C1 (Install) :	DPRD-	0016014						
SB#2-DIMM#0)DO (Install) :	DPRD-	0016014						
SB#2-DIMM#0	D1 (Install) :	DPRD-	0016014						
SB#2-DIMM#0)E0 (Install) :	DPRD-	0016014						
SB#2-DIMM#0)E1 (Install) :	DPRD-	0016014						
SB#2-DIMM#0	FO (Install) :	DPRD-	0016014						
SB#2-DIMM#0)F1 (Install) :	DPRD-	0016014						
SB#2-DIMM#1	A0 (Install) :	DPRD-	0016014						
SB#2-DIMM#1	A1 (Install) :	DPRD-	0016014						
SB#2-DIMM#1	B0 (Install) :	DPRD-	0016014						
SB#2-DIMM#1	B1 (Install) :	DPRD-	0016014						
SB#2-DIMM#1	CO (Install) :	DPRD-	0016014						
SB#2-DIMM#1	C1 (Install) :	DPRD-	0016014						
SB#2-DIMM#1	D0 (Install	$\langle : :$	DPRD-	0016014						
SB#2-DIMM#1	DI (Install) :	DPRD-	0016014						
SB#2-DIMM#1	EU (Install) :	DPRD-	0016014						
SB#2-DIMM#1	EI (Install	2 :	DPRD-	0016014						
SR#5-DIWW#1	FU (Install) :	DPRD-	0016014						
SB#2-DIMM#1	F1 (Install) :	DPRD-	0016014						

Table 2.4-1

Display of installed CPU	Product name
Intel(R) Xeon(R) Platinum 8180M CPU @ 2.50GHz	Intel Xeon Platinum 8180M Processor
Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz	Intel Xeon Platinum 8180 Processor
Intel(R) Xeon(R) Platinum 8176M CPU @ 2.10GHz	Intel Xeon Platinum 8176M Processor
Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHz	Intel Xeon Platinum 8176 Processor
Intel(R) Xeon(R) Platinum 8170M CPU @ 2.10GHz	Intel Xeon Platinum 8170M Processor
Intel(R) Xeon(R) Platinum 8170 CPU @ 2.10GHz	Intel Xeon Platinum 8170 Processor
Intel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHz	Intel Xeon Platinum 8164 Processor
Intel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHz	Intel Xeon Platinum 8168 Processor
Intel(R) Xeon(R) Platinum 8160M CPU @ 2.10GHz	Intel Xeon Platinum 8160M Processor
Intel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHz	Intel Xeon Platinum 8160 Processor
Intel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHz	Intel Xeon Platinum 8153 Processor
Intel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHz	Intel Xeon Platinum 8158 Processor
Intel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHz	Intel Xeon Platinum 8156 Processor

Table 2.4-2

Display of Installed DIMM	DIMM Type	DIMM capacity (GB)	RANK
DPRD-0008014	RDIMM	8	1
DPRD-0016014	RDIMM	16	1
DPRD-0016024	RDIMM	16	2
DPRD-0032024	RDIMM	32	2
DSRD-0064044	RDIMM	64	4
DPLR-0064044	LRDIMM	64	4
DSRD-0128084	RDIMM	128	8

(9) Confirm that installed system board is displayed as "Install". (See "Figure 2.4-2".)

- (10) Confirm that CPU and Memory in added system board are displayed as "Install". (See "Figure 2.4-2".)
- (11) Confirm the amount of CPU and memory same as the system administrator indicated. (See "Figure 2.4-2".)
- (12) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 2.4-3".)



Figure 2.4-3

(13) Turn off the system power. See Appendix E.5.2 "Power Off".(14) Proceed to "2.5 Preparation of handing over to the system administrator".

SET0205000

2.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "2.6 Handover to the system administrator".

SET0206000

2.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of iRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

3 Installing CPUs 20

This chapter describes the procedure for installing CPUs. In this chapter, SB represents a System Board.

SET0301000

3.1 Conditions for installing components

- Only when new SB is installed, install of the CPU is applied.
- Installing the memories. See chapter 4 "Installing Memory".
- Install the CPU to the position CPU#0 and CPU#1 on SB without fail.

SET0301010

3.1.1 Firmware version

- No conditions.

SET0301020

3.1.2 Maximum installation amount

- 2 CPUs per a SB.

SET0301030

3.1.3 Conditions concerning mixing different types of CPU

- All CPUs must be same product name.

SET0301040

3.1.4 Base Unit state

- AC power to the Base Unit is off.

3.2 Work Items, Work Assignment, and Work Time

"Table 3.2" lists the work items, standard work time, and the person in charge of these types of work.

Table 3.2

Work item	Person in charge	Work time
		(minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	15

SET0303000

3.3 Procedure for installing CPUs

$\operatorname{SET0303010}$

3.3.1 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.
- (2) Proceed to "3.3.2 Installing option".

$\operatorname{SET0303020}$

3.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.

- (1) Prepare a new system board.
- (2) Installing the CPUs. (See Appendix F.7 "CPU".)
- (3) Next procedure follows to chapter 2 "Installing System Board".

4 Installing Memory

31

This chapter describes the procedure for installing memory. In this chapter, SB represents a System Board.

SET0401000

4.1 Conditions for installing components

By installing the memory, confirm to the system administrator whether it is necessary to change the "Memory Operation Mode" setting.

SET0401010

4.1.1 Firmware version

- No conditions.

SET0401020

4.1.2 Number of mounted DIMMs

The system configuration and the setting are confirmed to the system administrator. (See "Table 4.1.2".)

Table4.1.2									
Memory Operation Mode									
Normal Mode	Full Mirror Mode	Address Range	Spare Mode						
		Mirror Mode							
1 set per addition	2 sets per addition	2 sets per addition	1 set per addition						

set: same 2 DIMMs.

SET0401030

4.1.3 Conditions on mixing different types of DIMM

- When mixing DIMMs with different capacities within system, follow the specification in "Figure 4.1.3-1".
- Confirm the status (capacity, rank and mounting locations) of the DIMMs currently installed on the SB. See Appendix E.7 "Checking memory type".

Tab	le	4.1	1.3	-1
	_			-

	16GB Memory (8GB-1R-RDIMMx2)	32GB Memory (16GB-1R-RDIMMx2)	32GB Memory (16GB-2R-RDIMMx2)	64GB Memory (32GB-2R-RDIMMx2)	128GB Memory (64GB-4R-LRDIMMx2)	128GB Memory (64GB-4R-RDIMMx2)	256GB Memory (128GB-8R-RDIMMx2)
16GB Memory (8GB-1R-RDIMMx2)	•						
32GB Memory (16GB-1R-RDIMMx2)		•	•	•			
32GB Memory (16GB-2R-RDIMMx2)		•	•				
64GB Memory (32GB-2R-RDIMMx2)		•		•			
128GB Memory (64GB-4R-LRDIMMx2)					•		
128GB Memory (64GB-4R-RDIMMs2)						•	
256GB Memory (128GB-8R-RDIMMx2)							•

• :Permitted

Table 4.1.3-2

Memory Opera	Memory Operation Mode		CPU#0							CPU#1			
Memory opera			A#0			A#1			A#0			A#1	
Manager March	Lashatan	0A0	0B0	000	0D0	0E0	0F0	1A0	1B0	1C0	1D0	1E0	1F0
Memory Mode	Lockstep	0A1	0B1	0C1	0D1	0E1	0F1	1A1	1B1	101	1D1	1E1	1F1
	Dischla		Δ	0	*		\diamond			•	*	•	٠
Normal	Disable		Δ	0	*		\diamond			•	*	•	٠
	-		Δ	0	*		\diamond			•	*	•	٠
	Enable		Δ	0	*		\diamond			•	*	•	٠
Crown	Dischla		Δ	0	*	V	\diamond			٠	*	•	٠
Spare	Disable		Δ	0	*	∇	\diamond			•	*	•	٠
E.I.M.	Dischla				Δ	Δ	Δ						
Full Mirror	Full Mirror Disable				Δ	Δ	Δ						
Address Range	Distle				Δ	Δ	Δ						
Mirror Disable	Disable				Δ	Δ	Δ						

RMRM) Symbol

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

SET0401040

4.1.4 Memory installing order

- Memory installing order is see "Table 4.1.4-1".

- The system configuration and the setting are confirmed to the system administrator.

Т	а	b	le	4.	1	.4	-1
	u	~	· •				

Memory Operation Mode		CPU#0							CPU#1					
mennery operation			A#0		A#1				A#0			A#1		
Mamony Mada	Lockston	0A0	0B0	000	0D0	0E0	0F0	1A0	1B0	1C0	1D0	1E0	1F0	Remark
Memory Mode	LUCKSLEP	0A1	0B1	0C1	0D1	0E1	0F1	1A1	1B1	1C1	1D1	1E1	1F1	
	Disable	1	2	4(*1),8	1	2	4(*1),8	1	3	5(*1),9	1	3	5(*1),9	(+2)
Normal	Disable	6	6(*2)	10	6	6(*2)	10	7	7(*2)	11	7	7(*2)	11	(+0)
	Enable	1	4	8	2	6	10	1	5	9	3	7	11	(+2)
Enable	Enable	1	4	8	2	6	10	1	5	9	3	7	11	(40)
0	Disable	1	4	8	2	6	10	1	5	9	3	7	11	(+2)
Spare	Disable	1	4	8	2	6	10	1	5	9	3	7	11	(+3)
		1	1	4	1	1	4	1	1	5	1	1	5	
Eull Mirror	Disable	2	2	4	2	2	4	3	3	5	3	3	5	
	Disable	1	1	2	1	1	2	1	1	3	1	1	3	(*4)
		-	-	-	-	-	-	-	-	-	-	-	-	(+4)
Address Range Mirror		1	1	4	1	1	4	1	1	5	1	1	5	
	Disable	2	2	4	2	2	4	3	3	5	3	3	5	
	Disable	1	1	2	1	1	2	1	1	3	1	1	3	(*4)
		-	-	-	-	-	-	-	1	-	-		-	

(*1)(*2): In the case of four DIMMs in A#x, remove DIMM installed in (*1) slot and then install DIMM to (*2) slot.
(*3): When the CPU which memory capacity is 768GB is installed, 128GB DIMM can be installed up to number 5 and cannot be installed after number (*4): Only when the CPU which memory capacity is 768GB and 128GB DIMM are installed together, this installation order is applied.

Table 4.1.4-2 CPU of memor	у са	pacity	768GB
----------------------------	------	--------	-------

Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHzIntel Xeon Platinum 8180 ProcessorIntel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHzIntel Xeon Platinum 8176 ProcessorIntel(R) Xeon(R) Platinum 8170 CPU @ 2.10GHzIntel Xeon Platinum 8170 ProcessorIntel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHzIntel Xeon Platinum 8164 ProcessorIntel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHzIntel Xeon Platinum 8168 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8168 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.00GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Display of installed CPU	Product name
Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHzIntel Xeon Platinum 8176 ProcessorIntel(R) Xeon(R) Platinum 8170 CPU @ 2.10GHzIntel Xeon Platinum 8170 ProcessorIntel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHzIntel Xeon Platinum 8164 ProcessorIntel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHzIntel Xeon Platinum 8168 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz	Intel Xeon Platinum 8180 Processor
Intel(R) Xeon(R) Platinum 8170 CPU @ 2.10GHzIntel Xeon Platinum 8170 ProcessorIntel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHzIntel Xeon Platinum 8164 ProcessorIntel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHzIntel Xeon Platinum 8168 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.00GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHz	Intel Xeon Platinum 8176 Processor
Intel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHzIntel Xeon Platinum 8164 ProcessorIntel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHzIntel Xeon Platinum 8168 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8170 CPU @ 2.10GHz	Intel Xeon Platinum 8170 Processor
Intel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHzIntel Xeon Platinum 8168 ProcessorIntel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHz	Intel Xeon Platinum 8164 Processor
Intel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHzIntel Xeon Platinum 8160 ProcessorIntel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHz	Intel Xeon Platinum 8168 Processor
Intel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHzIntel Xeon Platinum 8153 ProcessorIntel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHz	Intel Xeon Platinum 8160 Processor
Intel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHzIntel Xeon Platinum 8158 ProcessorIntel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHzIntel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHz	Intel Xeon Platinum 8153 Processor
Intel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHz Intel Xeon Platinum 8156 Processor	Intel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHz	Intel Xeon Platinum 8158 Processor
	Intel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHz	Intel Xeon Platinum 8156 Processor

SET0401050

4.1.5 Base Unit state

- AC power to the Base Unit is off.

4.2 Work Items, Work Assignment, and Work Time

"Table 4.2" lists the work items, standard work time, and the person in charge of these types of work.

- . .

Table 4.2	2	
Work item	Person in charge	Work time
		(iiiiiute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	5
Verifying operation	Service engineer	15
Preparation of handing over to	Service engineer	1
the System Administrator		
Handover to the system administrator	System administrator and Service engineer	5

. .

SET0403000

4.3 Procedure for installing Memory

SET0403010

4.3.1 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) Proceed to the net procedure according to the following procedures.
 - \rightarrow When installing the existing SB.
 - Proceed to "4.3.2 Installing option (Existing SB)".
 - → When installing the new SB. Proceed to "4.3.3 Installing option (New SB)".

SET0403020

4.3.2 Installing option (Existing SB)

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.

(2) Remove the SB that installs memory.

See Appendix F.2.2 "Removing SB".

(3) Follow the instructions of the system administrator to install memories. See Appendix F.8 "Memory".

(4) Install the SB.

See Appendix F.2.1 "Installing SB".

(5) Turn on AC power of the Base Unit.

→Wait about a minute until green indicator of the "System Power" turns off.

(6) Make sure that the Alarm indicator of SB is not lit. (See "Figure 4.3.2".)

ANNT) About Alarm indicator

Memory Operation Mode When the memory expansion that requires setting value change is made, the SB Alarm indicator lights temporarily.

However, it turns off when Memory Operation Mode setting ends normally.

Figure 4.3.2



(7) Connect the operation terminal.

- See Appendix E.1 "Operation terminal connection". (8) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
- (9) Proceed to the next procedure according to the following procedures.

 \rightarrow When changing "Memory Operation Mode". Change "Memory Operation Mode" instructed by the system administrator and proceed to "4.4 Verifying operation".

See Appendix E.6 "Memory Operation Mode setting".

 \rightarrow When not changing "Memory Operation Mode". Proceed to "4.4 Verifying operation)".

4.3.3 Installing option (New SB)

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Prepare the new SB.
- (2) Follow the instructions of the system administrator to install memories. See Appendix F.8 "Memory".
- (3) Next procedure follows to chapter 2 "Installing System Board".

SET0404000

4.4 Verifying operation

Confirm the installed memory according to the following procedures.

- (1) Start Video Redirection.
- See Appendix E.3.1 "Video Redirection start".
- (2) Set "BIOS Setup" at "Boot Device Selector". See Appendix E.4 "Boot Device Selector setting".
- (3) Turn on the system power.
 - See Appendix E.5.1 "Power On".
 - \rightarrow Wait for a few minutes until "Figure 4.4-1" is displayed. (Max. 10 minutes)



Figure 4.4-1

(4) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(5) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal. (6) Open the "config txt" with text editor

(6) Open the "config.txt" with text editor.
See "Table 4.4-1", for CPU type. See "Table 4.4-2", for DIMM type.
A slot with (Install) indicates that the slot is populated, and () not populated.

Figure 4.4-2 Example

SB#2 (Install)	: A3C40202223	: (QM17108065	5	:	
SB#2-CPU#0 (In SB#2-CPU#1 (In	stall) : Intel(R) stall) : Intel(R)	Xeon (R) Xeon (R)	Platinum Platinum	8180 8180	CPU @ 2 CPU @ 2	. 50GHz . 50GHz
SB#2-DIMM#0A0 SB#2-DIMM#0A1 SB#2-DIMM#0B0 SB#2-DIMM#0B0 SB#2-DIMM#0C0 SB#2-DIMM#0C0 SB#2-DIMM#0D0 SB#2-DIMM#0D0 SB#2-DIMM#0E0 SB#2-DIMM#0E1 SB#2-DIMM#0F1 SB#2-DIMM#0F1 SB#2-DIMM#1A0 SB#2-DIMM#1A0 SB#2-DIMM#1A1 SB#2-DIMM#1B0 SB#2-DIMM#1C0 SB#2-DIMM#1C1 SB#2-DIMM#1D0 SB#2-DIMM#1D0 SB#2-DIMM#1E1 SB#2-DIMM#1E1 SB#2-DIMM#1F1	(Install) : DPRD- (Install) : DPRD-	-0016014 -0016014				

Table 4.4-1

Display of installed CPU	Product name			
Intel(R) Xeon(R) Platinum 8180M CPU @ 2.50GHz	Intel Xeon Platinum 8180M Processor			
Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz	Intel Xeon Platinum 8180 Processor			
Intel(R) Xeon(R) Platinum 8176M CPU @ 2.10GHz	Intel Xeon Platinum 8176M Processor			
Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHz	Intel Xeon Platinum 8176 Processor			
Intel(R) Xeon(R) Platinum 8170M CPU @ 2.10GHz	Intel Xeon Platinum 8170M Processor			
Intel(R) Xeon(R) Platinum 8170 CPU @ 2.10GHz	Intel Xeon Platinum 8170 Processor			
Intel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHz	Intel Xeon Platinum 8164 Processor			
Intel(R) Xeon(R) Platinum 8168 CPU @ 2.70GHz	Intel Xeon Platinum 8168 Processor			
Intel(R) Xeon(R) Platinum 8160M CPU @ 2.10GHz	Intel Xeon Platinum 8160M Processor			
Intel(R) Xeon(R) Platinum 8160 CPU @ 2.10GHz	Intel Xeon Platinum 8160 Processor			
Intel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHz	Intel Xeon Platinum 8153 Processor			
Intel(R) Xeon(R) Platinum 8158 CPU @ 3.00GHz	Intel Xeon Platinum 8158 Processor			
Intel(R) Xeon(R) Platinum 8156 CPU @ 3.60GHz	Intel Xeon Platinum 8156 Processor			
Display of Installed DIMM	DIMM Type	DIMM capacity (GB)	RANK	
---------------------------	-----------	--------------------	------	--
DPRD-0008014	RDIMM	8	1	
DPRD-0016014	RDIMM	16	1	
DPRD-0016024	RDIMM	16	2	
DPRD-0032024	RDIMM	32	2	
DSRD-0064044	RDIMM	64	4	
DPLR-0064044	LRDIMM	64	4	
DSRD-0128084	RDIMM	128	8	

Table 4.4-2

(7) Confirm that added system board is displayed as "Install". (See "Figure 4.4-2".)

(8) Confirm that CPU and Memory in installed system board are displayed as "Install". (See "Figure 4.4-2".)

 (9) Confirm the amount of memory same as the system administrator instructions. (See "Figure 4.4-2".)

(10) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 4.4-3".)



Figure 4.4-3

(11) Turn off the system power. See Appendix E.5.2 "Power Off".

(12) Proceed to "4.5 Preparation of handing over to the system administrator".

$\operatorname{SET0405000}$

4.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "4.6 Handover to the system administrator".

4.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.(2) When the setting of iRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

5 Installing PCI Card

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- This chapter describes the procedure for installing PCI card into the IOUB. When FBU is added, it contains it.
- When installing PCI card and IOUB as a set, work according to chapter 10 "Installing I/O Unit B (IOUB)".
- When installing SAS array controller card, work according to chapter 6 "Installing Disk Unit for SAS (DU_SAS)".
- In this chapter, SB represents a System Board.
- In this chapter, IOUB represents I/O Unit B.
- In this chapter, FBU (BBU) represents FBU for Ext. SAS RAID Card.

SET0501000

5.1 Conditions for installing components

- When installing PCI card, SB must be installed as indicated by "Table 5.1".

- For example, when installing the PCI card in slot#4 of IOU#0, it is necessary installed SB in SB#1.

Table 5.1			
SB installation location	IOUB installation location and PCI slot number		
	IOU#0	IOU#1	
SB#0	Slot#0,#1,#2,#3	-	
SB#1	Slot#4,#5,#6,#7	-	
SB#2	-	Slot#0,#1,#2,#3	
SB#3	-	Slot#4,#5,#6,#7	

$\operatorname{SET0501010}$

5.1.1 Firmware version

- No conditions.

$\operatorname{SET0501020}$

5.1.2 Maximum installation amount

- 8 PCI cards per an IOUB.

$\operatorname{SET0501030}$

5.1.3 Conditions concerning combined use of PCI card

-No conditions.

5.1.4 Base Unit state

"Table 5.1.4" shows whether or not to work in each state of the Base Unit. *1: Confirm it to the system administrator to depend on OS and the PCI card.

Table 5.1.4		
Base Unit state	Work possible?	
	PCI slot#2,#3	PCI slot #0, #1, #4, #5, #6, #7
AC Power Off	Yes	Yes
AC Power On, System Power Off	Yes	Yes
AC Power On, System Power On	Yes *1	No

SET0502000

5.2 Work Items, Work Assignment, and Work Time

"Table 5.2" lists the work items, standard work time, and the person in charge of these types of work.

Table 5.2		
Work item	Person in charge	Work time
	-	(minute)
Checking the delivered items	Service engineer	5
Installing option	System administrator and	10
	Service engineer	
Verifying operation	Service engineer	15
Preparation of handing over to	Service engineer	1
the System Administrator		
Handover to the system administrator	System administrator and	5
	Service engineer	

$\operatorname{SET0503000}$

5.3 Procedure for installing a PCI card

SET0503010

5.3.1 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.
- (2) Proceed to the next procedure according to the following procedures.
 - → When installing the PCI card into slot#2 or slot#3 of the IOUB. Proceed to "5.3.2 Installing option (Slot#2 or Slot#3)".
 - → When installing the PCI card into other than slot#2 and slot#3 of the IOUB. Proceed to "5.3.3 Installing PCI card (Other than slot#2 and slot#3)".

5.3.2 Installing option (Slot#2 or Slot#3)

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.

- (1) Proceed to the net procedure according to the following procedures.
 - \rightarrow When the Base Unit state is "AC Power On, System Power On". Proceed to procedure (2).
 - \rightarrow When the Base Unit state is "AC Power On, System Power Off" or "AC Power Off".
 - Proceed to procedure (3).
- (2) The system administrator makes the PCI card installable state.
- (3) Remove the PCI cassette of installation slot.
- See Appendix F.9.4 "Removing PCI card (slot#2 and slot#3)". (4) Mount the PCI card in PCI cassette.
- See Appendix F.9.3 "Installing PCI card (slot#2 and slot#3)".
- (5) Install the PCI cassette into the IOUB.
 → Wait about 10 seconds
- (6) When the Base Unit state is "AC Power Off", turn on AC power then wait about a minute.
- (7) Make sure that the Alarm indicator of the PCI cassette is not lit. (See "Figure 5.3.2".)



Figure 5.3.2

(8) Install SPF+module if you have one.

See Appendix F.13 "Installing LAN card module".

- (9) Proceed to the next procedure according to the following procedures.
 → When the Base Unit state is "AC Power On, System Power On".
 - Proceed to "5.5 Preparation of handing over to the system administrator".
 - → When the Base Unit state is "AC Power On, System Power Off". Proceed to "5.4 Verifying operation".

5.3.3 Installing PCI card (Other than slot#2 and slot#3)

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.
- (2) Remove the IOUB out of the Base Unit.
- See Appendix F.3.2 "Removing IOUB".
- (3) Install the PCI card into the IOUB.
- See Appendix F.9.1 Installing PCI card (other than slot#2 and slot#3)".
 Refer to Appendix F.16 "FBU for Ext. SAS RAID Card" When "SAS RAID Card" is installed in Slot#0, and FBU (BBU) is added.
 (4) Install the IOUB into the Base Unit.
- See Appendix F.3.1 "Installing IOUB".
- (5) Turn on AC power of the Base Unit.
- \rightarrow Wait until green indicator of the "System Power" turns off.
- (6) Make sure that the Alarm indicator of the IOUB is not lit. (See "Figure 5.3.3".)

Figure 5.3.3



(7) Install SPF+module if you have one.

See Appendix F.13 "Installing LAN card module".

(8) Proceed to "5.4 Verifying operation".

5.4 Verifying operation

Confirm the PCI card according to the following procedures.

- (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
- (2) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
- (3) Start Video Redirection. See Appendix E.3.1 "Video Redirection start". (4) Set "BIOS Setup" at "Boot Device Selector".
- See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power. See Appendix E.5.1 "Power On".
 - \rightarrow Wait for a few minutes until "Figure 5.4-1" is displayed. (Max. 10 minutes)

Figure 5.4-1



(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

- (7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal. (8) Open the "config.txt" with text editor. A slot with (Install) indicates that the slot is populated, and (
 -) not populated.

Figure 5.4-2 Example

IOU#0 (Install) : A3C40202227 : QM16477005	
IOU#0-SLOT#0 (Install), Bus/Dev=9/0x00 : ID=8086/1521/8086/00A1	
IOU#0-SL0T#1 (Install), Bus/Dev=41/0x00 : ID=1000/005D/1734/121A IOU#0-SL0T#3 () : IOU#0-SL0T#4 () :	
IOU#0-SLOT#5 (Install), Bus/Dev=77/0x00 : ID=8086/1521/8086/00A1 IOU#0-SLOT#6 (Install), Bus/Dev=81/0x00 : ID=1000/0097/1734/1217 IOU#0-SLOT#7 (Install), Bus/Dev=105/0x00 : ID=1000/005D/1734/121A	

(9) Confirm that SLOT#x that installed PCI card are displayed "Install". (See "Figure 5.4-2".) (10) Confirm the PCI card same as the system administrator instructions.

(See "Table 5.4".)

< Meaning of value that follows ID = >

ID = www./xxxx/yyyy/zzzz/

wwww: Vender ID, xxxx: Device ID, yyyy: SubVender ID, zzzz: SubSystem ID

Table 5.4

Vender ID	Device ID	Subsystem ID	Product name
1000	005D	1212	SAS RAID controller card (EP420i)
1000	0014	1236	SAS RAID controller card (EP540i)
10B5	8732	11F7	PPCI_EP_x16_Switch
1000	005D	121A	PRAID EP420e LP
1000	0097	1.110	PSAS CP400e
10DF	E300	E311	PFC EP LPe31000 1x 16Gb Emulex LP
10DF	E300	E310	PFC EP LPe31002 2x 16Gb Emulex LP
10DF	E300	E301	PFC EP LPe32000 1x 32Gb Broadcom LP
10DF	E300	E300	PFC EP LPe32002 2x 32Gb Broadcom LP
1077	2261	029B	PFC EP QLE2690 1x 16Gb Qlogic LP
1077	2261	029C	PFC EP QLE2692 2x 16Gb Qlogic LP
1077	2261	0299	PFC EP QLE2740 1x 32Gb Cavium LP
1077	2261	029A	PFC EP QLE2742 2x 32Gb Cavium LP
8086	1521	00A2	PLAN CP 2x1Gbit Cu Intel I350-T2 LP
8086	1521	00A1	PLAN CP 4x1Gbit Cu Intel I350-T4 LP
10DF	0720	E802	PLAN EP OCe14102 2x 10Gb LP
10DF	0720	E863	PLAN EP OCe14102 2x 10Gb BASE-T LP
8086	1572	8000	PLAN EP X710-DA2 2x10Gb SFP+
8086	1572	0004	PLAN EP X710-DA4 4x10Gb SFP+ LP
8086	1563	001A	PLAN EP X550-T2 2x10GBASE-T LP
1077	1656	E4F7	PLAN EP QL45212 2x 25GbE LP
15B3	1015	0092	PLAN EP MCX4-LX 25Gb 2p SFP28 LP
15B3	1013	0086	PLAN EP MCX4-EN 40Gb 2p QSFP LP
10DF	0724 (FCoE)	11FB	PCNA EP OCe14102 2x 10Gb LP
15B3	1013	0030	IB HCA 100Gb 1 port EDR
15B3	1013	0032	IB HCA 100Gb 2 port EDR
15B3	1003	0022	IB HCA 56Gb 1 port FDR
15B3	1003	0020	IB HCA 56Gb 2 port FDR
8086	24F0	24F0	POP EP 100Gb 1 port Omni Path
8086	0A53	3704	PCIe-SSD 2TB P4600 (3DWPD)
8086	0A53	3704	PCIe-SSD 4TB P4600 (3DWPD)
8086	0A53	3704	PCIe-SSD 6.4TB P4600 (3DWPD)

- (11) When FBU (BBU) option is installed, confirmation of FBU (BBU) status is necessary. See Appendix E.10 "FBU (BBU) status confirming".
- (12) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 5.4-3".)



Figure 5.4-3

(13) Turn off the system power. See Appendix E.5.2 "Power Off".(14) Proceed to "5.5 Preparation of handing over to the system administrator".

SET0505000

5.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "5.6 Handover to the system administrator".

SET0506000

5.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of iRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

6 Installing Disk Unit for SAS (DU_SAS) $_{46}$

- This chapter describes the procedure for installing Disk Unit for SAS (DU_SAS).

- In this chapter, DU_SAS represents Disk Unit for SAS.
- In this chapter, HHD and SSD represent the internal hard disk drive and the internal solid state drive.
- In this chapter, FBU (BBU) represents FBU for DU_SAS.

SET0601000

6.1 Conditions for installing components

When installing DU_SAS at location of DU#0, installing SB at location of SB#0 is necessary.
When installing DU_SAS at location of DU#1, installing SB at location of SB#1 is necessary.

$\operatorname{SET0601010}$

6.1.1 Firmware version

- No conditions.

SET0601020

6.1.2 Maximum installation amount

- 2 units.

SET0601030

6.1.3 Conditions concerning combined use of DU_SAS

- No conditions.

SET0601040

6.1.4 Base Unit state

- AC power to the Base Unit is off.

6.2 Work Items, Work Assignment, and Work Time

"Table 6.2" lists the work items, standard work time, and the person in charge of these types of work.

Table 6.2		
Work item	Person in charge	Work time (minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	20
Verifying operation	Service engineer	15
Preparation of handing over to the System Administrator	Service engineer	1
Handover to the system administrator	System administrator and Service engineer	5

SET0603000

6.3 Procedure for installing a DU_SAS

SET0603010

6.3.1 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) Proceed to "6.3.2 Installing option".

$\operatorname{SET0603020}$

6.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Prepare a DU_SAS.
- (2) Installing a Flash Backup Unit. (Option) See Appendix F.10 "FBU for DU_SAS".
- (3) Turn off AC power of the Base Unit.
- (4) Remove the DU dummy.
- (5) Install the DU_SAS.
- (6) To install HDD/SSD at the same time, remove HDD dummy of DU_SAS and install HDD/SSD. See Appendix F.11 "HDD/SSD".
- (7) Turn on AC power of the Base Unit.
 - \rightarrow Wait until green indicator of the "System Power" turns off.

(8) Make sure that the Alarm indicator of the DU_SAS is not lit. (See "Figure 6.3.2"). Figure 6.3.2



(9) Proceed to "6.4 Verifying operation".

SET0604000

6.4 Verifying operation

Confirm the DU_SAS according to the following procedures.

1) Connect the operation terminal.
See Appendix E.1 "Operation terminal connection".
2) Log in to the iRMC S5 Web from the operation terminal.
See Appendix E.2.1 "Login".
3) Start Video Redirection.
See Appendix E.3.1 "Video Redirection start".
(4) Set "BIOS Setup" at "Boot Device Selector".
See Appendix E.4 "Boot Device Selector setting".
5) Turn on the system power.
See Appendix E.5.1 "Power On".
\rightarrow Wait for a few minutes until "Figure 6.4-1" is displayed. (Max. 10 minutes)



Figure 6.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.(8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and () not populated.

Figure 6.4-2 Example

DU#1 (DU_SAS) (Install)	A3C40202412 : QM17115046
DU#1-SLOT (Install), Bus/	'Dev=113/0x00 : ID=1000/005D/1734/1212
DU#1-HDDSlot#0 (Install), DU#1-HDDSlot#1 (Install), DU#1-HDDSlot#2 (Install), DU#1-HDDSlot#3 (Install),	RAID Controller 0 slot 0 : Model=HUC101890CSS204 RAID Controller 0 slot 1 : Model=HUC101890CSS204 RAID Controller 0 slot 2 : Model=HUC101890CSS204 RAID Controller 0 slot 3 : Model=HUC101890CSS204

(9) Confirm that installed DU_SAS is displayed as "Install". (See "Figure 6.4-2".)

- (10) Confirm RAID Controller and HDD/SSD is displayed as "Install". (See "Figure 6.4-2".)
- (11) Confirm the HDD or SSD same as the system administrator instructions.
- (12) When FBU (BBU) option is installed, confirmation of FBU (BBU) status is necessary. See Appendix E.10 "FBU (BBU) status confirming".
- (13) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 6.4-3".)



(14) Turn off the system power. See Appendix E.5.2 "Power Off".(15) Proceed to "6.5 Preparation of handing over to the system administrator".

SET0605000

6.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "6.6 Handover to the system administrator".

SET0606000

6.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of iRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

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

31

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

SET0701000

7.1 Conditions for installing components

$\operatorname{SET0701010}$

7.1.1 Firmware version

- No conditions.

SET0701020

7.1.2 Maximum installation amount

- 4 devices per DU_SAS.

SET0701030

7.1.3 Conditions concerning combined use of HDD / SSD

- HDD and SSD cannot exist together in same DU_SAS.

SET0701040

7.1.4 Base Unit state

"Table 7.1.4" shows whether or not to work in each state of the Base Unit. *1: Confirm it to the system administrator to depend on OS.

Table 7.1.4

Base Unit state	Work possible?
AC Power Off	Yes
AC Power On, System Power Off	Yes
AC Power On, System Power On	Yes *1

7.2 Work Items, Work Assignment, and Work Time

"Table 7.2" lists the work items, standard work time, and the person in charge of these types of work. - . .

Table 7.2		
Work item	Person in charge	Work time
	Č	(minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	5
Verifying operation	Service engineer	15
Preparation of handing over to	Service engineer	1
the System Administrator		
Handover to the system administrator	System administrator and	5
	Service engineer	

- -

SET0703000

7.3 Procedure for Installing HDD / SSD

SET0703010

7.3.1 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) Proceed to the next procedure according to the following procedures.
 - \rightarrow When the Base Unit state is "AC Power On, System Power On".
 - Proceed to "7.3.2 Installing option (System Power On)".
 - \rightarrow When the Base Unit state is "AC Power Off" or "AC Power On, System Power Off". Proceed to "7.3.3 Installing option (System Power Off)".

SET0703020

7.3.2 Installing option (System Power On)

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.

- (1) Remove the dummy of HDD/SSD out of the DU SAS.
- (2) Install the HDD/SSD into the DU_SAS.
- See Appendix F.11 "HDD/SSD".
- (3) Proceed to "7.6 Handover to the system administrator".

7.3.3 Installing option (System Power Off)

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.

- (1) Remove the dummy of HDD/SSD out of the DU_SAS.
- (2) Install the HDD/SSD into the DU_SAS.
- (3) Turn on AC power of the Base Unit when the Base Unit state is "AC Power Off".
 → Wait until green indicator of the "System Power" turns off.
- (4) Proceed to "7.4 Verifying operation".

SET0704000

7.4 Verifying operation

Confirm the HDD/SSD according to the following procedures.

- Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
 Log in to the iRMC S5 Web from the operation terminal.
- See Appendix E.2.1 "Login". (3) Start Video Redirection.
- See Appendix E.3.1 "Video Redirection start".
- (4) Set "BIOS Setup" at "Boot Device Selector".
- See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power. See Appendix E.5.1 "Power On".
 - \rightarrow Wait for a few minutes until "Figure 7.4-1" is displayed. (Max. 10 minutes)

Information Configuration	Management Security	Boot Exit <f1:help></f1:help>
BIOS Revision	R0.30.0	
▶ System Information		
System Date System Time	[05/16/2017] [04:05:05]	
Privilege	Administrator	

Figure 7.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.(8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and (

Figure 7.4-2 Example

) not populated.

DU#1 (DU_SAS) (Install) :	A3C40202412 : QM17115046		
DU#1-SLOT (Install), Bus/Dev=113/0x00 : ID=1000/005D/1734/1212			
DU#1-HDDSlot#0 (Install), DU#1-HDDSlot#1 (Install), DU#1-HDDSlot#2 (Install), DU#1-HDDSlot#3 (Install),	RAID Controller 0 slot 0 : Model=HUC101890CSS204 RAID Controller 0 slot 1 : Model=HUC101890CSS204 RAID Controller 0 slot 2 : Model=HUC101890CSS204 RAID Controller 0 slot 3 : Model=HUC101890CSS204		

(9) Confirm that the DU_SAS installing HDD/SSD is displayed as "Install". (See "Figure 7.4-2".)
(10) Confirm that the HDD/SSD are displayed as "Install". (See "Figure 7.4-2".)

(11) Confirm the amount of installed HDD or SSD same as the system administrator instructions.

(12) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 7.4-3".)



(13) Turn off the system power. See Appendix E.5.2 "Power Off".(14) Proceed to "7.5 Preparation of handing over to the system administrator".

SET0705000

7.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "7.6 Handover to the system administrator".

$\operatorname{SET0706000}$

7.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of iRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

8 Installing Disk Unit for PCIe SFF (DU_PCIE)

- This chapter describes the procedure for installing Disk for PCIe SFF (DU_PCIE).

- In this chapter, DU_PCIE represents Disk Unit for PCIe SFF.

- In this chapter, SSD SFF represent the internal PCIe SSD SFF.

SET0801000

8.1 Conditions for installing components

- When installing DU_PCIE at DU#0 location, installing SB at location of SB#0 is necessary.

- When installing DU_PCIE at DU#1 location, installing SB at location of SB#1 is necessary.

SET0801010

8.1.1 Firmware version

- No conditions.

SET0801020

8.1.2 Maximum installation amount

- 2 units.

SET0801030

8.1.3 Conditions concerning combined use of DU_PCIE

- No conditions.

SET0801040

8.1.4 Base Unit state

- AC power to the Base Unit is off.

8.2 Work Items, Work Assignment, and Work Time

"Table 8.2" lists the work items, standard work time, and the person in charge of these types of work.

Table 8.2			
Work item	Person in charge	Work time	
		(minute)	
Checking the delivered items	Service engineer	5	
Installing option	Service engineer	5	
Verifying operation	Service engineer	15	
Preparation of handing over to	Service engineer	1	
the System Administrator			
Handover to the system administrator	System administrator and	5	
	Service engineer		

SET0803000

8.3 Procedure for installing DU_PCIE

SET0803010

8.3.1 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) Proceed to "8.3.2 Installing option".

$\operatorname{SET0803020}$

8.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.
- (2) Remove the DU dummy.
- (3) Install the DU_PCIE.
- See Appendix F.5 "DU_PCIE".
- (4) To install SSD SFF at the same time, remove the HDD dummy of the DU_PCIE and install SSD SFF. See Appendix F.12 "PCIe SSD SFF".
- (5) Turn on AC power of the Base Unit.
- \rightarrow Wait until green indicator of the "System Power" button turns off.
- (6) Make sure that the Alarm indicator of the DU_PCIE is not lit. (See "Figure 8.3.2".)





(7) Proceed to "8.4 Verifying operation".

SET0804000

8.4 Verifying operation

Confirm the DU_PCIE according to the following procedures.

 (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
 (2) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
 (3) Start Video Redirection. See Appendix E.3.1 "Video Redirection start".
 (4) Set "BIOS Setup" at "Boot Device Selector". See Appendix E.4 "Boot Device Selector setting".
 (5) Turn on the system power. See Appendix E.5.1 "Power On". → Wait for a few minutes until "Figure 8.4-1" is displayed. (Max. 10 minutes)



Figure 8.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.(8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and (

) not populated.

Figure 8.4-2 Example

DU#0 (DU_PCIE) (Insta	all) : A3C40202438 : QM17115056
DU#0-SLOT (Install),	Bus/Dev=17/0x00 : ID=10B5/8732/10B5/8732
DU#O-SSD#O (Install) DU#O-SSD#1 (Install) DU#O-SSD#2 () DU#O-SSD#3 ()	Model=INTEL SSDPE2MD020T4C Model=INTEL SSDPE2MD020T4C

(9) Confirm that installed DU_PCIE is displayed as "Install". (See "Figure 8.4-2").

- (10) Confirm SSD SFF are displayed as "Install". (See "Figure 8.4-2".)
- (11) Confirm the amount of installed SSD SFF same as the system administrator instructions.
- (12) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 8.4-3".)



(13) Turn off the system power. See Appendix E.5.2 "Power Off".(14) Proceed to "8.5 Preparation of handing over to the system administrator".

SET0805000

8.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "8.6 Handover to the system administrator".

SET0806000

8.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of iRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

9 Installing PCIe SSD SFF (SSD SFF)

31

This chapter describes the procedure for installing the PCIe SSD SFF into the Disk Unit for PCIe SFF. In this chapter, SSD SFF represent the PCIe SSD SFF.

SET0901000

9.1 Conditions for installing components

SET0901010

9.1.1 Firmware version

- No conditions.

SET0901020

9.1.2 Maximum installation amount

- 4 devices per a DU_PCIE.

SET0901030

9.1.3 Conditions concerning combined use of SSD SFF

- No conditions.

SET0901040

9.1.4 Base Unit state

"Table 9.1.4" shows whether or not to work in each state of the Base Unit.

Table 9.1.4

Base Unit state	Work possible?
AC Power Off	Yes
AC Power On, System Power Off	Yes
AC Power On, System Power On	No

9.2 Work Items, Work Assignment, and Work Time

"Table 9.2" lists the work items, standard work time, and the person in charge of these types of work.

Table 9.2			
Work item	Person in charge	Work time	
		(minute)	
Checking the delivered items	Service engineer	5	
Installing option	Service engineer	5	
Verifying operation	Service engineer	15	
Preparation of handing over to	Service engineer	1	
the System Administrator			
Handover to the system administrator	System administrator and	5	
	Service engineer		

SET0903000

9.3 Procedure for Installing SSD SFF

SET0903010

9.3.1 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) Proceed to "9.3.2 Installing option".

$\operatorname{SET0903020}$

9.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.

- (1) Remove the dummy of SSD SFF out of the DU_PCIE.
- (2) Install the SSD SFF into the DU_PCIE.
- (3) Turn on AC power of the Base Unit when the Base Unit state is "AC Power Off". → Wait until green indicator of the "System Power" turns off.
- (4) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 9.3.2".)



(5) Proceed to "9.4 Verifying operation".

SET0904000

9.4 Verifying operation

Confirm the SSD SFF according to the following procedures.

- (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
 (2) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
 (3) Start Video Redirection. See Appendix E.3.1 "Video Redirection start".
 (4) Set "BIOS Setup" at "Boot Device Selector".
- See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power. See Appendix E.5.1 "Power On".
 - \rightarrow Wait for a few minutes until "Figure 9.4-1" is displayed. (Max. 10 minutes)



Figure 9.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.(8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and (

The slot is populated, and () not populated. Figure 9.4-2 Example

 DU#0 (DU_PCIE) (Install) : A3C40202438 : QM17115056

 DU#0-SLOT (Install), Bus/Dev=17/0x00 : ID=10B5/8732/10B5/8732

 DU#0-SSD#0 (Install) : Model=INTEL SSDPE2MD020T4C

 DU#0-SSD#1 (Install) : Model=INTEL SSDPE2MD020T4C

 DU#0-SSD#2 () :

 DU#0-SSD#3 () :

(9) Confirm that the DU_PCIE installing SSD SFF is displayed as "Install". (See "Figure 9.4-2".)
(10) Confirm the SSD SFF are displayed as "Install". (See "Figure 9.4-2".)

(11) Confirm the amount of installed SSD SFF same as the system administrator instructions.

(12) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 9.4-3".)



(13) Turn off the system power. See Appendix E.5.2 "Power Off".(14) Proceed to "9.5 Preparation of handing over to the system administrator".

SET0905000

9.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "9.6 Handover to the system administrator".

SET0906000

9.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of IRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

10 Installing I/O Unit B (IOUB)

36

- This chapter describes the procedure for installing I/O Unit B.
- In this chapter, IOUB represents I/O Unit B.
- In this chapter, IOU#0 and IOU#1 represents IOUB installation location.

SET1001000

10.1 Conditions for installing components

- When installing IOUB at IOU#0 location, installing SB at installation of SB#0 and SB#1 is necessary for using all PCI slots of IOUB. (See "Table 10.1".)
- When installing IOUB at IOU#1 location, installing SB at installation of SB#2 and SB#3 is necessary for using all PCI slots of IOUB. (See "Table 10.1".)

System board installation location	IOUB installation location		
	IOU#0	IOU#1	
SB#0	Slot#0,#1,#2,#3	-	
SB#1	Slot#4,#5,#6,#7	-	
SB#2	-	Slot#0,#1,#2,#3	
SB#3	-	Slot#4,#5,#6,#7	

Table 10.1 Connection from SB to each IOUB

SET1001010

10.1.1 Firmware version

- No conditions.

$\operatorname{SET1001020}$

10.1.2 Maximum installation amount

- 2 units.

$\operatorname{SET1001030}$

10.1.3 Conditions concerning combined use of IOUB

- No conditions.

$\operatorname{SET1001040}$

10.1.4 Base Unit state

- AC power to the Base Unit is off.

10.2 Work Items, Work Assignment, and Work Time

"Table 10.2" lists the work items, standard work time, and the person in charge of these types of work.

_ . .

Table 10.2			
Work item	Person in charge	Work time (minute)	
Checking the delivered items	Service engineer	5	
Installing option	Service engineer	10	
Verifying operation	Service engineer	15	
Preparation of handing over to	Service engineer	1	
the System Administrator			
Handover to the system administrator	System administrator and Service engineer	5	

SET1003000

10.3 Procedure for installing IOUB

SET1003010

10.3.1 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) Proceed to "10.3.2 Installing option".

$\operatorname{SET1003020}$

10.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.
- (2) Remove the IOU dummy.
- (3) To install PCI card at the same time, remove PCI card dummy of IOUB install PCI card. See chapter 5 "Installing PCI Card".
- (4) Install the IOUB.
- See Appendix F.3.1 "Installing IOUB".
- (5) Turn on AC power of the Base Unit.
- \rightarrow Wait until green indicator of the "System Power" turns off.
- (6) Make sure that the Alarm indicator of the IOUB is not lit. (See "Figure 10.3.2".)

Figure10.3.2



(7) Proceed to "10.4 Verifying operation".

SET1004000

10.4 Verifying operation

Confirm the IOUB according to the following procedures.

- (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
 (2) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
 (3) Start Video Redirection.
- See Appendix E.3.1 "Video Redirection start".
 (4) Set "BIOS Setup" at "Boot Device Selector".
- See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power.
 - See Appendix E.5.1 "Power On".
 - \rightarrow Wait for a few minutes until "Figure 10.4-1" is displayed. (Max. 10 minutes)

Information Configuration	Management Security	Boot Exit <f1:help></f1:help>
BIOS Revision	R0.30.0	
▶ System Information		
System Date System Time	[05/16/2017] [04:05:05]	
Privilege	Administrator	

Figure 10.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal. (8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and (

Figure 10.4-2 Example

) not populated.

IOU#0 (Instal	I) : A3C40202227 : QM16477005
I OU#0-SLOT#0	(Install), Bus/Dev=9/0x00 : ID=8086/1521/8086/00A1
IOU#0-SLOT#2 IOU#0-SLOT#3 IOU#0-SLOT#4	(Install), Bus/Dev=41/0x00 : ID=1000/005D/1734/121A
IOU#0-SLOT#5 IOU#0-SLOT#6 IOU#0-SLOT#7	(Install), Bus/Dev=77/0x00 : ID=8086/1521/8086/00A1 (Install), Bus/Dev=81/0x00 : ID=1000/0097/1734/1217 (Install), Bus/Dev=105/0x00 : ID=1000/005D/1734/121A

(9) Confirm that installed IOUB is displayed as "Install". (See "Figure 10.4-2".)
(10) Confirm that installed all PCI card are displayed as "Install". (See "Figure 10.4-2".)

(11) Confirm the amount of installed PCI card same as the system administrator instructions.

(12) Confirm that the type of PCI card installed matches the PCI card directed by the system administrator. (See "Table 10.4".)

< Meaning of value that follows ID = >

ID = www/xxxx/yyyy/zzzz/

wwww: Vender ID, xxxx: Device ID, yyyy: SubVender ID, zzzz: SubSystem ID

Table 10.4

Vender ID	Device ID	Subsystem ID	Product name
1000	005D	1212	SAS RAID controller card (EP420i)
1000	0014	1236	SAS RAID controller card (EP540i)
10B5	8732	11F7	PPCI_EP_x16_Switch
1000	005D	121A	PRAID EP420e LP
1000	0097	1.005.00	PSAS CP400e
10DF	E300	E311	PFC EP LPe31000 1x 16Gb Emulex LP
10DF	E300	E310	PFC EP LPe31002 2x 16Gb Emulex LP
10DF	E300	E301	PFC EP LPe32000 1x 32Gb Broadcom LP
10DF	E300	E300	PFC EP LPe32002 2x 32Gb Broadcom LP
1077	2261	029B	PFC EP QLE2690 1x 16Gb Qlogic LP
1077	2261	029C	PFC EP QLE2692 2x 16Gb Qlogic LP
1077	2261	0299	PFC EP QLE2740 1x 32Gb Cavium LP
1077	2261	029A	PFC EP QLE2742 2x 32Gb Cavium LP
8086	1521	00A2	PLAN CP 2x1Gbit Cu Intel I350-T2 LP
8086	1521	00A1	PLAN CP 4x1Gbit Cu Intel I350-T4 LP
10DF	0720	E802	PLAN EP OCe14102 2x 10Gb LP
10DF	0720	E863	PLAN EP OCe14102 2x 10Gb BASE-T LP
8086	1572	8000	PLAN EP X710-DA2 2x10Gb SFP+
8086	1572	0004	PLAN EP X710-DA4 4x10Gb SFP+ LP
8086	1563	001A	PLAN EP X550-T2 2x10GBASE-T LP
1077	1656	E4F7	PLAN EP QL45212 2x 25GbE LP
15B3	1015	0092	PLAN EP MCX4-LX 25Gb 2p SFP28 LP
15B3	1013	0086	PLAN EP MCX4-EN 40Gb 2p QSFP LP
10DF	0724 (FCoE)	11FB	PCNA EP OCe14102 2x 10Gb LP
15B3	1013	0030	IB HCA 100Gb 1 port EDR
15B3	1013	0032	IB HCA 100Gb 2 port EDR
15B3	1003	0022	IB HCA 56Gb 1 port FDR
15B3	1003	0020	IB HCA 56Gb 2 port FDR
8086	24F0	24F0	POP EP 100Gb 1 port Omni Path
8086	0A53	3704	PCIe-SSD 2TB P4600 (3DWPD)
8086	0A53	3704	PCIe-SSD 4TB P4600 (3DWPD)
8086	0A53	3704	PCIe-SSD 6.4TB P4600 (3DWPD)

(13) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 10.4-3".)



(14) Turn off the system power. See Appendix E.5.2 "Power Off".(15) Proceed to "10.5 Preparation of handing over to the system administrator".

SET1005000

10.5 Preparation of handing over to the system administrator

(1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".

(2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".

(3) Remove the LAN cable connected for work.

(4) Reinstall all the covers and doors that were removed during the work.

(5) Clean them with a cleaning agent and waste cloth.

(6) Proceed to "10.6 Handover to the system administrator".

SET1006000

10.6 Handover to the system administrator

(1) Close the doors of the rack and hand over the door key to the system administrator.

(2) When the setting of IRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.

(3) The work is ended.

11 Installing Power Supply Unit (PSU)

- This chapter describes the procedure for installing the Power Supply Unit.

- Need to prepare power supply cables which match input AC power cables.

SET1101000

11.1 Conditions for installing components

SET1101010

11.1.1 Firmware version

- No conditions.

SET1101020

11.1.2 Maximum installation amount

- 4 units. (Minimum amount is 2 PSUs.)

SET1101030

11.1.3 Conditions concerning mixing different types of PSU

- No conditions.

SET1101040

11.1.4 Base Unit state

"Table 11.1.4" shows whether or not to work in each state of the Base Unit.

Table 11.1.4

Base Unit state	Work possible?
AC Power Off	Yes
AC Power On, System Power Off	Yes
AC Power On, System Power On	Yes
11.2 Work Items, Work Assignment, and Work Time

"Table11.2" lists the work items, standard work time, and the person in charge of these types of work.

Tal	ble 11.2	
Work item	Person in charge	Work time (minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	5
Verifying operation	Service engineer	11
Preparation of handing over to	Service engineer	1
the System Administrator		
Handover to the system administrator	System administrator and Service engineer	5

$\operatorname{SET1103000}$

11.3 Procedure for installing PSU

SET1103010

11.3.1 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.
- (2) Proceed to "11.3.2 Installing PSU".

$\operatorname{SET1103020}$

11.3.2 Installing PSU

Install according to the following procedures.

(1) Remove the PSU dummy.

(2) Install the PSU, and wait for 10 seconds or more.

- See Appendix F.6.1 "Installing PSU".
- (3) Connect the power cable to the installed PSU. (See "Table 11.3.2".)

Tal	bl	е	1	1	.3	.2	
		-			•••		

	5 11.0.E
Amount of PSU	See "Input Power Systems"
3	See Appendix D.2 "3 PSUs"
4	See Appendix D.3 "4 PSUs"

(4) Proceed to the next procedure according to the following condition.

→ When Base Unit state is "AC Power Off". Turn on AC power to all PSU, and wait until green indicator of the "System Power" turns off. And, proceed to "11.5.2 Verifying operation (System Power Off)".

→ When Base Unit state is "AC Power On, System Power Off". Turn on AC power to the installed PSU then wait for about 5 minutes. And, proceed to "11.5.2 Verifying operation (System Power Off)"

→ When Base Unit state is "AC Power On, System Power On". Turn on AC power to the installed PSU then wait for about 5 minutes. And, proceed to "11.5.1 Verifying operation (System Power On)"

SET1104000

11.4 Setup

No work.

11.5 Verifying operation

SET1105010

11.5.1 Verifying operation (System Power On)

Confirm the PSU according to the following procedures.

(1) Click on "System" tab, and click on "Power", and click on "Power Supplies".

 \rightarrow The window shown in "Figure 11.5.1" appears.

Figure 11.5.1

iRMC S5 Web S	erver					6	🖗 Languag	ge 🗸 🚨 admin	✓ Help ✓	-il ci
System	Logs		Tools !	Settings						\land
Systemboard										
Power		O POV	wer							
Cooling		~ @	Power Supplies							
Mass Storage			Status	Designation	Model	Total Capacity [Watt]	Vendor	Part Numb	er Identify	css
Software		0	Or Power supply - OK	PSU#0	DPS2200AB1A	2200	DELTA	CA05954- 3810/A3C402025	86 ID	~
Network		0	Ower supply - OK	PSU#1	DPS2200AB1A	2200	DELTA	CA05954- 3810/A3C402025	86 ID	~
AIS Connect			PSU not installed	PSU#2					ID	~
			PSU not installed	PSU#3					ID	~
		~ O	Power Supply Redu Power Consumptio	indancy and (n	Configuration					
Model Name: Cisco C880	MS									
lost Name: linux-tsxj										
sset Tag: System Asset T	ag									
iRMC Time: Tue, Nov 7, 20	017 3:46 PM									_

- (2) Confirm that installed PSU is no problem. (See "Figure 11.5.1".)
- (3) Download the SEL to the operation terminal. (See Appendix E.8 "SEL downloading".)
- (4) Proceed to "11.6 Preparation of handing over to the system administrator".

11.5.2 Verifying operation (System Power Off)

Confirm the PSU according to the following procedures.

(1) Start Video Redirection.

(1) Start Video Redirection.
See Appendix E.3.1 "Video Redirection start".
(2) Set "BIOS Setup" at "Boot Device Selector".
See Appendix E.4 "Boot Device Selector setting".

- (3) Turn on the system power.
 - See Appendix E.5.1 "Power On".

 \rightarrow Wait for a few minutes until "Figure 11.5-1" is displayed. (Max. 10 minutes)

Figure 11.5.2-1

1	nformation	Configuration	Management	Security	Boot	Exit	<f1:help></f1:help>
	BIOS Revisio	ວກ	R0.3	80.0			
Þ	System Info	rmation					
	System Date System Time		[05/ [04 :	/16/2017] 05:05]			
	Privilege		Admi	nistrator			

(4) Click on "System" tab, and click on "Power", and click on "Power Supplies". \rightarrow The window shown in "Figure 11.5.2-2" appears.

INIVIC 33 Web 3	erver					(🖗 Languag	je 🗸 💄 admin 🗸	Help 🗸	-ili
System	Logs		Tools S	Settings					ID CSS	
Systemboard	9									
Power		O Pov	ver							
오 Cooling		^ O	Power Supplies							
Mass Storage			Status	Designation	Model	Total Capacity [Watt]	Vendor	Part Number	Identify LED	CSS
Software		0	Power supply - OK	PSU#0	DPS2200AB1A	2200	DELTA	CA05954- 3810/A3C40202586	ID	~
Network		ø	Or Power supply - OK	PSU#1	DPS2200AB1A	2200	DELTA	CA05954- 3810/A3C40202586	ID	~
AIS Connect			PSU not installed	PSU#2					ID	~
			PSU not installed	PSU#3					ID	~
		~ ©	Power Supply Redui	ndancy and (n	Configuration					
		× •	Power Consumption	1						
Model Name: Cisco C880	MS									
Model Name: Cisco C880 Host Name: linux-tsxj	M5									

Figure 11.5.2-2

- (5) Confirm that installed PSU is no problem. (See "Figure 11.5.2-2".)
- (6) Make sure orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 11.5.2-3".)





(7) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

⁽⁸⁾ Turn off the system power.

See Appendix E.5.2 "Power Off".

(9) End the video Redirection. See Appendix E.3.2 "Video Redirection end".(10) Proceed to "11.6 Preparation of handing over to the system administrator".

 $\operatorname{SET1106000}$

11.6 Preparation of handing over to the system administrator

(1) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".

(2) Remove the LAN cable connected for work.

(3) Reinstall all the covers and doors that were removed during the work.

(4) Clean them with a cleaning agent and waste cloth.

(5) Proceed to "11.7 Handover to the system administrator".

SET1107000

11.7 Handover to the system administrator

(1) Close the doors of the rack and hand over the door key to the system administrator.

(2) When the setting of IRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.

(3) The work is ended.

12 Installing M.2 Flash Device

36

- This chapter describes the procedure for installing M.2 Flash Device.

SET1201000

12.1 Conditions for installing components

- Can be installed on BMM Board installed in SB#0.

- The order of installation is from M.2#0

SET1201010

12.1.1 Firmware version

- No conditions.

$\operatorname{SET1201020}$

12.1.2 Maximum installation amount

 $\mathchar`-2$ units.

SET1201030

12.1.3 Conditions concerning combined use of M2.Flash Device

- No conditions.

$\operatorname{SET1201040}$

12.1.4 Base Unit state

- AC power to the Base Unit is off.

12.2 Work Items, Work Assignment, and Work Time

"Table 12.2" lists the work items, standard work time, and the person in charge of these types of work.

.....

- . .

lab	le 12.2	
Work item	Person in charge	Work time
		(minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	10
Verifying operation	Service engineer	15
Preparation of handing over to	Service engineer	1
the System Administrator		
Handover to the system administrator	System administrator and	5
	Service engineer	

SET1203000

12.3 Procedure for Installing M.2 Flash Device

$\operatorname{SET1203010}$

12.3.1 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) Proceed to "12.3.2 Installing option".

$\operatorname{SET1203020}$

12.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.

- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.
- (2) Remove the SB#0.
 - See Appendix F.2.2 "Removing SB".
- (3) Install the M.2 Flash device onto BMM UNIT of the SB#0. See Appendix F.14 "Installing M.2 Flash Device".
- (4) Install the SB#0.

See Appendix F.2.1 "Installing SB".

- (5) Turn on AC power of the Base Unit.
- \rightarrow Wait until green indicator of the "System Power" turns off.
- (6) Make sure that the Alarm indicator of SB#0 is not lit. (See "Figure 12.3.2".)





(7) Proceed to "12.4 Verifying operation".

SET1204000

12.4 Verifying operation

Confirm the M.2 Flash Device according to the following procedures.

- Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
 Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
- (3) Start Video Redirection.

See Appendix E.3.1 "Video Redirection start". (4) Set "BIOS Setup" at "Boot Device Selector".

- See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power.
 - See Appendix E.5.1 "Power On".

 \rightarrow Wait for a few minutes until "Figure 12.4-1" is displayed. (Max. 10 minutes)



Figure 12.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal. (8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and () not populated.

Figure 12.4-2 Example

BMM (Install) : A3C40202225	: QM16477010
TPM (Install) M.2-SSD#O (Install) M.2-SSD#1 (Install) MicroSD (Install)	

(9) Confirm that the BMM is displayed as "Install". (See "Figure 12.4-2".)

(10) Confirm that the M.2 Flash Device is displayed as "Install". (See "Figure 12.4-2".)
(11) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 12.4-3".)





(12) Turn off the system power. See Appendix E.5.2 "Power Off".(13) Proceed to "12.5 Preparation of handing over to the system administrator".

SET1205000

12.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "12.6 Handover to the system administrator".

SET1206000

12.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of IRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

13 Installing eLCM Activation License

36

The installation of Micro SD which is a component of eLCM Activation License will be explained. Installation of license key is a responsible task of the system administrator. This is not the scope of the expansion work. This chapter shows the installation procedure of Micro SD.

SET1301000

13.1 Conditions for installing components

- Can be installed on BMM Board installed in SB#0.

SET1301010

13.1.1 Firmware version

- No conditions.

$\operatorname{SET1301020}$

13.1.2 Maximum installation amount

- 1 unit.

SET1301030

13.1.3 Conditions concerning combined use of Micro SD

- No conditions.

$\operatorname{SET1301040}$

13.1.4 Base Unit state

- AC power to the Base Unit is off.

13.2 Work Items, Work Assignment, and Work Time

"Table 13.2" lists the work items, standard work time, and the person in charge of these types of work.

.....

- . .

labi	e 13.2	
Work item	Person in charge	Work time (minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	10
Verifying operation	Service engineer	15
Preparation of handing over to the System Administrator	Service engineer	1
Handover to the system administrator	System administrator and Service engineer	5

SET1303000

13.3 Procedure for Installing a Micro SD

$\operatorname{SET1303010}$

13.3.1 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) Proceed to "13.3.2 Installing option".

SET1303020

13.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.
- (2) Remove the SB#0.
- See Appendix F.2.2 "Removing SB".
- (3) Install the Micro SD onto BMM Board of the SB#0.

See Appendix F.15 "Installing eLCM Activation License". (4) Install the SB#0.

- See Appendix F.2.1 "Installing SB".
- (5) Turn on AC power of the Base Unit.

 \rightarrow Wait until green indicator of the "System Power" turns off.

(6) Make sure that the Alarm indicator of SB#0 is not lit. (See "Figure 13.3.2".)

D

Figure 13.3.2

(7) Proceed to "13.4 Verifying operation".

SET1304000

13.4 Verifying operation

Confirm the Micro SD according to the following procedures.

- (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection". (2) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login". (3) Start Video Redirection.
- See Appendix E.3.1 "Video Redirection start". (4) Set "BIOS Setup" at "Boot Device Selector".
- See Appendix E.4 "Boot Device Selector setting".
- (5) Turn on the system power. See Appendix E.5.1 "Power On".

 - \rightarrow Wait for a few minutes until "Figure 13.4-1" is displayed. (Max. 10 minutes)



Figure 13.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading".

(7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.(8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and () not populated.

Figure 13.4-2 Example

BMM (Install) : A3C40202225	: QM16477010
TPM (Install) M.2-SSD#O (Install) M.2-SSD#1 (Install) MicroSD (Install)	

(9) Confirm that the BMM is displayed as "Install". (See "Figure 13.4-2".)

(10) Confirm the Micro SD is displayed as "Install". (See "Figure 13.4-2".)

(11) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 13.4-3".)





(12) Turn off the system power. See Appendix E.5.2 "Power Off".(13) Proceed to "13.5 Preparation of handing over to the system administrator".

SET1305000

13.5 Preparation of handing over to the system administrator

(1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".

(2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".

(3) Remove the LAN cable connected for work.

(4) Reinstall all the covers and doors that were removed during the work.

(5) Clean them with a cleaning agent and waste cloth.

(6) Proceed to "13.6 Handover to the system administrator".

SET1306000

13.6 Handover to the system administrator

(1) Close the doors of the rack and hand over the door key to the system administrator.

(2) When the setting of IRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.

(3) The work is ended.

14 Installing TPM

36

- This chapter describes the procedure for installing TPM.

SET1401000

14.1 Conditions for installing components

- Can be installed on BMM Board installed in SB#0.

SET1401010

14.1.1 Firmware version

- No conditions.

SET1401020

14.1.2 Maximum installation amount

- 1 unit.

$\operatorname{SET1401030}$

14.1.3 Conditions concerning combined use of TPM

- No conditions.

SET1401040

14.1.4 Base Unit state

- AC power to the Base Unit is off.

14.2 Work Items, Work Assignment, and Work Time

"Table 14.2" lists the work items, standard work time, and the person in charge of these types of work.

Table 14.2	2	
Work item	Person in charge	Work time (minute)
Checking the delivered items	Service engineer	5
Installing option	Service engineer	10
Verifying operation	Service engineer	15
Preparation of handing over to the System Administrator	Service engineer	1
Handover to the system administrator	System administrator and Service engineer	5

SET1403000

14.3 Procedure for Installing TPM

$\operatorname{SET1403010}$

14.3.1 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) Proceed to "14.3.2 Installing option".

SET1403020

14.3.2 Installing option

Install according to the following procedures.

ANNT)

- The installation location and quantity have to indicate by the system administrator.
- Confirm connecting position of power cable of the Base Unit beforehand.
- (1) Turn off AC power of the Base Unit.
- (2) Remove the SB#0.
 - See Appendix F.2.2 "Removing SB".
- (3) Install the TPM onto BMM Board of the SB#0.
- See Appendix F.17 "Installing TPM".
- (4) Install the SB#0.
- See Appendix F.2.1 "Installing SB".
- (5) Turn on AC power of the Base Unit.
 - \rightarrow Wait until green indicator of the "System Power" turns off.

(6) Make sure that the Alarm indicator of SB#0 is not lit. (See "Figure 14.3.2".) Figure 14.3.2



(7) Proceed to "14.4 Verifying operation".

SET1404000

14.4 Verifying operation

Confirm the TPM according to the following procedures.

- (1) Connect the operation terminal. See Appendix E.1 "Operation terminal connection".
 (2) Log in to the iRMC S5 Web from the operation terminal. See Appendix E.2.1 "Login".
 (3) Start Video Redirection. See Appendix E.3.1 "Video Redirection start".
 (4) Set "BIOS Setup" at "Boot Device Selector". See Appendix E.4 "Boot Device Selector setting".
 (5) Turn on the system power.
 - See Appendix E.5.1 "Power On". \rightarrow Wait for a few minutes until "Figure 14.4-1" is displayed. (Max. 10 minutes)



Figure 14.4-1

(6) Download the SEL to the operation terminal. See Appendix E.8 "SEL downloading". (7) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of operation terminal.

(8) Open the "config.txt" with text editor.

A slot with (Install) indicates that the slot is populated, and () not populated.

Figure 14.4-2 Example

_

(9) Confirm that the BMM is displayed as "Install". (See "Figure 14.4-2".)

(10) Confirm the TPM is displayed as "Install". (See "Figure 14.4-2".)
(11) Make sure that orange indicator of the "System Alarm" and "CSS" are not lit or blinking. (See "Figure 14.4-3".)





(12) Turn off the system power. See Appendix E.5.2 "Power Off".

(13) Proceed to "14.5 Preparation of handing over to the system administrator".

SET1405000

14.5 Preparation of handing over to the system administrator

- (1) End the Video Redirection. See Appendix E.3.2 "Video Redirection end".
- (2) Logout of iRMC S5 Web. See Appendix E.2.2 "Logout".
- (3) Remove the LAN cable connected for work.
- (4) Reinstall all the covers and doors that were removed during the work.
- (5) Clean them with a cleaning agent and waste cloth.
- (6) Proceed to "14.6 Handover to the system administrator".

SET1406000

14.6 Handover to the system administrator

- (1) Close the doors of the rack and hand over the door key to the system administrator.
- (2) When the setting of IRMC or BIOS has been temporarily changed for work, the setting change is requested to the system administrator.
- (3) The work is ended.

Appendix

Appendix A Installation Instructions Sheet

Use the sheet shown in the following figure to provide the installation worker with instructions on the required settings for on-site installation.

Figure A-1 Installation instructions sheet (example)

and/ar with instructions on the a factors are periodical at this offer at cells), and peec this object to a this allwest for each calorest.	ngarni setti 4. mistatuta Parintatuta	nge for installing at 1 coannar work familied over from the install in exclusion	dan selfer om te darkel to te	ging the MMC.
	-	Vision in the same disc	(and	Insti
0409			Dom	E is a setting of the reducch anisotratest that connects the entropy - Please astroyt, Enable when connecting it with the DKP server reducch. - Please entropy Enable when not connecting it with the DKP server reducch.
and Address			102.000.0	R is P-4 Istanless Strengt Postsont address of the Management LAN and
Advent March			255,255,255,2	Phase instruct 4 when you do not connect this server with the DHOP server
Category Address			182 185 1 254	utjack
P Address			18218612	R is Full Interface Internet Protocol address of the terrorial for
Dataset West			2912012012010	the maintenance used at maintenance service.
Datasan Address			102 148 1 254	Please indirect 4 in the party addrest as Management (48).
Herery Mula			Normal Mode	Please bullet. "Normal Holds", "Full Mover Wole", "Address Range Mover Wole" or "Spare Hole".
Louissing Mode			Enabled	Pheno instruct "Scalines" or "Stratiles". Pheno instruct atom Menory Operation Music is "Named Node".
Henery Mirror 1945 Made				Please instruct "Mirror Kang Hists" or "Capacity Rang Mode" when "Mamory Mode" a "Full Mirror Histo".
Henry Spaling Made				Phase instruct "(Balk" or: "Auto" after "Merony Micle" is "Space Micle".
Bara	040		fenar	The proof is and by mathematic proba-
				the second of second the second second second second
	Need	Neet: wiker with instructions or the respired orth Affine are provided on this share, instabilities is office are provided on this share. In this share, instability is the share for each values. Image: State of the share in this share. Image: State of the share. <tr< td=""><td>Need: wider with institutions on the required retitings for installing a (cancer. After are provided at this abait, installation such Sacheld our from the head or affilia, and pairs the deal to the installation eacher. If the deal for each saleses Image: Same saleses</td><td>Neet: webar with instituctions on the majored entropy for instables as (+ name). Neets are provided at this shade, instabilitant next harded one from the instabilitant next harded one from the instabilitant next harded one from the instabilitant next harded one for the instabilitant next harded o</td></tr<>	Need: wider with institutions on the required retitings for installing a (cancer. After are provided at this abait, installation such Sacheld our from the head or affilia, and pairs the deal to the installation eacher. If the deal for each saleses Image: Same saleses	Neet: webar with instituctions on the majored entropy for instables as (+ name). Neets are provided at this shade, instabilitant next harded one from the instabilitant next harded one from the instabilitant next harded one from the instabilitant next harded one for the instabilitant next harded o

Appendix B Customer's Distribution Panel Breaker Requirements

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

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
200 to 240 VAC	Main Device	20A	16A

Table B.1 Distribution panel breaker capa

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



Figure B.1 Distribution panel breaker characteristics

Appendix C Plug Types

This appendix describes the specifications of the power cables and the types of the plugs of the Base Unit.

APP0301000

C.1 Base Unit Plug Types (Global standard)

Connect the device with the power cable supplied with the device or cable supplied with the optional component. Do not use the power cable supplied with the device to connect a different product.

Figure C.1 Base Unit plug type

Location	Plug type		Memo		
		Connect to power distribution box.			
For worldwide 200V	IEC60320-C20 type	socket type	IEC60320-C19 type		

APP0302000

C.2 Power Distribution Box Plug Types

ANNT)

To connect to the Outlet distribution box, use the power cables which were packaged with the device or with options parts. Those cables should not be used for other products.

riguie 0.2 i ower bistribution box plug type
--

Location	Plug type		Memo
		Connect to power	distribution box.
For worldwide 200V	NEMA L6-30P	socket type	NEMA L6-30R(30A-220V)

Appendix D Input Power Systems

It explains the input power source system of the Base Unit. In this chapter, PSU represents a power supply unit.

APP0401000

D.1 2 PSUs

Connect power cables according to the "Figure D.1-1" or "Figure D.1-2". See Appendix B "Customer's Distribution Panel Breaker Requirements".



Figure D.1-1

Figure D.1-2



D.2 3 PSUs

Connect power cables according to the "Figure D.2-1" or "Figure D.2-2. See Appendix B "Customer's Distribution Panel Breaker Requirements".



Figure D.2-1

Figure D.2-2



D.3 4 PSUs

When 2 AC Sources, connect power cables according to the "Figure D.3-1" or "Figure D.3-2. When 1 AC Source, connect power cables according to the "Figure D.3-3" or "Figure D.3-4".

See Appendix B "Customer's Distribution Panel Breaker Requirements".

Figure D.3-1 When 2 AC Sources



Figure D.3-2 When 2 AC Sources







Figure D.3-4 When 1 AC Source



Appendix E Various Operations

APP0501000

E.1 Operation terminal connection

This section describes the operation terminal for work, setting and confirming of the Base Unit. This server has no "Service engineer" dedicated port.

Thus operation of iRMC S5 on existing server must be done with specified terminal by consulting the system administrator.

Select the operation terminal for work according to the system administrator.

In this document, FST and PC of customer equipment are not distinguished, they are denoted as the operation terminal.

APP0501010

E.1.1 When connect the FST directly to the Base Unit by LAN cable

(1) Set IP Address, Subnet Mask and Gateway Address for the maintenance terminal exclusive use to the FST.

(2) Connect form the FST LAN port to the management LAN port of the Base Unit by LAN cable.

APP0501020

E.1.2 When connect the FST to network switch by LAN cable (DHCP disabled)

- (1) Permission to connect FST with the switch on network is obtained.
- (2) Set IP Address, Subnet Mask and Gateway Address for the maintenance terminal exclusive use to the FST.
- (3) Connect form the FST LAN port to the network switch port by LAN cable.

APP0501030

E.1.3 When connect the FST to network switch by LAN cable (DHCP enabled)

- (1) Permission to connect FST with the switch on network is obtained.
- (2) Set DHCP enable to the FST.
- (3) Connect form the FST LAN port to the network switch port by LAN cable.

E.1.4 When use the operation terminal of customer equipment connected to the network

(1) Permission using PC of customer equipment is obtained.

APP0502000

E.2 iRMC Web

APP0502010

E.2.1 Login

(1) Enter the URL at the web browser.

(2) Press the ENTER key.

 \rightarrow The window shown in "Figure E.2.1-1" appears.

Figure	E.2.1	-1
--------	-------	----

Cisco C8 Web Ser	880M5 iRMC S5 ver	cisco
Username		
Password		
		Login

(6) Enter service engineer account.

(7) Click on "Login" button.

 \rightarrow The window shown in "Figure E.2.1-2" appears.

Figure E.2.1-2

iRMC S5 Web Ser	ver			🖨 Language 🗸	💄 admin 🗸	Help 🗸	cisco
System	Logs	Tools	Settings			ID CSS	A ()
📀 Systemboard							
📀 Power		Overview					
📀 Cooling		 System Inform 	nation				
🤣 Mass Storage		 Operating Sys 	stem Information				
Software		 Systemboard 	Information				
🛇 Network		 Power Status Running iBMC 	Summary				
AIS Connect		 Active Session 	ns Information				
		 Installed Licer 	nse Keys				
vlodel Name: Cisco C880 M Host Name: RHEL73-142							
Asset Tag: System Asset Tag							
and the second secon							

E.2.2 Logout

(1) Click on pull-down menu of login user name, and click on "Logout". (See "Figure E.2.2".)

Figure E.2.2	
--------------	--

IRMC 55 Web	Server			🖨 Language 🗸	eadmin V Help V	cisi
System	Logs	Tools	Settings		Clear Diagnostic Logs	
Systemboard					Save Diagnostic Logs	
Power		Overview			Logout	
Cooling		 System Inform 	ation			
Mass Storage		 Operating Syst 	tem Information			
Software		 Systemboard I Rower Status 1 	Information			
Network		 Power status s Running iRMC 	Firmware			
AIS Connect		 Active Session 	is Information			
		 Installed Licen 	se Keys			
odel Name: Cisco C88	0 M5.					

E.3 Video Redirection

APP0503010

E.3.1 Video Redirection start

(1) Click on "Settings" tab, click on "Service", and click on "Advanced Video Redirection (AVR)". \rightarrow The window shown in "Figure E.3.1-1" appears.

Figure E.3.1-1

iRMC S5 Web Server		0	🕽 Language 🗸	💄 admin 🖌	Help 🗸	cisco
System Log	s Tools	Settings			ID 🖾	▲ 🕐
System				1.000	Start Video I	Redirection
Network Management	Services			1.9		
Services	 Web Access 					^
User Management	 Console Access 					
Server Management	✓ IPMI Access					_
Power Management	Advanced Video Re	direction (AVR)				_
Logging	HTML5 Viewer	Favour HTML5 over Java Applet	ewer all active J	ava AVR session	ns will be	le .
Baseboard Management Controller	Active Window Title	admin@IRMCE6594C	rue win remain e	inavaliable for a	bout 15 becom	-9.
	Window Title	%USER%@%BMC_NAME%				
		The following parameters are support %USER% %BMC_NAME% %BMC_IP% %CHASSIS_TYPE% %SYSTEM_TYPE% %SYSTEM_SERIAL% %SYSTEM_P% %SYSTEM_IP% %SYSTEM_IP%	orted:			
Model Name: Cisco C880 M5 Host Name: BHEL73-142		%ASSET_TAG%				
Asset Tag: System Asset Tag	Default Mouse Mode	Absolute Mouse Mode 🔹				~

- (2) Click on "HTML5 Viewer" check box, and enable it. (See "Figure E.3.1-1".)
- (3) Click on the "Apply" button.
- (4) Click on "Video Redirection" icon on the upper right of the view, and click on "Start Video Redirection". (See "Figure E.3.1-1".)
 - \rightarrow The window shown in "Figure E.3.1-2" appears.



Figure E.3.1-2
E.3.2 Video Redirection end

(1) Click on "Settings" tab, click on "Service", and click on "Advanced Video Redirection (AVR)". \rightarrow The window shown in "Figure E.3.2-1" appears.

Figure	E.3.2-1
--------	---------

iRMC S5 Web	Server			🖨 Language 🗸	💄 admin 🗸	Help 🗸	-1	cisco
System	Logs	Tools	Settings			ID 🖾		ወ
System		Comisso	(9.) 					
Network Managemer	nt	Services						
Services		~ Web Access						î
User Management		 Console Access 						
Server Management		 IPMI Access 						
		 Advanced Video Re 	edirection (AVR)					
Logging Baseboard Managem	nent Controller	HTML5 Viewer Active Window Title	Favour HTML5 over	r Java Applet ble the HTML5 viewer all active J o redirection service will remain u	ava AVR sessio mavailable for a	ns will be bout 15 second	ls.	
		Window Title	%USER%@%BMC_NAM	ME%				
			(1) The following para % USER% % BMC_NAN % BMC_IP% % CHASSIS_ % SYSTEM_1 % SYSTEM_1 % SYSTEM_1 % SYSTEM_1 % SYSTEM_1	ameters are supported: /E% TYPE% SERIAL% NAME% IP% OS%				
Model Name: Cisco C88 Host Name: RHEL73-14	2 M5		 %ASSET_TA 	AG%				
Asset Tag: System Asset	t Tag	Default Mouse Mode	Absolute Mouse Mode	• •				~

(2) Click on "HTML5 Viewer" check box, and disable it.

- (3) Click on the "Apply" button.
 - \rightarrow The Video Redirection connection (HTML5) will end.

E.4 Boot Device Selector setting

(1) Click on "Settings" tab, click on "System", and click on "Boot Options". \rightarrow The window shown in "Figure E.4" appears.

iRMC S5 Web Se	erver			🖨 Language 🗸	💄 admin 🗸	Help 🗸	cisco
System	Logs	Tools	Settings			ID SS	$\mathbb{A} \bigcirc$
System						Powe	r On
Network Management		System					
Services		 Asset Tag 					
User Management		 Operating System 	Information				
Server Management		 BIOS Update 					
Power Management		BIOS Backup A Boot Options					_
Logging		POST Error Action	Continue				
Baseboard Managemer	nt Controller	Boot Device Selector	BIOS Setup				
		Boot Type	PC compatible (legacy)	•			
		Next Boot Only	Do On Next Boot Only			_	
					\subset	Apply Car	icel
Model Name: Cisco C880 I	M5						
Host Name: RHEL73-142	-						
iRMC Time: Tue, Oct 24, 20	99 017 9:38 AM						
							€ 100% ·

(2) Select "BIOS Setup" at "Boot Device selector" pull-down menu. (See "Figure E.4".)
(3) Click on the "Apply" button.
(4) Confirm that "BIOS Setup" was set.

E.5 Power On/Off

APP0505010

E.5.1 Power On

(1) Click on "Settings" tab, click on "System", and click on "Boot Options". →The window shown in "Figure E.5.1-1" appears.

Figure E.5.1-1

iRMC S5 Web	Server			🖨 Language 🗸	💄 admin 🗸	Help 🗸	cisco
System	Logs	Tools	Settings			ID 🖾	
System						Pow	er On
Network Manageme	ent	System					
Services		✓ Asset Tag					
User Management		 Operating System 	Information				
Server Management		✓ BIOS Update					
Power Management		BIOS Backup Boot Options					
.ogging		DOGT C. A. M.					
Baseboard Manager	ment Controller	POST Error Action Boot Device Selector	BIOS Setup				
		Boot Type	PC compatible (legacy)	•			
		Next Boot Only	Do On Next Boot Only				
					\langle	Apply Ca	ncel
Model Name: Cisco C8	80 M5						
Host Name: RHEL73-14 Asset Tar: System Asse	42 at Tao						
RMC Time: Tue, Oct 24	4, 2017 9:38 AM						

(2) Confirm that "BIOS Setup" was set. (See "Figure E.5.1-1".)

(3) Click on "Power" icon on the upper right of the view, and click on "Power On".

- (See Figure "E.5.1-1".)
 - \rightarrow Wait for a few minutes until "Figure E.5.1-2" is displayed on the Video Redirection screen. (Max. 10 minutes)

Management Security	Boot	Exit	<f1:help></f1:help>
R0.30.0			
[05/16/2017] [04:05:05]			
Administrator			
	Management Security R0.30.0 IO5/16/2017] IO4:05:05] Administrator	ManagementSecurityBootR0.30.0IO5/16/20171 IO4:05:053Administrator	ManagementSecurityBootExitR0.30.0I05/16/2017] I04:05:05]Administrator

Figure E.5.1-2

E.5.2 Power Off

(1) Click on "System" tab, and click on "Power Status Summary". \rightarrow The window shown in "Figure E.5.2" appears.

Figure E.5.2

iRMC S5 Web S	Server			🖨 Language 🗸	● admin ❤ Help ❤ dutto		
System	Logs	Tools	Settings				
🥏 Systemboard		C. Committee			Graceful Reset Performs a system shutdown and reboots		
📀 Power		Overview			Graceful Power Off		
😒 Cooling		 System Information 	i		Performs a system shutdown and powers off the system		
Mass Storage		 Operating System In 	nformation		Press Power Button Simulates a short power button press. The		
		 Systemboard Inform 	nation		action depends on the power button configuration of the operating system		
Software		 Power Status Summ 	nary		Immediate Reset Immediate system reset without system shutdown		
AIS Connect		Power Status	Powered On		Immediate Power Off Immediate system power off without		
		Power On Counter	5 days 11 hours 10 min	utes	system shutdown		
		Last Power On Reason	Software or command		Switches the system off and on again		
		Last Power Off Reason	Software or command		Pulse NMI Triggers a (N)on-(M)askable (()nterrupt (NMI) and halts the system		
		 Running iRMC Firmware 					
		 Active Sessions Information 					
		 Installed License Ke 	eys				
Model Name: Cisco C880 Host Name: RHEL73-142	M5						
Asset Tag: System Asset T	Tag						
iRMC Time: Tue, Oct 24, 2	2017 9:26 AM	<u>L</u>					
					🔍 100% 👻 💡		

(2) Click on "Power" icon on the upper right of the view, and click on "Press Power Button". (See "Figure E.5.2".)

Wait about 30 seconds after, click on "Tools" tab then click on "System" tab again. (3) Confirm that the "Power Status" display became Power Off.

iRMC S5 Web Server

E.6 Memory Operation Mode setting

(1) Click on "Settings" tab, click on "Server Management", and click on "Memory Operation Mode". \rightarrow The window shown in "Figure E.6" appears.

	Figure E.6			
		🖨 Language 🗸	💄 admin 🗸	Help 🗸
ols	Settings			ID 🖸

cisco

System	Logs	Tools	ettings	ID 🖾 🔊 🕛
System		Server Management		
Network Management				
Services		 Automatic System Receiption 	overy & Restart (ASR&R)	
User Management		 Software Watchdog 		
Server Management		 Boot Watchdog 		
Power Management	_	 HP System Insight Man 	ager (HP SIM) Integration	
rowermanagement		 System UUID 		
Logging		Y Fan Test		
Baseboard Managemer	nt Controller	 Memory Operation Mod 	le	
		Memory Mode	Normal	
		Lockstep Mode	Lockstep Mode	
		Memory Mirror RAS Mode	Mirror Keep 👻	
		Memory Sparing Mode	1Rank +	
				Apply Cancel
Model Name: Cisco C880 Host Name: RHEL73-142	M5			
Asset Tag: System Asset Ta iRMC Time: Tue, Oct 24, 20	ag 017 9:34 AM			

(2) Set "Memory Operation Mode" according to instructions of the system administrator.(3) Click on the "Apply" button.(4) Confirm that instructions value was set.

E.7 Checking memory type

- (1) Download SEL. (See Appendix E.8 "SEL downloading
- (1) Download SEL: (See Appendix E.S. SEL downloading
 (2) Unzip the "SystemEventLog.zip" then copy "config.txt" file onto desktop of the operation terminal.
 (3) Open the "config.txt" with text editor. (See "Figure E.7".) See "Table E.7", for DIMM type.

Figure E.7 Example

SB#0 (Install) : A3C402	202223	: (QM1710807E	Ξ	:		
SB#0-CPU#0 (I SB#0-CPU#1 (I	nstall) : nstall) :	Intel (R) Intel (R)	Xeon (R) Xeon (R)	Platinum Platinum	8180 8180	CPU @ CPU @	2. 50GHz 2. 50GHz	
SB#0-DIMM#0A0 SB#0-DIMM#0A1 SB#0-DIMM#0B0 SB#0-DIMM#0B0 SB#0-DIMM#0B1 SB#0-DIMM#0C0 SB#0-DIMM#0C1 SB#0-DIMM#0C1 SB#0-DIMM#0D1 SB#0-DIMM#0D1 SB#0-DIMM#0D1 SB#0-DIMM#0D1 SB#0-DIMM#0D1 SB#0-DIMM#1C1 SB#0-DIMM#11D0 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1 SB#0-DIMM#11D1	(Install) (Install)	 DPRD-(DPRD-(D016014 D0160 D016014 D016014 D016014 D016014 D016014 D016014 D0160					

Table E.7

Display of Installed DIMM	DIMM Type	DIMM capacity (GB)	RANK
DPRD-0008014	RDIMM	8	1
DPRD-0016014	RDIMM	16	1
DPRD-0016024	RDIMM	16	2
DPRD-0032024	RDIMM	32	2
DSRD-0064044	RDIMM	64	4
DPLR-0064044	LRDIMM	64	4
DSRD-0128084	RDIMM	128	8

(4) Check installed DIMM information on all SBs.

E.8 SEL downloading

(1) Click on "Tools" tab, click on "Reports", and click on "System Event Log". \rightarrow The window shown in "Figure E.8-1" appears.

Figure E.8-1

iRMC S5 Web Ser	rver		_	🖨 Language 🗸	💄 admin 🗸	Help 🗸	cisco
System	Logs	Tools	Settings			ID CSS	
Update							
Deployment		Keports					
Custom Image		 System Report 					
Certificates		 System Event L 	og				
Reports		Download	Save				
Backup and Restore							_
		· Finteconect					_
Host Name: RHEL73-142	3						
Asset Tag: System Asset Tag							
iRMC Time: Tue, Oct 24, 201	7 9:28 AM						
							€ 100% ·

- (2) Click on "Save" button, and save "SystemEventLog" file to the operation terminal. (See "Figure E.8-1".)
- (3) Rename "SystemEventLog" to "SystemEventLog.zip".

E.9 Power Restore Policy setting

(1) Click on "Settings" tab, click on "Power Management", and click on "Power Restore Policy". \rightarrow The window shown in "Figure E.9" appears.

Figure	E.9
--------	-----

System Logs Tools Settings System Network Management Services User Management Server Management Server Management Logging Baseboard Management Controller Model Name: Cisco C680 M5 Hot Name: RHE.73-142 Arate Tage: System Asset Tag	iRMC S5 Web	Server			🖨 Language 🗸	💄 admin 🗸	Help 🗸		cisco
System Network Management Services User Management Server Management Logging Baseboard Management Controlle V Power Restore Policy Alwaya power on V Power Restore Policy V Power Restore Policy Alwaya power on V Power Restore Policy V Power Restore Policy V Power Restore Policy Alwaya power on V Power Restore Policy V Power Restore Policy V Power Restore Policy V Power Restore Policy Alwaya power on V Power Restore Policy V Pow	System	Logs	Tools	Settings			ID	5 1	ወ
Network Management Services User Management User Management Server Management Power Restore Policy Imagement Logging Baseboard Management Controller Vield Name: Cisco C880 MS Hott Name: RHEJ23-142 Asset Tag: System Asset Tag	System		Prove Management						
Services User Management Server Management Cogging Baseboard Management Controller Vodel Name: Cisco C880 MS tost Name: RHEL73-142 tsset Tag: System Asset Tag	Network Managemer	nt	Power Management						
Jser Management Server Management Logging Baseboard Management Controlle Apply Cancel I Power Restore Policy Always power on Apply Cancel I Power Restore Policy I Power	Services		Y Power On/Off Sche	eduler					
Server Management Logging Baseboard Management Controller Apply Cancel I Power Restore Policy Always power on Apply Cancel I Power Restore Policy I PMI Fencing Addel Name: Cisco C880 M5 tost Name: RHEL73-142 taset Tag: System Asset Tag	User Management		 Power Consumption 	on Control					
Power Management Logging Baseboard Management Controller VIPMI Fencing Vodel Name: Cisco C880 M5 Host Name: RHEL73-142 Asset Tag: System Asset Tag	Server Management		 Power Restore Pol 	icy					
Logging Baseboard Management Controller Vodel Name: Cisco C880 MS Host Name: RHEL73-142 Asset Tag: System Asset Tag	Power Management		Power Restore Policy	Always power on	*				1
Addel Name: RHEL73-142 ksset Tag: System Asset Tag							Annaly	01	
Aodel Name: Cisco C880 M5 tost Name: RHEL73-142 tsset Tag: System Asset Tag	ogging						Арріу	Cancel	
Model Name: Cisco C880 M5 Host Name: RHEL73-142 Asset Tag: System Asset Tag	Logging	ant Controller					Арріу	Cancei	1
Aodel Name: Cisco C880 M5 Iost Name: RHEL73-142 asset Tag: System Asset Tag	.ogging Baseboard Managem	nent Controller	 IPMI Fencing 				Арргу	Cancei	
Aodel Name: Cisco C880 M5 lost Name: RHEL73-142 aset Tag: System Asset Tag	Logging Saseboard Managem	nent Controller	✓ IPMI Fencing				Арріу	Lance	
Aodel Name: Cisco C880 M5 lost Name: RHEL73-142 seet Tag: System Asset Tag	ogging Saseboard Managem	nent Controller	✓ IPMI Fencing			_	Арріу	Cancel	
Aodel Name: Cisco C880 M5 Iost Name: RHEL73-142 usset Tag: System Asset Tag	.ogging Baseboard Managem	nent Controller	✓ IPMI Fencing				Арріу		
Aodel Name: Cisco C880 M5 Host Name: RHEL73-142 usset Tag: System Asset Tag	.ogging Baseboard Managem	nent Controller	✓ IPMI Fencing				Арріу		
lost Name: RHEL73-142 usset Tag: System Asset Tag	.ogging Baseboard Managem	nent Controller	✓ IPMI Fencing				Арріу		
seet Tag: System Asset Tag	ogging iaseboard Managem iaseboard Managem	nent Controller	✓ IPMI Fencing				Афріу	Cancei	
	ogging Baseboard Managem Model Name: Cisco C88 Iost Name: RHEL73-14	nent Controller 80 M5 2	✓ IPMI Fencing				Арру]

(2) Select the corresponding setting value at "Power Restore Policy" pull-down menu.

- (3) Click the "Apply" button.(4) Confirm the corresponding value was set.

E.10 FBU (BBU) status confirming

(1) Click on "System" tab, click on "Mass Storage", and click on "RAID Controllers". \rightarrow The window shown in "Figure E.10-1" appears.

iRMC S5 Web Se	erver			@ La	nguage 👻 🚨 ai	dmin 🗸	Help 🗸	cis	co
System	Logs	Tools	Settings				ID CSS		Ċ
Systemboard									
📀 Power		Mass Storage							
Cooling		^ 🥑 RAID Cont	rollers						
 Mass Storage 		Status	Product	Firmware package version	Physical disks	3	Logical drive:	s	
Software		💿 👁 ок	PRAID EP420i	24.16.0-0105		2		1	
 Network AlS Connect 		Ports Protocol Vendor Serial Number PCI Vendor and I Sub Vendor and Driver version Temperature (*C Patrol Read Completed Patro Iterations Alarm present SMART support	8 PCIe Fujitsu 000000 Device Id 1000 / Device Id 1734 / -NA I 50 I 50 I Automu I Read 19 No Enables	Technology Solutions 10049232725 005D 1212 NA- atic					
lodel Name: Cisco C880 M ost Name: linux-tsoj sset Tag: System Asset Ta MC Time: Tue, Nov 7, 20	VI5 19 17 3:55 PM	Coercion modeNoneNVRAM size32 kBNVRAM size2048 MBFlashROM size16 MBCorrectable errors0							

Figure E.10-1

(2) Click on ">" mark with RAID Controller. (See "Figure E.10-1".)
(3) Confirm "Status" display under "Battery Backup Unit" is "Normal". (See "Figure E.10-2".)

Figure E.10-2



Appendix F Handling the Units

APP0601000

F.1 Unit location





Figure F.1-2 Rear



F.2 SB

APP0602010

F.2.1 Installing SB

(1) Insert a SB into the Base Unit.
(2) Move the left and right the B parts of the SB in the direction of the arrow. (See "Figure F.2.1-1".)
(3) Lock the B parts with the A parts. (See "F.2.1-2".)

Figure F.2.1-1



Figure F.2.1-2



F.2.2 Removing SB

(1) Move the left and right the A parts of the SB, and unlock the B parts. (See "Figure F.2.2".)(2) Move the left and right the B parts of the SB in the direction of the arrow.

(3) Pull a SB out of the Base Unit.

Figure F.2.2



APP0602030

F.2.3 Installing a cover of SB

(1) Slide a cover in the direction of the arrow. (See "Figure F.2.3".) Figure F.2.3



F.2.4 Removing a cover of SB

(1) Slide a cover in the direction of the arrow while pressing part A. (See "Figure F.2.4".)

Figure F.2.4



F.3 IOUB

APP0603010

F.3.1 Installing IOUB

(1) Insert IOUB into the Base Unit.

(2) Move the B part in the direction of the arrow. (See "Figure F.3.1-1".)

(3) Lock the B part with the A part. (See "Figure F.3.1-2".)

Figure F.3.1-1



Figure F.3.1-2



F.3.2 Removing IOUB

(1) Move the A part and unlock the B part. (See "Figure F.3.2".)(2) Move the B part in the direction of the arrow.

(3) Pull IOUB out of the Base Unit.

Figure F.3.2



APP0603030

F.3.3 Installing IOUB cover

(1) Slide the cover in the direction of the arrow and fix with the screws. (See "Figure F.3.3".) Figure F.3.3



F.3.4 Removing IOUB cover

(1) Remove the screws and slide the cover in the direction of the arrow. (See "Figure F.3.4".) Figure F.3.4



F.4 DU_SAS

APP0604010

F.4.1 Installing DU_SAS

(1) Insert DU_SAS into the Base Unit.

(2) Move the \overline{B} part in the direction of the arrow. (See "Figure F.4.1".)

Figure F.4.1



APP0604020

F.4.2 Removing DU_SAS

(1) While moving the A part in the direction of the arrow move the B part in the direction of the arrow. (See "Figure 6.4.2".)



Figure F.4.2

(2) Pull a DU_SAS out of the Base Unit.

F.5 DU_PCIE

APP0605010

F.5.1 Installing DU_PCIE

- (1) Insert a DU_PCIE into the Base Unit.
- (2) Move the B part in the direction of the arrow. (See "Figure F.5.1".)

Figure F.5.1



APP0605020

F.5.2 Removing DU_PCIE

(1) While moving the A part in the direction of the arrow move the B part in the direction of the arrow. (See "Figure F.5.2".)



Figure F.5.2

(2) Pull DU_PCIE out of the Base Unit.

F.6 PSU

APP0606010

F.6.1 Installing PSU

- (1) Insert PSU into the Base Unit.
- (1) Push the B part to install. (See "Figure F.6.1".)
- (2) Connect the power cable and fix the power cable using the C part.

Figure F.6.1



APP0606020

F.6.2 Removing PSU

- (1) Turn off the AC power and disconnect the power cable.
- (2) Hold down the A part and pull the B part. (See "Figure F.6.2".)
- (3) Pull PSU out of the Base Unit.

Figure F.6.2



F.7 CPU



Figure F.7 Location of CPUs

APP0607010

F.7.1 Installing CPU

(1) The key and the keyway (red circle part) are matched, and Processor Clip is installed in CPU package. (See Figure "F.7.1-1".)
 <u>Do not touch on back (PAD) of CPU package.</u>





(2) Fast pin position (red circle part) is matched, and install the CPU package to the heat sink. (See "Figure F.7.1-2".)

Figure F.7.1-2



(3) Hold the groove of the Socket cover, and it lift, and remove it from the SB. (See "Figure F.7.1-3".)





(4) The size of guide pin is noted (red circle part and blue round part). Mount the CPU package installed the heat sink on SB. (See "Figure F.7.1-4".)

Figure F.7.1-4

(5) Tighten the heat sink screw in order number 1, 2, 3, 4, and fix to SB. (See "Figure F.7.1-5".)

Figure F.7.1-5



F.8 Memory



Figure F.8 Location of DIMMs

APP0608010

F.8.1 Installing Memory

- (1) Detach the cover of the A part. (See "Figure F.8.1-1".)
 - Since the cover of the A part is not fixed, it can be easily detached.
- (2) Open the B part at both ends of the memory slot. (See "Figure F.8.1-2".)
- (3) Mount the DIMM in the memory slot.
- (4) Press down the DIMM and lock with the B part. (See "Figure F.8.1-3".)
- (5) Attach the cover of the A part.









Figure F.8.1-3



F.8.2 Removing Memory

- (1) Detach the cover of the A part. (See "Figure F.8.2-1".) Since the cover of the A part is not fixed, it can be easily detached.
 (2) Open the B part at both ends of the memory slot and eject the DIMM. (See "Figure F.8.2-2".) (3) Remove the DIMM.





Figure F.8.2-2



F.9 PCI card

AS for slot#2 and slot#3, PHP is possible.

APP0609010

F.9.1 Installing PCI card (Other than slot#2 and slot#3)

- (1) Remove the PCI card dummy. (See "Figure F.9.1".)
 (2) Install the PCI card and fix with the screw.



Figure F.9.1

F.9.2 Removing PCI card (Other than slot#2 and slot #3)

(1) Remove the screw and remove the PCI card. (See "Figure F.9.2".) $\label{eq:Figure F.9.2} Figure \ F.9.2$



F.9.3 Installing PCI card (slot#2 and slot#3)

- (1) Push down the A part until touch the B part for unlock. (See "Figure F.9.3-1".)
- (2) Pull the B part then remove the PCI cassette out of a IOUB. (See "Figure F.9.3-2".)
- (3) Remove the screw and PCI card dummy.
- (4) Install the PCI card and fix with the screw. (See "Figure F.9.3-3".)
- (5) Insert the PCI cassette into the IOUB and lock it by moving up the A part. (See "Figure F.9.3-4".)

Figure F.9.3-1



Figure F.9.3-2







Figure F.9.3-4



F.9.4 Removing PCI card (slot#2 and slot#3)

The operation of the PCI cassette: as well as "F.9.3 Installing PCI card (slot#2 and slot#3)".

APP0610000

F.10 FBU for DU_SAS

APP0610010

F.10.1 Installing a FBU

(1) At a slight angle, fit the FBU under both retaining brackets of the FBU holder as shown in "Figure F.10.1-1". Push in the FBU until it locks in place. See "Figure F.10.1-1".

Figure F.10.1-1



(2) Connect the FBU cable. (See "Figure F.10.1-2".)

Figure F.10.1-2



(3) Secure the FBU. (See "Figure F.10.1-3".)

Figure F.10.1-3


F.10.2 Installing a TFM module

(1) Install a TFM module to the SAS array controller card or Dual SAS array controller card. (See "Figure F.10.2-1" and "Figure F.10.2-2".)



Figure F.10.1-1

Figure F.10.1-2



APP0610030

F.10.3 Connecting FBU cable

(1) Connect between the FBU and the TFM module with the FBU cable. (See "Figure F.10.3-1".)

The FBU cable are the attached items of the flash backup unit.

Figure F.10.3-1



F.11 HDD/SSD

APP0611010

F.11.1 Installing HDD/SSD

- (1) Insert HDD/SSD into the HDD/SSD slot.
- (2) Move the B part in the direction of the arrow. (See "Figure F.11.1-1".)
 (3) Lock the B part with the A part. (See "Figure F.11.1-2".)

Figure F.11.1-1



Figure F.11.1-2



F.11.2 Removing HDD/SSD

- (1) Push the A part and unlock the B part. (See "Figure F.11.2-1".)
 (2) Move the B part in the direction of the arrow. (See "Figure F.11.2-2".)
 (3) Remove HDD/SSD.

Figure F.11.2-1



Figure F.11.2-2



F.12 PCIe SSD SFF

APP0612010

F.12.1 Installing PCIe SSD SFF

- (1) Insert PCIe SSD SFF into the PCIe SSD SFF slot.
- (2) Move the B part in the direction of the arrow. (See "Figure F.12.1-1".)
 (3) Lock the B part with the A part. (See "Figure F.12.1-2".)

Figure F.12.1-1



Figure F.12.1-2



F.12.2 Removing PCIe SSD SFF

- (1) Push the A part and unlock the B part. (See "Figure F.12.2-1".)
 (2) Move the B part in the direction of the arrow. (See "Figure F.12.2-2".)
 (3) Remove PCIe SSD SFF

Figure F.12.2-1



Figure F.12.2-2



F.13 Installing LAN card module

APP0613010

F.13.1 10G BASE LAN Card

Table F.13.1

Product Name	Module order number
(order number)	
PLAN EP X710-DA2 2x10Gb SFP+	MC-0JXEL1
(MC-0JXEK1)	
PLAN EP X710-DA4 4x10Gb SFP+ LP	MC-0JXEL1
(MC-0JXEA1)	
PLAN EP OCe14102 2x 10Gb LP	MC-0JCEK1
(MC-0JXEN1)	

- When order number of "10G BASE LAN card" is MC-0JXEK1, install the module shown in "Figure F.13.1-1". Any module shown in "Figure F.13.1-1" can be installed.
- When order number of "10G BASE LAN card is MC-0JXEA1, install the module shown in "Figure F.13.1-1". Any module shown in "Figure F.13.1-1" can be installed.
- When order number of "10G BASE LAN card" is MC-0JXEN1, install the module shown in "Figure F.13.1-2".

Figure F.13.1-1 Module: MC-0JXEL1



Figure F.13.1-2 Module : MC-0JCEK1



F.13.2 CAN (FCoE) card (10Gbps)

Table F.13.2	
Product Name	Module order number
(order number)	
PCNA EP OCe14102 2x 10Gb LP	MC-0JCEK1
(MC-0JCEL1)	

- When order number of "CNA card (10Gbps)" is MC-0JCEL1, install the module shown in "Figure F.13.2-1".

Figure F.13.2-1 Module : MC-0JCEK1



F.13.3 25G BASE LAN card

Table F.13.3	
Product Name	Module order number
(order number)	
PLAN EP MCX4-LX 25Gb 2p SFP28 LP	MC-0JFE21
(MC-0JFE11)	

- When order number of "25G BASE LAN card" is MC-0JFE11, install the module shown in "Figure F.13.3-1".

Figure 13.3-1 Module: MC-0JFE21

F.13.4 40G BASE LAN card

Table F.13.4		
Product Name	Module order number	
(order number)		
PLAN EP MCX4-EN 40Gb 2p QSFP LP	MC-0JFE51	
(MC-0JFE41)	MC-0JFE61	

- When order number of "40G BASE LAN card" is MC-0JFE41, install the module shown in "Figure F.13.4-1" and "Figure F13.4-2".



Figure F.13.4-1Module: MC-0JFE51

Figure F.13.4-2 Module: MC-0JFE61



F.14 Installing M.2 Flash Device

See "Figure F.14".

Figure F.14



F.15 Installing eLCM Activation License

The installation of Micro SD which is a component of eLCM Activation License will be explained. See "Figure F.15".



Figure F.15

F.16 FBU for Ext. SAS RAID Card

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F.16.1 Installing a TFM module

(1) Install a TFM module to the SAS array controller card or Dual SAS array controller card. See "Figure F.16.1-1" and "Figure F.16.1-2".

Figure F.16.1-1



Figure F.16.1-2



F.16.2 Connecting the FBU cable to RAID Card

(1) Connect between the FBU and the TFM module with the FBU cable. See "Figure F.16.2-1". The FBU cable is an attached items of the flash backup unit.

Figure F.16.2-1



F.16.3 Connecting FBU cable to connector on IOUB



(1) Connect the FBU cable to connector on IOUB. See "Figure F.16.3". Figure F.16.3

F.16.4 Mounting FBU to OPUB

(1) Push up "A" then pull out the OPUB to front with "B". See "Figure F.16.4-1". Figure F.16.4-1



(2) Push in the FBU to FBU holder until it locks in place. See "Figure F.16.4-2". Figure F.16.4-2



(3) Mount the FBU to the OPUB. See "Figure F.16.4-3". $\label{eq:Figure F.16.4-3} \textbf{Figure F.16.4-3}$



(4) Lock the FBU holder with "B" and connect the cable like "A". See "Figure F.16.4-4". Figure F.16.4-4



(5) Insert the OPUB.

F.17 Installing TPM

See "Figure F.17".



Figure F.17

Appendix G Cable Connection Diagram

This appendix describes the cables connected to the Base Unit.

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G.1 Cable Connection Diagram

See "Figure G.1-1" and "Figure G.1-2".





Figure G.1-2

External interface	Product name	Cable specification xx and xxx are the lengths of the cable (m)	Remarks
FC LAN(10G BASE) CAN	Twinax cable	PY-CBN0xx	10GBASE-SR and Fibre channel (LC-LC)
	Multimode fibre channel cable ,	CBL-MLLBxx (*1)	
		CBL-MLLCxx	
		CBL-MLSBxx (*1)	10GBASE-SR and Fibre channel (LC-SC)
		CBL-MLSCxx	
LAN(10G BASE-T/1000 BASE-T/100 BASE-TX) Twisted pair cable (CT-5e)	Twisted pair cable (CT–5e)	TPABLxxxC	10G BASE-T/1000 BASE-T/100 BASE-TX (RJ45-RJ45)
		TPABLxxxM	
	TPCBL-Bxxx	100 BASE-TX/10 BASE-T (RJ45-RJ45)	
SAS	SAS cable	PY-CBS0xx	

G.2 Cable Routing

- Fix the cables to cable holder with the reusable cable tie.
- 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 G.2".)
- 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 G.2 Cable routing (recommendation)



Appendix H Prevention of Improper Cable Connections

An improperly connected cable may damage user files and other resources. To prevent cables from being improperly connected, attach "destination labels" to cables and cabinets during on-site installation.

To prevent signal cables of file system devices from being improperly connected during on-site installation or expansion, be sure to attach "destination labels" to both ends of each cable.

Following the procedure described below, affix a unit label with a unit identifier written on it to the unit cabinet, and use ties to attach cable labels with the cable destination written on them to both ends of each cable.

(1) Work preparations

- Labels (consumable tool) One label is required for each unit. Size: 50 x 15 (mm)
- Cable labels with ties (consumable tool) Two labels are required for each cable.

Figure I-1 Cable label with tie



(2) Work procedure

1) For each unit, write down a unit identifier on a label, and affix the label near the file system connector port on the unit. Also write down the unit identifier on the installation drawing (cable connection diagram).

Unit label: Size: 50 x 15 mm

If the label is too large, cut it to the appropriate size.

Xy

X: Unit symbol (See the table below.)

y: Unit number (Generally, unit numbers in a rack are assigned 1, 2, and so on in order by unit location from left to right and bottom to top. However, they can be properly assigned (in a way that is easily comprehensible) according to the unit installation locations in the system).

Figure I-2 Unit symbols

Unit symbol (X)	Unit name
MU	Main unit (server, client)
HUB	Hub (Fibre Channel hub, etc.)
RLY	Relay converter other than a hub (BMC converter M-LINK, etc.)
FDU	Magnetic disk (expansion file unit/cabinet, FDU, DKC, etc.)
MT	Tape unit (tape LIB/changer, tape unit, MTC, etc.)
ARY	Disk array
MO	Magneto-optical disk unit (MO library, etc.)
ETC	Another type of unit

Example of the labels affixed to the array disks that are the first and second ones from the left at the bottom of a rack



2) According to the installation drawing (cable connection diagram), write down the destinations on the cable destination labels to be attached to both ends of the cables to be connected. Cable destination label with ties 25 mm in diameter, 120 mm long.

Figure I-3 Cable destination label with tie



Format of written destination Format: Xy-ZZZ => (CCC) Xy: See item 1) above. ZZZ: Physical location of the connection destination of the connector at this end of the cable (Use the physical location name referring to the unit concerned.) CCC: Destination of the connector at the other end of the cable (same format as above)

Example of written labels indicating a connection between port 2 of the PT board in slot 4 of the main unit (first from the left) and channel 12 of the hub (third from the left)



3) Attach the cable destination labels with ties to both ends of each cable. (Wrap the string at least twice around the cable or affix cotton tape on the string to prevent the string from moving.)

Make sure that the cable destinations on the two labels attached to each cable are reversed as shown

in the following figure.



Figure I-4 Attaching cable destination labels with ties

4) Connect the connectors at cable ends to the destination ports indicated on the first lines of their labels.

Appendix I Port number of PCI card

Port number of PCI card that has two or more ports.

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I.1 LAN card

Figure I.1



I.2 Fibre Channel card



Figure I.2

I.3 SAS card / SAS RAID controller card





I.4 CNA card

Figure I.4



I.5 Infiniband HCA card

Figure I.5

