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LOCATION SECTION

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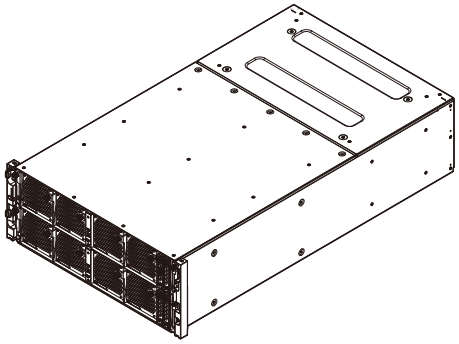
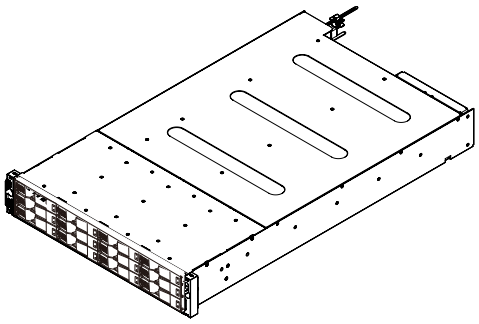
1. Overview of Storage System

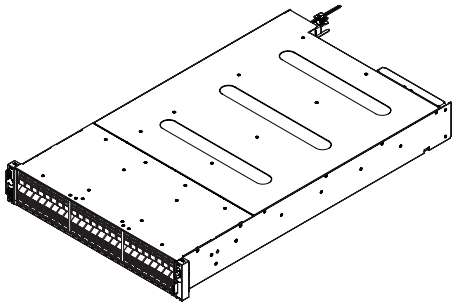
Figure 1-1 Overview of Controller Chassis



CBLH1/CBLH2



CBXSL/CBSL



CBXSS/CBSS

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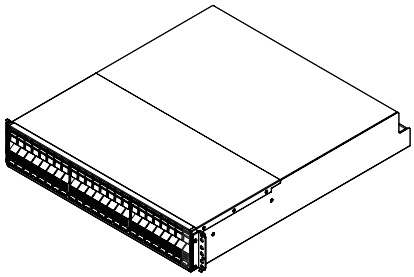
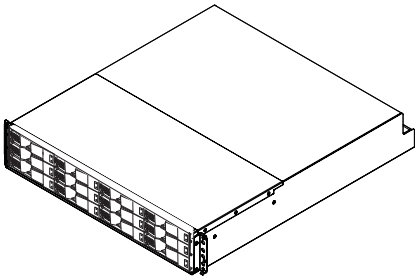
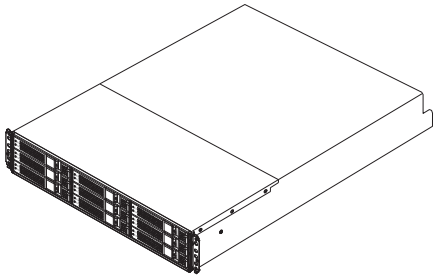
Figure 1-2 Overview of Drive Box



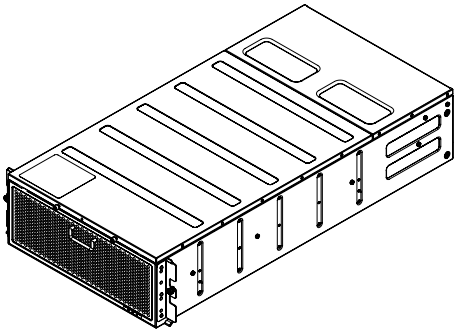
DBS



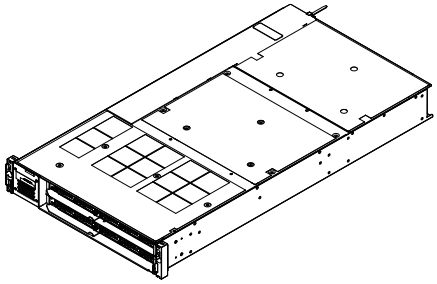
DBL



DBF



DB60



CHBB

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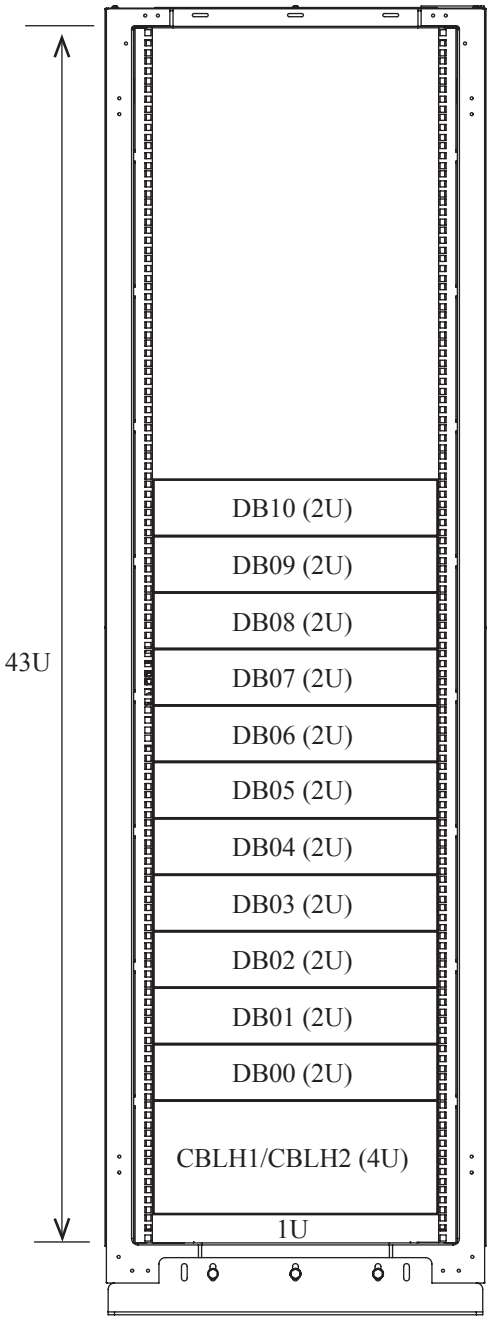
2. Parts Location

2.1 Configuration Example of Main Parts

The following figure shows a configuration example of installing Controller Chassis (4U) and Drive Box (2U) in 43 units rack frame.

Figure 2-1 Configuration Example of Main Parts



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2.2 Controller Chassis

2.2.1 CBSS

The following figure shows the parts location of CBSS.

Figure 2-2 Parts Location of CBSS

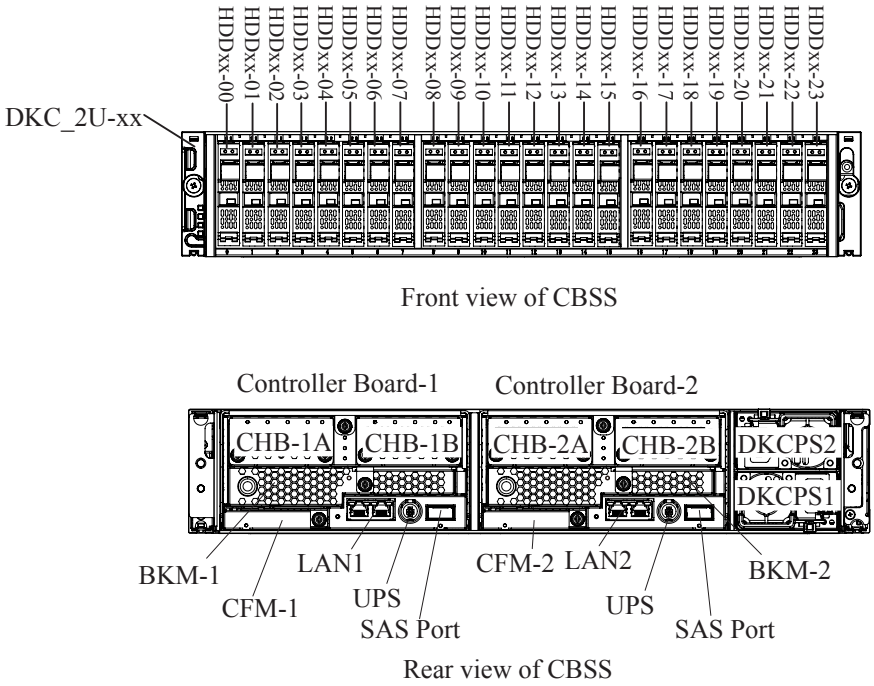

Table 2-1 Locations of SAS Ports

Controller Board	SAS Port#	Remarks
Controller Board 1	1C-0	Connection to the Drive in the CBSS. No external cable connection exists.
	1C-1	Connection to the Drive outside the CBSS. The external cable connection exists.
Controller Board 2	2C-0	Connection to the Drive in the CBSS. No external cable connection exists.
	2C-1	Connection to the Drive outside the CBSS. The external cable connection exists.

2.2.2 CBSL

The following figure shows the parts location of CBSL.

Figure 2-3 Parts Location of CBSL

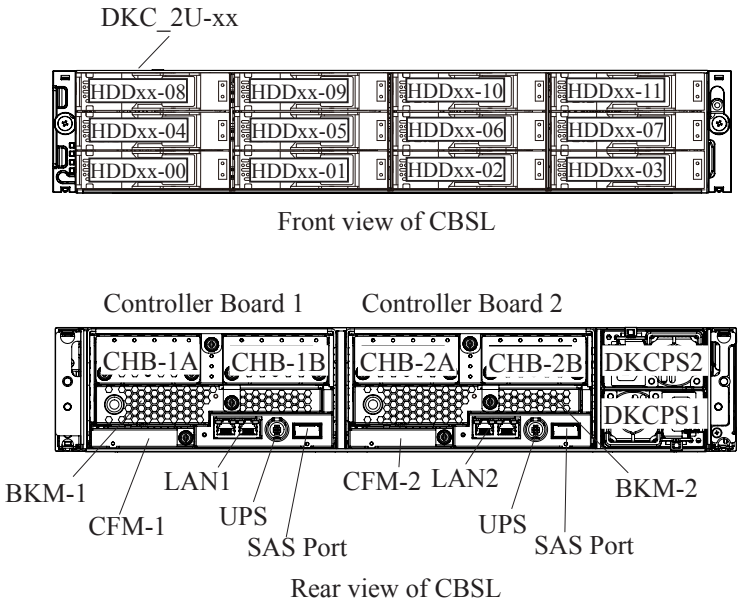

Table 2-2 Locations of SAS Ports

Controller Board	SAS Port#	Remarks
Controller Board 1	1C-0	Connection to the Drive in the CBSL. No external cable connection exists.
	1C-1	Connection to the Drive outside the CBSL. The external cable connection exists.
Controller Board 2	2C-0	Connection to the Drive in the CBSL. No external cable connection exists.
	2C-1	Connection to the Drive outside the CBSL. The external cable connection exists.

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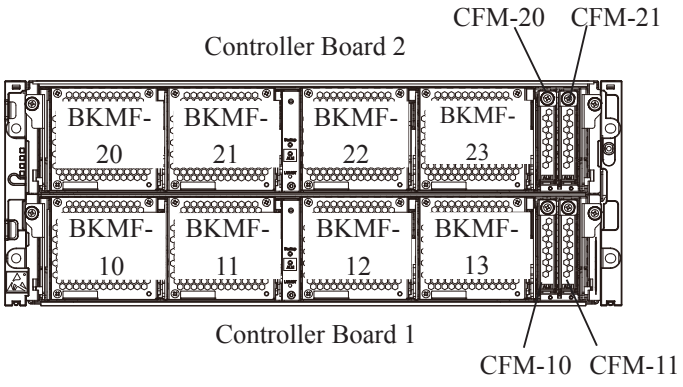
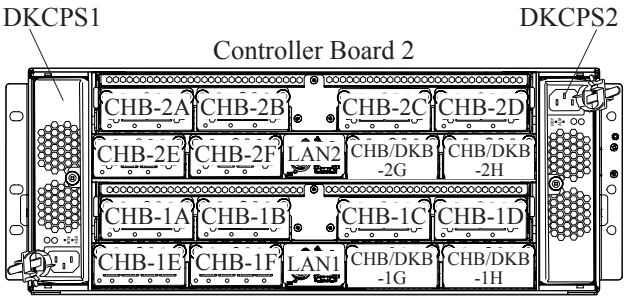
2.2.3 CBLH1/CBLH2

The following figure shows the parts location of CBLH1/CBLH2.

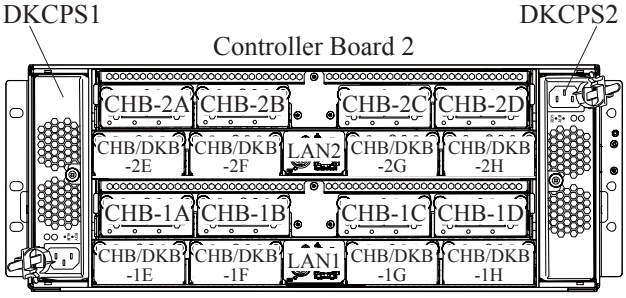
Figure 2-4 Parts Location of CBLH1/CBLH2



Front view of CBLH1/CBLH2



Rear view of CBLH1



Rear view of CBLH2

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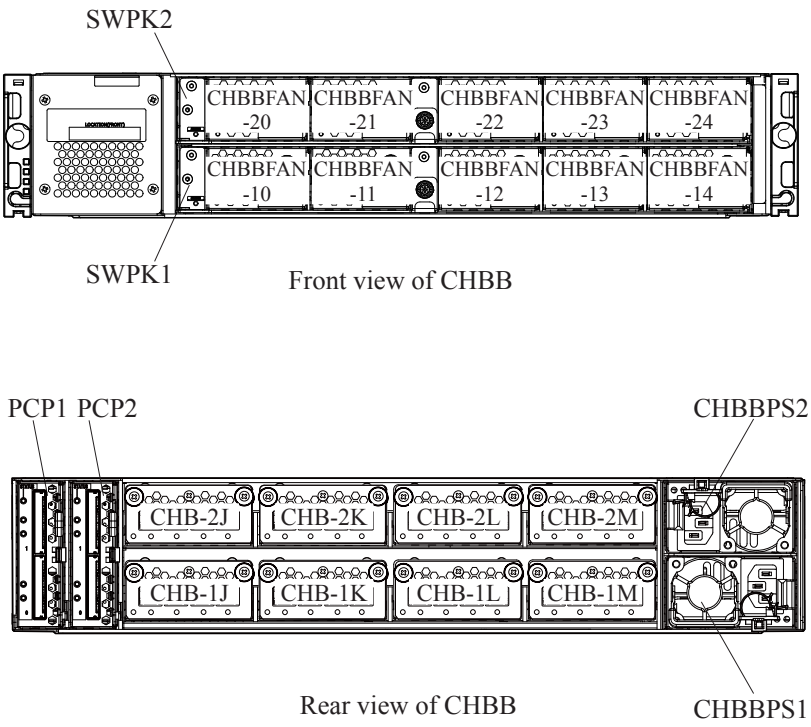
2.2.4 Channel Board Box (CHBB)

The following figure shows the parts location of Channel Board Box (CHBB).

Figure 2-5 Parts Location of Channel Board Box (CHBB)



2.2.5 CBXSS

The following figure shows the parts location of CBXSS.

Figure 2-6 Parts Location of CBXSS

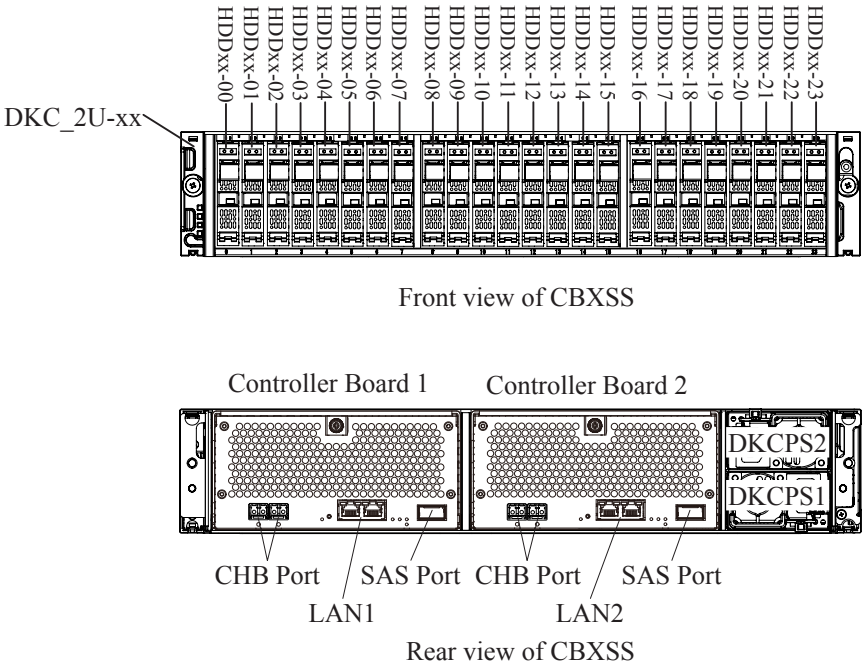


Table 2-3 Locations of SAS Ports

Controller Board	SAS Port#	Remarks
Controller Board 1	1C-0	Connection to the Drive in the CBXSS. No external cable connection exists.
	1C-1	Connection to the Drive outside the CBXSS. The external cable connection exists.
Controller Board 2	2C-0	Connection to the Drive in the CBXSS. No external cable connection exists.
	2C-1	Connection to the Drive outside the CBXSS. The external cable connection exists.

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2.2.6 CBXSL

The following figure shows the parts location of CBXSL.

Figure 2-7 Parts Location of CBXSL

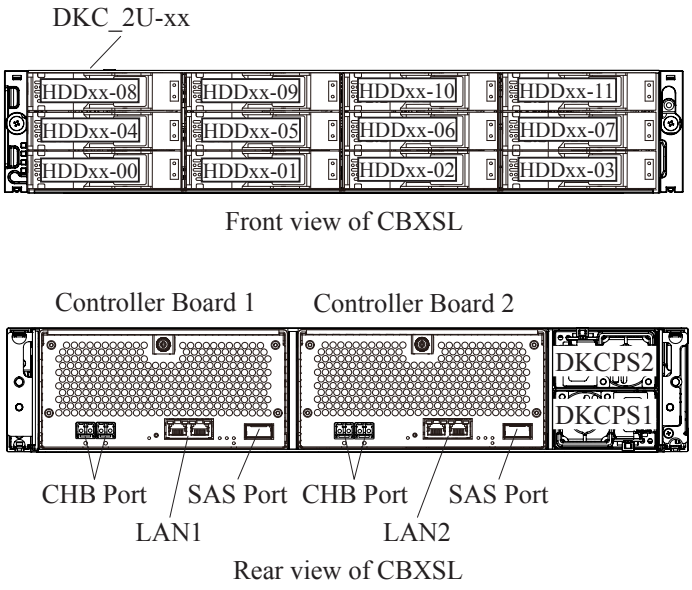

Table 2-4 Locations of SAS Ports

Controller Board	SAS Port#	Remarks
Controller Board 1	1C-0	Connection to the Drive in the CBXSL. No external cable connection exists.
	1C-1	Connection to the Drive outside the CBXSL. The external cable connection exists.
Controller Board 2	2C-0	Connection to the Drive in the CBXSL. No external cable connection exists.
	2C-1	Connection to the Drive outside the CBXSL. The external cable connection exists.

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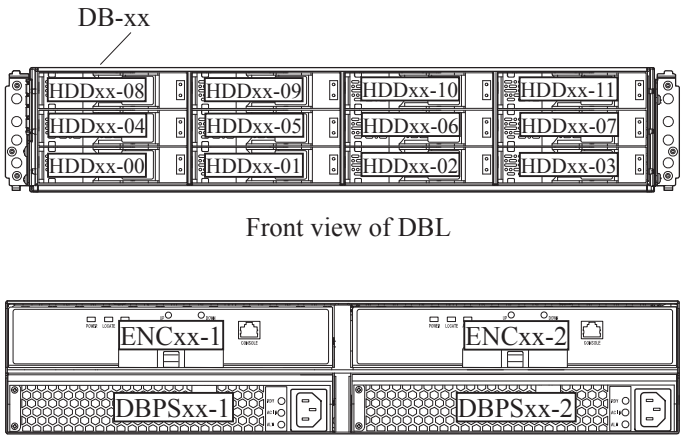
2.3 Drive Box (2U/4U)

The number (DB-xx) of Drive Box doesn't indicate the installation location of Drive Box, but indicates the order of installation. Therefore, while performing process to Drive Box, it is necessary to confirm location with the location label put on Drive Box, and be careful not to make a mistake of the target location.

2.3.1 DBL (3.5-inch Drive Box)

The following figure shows the parts location of DBL.

Figure 2-8 Parts Location of DBL



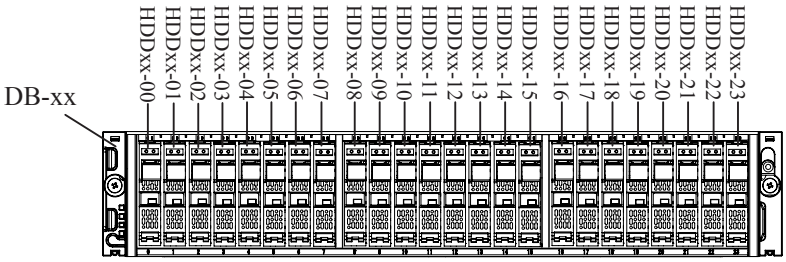
*1 : The name in parentheses in the MPC messages shows HDDxx-yy here.

*2 : DB-xx
↳ DB No. (00, 01, 02, ..., 47)

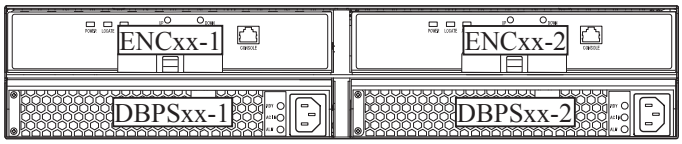
2.3.2 DBS (2.5-inch Drive Box)

The following figure shows the parts location of DBS.

Figure 2-9 Parts Location of DBS



Front view of DBS



Rear view of DBS

*1 : The name in parentheses in the MPC messages shows HDDxx-yy here.

*2 : DB-xx
↳ DB No. (00, 01, 02, ..., 47)

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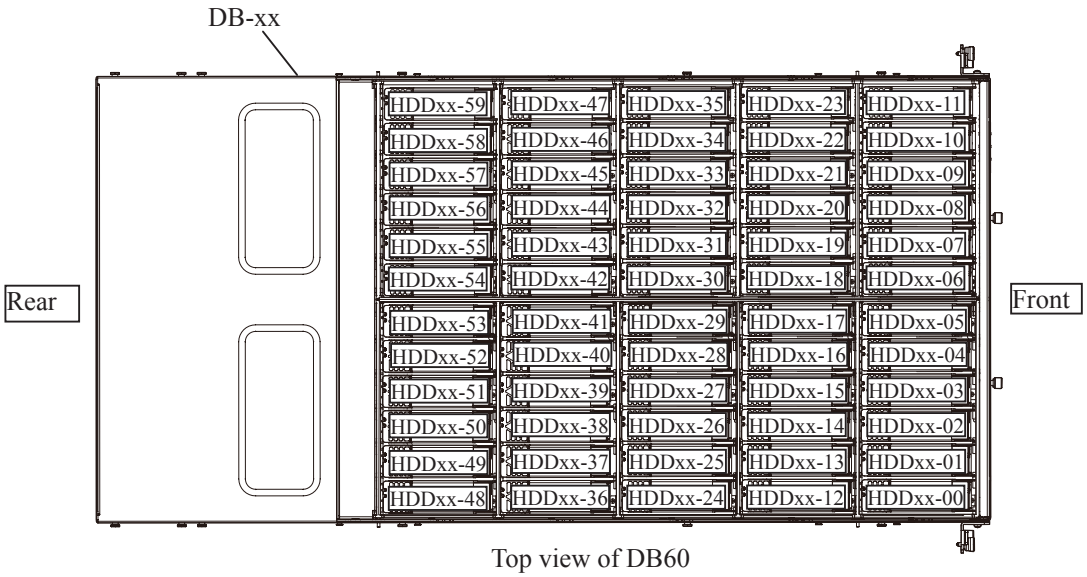
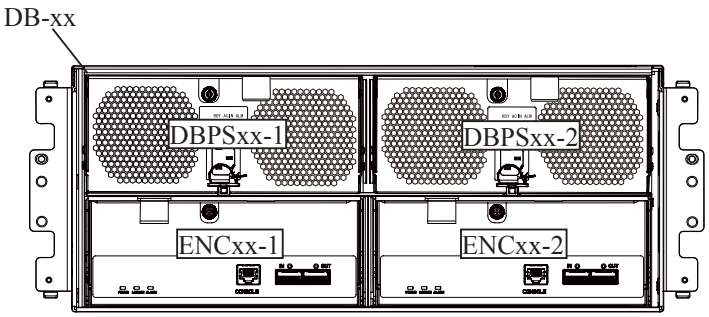
2.3.3 DB60 (3.5-inch 4U Drive Box)

The following figure shows the parts location of DB60.

Figure 2-10 Parts Location of DB60



Top view of DB60



Rear view of DB60

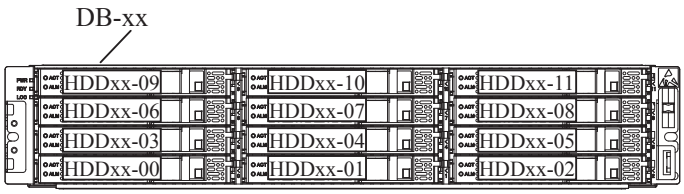
*1 : The name in parentheses in the MPC messages shows HDDxx-yy here.

*2 : DB-xx
└→ DB No. (00, 01, 02, ..., 23)

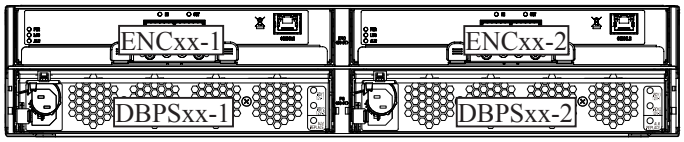
2.3.4 DBF (Flash Module Drive Box)

The following figure shows the parts location of DBF.

Figure 2-11 Parts Location of DBF



Front view of DBF



Rear view of DBF

*1: The name in parentheses in the MPC messages shows HDDxx-yy here.

*2: DB-xx
↳ DB No. (00, 01, 02, ..., 47)

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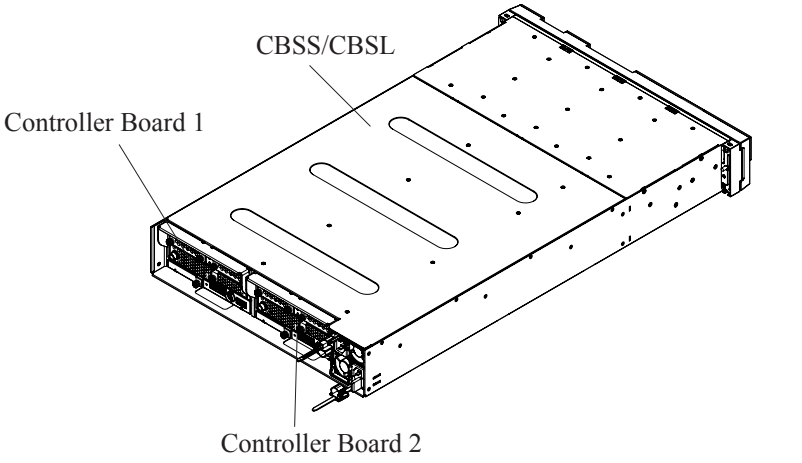
2.4 Parts Location

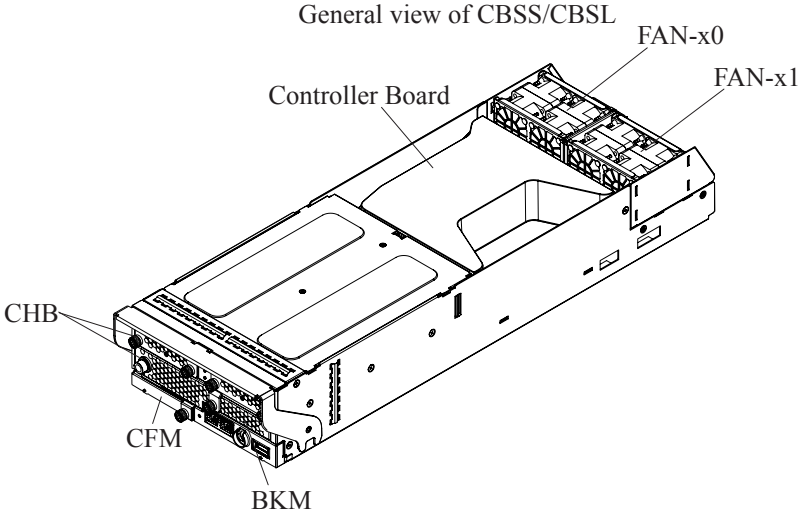
2.4.1 Parts Location of CBSS/CBSL

The following figure shows the parts location of CBSS/CBSL.

Figure 2-12 Parts Location of CBSS/CBSL

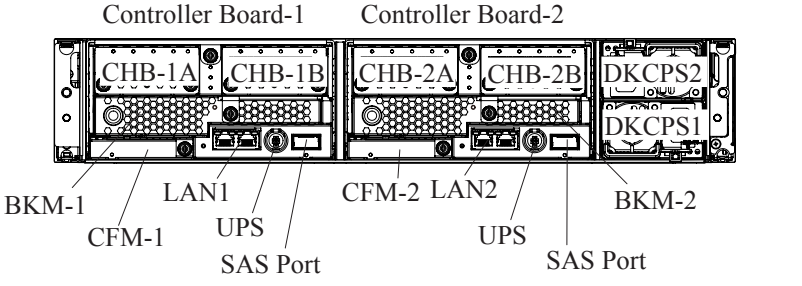


General view of CBSS/CBSL



General view of Controller Board

*1: FAN-x0
└→ Controller Board No.(1, 2)



Rear view of CBSS/CBSL

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NOTE: • The Controller Board includes the LANB and DKB.
• The CBSS/CBSL includes DB-00.

Table 2-5 Locations of SAS Ports

Controller Board	SAS Port#	Remarks
Controller Board 1	1C-0	Connect to the Drive in the CBSS/CBSL. No external cable connection exists.
	1C-1	Connect to the Drive outside the CBSS/CBSL. The external cable connection exists.
Controller Board 2	2C-0	Connect to the Drive in the CBSS/CBSL. No external cable connection exists.
	2C-1	Connect to the Drive outside the CBSS/CBSL. The external cable connection exists.

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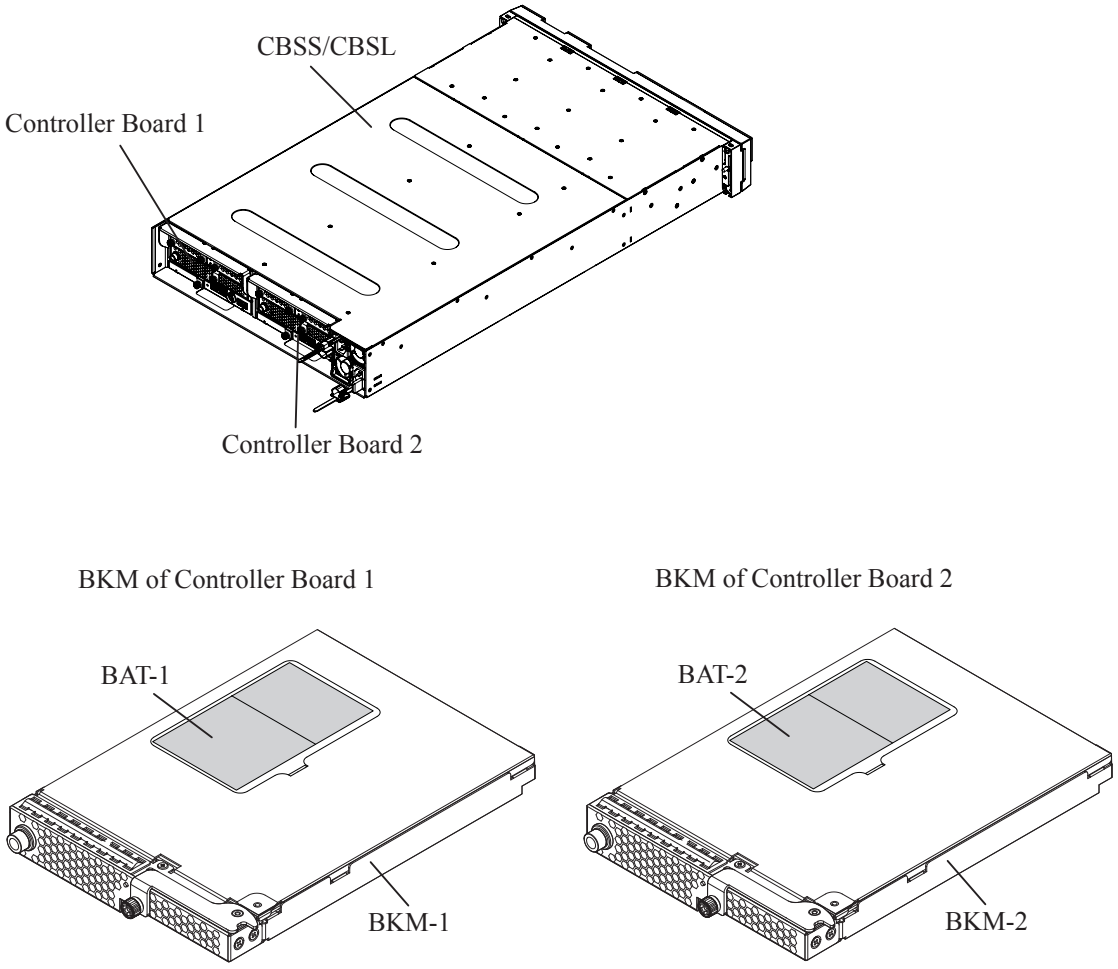
2.4.1.1 BKM

The following figure shows the BKM location and the BAT (Battery) location.

Figure 2-13 Location of BKM/BAT (Battery)



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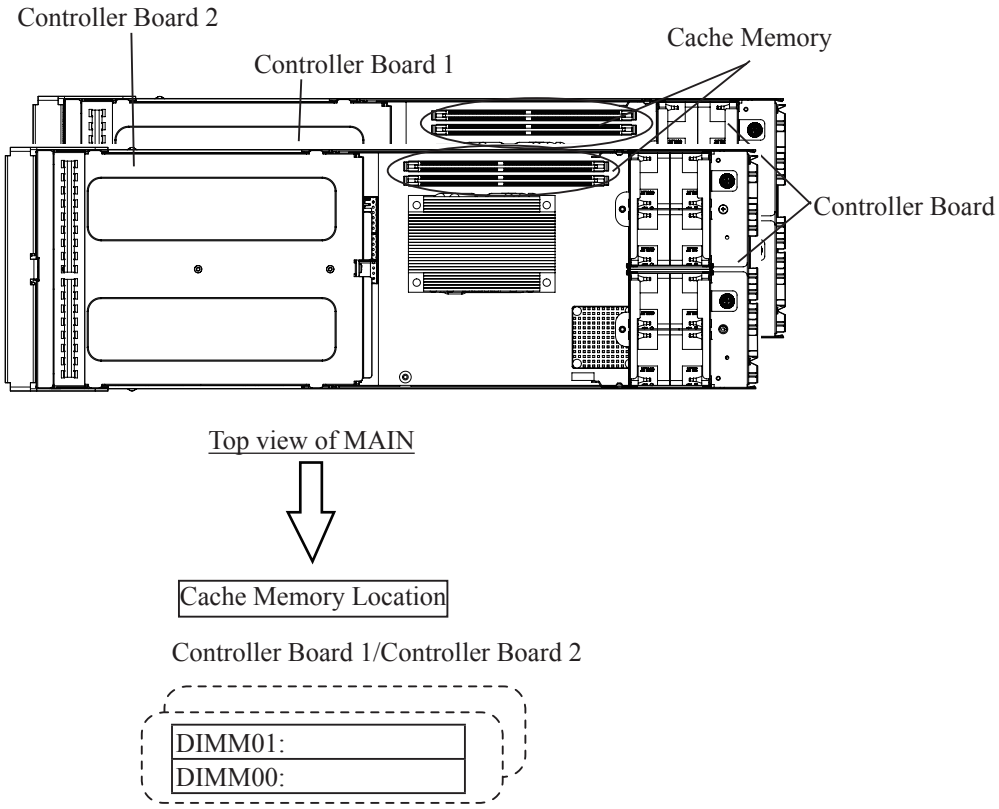
2.4.1.2 Cache Memory Location of CBSS/CBSL

The following figure shows the Cache Memory location on the CBSS/CBSL Parts.

Figure 2-14 Cache Memory Location (CBSS/CBSL)



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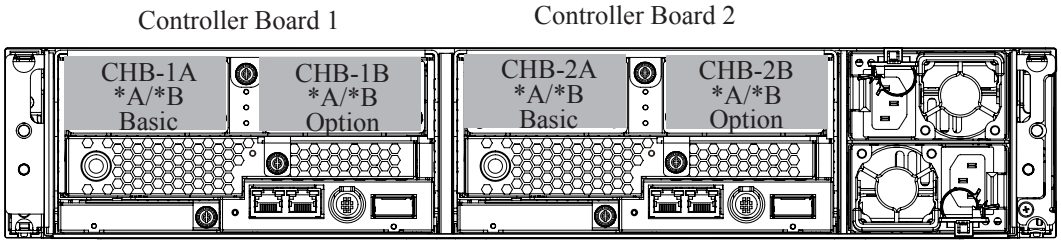
2.4.1.3 Channel Board (CHB) of CBSS/CBSL

The following figure shows the Channel Board location of the rear side of the CBSS/CBSL.

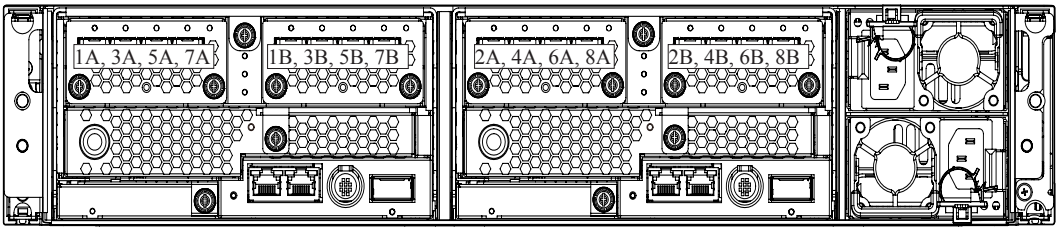
Figure 2-15 Channel Board Location (rear of CBSS/CBSL)

Channel Board location (rear of CBSS/CBSL)



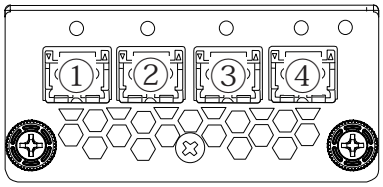
CBSS/CBSL (Rear view)

• Port location



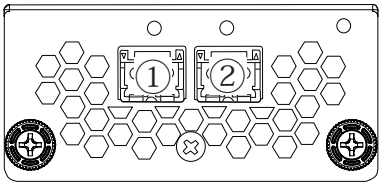
CBSS/CBSL (Rear view)

*A: CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC) location details



CHB#	①	②	③	④
CHB-1A	1A	3A	5A	7A
CHB-1B	1B	3B	5B	7B
CHB-2A	2A	4A	6A	8A
CHB-2B	2B	4B	6B	8B

*B: CHB (10 Gbps (2 port) iSCSI) location details



CHB#	①	②
CHB-1A	1A	3A
CHB-1B	1B	3B
CHB-2A	2A	4A
CHB-2B	2B	4B

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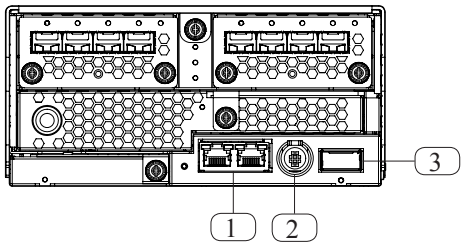
2.4.1.4 LAN Board (LANB)

The following figure shows the LAN board location.

Figure 2-16 LAN Board Location



No.	Parts Name	Function
1	LAN port	LAN1: Maintenance LAN port (left)
		LAN2: User LAN port (right)
2	UPS connector	Connector for a remote adapter This connector is only for use in Japan.
3	SAS port	Connector for a Drive Box

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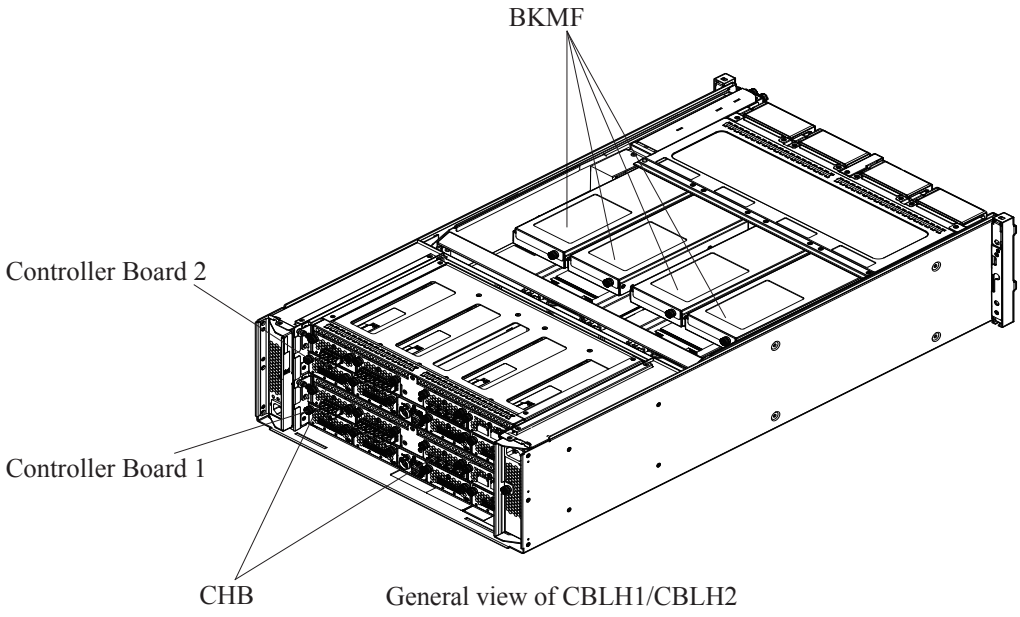
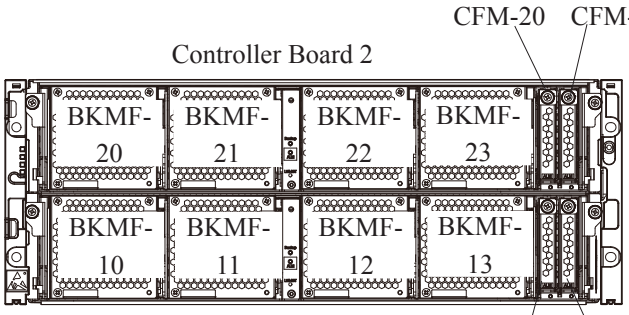
2.4.2 Parts Location of CBLH1/CBLH2

The following figure shows the parts location of CBLH1/CBLH2.

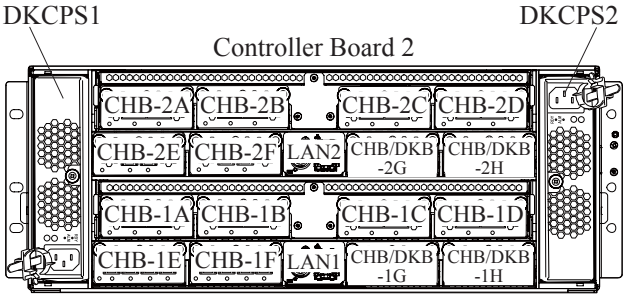
Figure 2-17 Parts Location of CBLH1/CBLH2



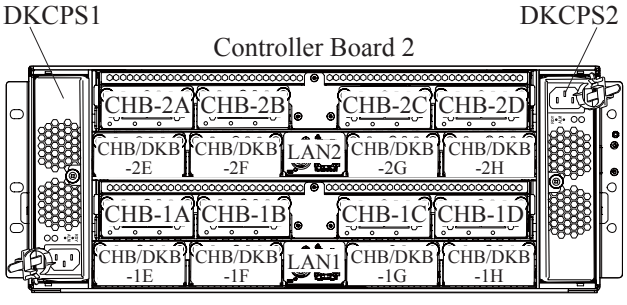
General view of CBLH1/CBLH2



Front view of CBLH1/CBLH2



Rear view of CBLH1



Rear view of CBLH2

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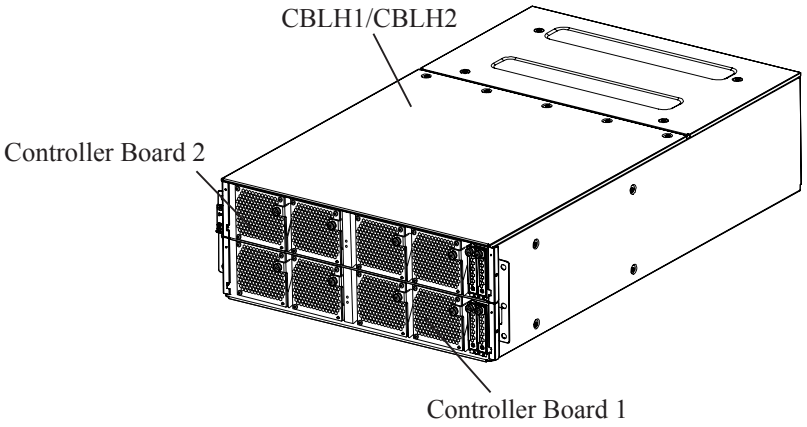
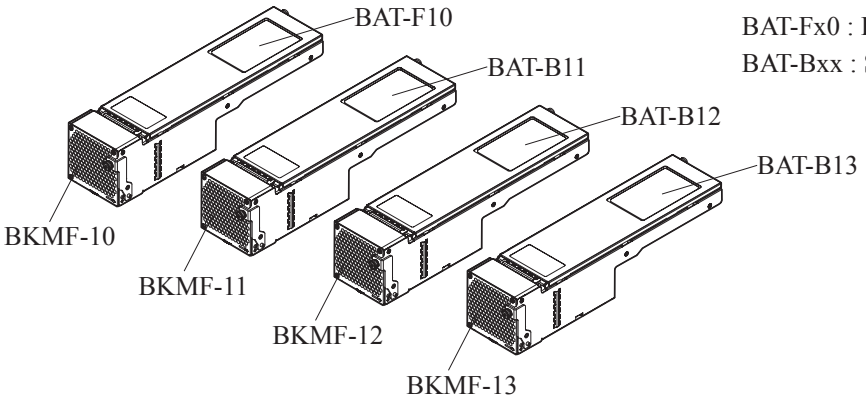
2.4.2.1 BKMF

The following figure shows the BKMF location and the BAT (Battery) location.

Figure 2-18 Location of BKMF/BAT (Battery)

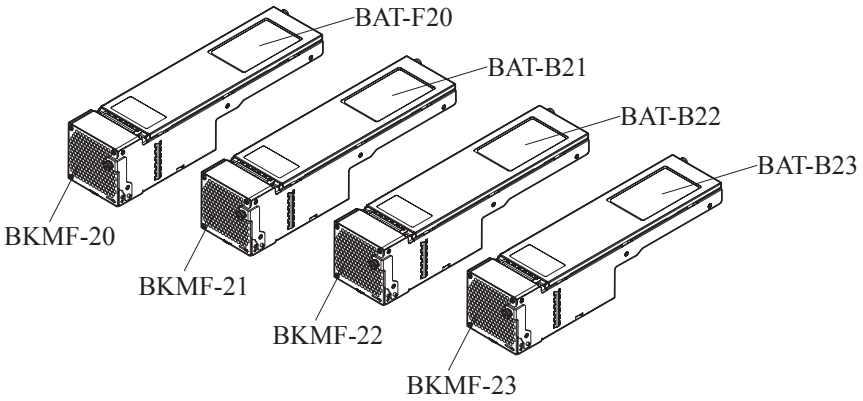


BKMF of Controller Board 1



BAT-Fx0 : Installing is impossible.
BAT-Bxx : Standard installation

BKMF of Controller Board 2



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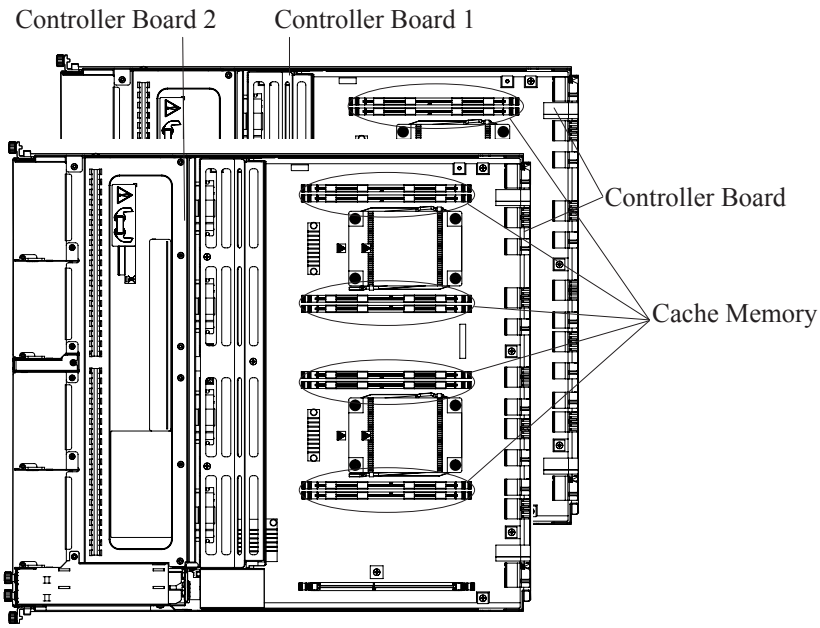
2.4.2.2 Cache Memory Location of CBLH1/CBLH2

The following figure shows the Cache Memory location on the CBLH1/CBLH2 Parts.

Figure 2-19 Cache Memory Location on the Controller Board (CBLH1/CBLH2)



Cache Memory Location

Controller Board 1/Controller Board 2

DIMM13:	*2
DIMM12:	*2
DIMM02:	*1
DIMM03:	*1
DIMM11:	*2
DIMM10:	*2
DIMM00:	*1
DIMM01:	*1

*1: Belonging to CMG0 (Cache Memory Group 0).
*2: Belonging to CMG1 (Cache Memory Group 1).
Be sure to install DIMM in CMG0.
CMG1 is an additional slot of DIMM.
Install DIMM in sets of four.

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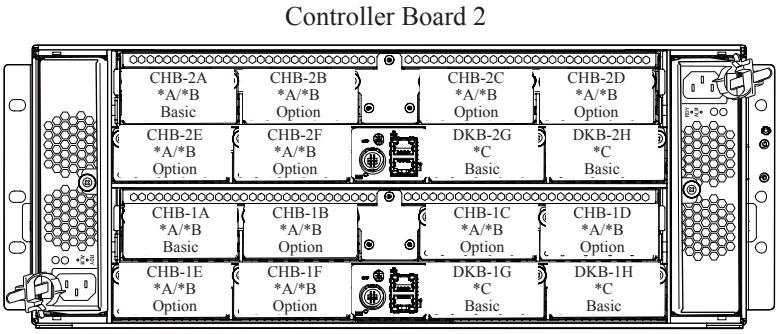
2.4.2.3 Channel Board (CHB)/Disk Board (DKB) of CBLH1/CBLH2

The following figure shows the Channel Board/Disk Board location of the rear side of the CBLH1/CBLH2.

1. CBLH1 (Drive Boxes are connected)

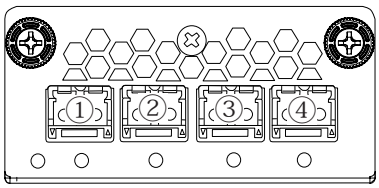
Figure 2-20 Channel Board/Disk Board Location (Rear view of CBLH1)



Basic : Standard installation (mandatory)
Option : Option installation (arbitrary)

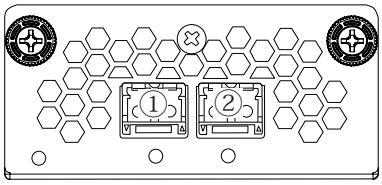
Rear view of CBLH1

*A: CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC) location details



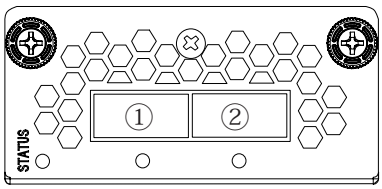
CHB#	①	②	③	④
CHB-1A	1A	3A	5A	7A
CHB-1B	1B	3B	5B	7B
CHB-1C	1C	3C	5C	7C
CHB-1D	1D	3D	5D	7D
CHB-1E	1E	3E	5E	7E
CHB-1F	1F	3F	5F	7F
CHB-2A	2A	4A	6A	8A
CHB-2B	2B	4B	6B	8B
CHB-2C	2C	4C	6C	8C
CHB-2D	2D	4D	6D	8D
CHB-2E	2E	4E	6E	8E
CHB-2F	2F	4F	6F	8F

*B: CHB (10 Gbps (2 port) iSCSI) location details



CHB#	①	②
CHB-1A	1A	3A
CHB-1B	1B	3B
CHB-1C	1C	3C
CHB-1D	1D	3D
CHB-1E	1E	3E
CHB-1F	1F	3F
CHB-2A	2A	4A
CHB-2B	2B	4B
CHB-2C	2C	4C
CHB-2D	2D	4D
CHB-2E	2E	4E
CHB-2F	2F	4F

*C: DKB location details



DKB#	①	②
DKB-1G	1G-0	1G-1
DKB-2G	2G-0	2G-1
DKB-1H	1H-0	1H-1
DKB-2H	2H-0	2H-1

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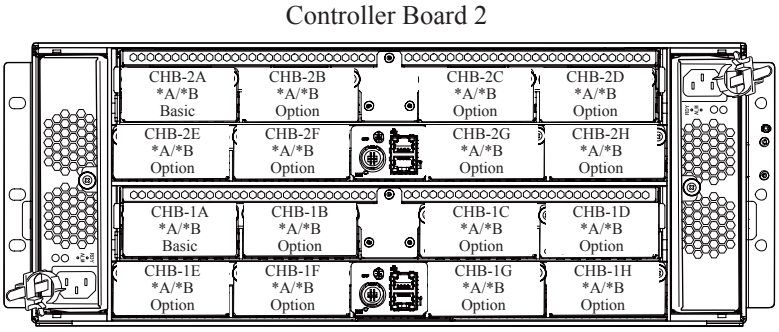
2. CBLH1 (Drive Boxes are not connected)

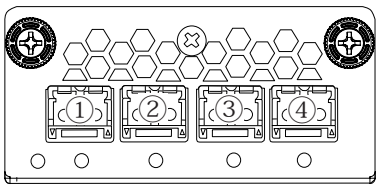
Figure 2-21 Channel Board Location (Rear view of CBLH1)



Basic : Standard installation (mandatory)
Option : Option installation (arbitrary)

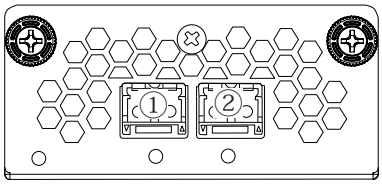
Rear view of CBLH1

*A: CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC) location details



CHB#	①	②	③	④
CHB-1A	1A	3A	5A	7A
CHB-1B	1B	3B	5B	7B
CHB-1C	1C	3C	5C	7C
CHB-1D	1D	3D	5D	7D
CHB-1E	1E	3E	5E	7E
CHB-1F	1F	3F	5F	7F
CHB-1G	1G	3G	5G	7G
CHB-1H	1H	3H	5H	7H
CHB-2A	2A	4A	6A	8A
CHB-2B	2B	4B	6B	8B
CHB-2C	2C	4C	6C	8C
CHB-2D	2D	4D	6D	8D
CHB-2E	2E	4E	6E	8E
CHB-2F	2F	4F	6F	8F
CHB-2G	2G	4G	6G	8G
CHB-2H	2H	4H	6H	8H

*B: CHB (10 Gbps (2 port) iSCSI) location details



CHB#	①	②
CHB-1A	1A	3A
CHB-1B	1B	3B
CHB-1C	1C	3C
CHB-1D	1D	3D
CHB-1E	1E	3E
CHB-1F	1F	3F
CHB-1G	1G	3G
CHB-1H	1H	3H
CHB-2A	2A	4A
CHB-2B	2B	4B
CHB-2C	2C	4C
CHB-2D	2D	4D
CHB-2E	2E	4E
CHB-2F	2F	4F
CHB-2G	2G	4G
CHB-2H	2H	4H

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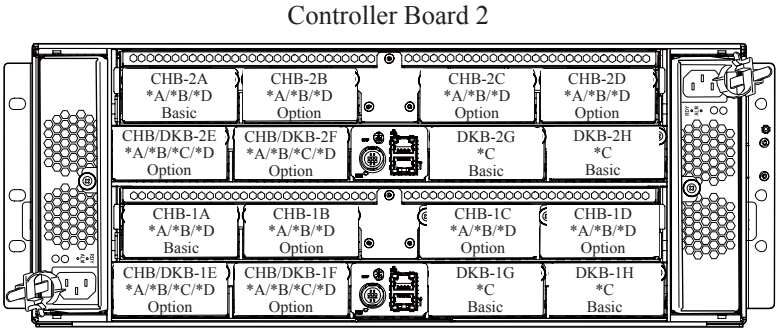
3. CBLH2 (Drive Boxes are connected)

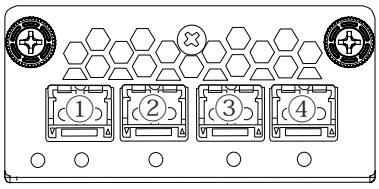
Figure 2-22 Channel Board/Disk Board Location (Rear view of CBLH2)



Basic : Standard installation (mandatory)
Option : Option installation (arbitrary)

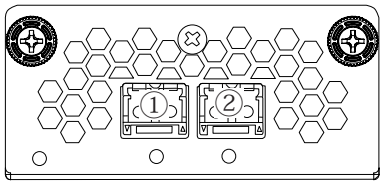
Rear view of CBLH2

*A: CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC) location details



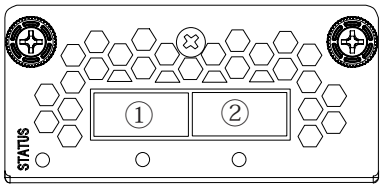
CHB#	①	②	③	④
CHB-1A	1A	3A	5A	7A
CHB-1B	1B	3B	5B	7B
CHB-1C	1C	3C	5C	7C
CHB-1D	1D	3D	5D	7D
CHB-1E	1E	3E	5E	7E
CHB-1F	1F	3F	5F	7F
CHB-2A	2A	4A	6A	8A
CHB-2B	2B	4B	6B	8B
CHB-2C	2C	4C	6C	8C
CHB-2D	2D	4D	6D	8D
CHB-2E	2E	4E	6E	8E
CHB-2F	2F	4F	6F	8F

*B: CHB (10 Gbps (2 port) iSCSI) location details



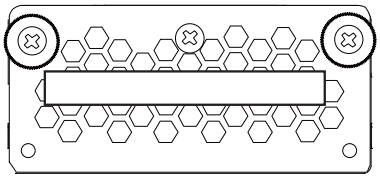
CHB#	①	②
CHB-1A	1A	3A
CHB-1B	1B	3B
CHB-1C	1C	3C
CHB-1D	1D	3D
CHB-1E	1E	3E
CHB-1F	1F	3F
CHB-2A	2A	4A
CHB-2B	2B	4B
CHB-2C	2C	4C
CHB-2D	2D	4D
CHB-2E	2E	4E
CHB-2F	2F	4F

*C: DKB location details



DKB#	①	②
DKB-1H	1H-0	1H-1
DKB-2H	2H-0	2H-1
DKB-1G	1G-0	1G-1
DKB-2G	2G-0	2G-1
DKB-1F	1F-0	1F-1
DKB-2F	2F-0	2F-1
DKB-1E	1E-0	1E-1
DKB-2E	2E-0	2E-1

*D: PECB location details



Location details are not available for PECB because it has one fixed port.

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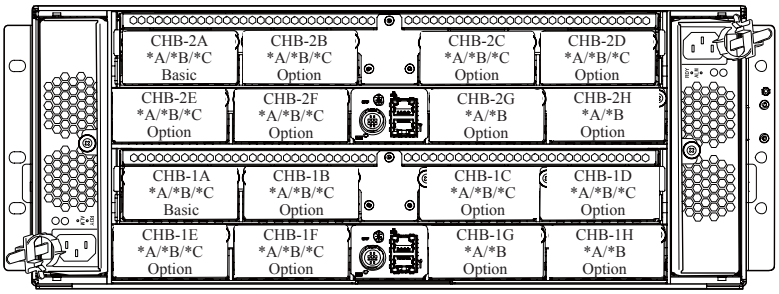
4. CBLH2 (Drive Boxes are not connected)

Figure 2-23 Channel Board Location (Rear view of CBLH2)

Controller Board 2

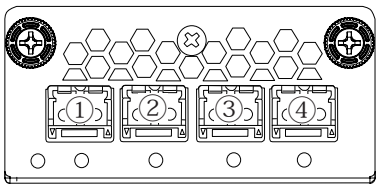


Controller Board 1

Rear view of CBLH2

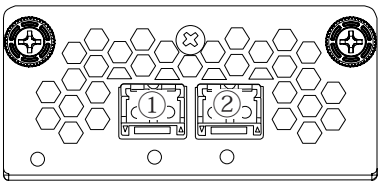
Basic : Standard installation (mandatory)
Option : Option installation (arbitrary)

*A: CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC) location details



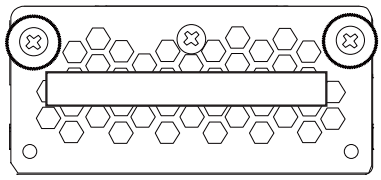
CHB#	①	②	③	④
CHB-1A	1A	3A	5A	7A
CHB-1B	1B	3B	5B	7B
CHB-1C	1C	3C	5C	7C
CHB-1D	1D	3D	5D	7D
CHB-1E	1E	3E	5E	7E
CHB-1F	1F	3F	5F	7F
CHB-1G	1G	3G	5G	7G
CHB-1H	1H	3H	5H	7H
CHB-2A	2A	4A	6A	8A
CHB-2B	2B	4B	6B	8B
CHB-2C	2C	4C	6C	8C
CHB-2D	2D	4D	6D	8D
CHB-2E	2E	4E	6E	8E
CHB-2F	2F	4F	6F	8F
CHB-2G	2G	4G	6G	8G
CHB-2H	2H	4H	6H	8H

*B: CHB (10 Gbps (2 port) iSCSI) location details



CHB#	①	②
CHB-1A	1A	3A
CHB-1B	1B	3B
CHB-1C	1C	3C
CHB-1D	1D	3D
CHB-1E	1E	3E
CHB-1F	1F	3F
CHB-1G	1G	3G
CHB-1H	1H	3H
CHB-2A	2A	4A
CHB-2B	2B	4B
CHB-2C	2C	4C
CHB-2D	2D	4D
CHB-2E	2E	4E
CHB-2F	2F	4F
CHB-2G	2G	4G
CHB-2H	2H	4H

*C: PECB location details



Location details are not available for PECB because it has one fixed port.

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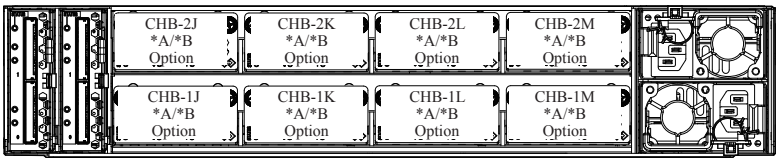
2.4.2.4 Channel Board (CHB) of Channel Board Box (CHBB)

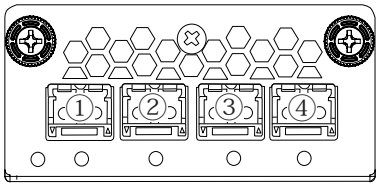
The following figure shows the Channel Board location of the rear side of the CHBB.

Figure 2-24 Channel Board Location (Rear view of Channel Board Box)



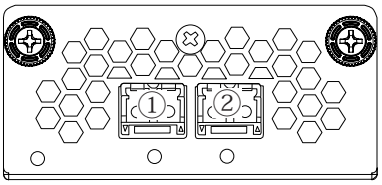
Rear view of CHBB

*A: CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC) location details



CHB#	①	②	③	④
CHB-1J	1J	3J	5J	7J
CHB-1K	1K	3K	5K	7K
CHB-1L	1L	3L	5L	7L
CHB-1M	1M	3M	5M	7M
CHB-2J	2J	4J	6J	8J
CHB-2K	2K	4K	6K	8K
CHB-2L	2L	4L	6L	8L
CHB-2M	2M	4M	6M	8M

*B: CHB (10 Gbps (2 port) iSCSI) location details



CHB#	①	②
CHB-1J	1J	3J
CHB-1K	1K	3K
CHB-1L	1L	3L
CHB-1M	1M	3M
CHB-2J	2J	4J
CHB-2K	2K	4K
CHB-2L	2L	4L
CHB-2M	2M	4M

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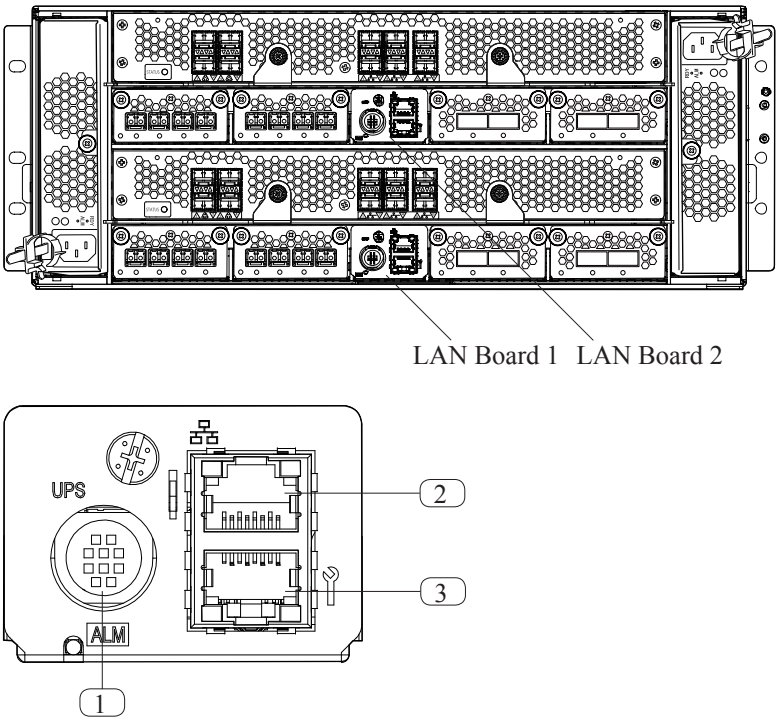
2.4.2.5 LAN Board

The following figure shows the LAN board location.

Figure 2-25 LAN Board Location

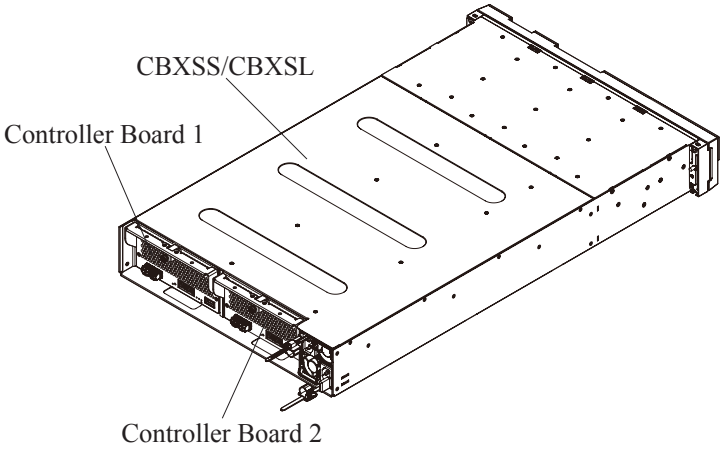


No.	Parts Name	Function
1	UPS connector	Connector for a remote adapter This connector is only for use in Japan.
2	User LAN port	LAN 2: User uses this port.
3	Maintenance LAN port	LAN 1: Service personnel use this port.

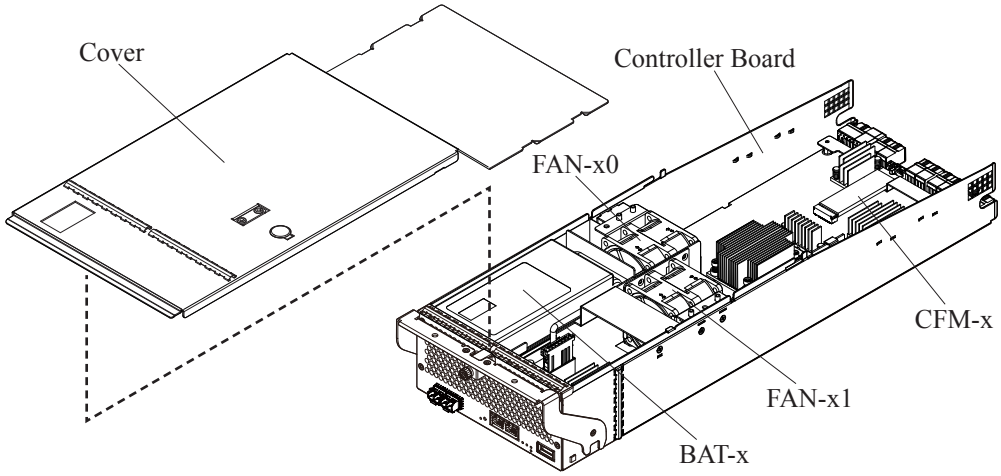
2.4.3 Parts Location of CBXSS/CBXSL

The following figure shows the parts location of CBXSS/CBXSL.

Figure 2-26 Parts Location of CBXSS/CBXSL

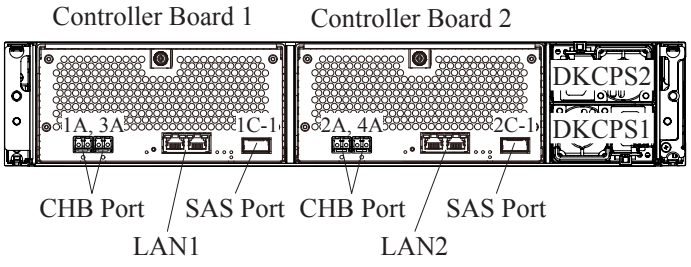


General view of CBXSS/CBXSL



General view of Controller Board

*1: x (Controller Board No. 1, 2)



Rear view of CBXSS/CBXSL

NOTE: • The Controller Board includes the LANB, DKB and CHB.
• The CBXSS/CBXSL includes DB-00.

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Table 2-6 Locations of SAS Ports

Controller Board	Port Name	Port#	Remarks
Controller Board 1	SAS Port	1C-0	Connect to the Drive in the CBXSS/CBXSL. No external cable connection exists.
	SAS Port	1C-1	Connect to the Drive outside the CBXSS/CBXSL. The external cable connection exists.
	LAN Port	LAN1	LAN (left): Maintenance LAN port LAN (right): User LAN port
	CHB Port	1A/3A	Connect to the higher-level device (host).
Controller Board 2	SAS Port	2C-0	Connect to the Drive in the CBXSS/CBXSL. No external cable connection exists.
	SAS Port	2C-1	Connect to the Drive outside the CBXSS/CBXSL. The external cable connection exists.
	LAN Port	LAN2	LAN (left): Maintenance LAN port LAN (right): User LAN port
	CHB Port	2A/4A	Connect to the higher-level device (host).

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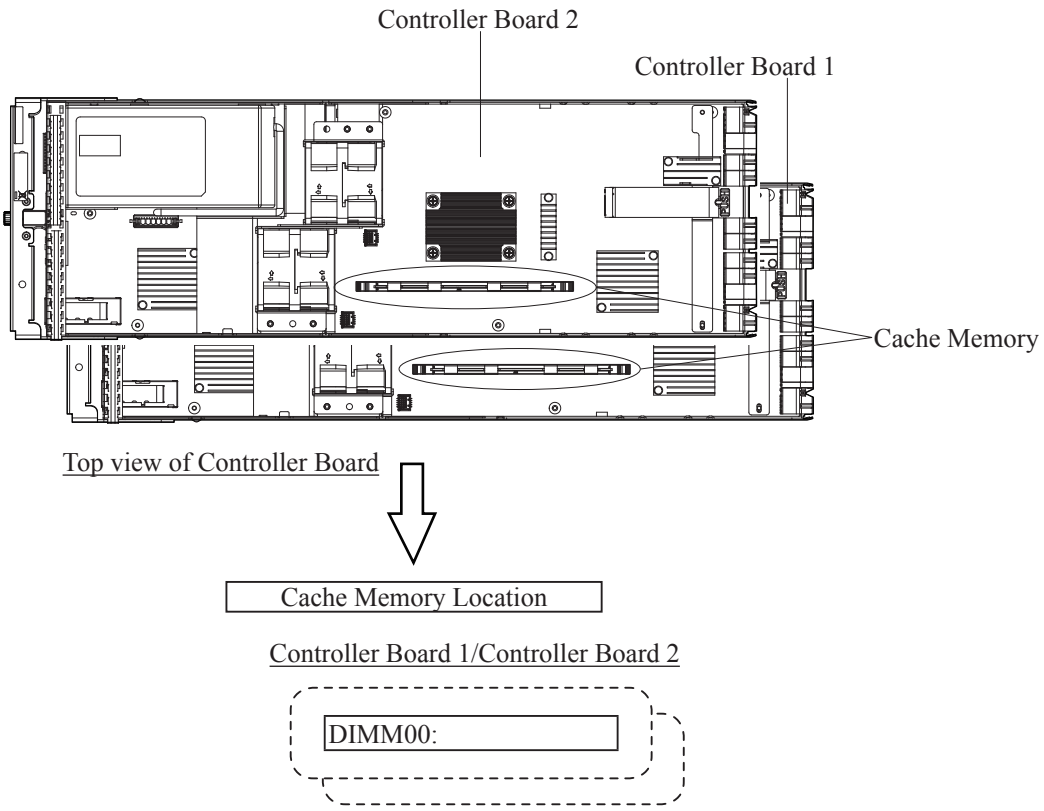
2.4.3.1 Cache Memory Location of CBXSS/CBXSL

The following figure shows the Cache Memory location on the CBXSS/CBXSL Parts.

Figure 2-27 Cache Memory Location (CBXSS/CBXSL)



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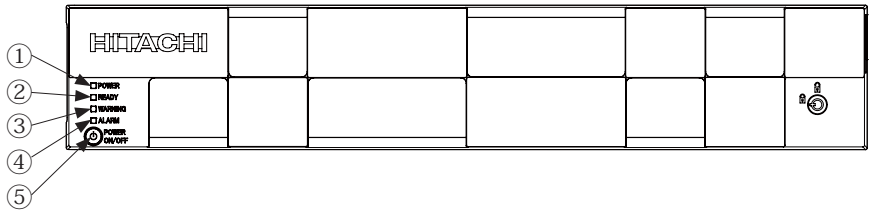
3. Switches and LEDs

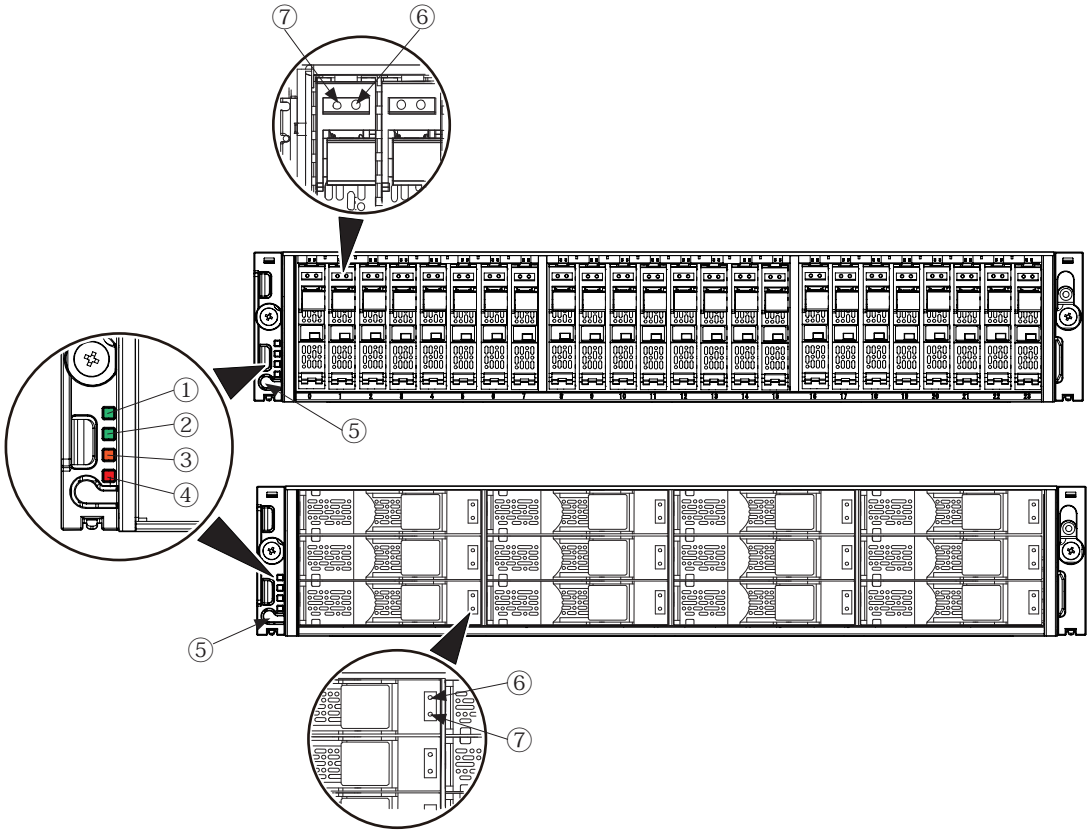
3.1 Switches and LEDs of Controller Chassis

Figure 3-1 and Figure 3-2 show the switch and LEDs of CBXSS/CBXSL/CBSS/CBSL and CBLH1/CBLH2 respectively. Table 3-1 shows the function of the switch and LEDs.
Circled numbers in Figure 3-1 and Figure 3-2 correspond to the numbers in Table 3-1.

Figure 3-1 Switch and LEDs of CBXSS/CBXSL/CBSS/CBSL



Front view of CBXSS/CBXSL/CBSS/CBSL (With Front Bezel attached)



Front view of CBXSS/CBXSL/CBSS/CBSL (With Front Bezel detached)

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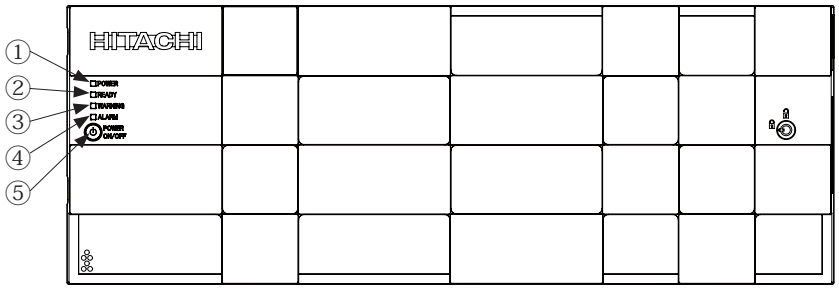
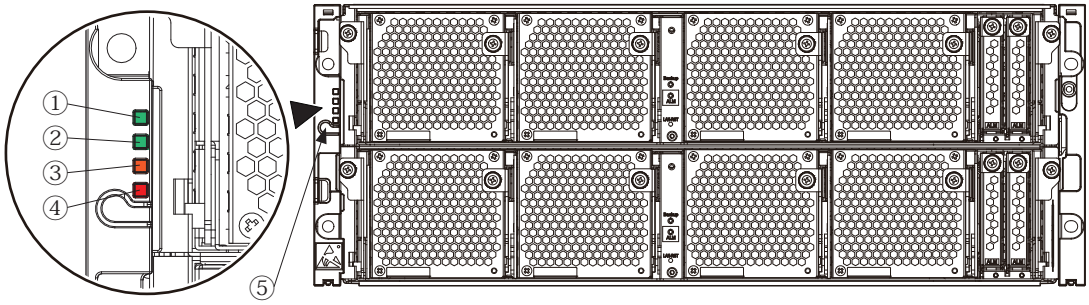
Figure 3-2 Switch and LEDs of CBLH1/CBLH2



Front view of CBLH1/CBLH2 (With Front Bezel attached)



Front view of CBLH1/CBLH2 (With Front Bezel detached)

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Table 3-1 Function of Controller Chassis LEDs and Switch

No.	Parts Name	Class	Function
1	POWER	LED (Green)	On : Logic power is ON. (Pressing the Main Switch for three seconds turns on the Logic power) Blinking : Power is held down. (three-second pressing issues OFF REQ) Off : When the ALARM LED lights up and the POWER LED goes out, the system is down.
		LED (Amber)	On : Sub power is ON. Off : No AC input or no Controller Board installed.
2	READY	LED (Green)	On : The storage system is operable.
3	WARNING	LED (Amber)	On : A failure (blockade) has occurred in the blocked part that service personnel or a user needs to maintain. When [System Locked] is displayed in the header area in the main window of Maintenance Utility, the LED does not light up. If [System Locked] is unresolved despite the operations such as maintenance and configuration changes are not performed, check the work validity and perform the system lock force release (see MAINTENANCE PC SECTION "3.17 Force Release System Lock"). Blinking : Blinks at the time of SIM report. When System Option Mode 1097 is set to ON, the WARNING LED does not blink even if the following failure information SIM issues. • Failure information SIM: 452xxx, 462xxx, 3077xy, 4100xx and 410100
4	ALARM	LED (Red)	On : Indicates an MP blockade occurred.
5	MAIN	Switch	The switch turns on/off the storage system. Do not turn the MAIN Switch on during power off process. Turn the MAIN Switch on after power off process is finished.
6	ACT	LED (Green)	On : Indicates that the HDD/SSD is powered on. Blinking : Indicates that the HDD/SSD is active.
7	ALM	LED (Red)	On : Indicates that the removal of the HDD/SSD is possible when the storage system is powered on. To remove the HDD/SSD, see REPLACEMENT SECTION "2.3 Replacing a Drive".

(Numbers in this table correspond to the circled numbers in Figure 3-1 and Figure 3-2.)

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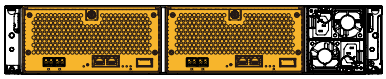
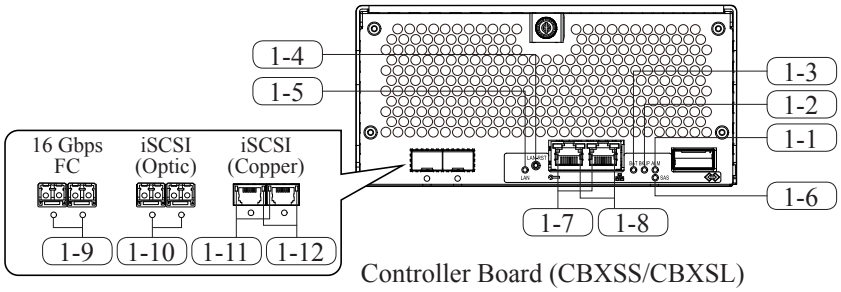
3.2 Other Switches and LEDs

1. Controller Board

Figure 3-3 LEDs of Controller Board (CBXSS/CBXSL)



Rear view of CBXSS/CBXSL



Controller Board (CBXSS/CBXSL)

Table 3-2 Function of Controller Board (CBXSS/CBXSL) LEDs

No.	Parts Name	Class	Function
1-1	CTL ALM	LED (Red)	On : The controller board is ready to be removed (when the maintenance work requiring insertion and removal of the controller board is performed). A failure is detected in the controller board (when the maintenance work mentioned above is not performed). For details, see TROUBLESHOOTING SECTION “2.1.7 Blinking or lighting up of ALARM LED (red) on CTL”. Blinking : A failure is detected in the controller board, cache memory, or cache flash memory (CFM). For details, see TROUBLESHOOTING SECTION “2.1.7 Blinking or lighting up of ALARM LED (red) on CTL”.
1-2	BACKUP STS	LED (Green)	On : Indicates that power outage has occurred or power restoration is in progress after power outage. High-speed blinking (On and off are repeated at 0.1-second intervals.) : The data is being restored. Low-speed blinking (On and off are repeated at 0.5-second intervals.) : A planned power off is being executed or the data is being stored.
1-3	BATTERY STATUS	LED	Off : Battery is uninstalled or abnormally installed.
		LED (Green)	On : Battery is fully charged Blinking : Battery is being charged or discharged
1-4	LAN-RST	Switch	This is a switch for GUM reset. If GUM reboot fails, reset GUM forcibly from the hardware. See MAINTENANCE PC SECTION “3.26 Resetting GUM” for how to use it.

(To be continued)

(Numbers in this table correspond to the circled numbers in Figure 3-3.)

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(Continued from the preceding page)

No.	Parts Name	Class	Function
1-5	LAN	LED (Amber)	On : Indicates that the LAN RESET switch is pressed.
1-6	SAS Port LED	LED (Blue)	It is linked.
1-7	ACT LED	LED (Green)	The data is being transferred.
1-8	LINK LED	LED (Green)	The link status is normal.
1-9	PORT	LED (Red)	On : SFP is abnormal.
		LED (Blue)	On : Link status is normal. (16 Gbps)
		LED (Green)	On : Link status is normal. (4 Gbps or 8 Gbps)
		LED	LED Off : Link down/not Ready.
1-10	PORT	LED (Red)	On : SFP is abnormal.
		LED (Blue)	On : Link status is normal. (10Gbps) Blinking : The status is communicating. (10Gbps)
		LED	LED Off : Link down/not Ready.
1-11	PORT	Link/Speed LED (Yellow/ Green)	On : Yellow: Link status is normal. (1Gbps) Green: Link status is normal. (10Gbps) Off : Link down/not Ready.
1-12	PORT	Act LED (Green)	On : Link status is normal. Blinking : The status is data communicating. Off : Link down/not Ready.

(Numbers in this table correspond to the circled numbers in Figure 3-3.)

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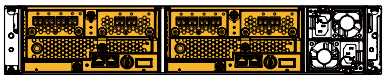
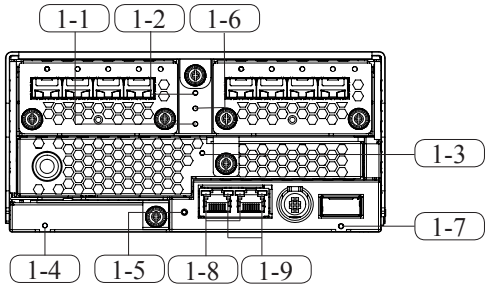
Figure 3-4 LEDs of Controller Board (CBSS/CBSL)



Rear view of CBSS/CBSL



Controller Board (CBSS/CBSL)

Table 3-3 Function of Controller Board (CBSS/CBSL) LEDs

No.	Parts Name	Class	Function
1-1	CTL ALM	LED (Red)	On : The controller board is ready to be removed (when the maintenance work requiring insertion and removal of the controller board is performed). A failure is detected in the controller board (when the maintenance work mentioned above is not performed). For details, see TROUBLESHOOTING SECTION “2.1.7 Blinking or lighting up of ALARM LED (red) on CTL”. Blinking : A failure is detected in the controller board, cache memory, or cache flash memory (CFM). For details, see TROUBLESHOOTING SECTION “2.1.7 Blinking or lighting up of ALARM LED (red) on CTL”.
		LED (Amber)	On : Indicates that the LAN RESET switch is pressed.
1-2	BACKUP STS	LED (Green)	On : Indicates that power outage has occurred or power restoration is in progress after power outage. High-speed blinking (On and off are repeated at 0.1-second intervals.) : The data is being restored. Low-speed blinking (On and off are repeated at 0.5-second intervals.) : A planned power off is being executed or the data is being stored.

(To be continued)

(Numbers in this table correspond to the circled numbers in Figure 3-4.)

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(Continued from the preceding page)

No.	Parts Name	Class	Function
1-3	STATUS	LED	Off : Battery is uninstalled, abnormally installed or BKM firmware is being replaced.
		LED (Green)	On : Battery is fully charged Blinking : Battery is being charged or discharged
		LED (Red)	On : BKM can be removed A failure occurred in BKM. Blinking : BKM can be removed. A failure occurred in the Battery.
1-4	ALARM	LED (Red)	On : A status where Cache Flash Memories are removable
1-5	LAN-RST	Switch	This is a switch for GUM reset. If GUM reboot fails, reset GUM forcibly from the hardware. See MAINTENANCE PC SECTION “3.26 Resetting GUM” for how to use it.
1-6	CTL WARN	LED (Amber)	Blinking (Blinking once) : A FAN-x0 failure occurred Blinking (Blinking twice) : A FAN-x1 failure occurred
1-7	Port LED	LED (Blue)	It is linked.
1-8	ACT LED	LED (Green)	The data is being transferred.
1-9	LINK LED	LED (Green)	The link status is normal.

(Numbers in this table correspond to the circled numbers in Figure 3-4.)

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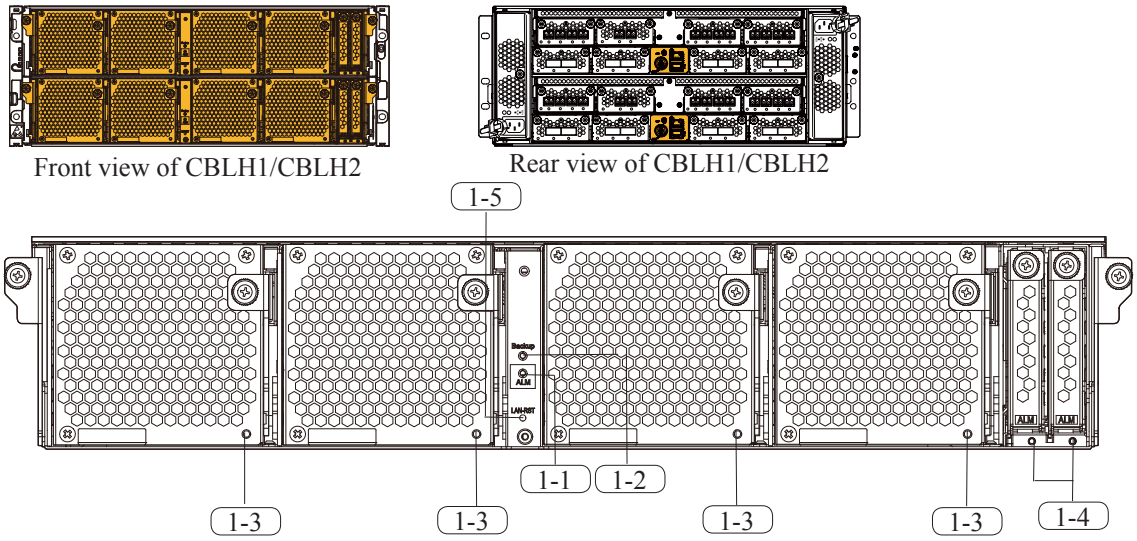
Figure 3-5 LEDs of Controller Board (CBLH1/CBLH2)



Controller Board (CBLH1/CBLH2)

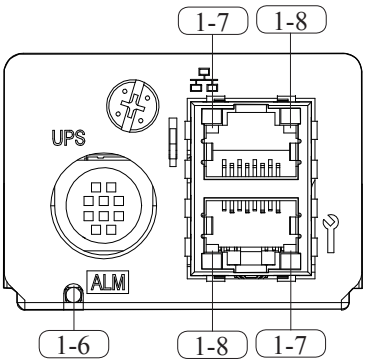


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Table 3-4 Function of Controller Board (CBLH1/CBLH2) LEDs

No.	Parts Name	Class	Function
1-1	CTL ALM	LED (Red)	On : The controller board is ready to be removed (when the maintenance work requiring insertion and removal of the controller board is performed). A failure is detected in the controller board (when the maintenance work mentioned above is not performed). For details, see TROUBLESHOOTING SECTION "2.1.7 Blinking or lighting up of ALARM LED (red) on CTL". Blinking : A failure is detected in the controller board, cache memory, or cache flash memory (CFM). For details, see TROUBLESHOOTING SECTION "2.1.7 Blinking or lighting up of ALARM LED (red) on CTL".
		LED (Amber)	On : Indicates that the LAN RESET switch is pressed.
1-2	BACKUP STS	LED (Green)	On : Indicates that power outage has occurred or power restoration is in progress after power outage. High-speed blinking (On and off are repeated at 0.1-second intervals.) : The data is being restored. Low-speed blinking (On and off are repeated at 0.5-second intervals.) : A planned power off is being executed or the data is being stored.
1-3	STATUS	LED	Off : Battery is uninstalled, abnormally installed or BKMF firmware is replaced (in case of a configuration with no battery installed, the LEDs for BKMF-10 and BKMF-20 go out).
		LED (Green)	On : Battery is fully charged. Blinking : Battery is charged or discharged.
		LED (Red)	On : BKMF can be removed. BKMF is abnormal. Blinking : BKMF can be removed. A failure occurred in the Battery, or preventive maintenance replacement of the Batteries is possible.
1-4	ALARM	LED (Red)	On : A status where Cache Flash Memories are removable.
1-5	LAN-RST	Switch	This is a switch for GUM reset. If GUM reboot fails, reset GUM forcibly from the hardware. See MAINTENANCE PC SECTION "3.26 Resetting GUM" for how to use it.
1-6	LAN ALARM LED	LED (Red)	The removal of the LAN Board is possible.
1-7	ACT LED	LED (Green)	The data is being transferred.
1-8	LINK LED	LED (Green)	The link status is normal.

(Numbers in this table correspond to the circled numbers in Figure 3-5.)

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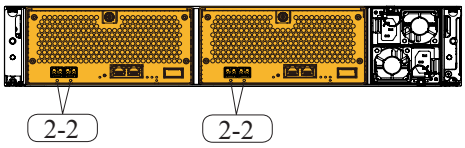
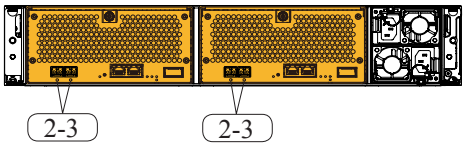
2. Channel Board (FC/iSCSI)

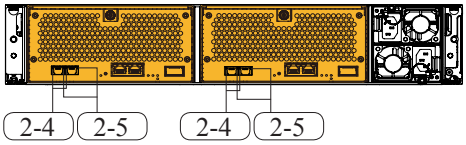
Figure 3-6 LEDs of Channel Board (FC/iSCSI)



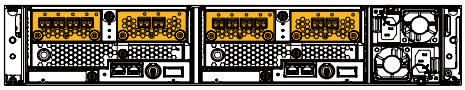
Rear view of CBXSSF/CBXSLF



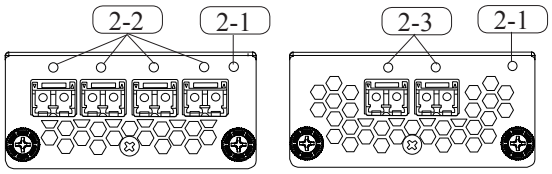
Rear view of CBXSSS/CBXSLS



Rear view of CBXSSC/CBXSLC

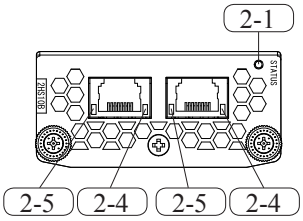


Rear view of CBSS/CBSL

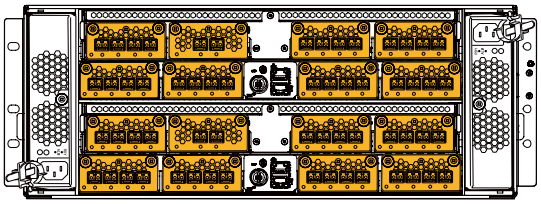


CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC)

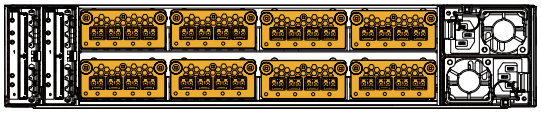
CHB (iSCSI (Optic))



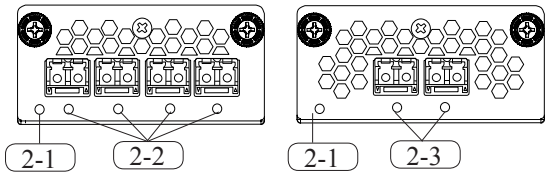
CHB (iSCSI (Copper))



Rear view of CBLH1/CBLH2

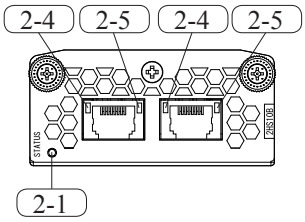


Rear view of CHBB



CHB (16 Gbps (4 port) FC/32 Gbps (4 port) FC)

CHB (iSCSI (Optic))



CHB (iSCSI (Copper))

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Table 3-5 Function of Channel Board (FC/iSCSI) LEDs

No.	Parts Name	Class	Function
2-1	STATUS	LED (Green)	On : Power on
		LED (Red)	On : Abnormal
		LED	Off : Power off
2-2	PORT	LED (Red)	On : SFP is abnormal.
		LED (Blue)	On : 16 Gbps FC : Link status is normal. (16 Gbps) (*1) 32 Gbps FC : Link status is normal. (32 Gbps) (*2)
		LED (Green)	On : 16 Gbps FC : Link status is normal. (4 Gbps or 8 Gbps) (*1) : 32 Gbps FC : Link status is normal. (8 Gbps or 16 Gbps) (*2)
		LED	Off : Link down/not Ready.
2-3	PORT	LED (Red)	On : SFP is abnormal.
		LED (Blue)	On : Link status is normal. (10 Gbps) Blinking : The status is communicating. (10 Gbps)
		LED	Off : Link down/not Ready.
2-4	PORT	Link/Speed LED (Yellow/ Green)	On : Yellow: Link status is normal. (1 Gbps) Green: Link status is normal. (10 Gbps) Off : Link down/not Ready.
2-5	PORT	Act LED (Green)	On : Link status is normal. Blinking : The status is data communicating. Off : Link down/not Ready.

(Numbers in this table correspond to the numbers in ovals in Figure 3-6.)

*1: When using the 32 Gbps FC Ready CHB in which the 16 Gbps SFP is installed, the 16 Gbps FC CHB, or the CBXSSF/CBXSLF.

*2: When using the 32 Gbps FC Ready CHB in which the 32 Gbps SFP is installed.

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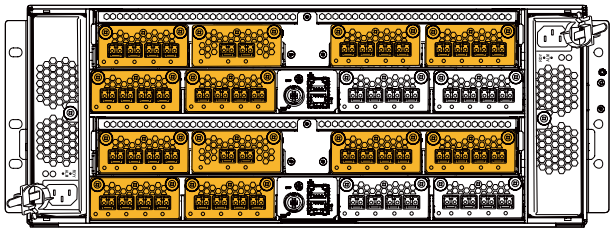
3. PCIe Channel Board (PECB)
   The PCIe Channel Board (PECB) can be mounted to the locations A/B, C/D, and E/F on the CBLH2. It cannot be mounted to the location G/H.

Figure 3-7 LEDs of PCIe Channel Board (PECB)



Rear view of CBLH2

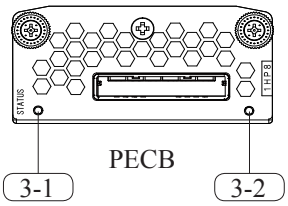


Table 3-6 Function of PCIe Channel Board (PECB) LEDs

No.	Parts Name	Class	Function
3-1	STATUS	LED (Green)	On : PCIe Channel Board is powered on Off : PCIe Channel Board is powered off
		LED (Red)	On : Abnormal
3-2	Link	LED (Green)	On : PCIe is Gen3.0 (8 Gbps) and it is linked up normally Off : • PCIe is not linked up (including the status that PCIe cable is unconnected) • Cables can be removed

(Numbers in this table correspond to the numbers in ovals in Figure 3-7.)

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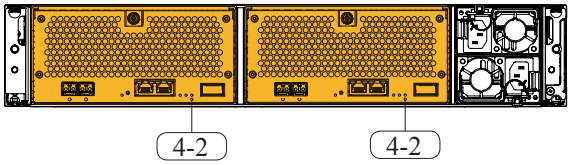
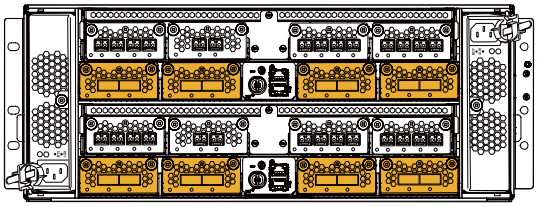
4. Disk Board

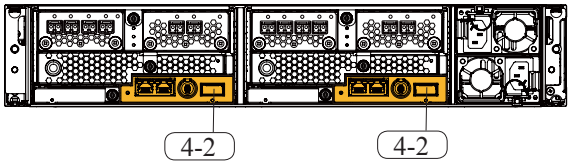
Figure 3-8 LEDs of Disk Board



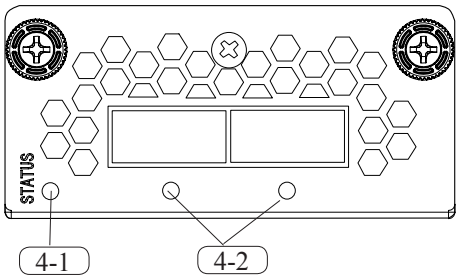
Rear view of CBXSS/CBXSL



Rear view of CBLH1/CBLH2



Rear view of CBSS/CBSL



Disk Board

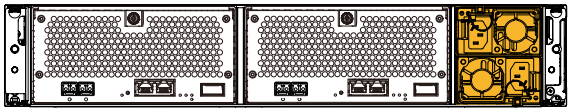
Table 3-7 Function of Disk Board LEDs

No.	Parts Name	Class	Function
4-1	STATUS	LED (Green/Red)	Green : Power on Red : Disk Board can be removed. Off : Power off
4-2	PORT (LINK/ LOCATE)	LED (Blue)	Blue : Link status Off : Link down

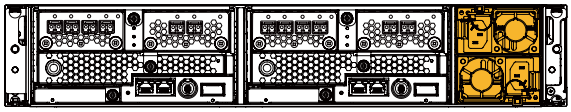
(Numbers in this table correspond to the numbers in ovals in Figure 3-8.)

5. DKCPS (CBSS/CBSL)

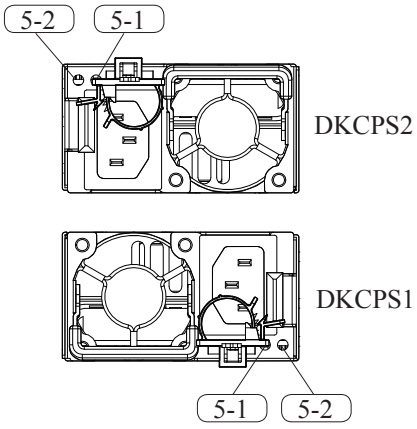
Figure 3-9 LEDs of DKCPS



Rear view of CBXSS/CBXSL



Rear view of CBSS/CBSL



DKCPS

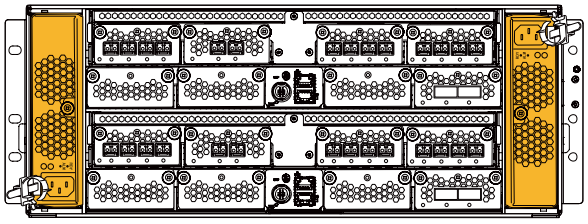
Table 3-8 Function of DKCPS LEDs

No.	Parts Name	Class	Function
5-1	ALM/RDY	LED (Red/Green)	Red : Indicates that replacement of the DKCPS is possible. To replace the DKCPS, see REPLACEMENT SECTION "2.15 Replacing a Power Supply". Green : Indicates that the DKCPS operates normally.
5-2	AC IN	LED (Blue)	On: Indicates that AC input is normal.

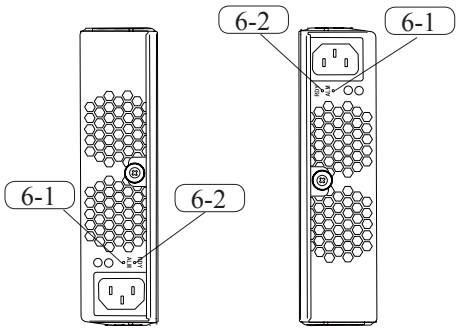
(Numbers in this table correspond to the numbers in ovals in Figure 3-9.)

6. DKCPS (CBLH1/CBLH2)

Figure 3-10 LEDs of DKCPS (CBLH1/CBLH2)



Rear view of CBLH1/CBLH2



DKCPS

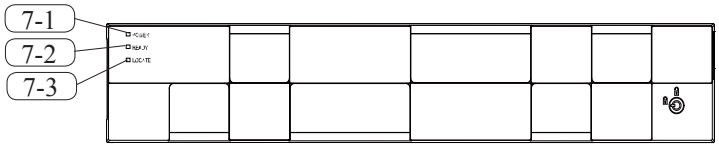
Table 3-9 Function of DKCPS LEDs (CBLH1/CBLH2)

No.	Parts Name	Class	Function
6-1	ALM	LED (Red)	Indicates that replacement of the DKCPS is possible.
6-2	RDY	LED (Green)	Indicates that the DKCPS operates normally.

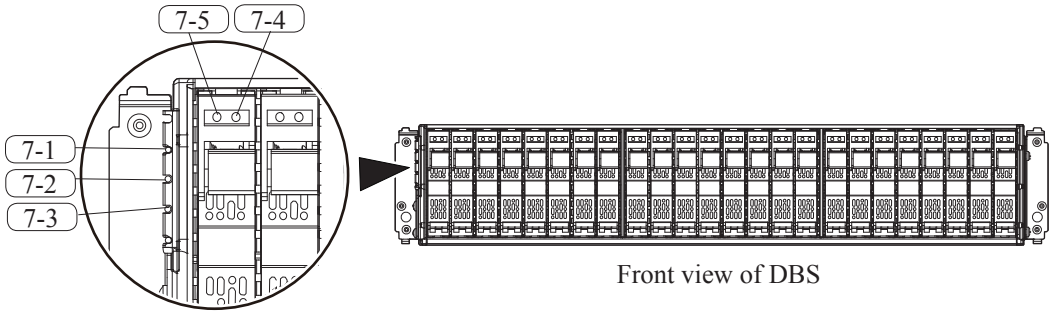
(Numbers in this table correspond to the numbers in ovals in Figure 3-10.)

7. DBS/DBL and Drive

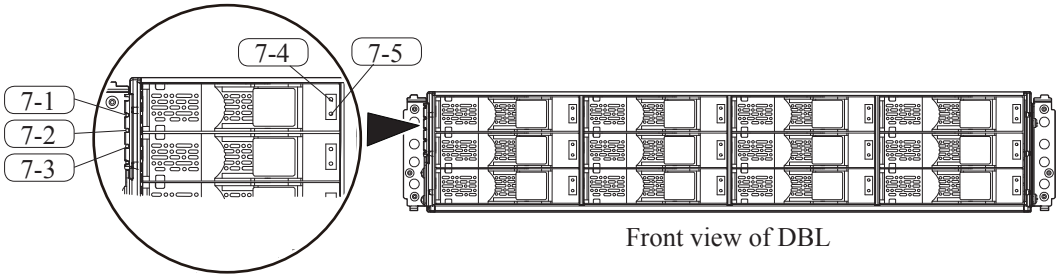
Figure 3-11 LEDs of DBS/DBL and Drive



DBL/DBS Front Bezel



Front view of DBS



Front view of DBL

Table 3-10 Function of DBS/DBL and Drive LEDs

No.	Parts Name	Class	Function
7-1	POWER	LED (Green)	Indicates that the power supply is supplied to the storage system.
7-2	READY	LED (Green)	Indicates that the ENC is operating normally.
7-3	LOCATE	LED (Amber)	• Indicates the location of the chassis that detects a failure. • The LED can be lit/turned off by Maintenance Utility. (See MAINTENANCE PC SECTION “3.9 Turn on/off Locate LEDs”.)

(To be continued)

(Numbers in this table correspond to the numbers in ovals in Figure 3-11.)

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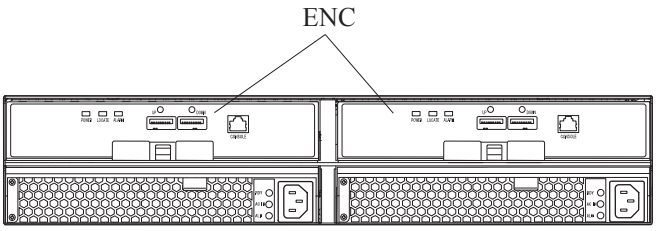
(Continued from preceding page)

No.	Parts Name	Class	Function
7-4	ACT	LED (Green)	Indicates the HDD/SSD status. On : Indicates that the HDD/SSD is powered on. Blinking : Indicates that the HDD/SSD is active. The interval of blinking may be different in HDD and SSD, but it is not abnormal.
7-5	ALM	LED (Red)	Indicates that the removal of the HDD/SSD is possible when the storage system is powered on. To remove the HDD/SSD, see REPLACEMENT SECTION “2.3 Replacing a Drive”.

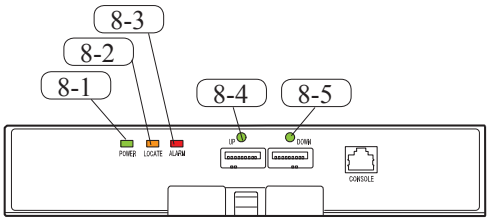
(Numbers in this table correspond to the numbers in ovals in Figure 3-11.)

8. ENC (DBS/DBL)

Figure 3-12 LEDs of ENC



Rear view of DBS/DBL



ENC

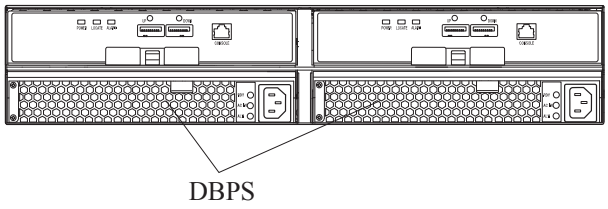
Table 3-11 Function of ENC LEDs

No.	Parts Name	Class	Function
8-1	POWER	LED (Green)	Indicates that the power is supplied to the ENC.
8-2	LOCATE	LED (Amber)	• A LED to specify the chassis location on the rear of the chassis. • The LED can be lit/turned off by Maintenance Utility. (See MAINTENANCE PC SECTION “3.9 Turn on/off Locate LEDs”.)
8-3	ALARM (REPLACE)	LED (Red)	Lights up when replacement of the ENC is possible. To replace the ENC, see REPLACEMENT SECTION “2.16 Replacing an ENC”.
8-4	PATH (IN side)	LED (Green)	Indicates that IN side is linked up.
8-5	PATH (OUT side)	LED (Green)	Indicates that OUT side is linked up.

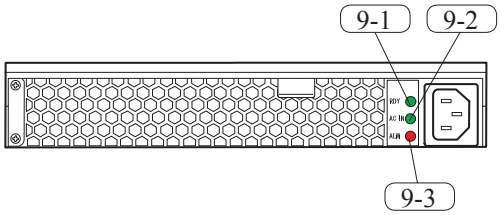
(Numbers in this table correspond to the numbers in ovals in Figure 3-12.)

9. DBPS (DBL/DBS)

Figure 3-13 LEDs of DBPS



Rear view of DBS/DBL



DBPS

Table 3-12 Function of DBPS LEDs

No.	Parts Name	Class	Function
9-1	RDY	LED (Green)	Indicates the operation state of the DBPS. On : Normal operation Off : Abnormal operation or out of operation
9-2	AC IN	LED (Green)	Lighting: Indicates that AC input is normal.
9-3	ALM (REPLACE)	LED (Red)	Lights up when replacement of the DBPS is possible. To replace the DBPS, see REPLACEMENT SECTION “2.15 Replacing a Power Supply”.

(Numbers in this table correspond to the numbers in ovals in Figure 3-13.)

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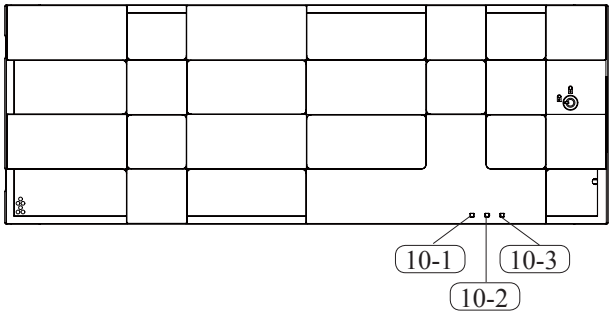
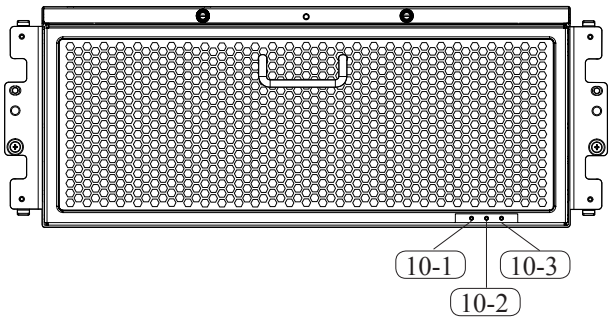
10. DB60 and Drive

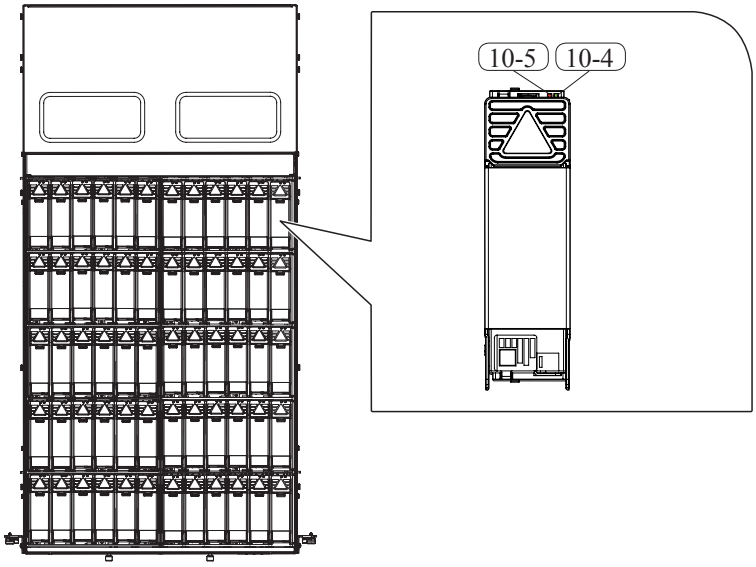
Figure 3-14 LEDs of DB60 and Drive



Front view of DB60 (With Front Bezel attached)



Front view of DB60 (With Front Bezel detached)



DB60 of Top (With Top cover detached)

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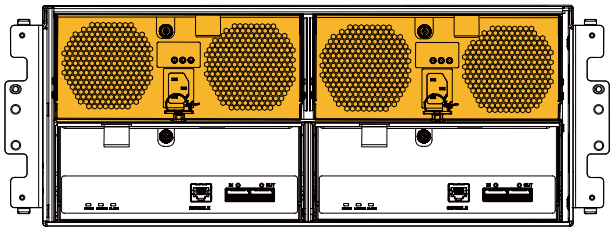
Table 3-13 Function of DB60 LEDs

No.	Parts Name	Class	Function
10-1	POWER	LED (Green)	Indicates that the power is supplied to the storage system.
10-2	READY	LED (Green)	Indicates that the ENC is operating normally.
10-3	LOCATE	LED (Amber)	• Indicates the location of the chassis that detects a failure. • The LED can be lit/turned off by Maintenance Utility. (See MAINTENANCE PC SECTION "3.9 Turn on/off Locate LEDs".)
10-4	ACT	LED (Green)	Indicates the HDD/SSD status. On : Indicates that the HDD is powered on. Blinking : Indicates that the HDD is active. The interval of blinking may be different in HDD, however it is not abnormal.
10-5	ALM	LED (Red)	Indicates that the removal of the HDD is possible when the storage system is powered on. To remove the HDD, see REPLACEMENT SECTION "2.3 Replacing a Drive".

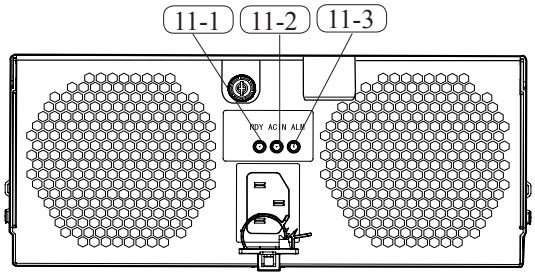
(Numbers in this table correspond to the numbers in ovals in Figure 3-14.)

11. DBPS (DB60)

Figure 3-15 LEDs of DBPS



Rear view of DB60



DBPS

Table 3-14 Function of DPBS LEDs

No.	Parts Name	Class	Function
11-1	RDY	LED (Green)	Indicates the operation state of the Power Supply. On : Normal operation Off : Abnormal operation or out of operation
11-2	AC-IN	LED (Green)	Lighting: AC input is normal
11-3	ALM (REPLACE)	LED (Red)	Lights up when replacement of the DBPS is possible. To replace the DBPS, see REPLACEMENT SECTION “2.15 Replacing a Power Supply”.

(Numbers in this table correspond to the numbers in ovals in Figure 3-15.)

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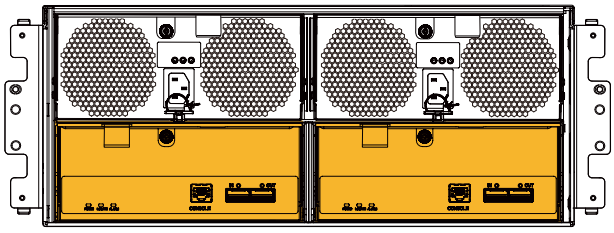
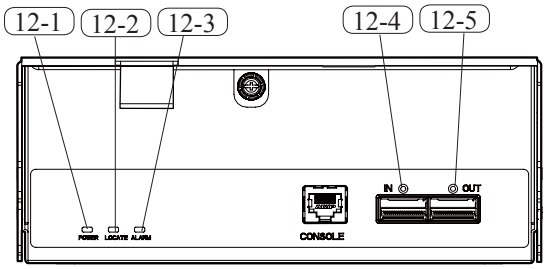
12. ENC (DB60)

Figure 3-16 LEDs of ENC



Rear view of DB60



ENC

Table 3-15 Function of ENC LEDs

No.	Parts Name	Class	Function
12-1	POWER	LED (Green)	Indicates that the power supply is supplied to ENC.
12-2	LOCATE	LED (Amber)	• A LED to specify the chassis location on the rear of the chassis. • The LED can be lit/turned off by Maintenance Utility. (See MAINTENANCE PC SECTION “3.9 Turn on/off Locate LEDs”.)
12-3	ALARM (REPLACE)	LED (Red)	Lights up when replacement of the ENC is possible. To replace the ENC, see REPLACEMENT SECTION “2.16 Replacing an ENC”.
12-4	PATH0 (IN side)	LED (Green)	Indicates that the IN side is linked up.
12-5	PATH0 (OUT side)	LED (Green)	Indicates that the OUT side is linked up.

(Numbers in this table correspond to the numbers in ovals in Figure 3-16.)

13. DBF and Flash Module Drive

Figure 3-17 LEDs of Drive Box and Flash Module Drive

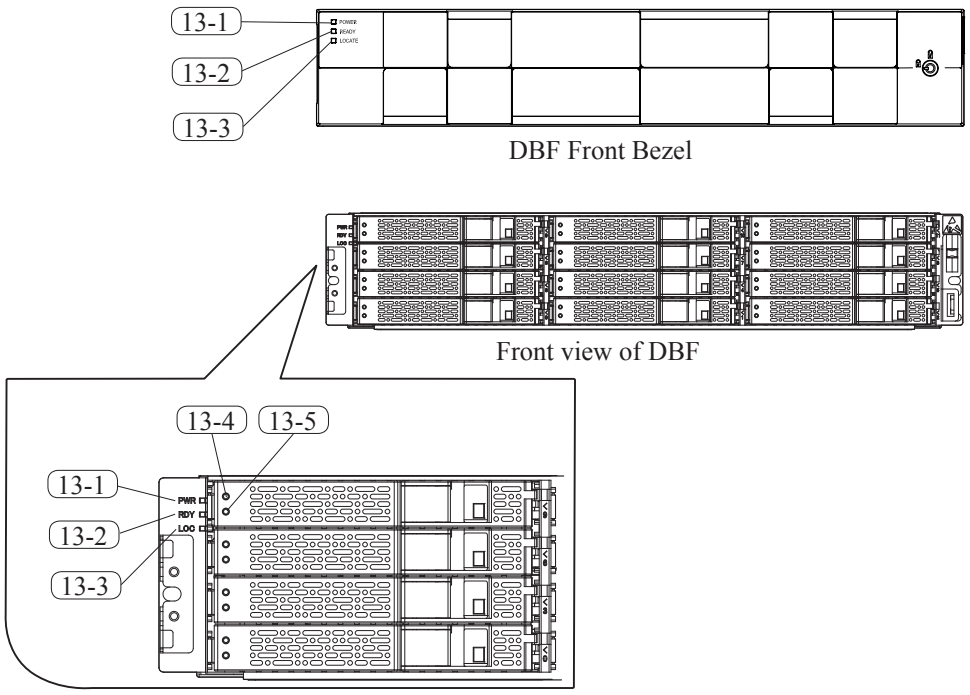


Table 3-16 Function of Drive Box and Flash Module Drive LEDs

No.	Parts Name	Class	Function
13-1	POWER	LED (Green)	Indicates that the power is supplied to the storage system.
13-2	READY	LED (Green)	Indicates that the ENC is operating normally.
13-3	LOCATE	LED (Amber)	• Indicates the location of the chassis that detects a failure. • The LED can be lit/turned off by Maintenance Utility. (See MAINTENANCE PC SECTION “3.9 Turn on/off Locate LEDs”.)
13-4	FMD ACTIVE	LED (Green)	This LED indicates the Flash Module Drive status. • Lighting: Indicates that Flash Module Drive power is on. • Blinking: Indicates that Flash Module Drive is operating. (Lights up with I/O and goes out with no I/O) There is no problem if each Flash Module Drive has a different LED blinking cycle. • Low-speed blinking (1.5-second lighting, 1.5-second lights-out) : Indicates that the Flash Module Drive is in the process of startup. When powered, the LED blinks for about 2 to 5 minutes until the startup processing is complete.

(Numbers in this table correspond to the numbers in ovals in Figure 3-17.)

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(Continued from the preceding page)

No.	Parts Name	Class	Function
13-5	ALM	LED (Red)	Indicates that the Flash Module Drive is removable with the storage system turned on. To remove the Flash Module Drive, see REPLACEMENT SECTION "2.3 Replacing a Drive".

(Numbers in this table correspond to the numbers in ovals in Figure 3-17.)

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14. ENC (DBF)

Figure 3-18 LEDs of ENC

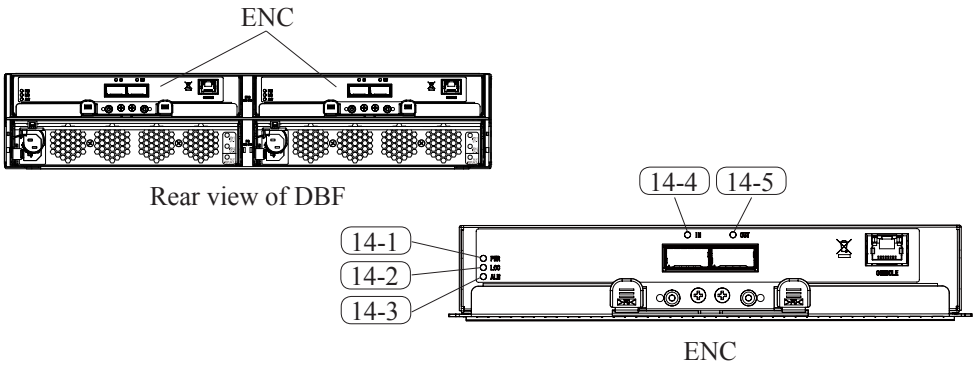

Table 3-17 Function of ENC LEDs

No.	Parts Name	Class	Function
14-1	POWER	LED (Green)	Indicates that the power supply is supplied to ENC.
14-2	LOCATE	LED (Amber)	• A LED to specify the chassis location on the rear of the chassis. • The LED can be lit/turned off by Maintenance Utility. (See MAINTENANCE PC SECTION "3.9 Turn on/off Locate LEDs".)
14-3	ALARM (REPLACE)	LED (Red)	Lights up when replacement of the ENC is possible. To replace the ENC, see REPLACEMENT SECTION "2.16 Replacing an ENC".
14-4	PATH (IN side)	LED (Green)	Indicates that the IN side is linked up.
14-5	PATH (OUT side)	LED (Green)	Indicates that the OUT side is linked up.

(Numbers in this table correspond to the numbers in ovals in Figure 3-18.)

15. DBPS (DBF)

Figure 3-19 LEDs of DBPS

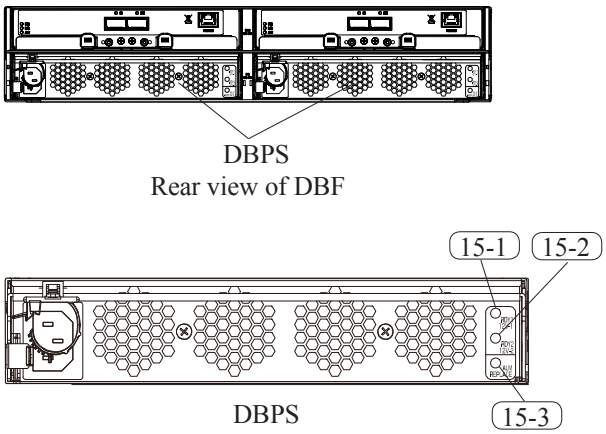

Table 3-18 Function of DPBS LEDs

No.	Parts Name	Class	Function
15-1	RDY 1	LED (Green)	This LED is on each power supply and lights up when the power is supplied from the power supply to the load or the supply is possible.
15-2	RDY 2	LED (Green)	This LED is on each power supply and lights up when the power is supplied from the power supply to the load or the supply is possible.
15-3	ALM REPLACE	LED (Red)	Lights up when replacement of the DBPS is possible. To replace the DBPS, see REPLACEMENT SECTION “2.15 Replacing a Power Supply”.

(Numbers in this table correspond to the numbers in ovals in Figure 3-19.)

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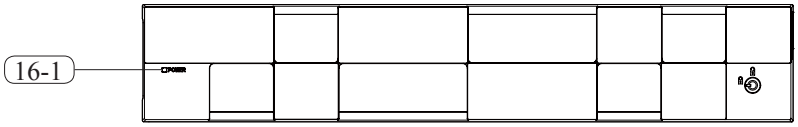
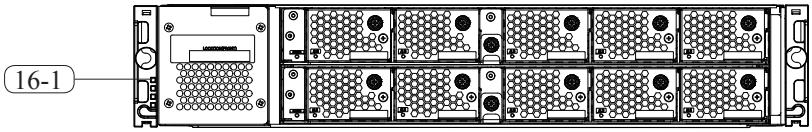
16. Channel Board Box (CHBB)

Figure 3-20 LEDs of Channel Board Box (CHBB)



Front view of CHBB (With Front Bezel attached)



Front view of CHBB (With Front Bezel detached)

Table 3-19 Function of Channel Board Box (CHBB) LEDs

No.	Parts Name	Class	Function
16-1	POWER	LED (Green)	On : Power is supplied to CHBB
		LED (Amber)	On : PDU is on Off : PDU is off

(Numbers in this table correspond to the numbers in ovals in Figure 3-20.)

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17. Switch Package (SWPK)

Figure 3-21 LEDs of Switch Package (SWPK)

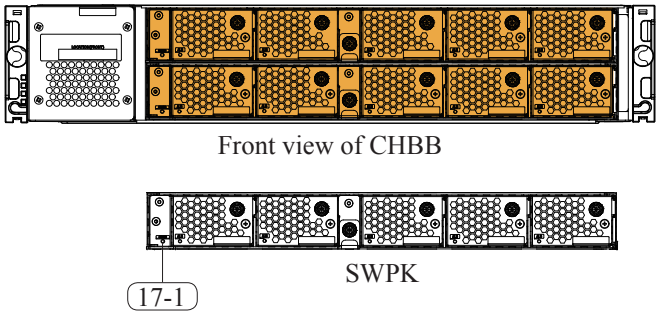

Table 3-20 Function of Switch Package (SWPK) LEDs

No.	Parts Name	Class	Function
17-1	STATUS	LED (Green)	On : SWPK is powered on Off : SWPK is powered off
		LED (Red)	SWPK can be replaced

(Numbers in this table correspond to the numbers in ovals in Figure 3-21.)

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18. CHBBFAN

Figure 3-22 LEDs of CHBBFAN

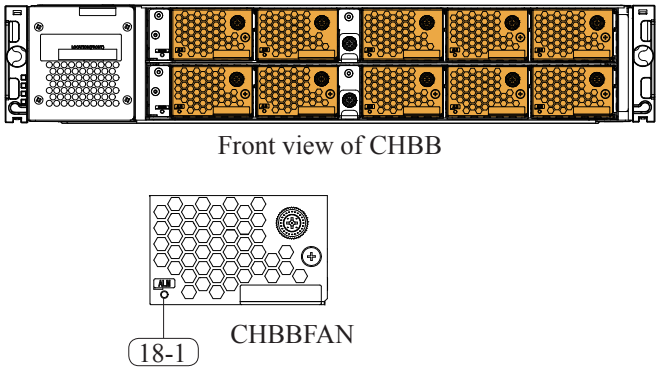

Table 3-21 Function of CHBBFAN LEDs

No.	Parts Name	Class	Function
18-1	ALM	LED (Red)	On : Abnormal Off : Normal

(Numbers in this table correspond to the numbers in ovals in Figure 3-22.)

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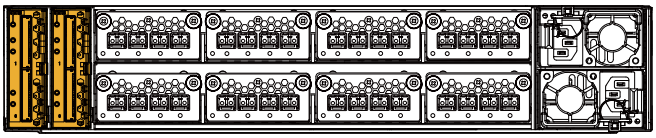
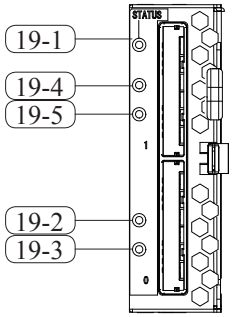
19. PCIe-cable Connecting Package (PCP)

Figure 3-23 LEDs of PCIe-cable Connecting Package (PCP)



Rear view of CHBB



PCP

Table 3-22 Function of PCIe-cable Connecting Package (PCP) LEDs

No.	Parts Name	Class	Function
19-1	STATUS	LED (Green)	On : PCP is powered on Off : PCP is powered off
		LED (Red)	PCP can be replaced
19-2	Link Basic	LED (Green)	On : Basic PCIe is Gen3.0 (8 Gbps) and it is linked up normally Off : • Basic PCIe is not linked up (including the status that PCIe cable is unconnected) • Cables can be removed
19-3	InAct Basic	LED (Amber)	On : The status of Basic PCIe changed from Linkup to Down and cables can be removed. Off : • Basic PCIe is normally • PCIe is not set
19-4	Link Option	LED (Green)	On : Option PCIe is Gen3.0 (8 Gbps) and it is linked up normally Off : • Option PCIe is not linked up (including the status that PCIe cable is unconnected) • Cables can be removed
19-5	InAct Option	LED (Amber)	On : The status of Option PCIe changed from Linkup to Down and cables can be removed. Off : • Option PCIe is normally • PCIe is not set

(Numbers in this table correspond to the numbers in ovals in Figure 3-23.)

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20. CHBBPS

Figure 3-24 LEDs of CHBBPS

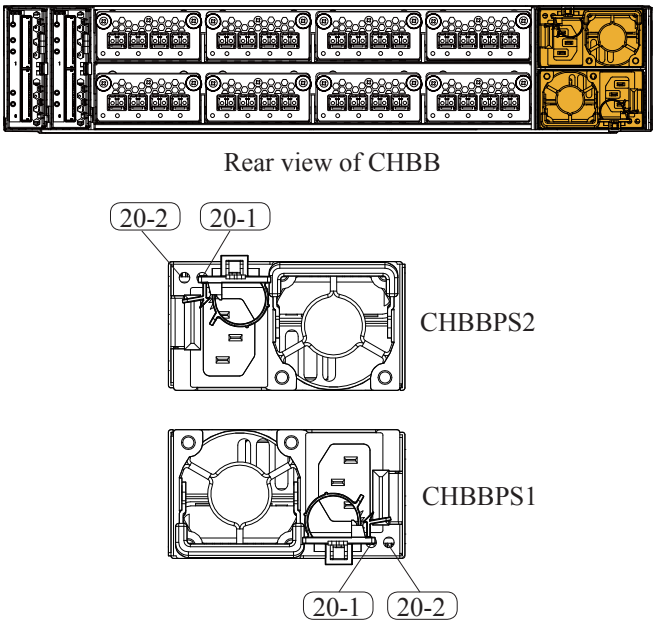


Table 3-23 Function of CHBBPS LEDs

No.	Parts Name	Class	Function
20-1	ALM/RDY	LED (Red/Green)	Red : CHBBPS can be replaced Green : CHBBPS is normal
20-2	AC IN	LED (Blue)	On : AC input is normal

(Numbers in this table correspond to the numbers in ovals in Figure 3-24.)

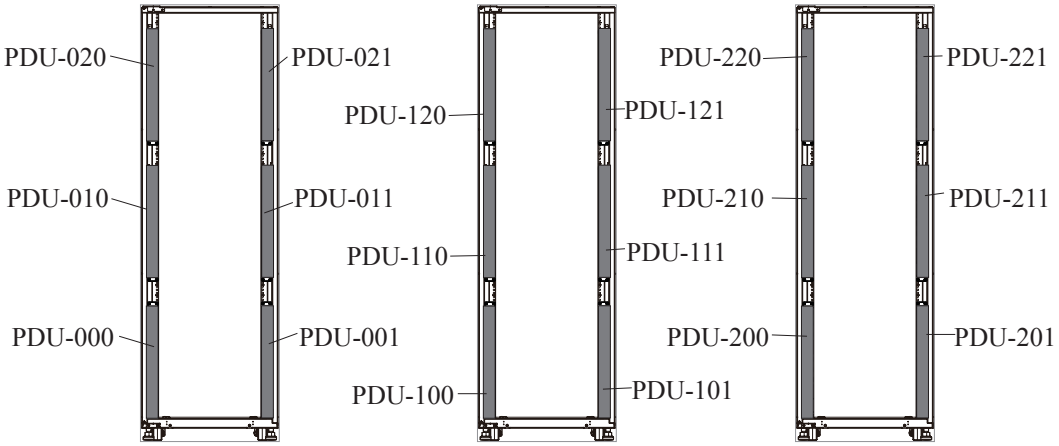
3.3 Circuit Breaker

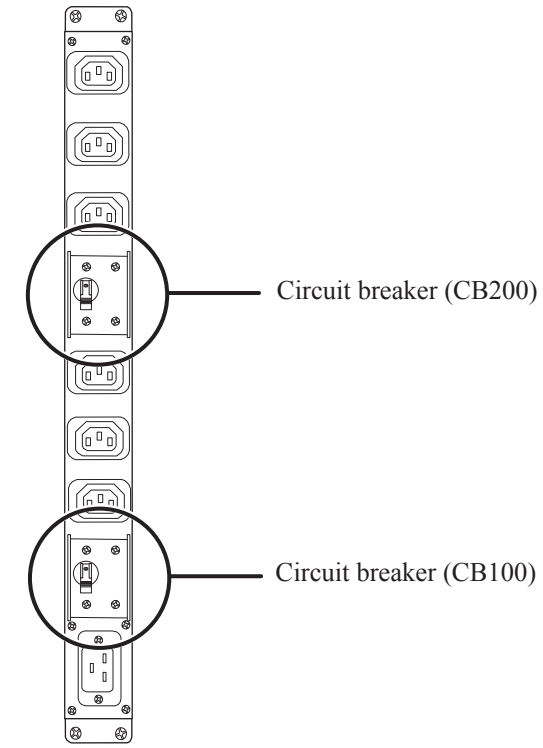
3.3.1 Location of Circuit Breaker

For information about the Hitachi Universal V2 rack used with HDS VSP storage systems, refer to the Hitachi Universal V2 Rack Reference Guide, MK-97RK000-00.

Figure 3-25 shows the location of the circuit breaker in the rack frame.

Figure 3-25 Location of Circuit Breaker in Rack Frame





Front view of PDU

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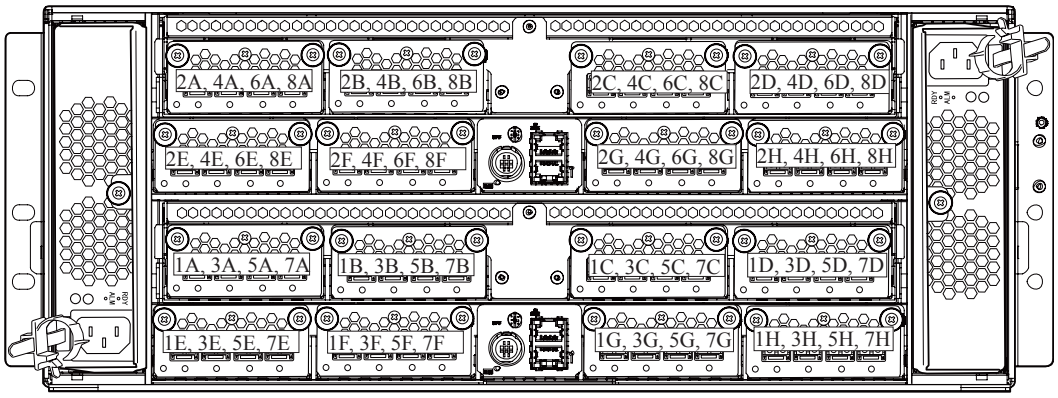
4. Connection of External Cable

4.1 Channel Interface

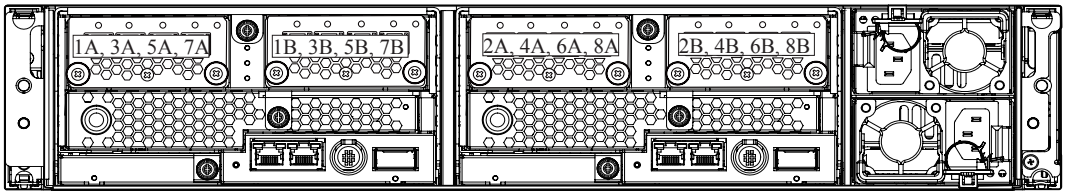
1. Channel Board

Figure 4-1 Port Number of Channel Board (16 Gbps (4 Port) FC/32 Gbps (4 Port) FC)

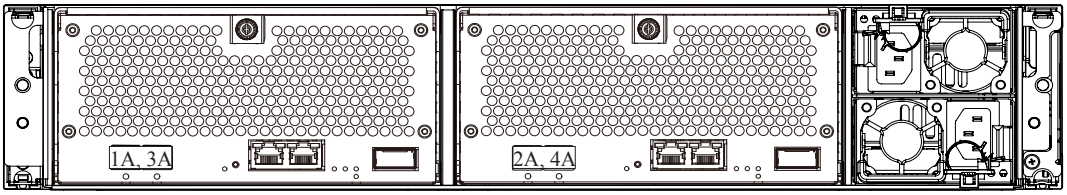
CHB Port Number



Rear view of CBLH1/CBLH2



Rear view of CBSS/CBSL



Rear view of CBXSS/CBXSL

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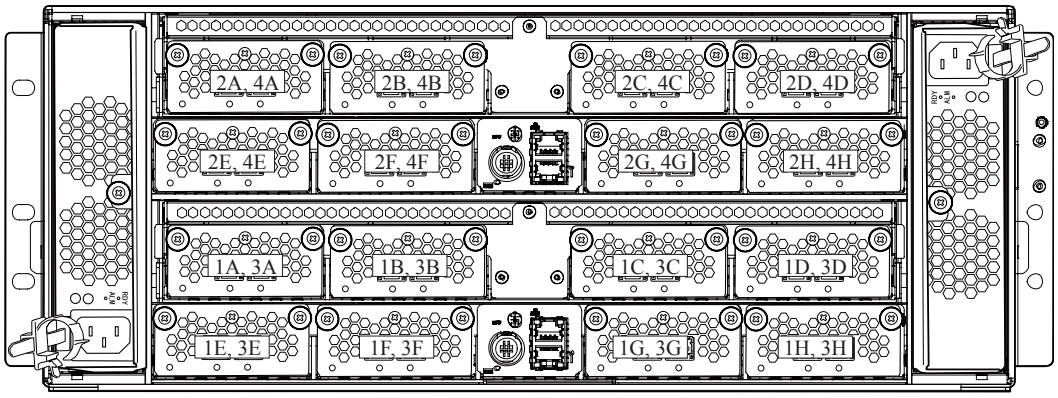
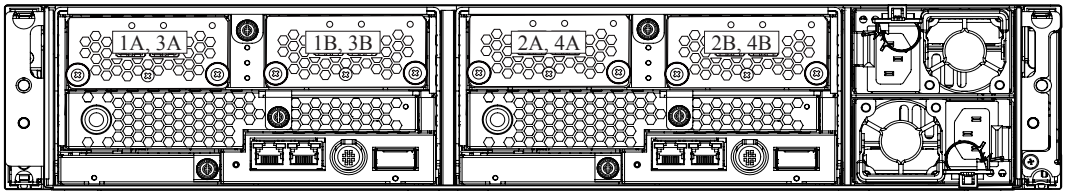
Figure 4-2 Port Number of Channel Board (10 Gbps (2 Port) iSCSI)

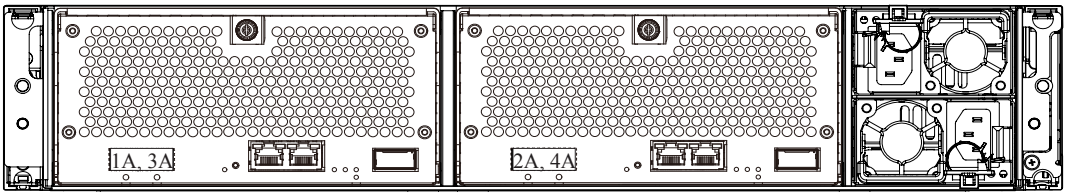
CHB Port Number



Rear view of CBLH1/CBLH2



Rear view of CBSS/CBSL



Rear view of CBXSS/CBXSL

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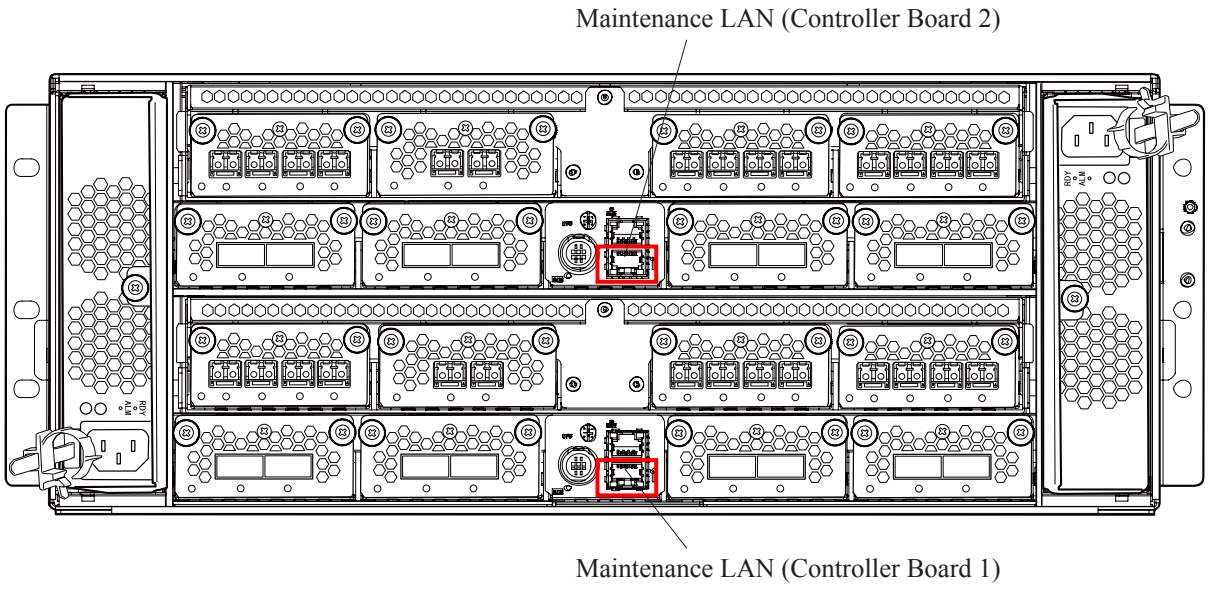
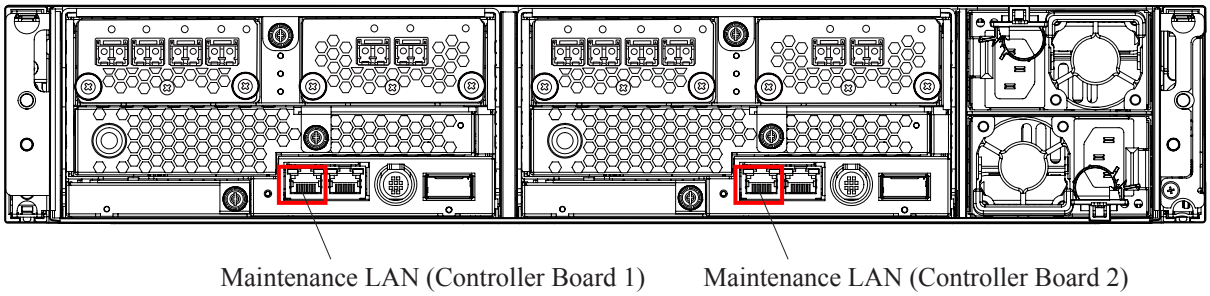
4.2 Maintenance PC Interface

Figure 4-3 Maintenance PC Interface

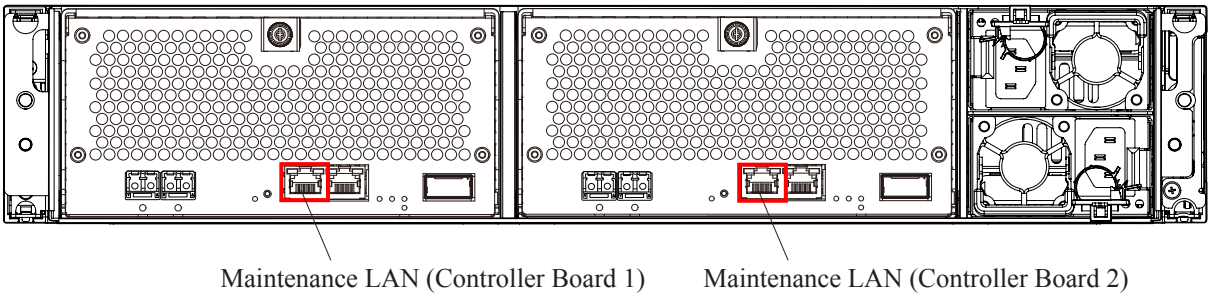
• CBLH1/CBLH2 (Rear view)



• CBSS/CBSL (Rear view)



• CBXSS/CBXSL (Rear view)



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4.3 Network Cable Connection Diagram

See INSTALLATION SECTION "2.10 Connecting Cables" for the network cable connection diagram.

5. Storage System Cable Diagram

5.1 SAS Cable Diagram

5.1.1 CBSS/CBSL + DBS/DBL x 11

- DB-00 is contained in CBSS/CBSL.
- Up to seven DBS/DBLs can connect to CBSS1/CBSL1.
- Up to eleven DBS/DBLs can connect to CBSS2/CBSL2.

NOTE: DBS is the only Drive Box that can be mounted on VSP F350 and F370.

Figure 5-1 SAS Cable Diagram (CBSS/CBSL + DBS/DBL x 11) (1/2)

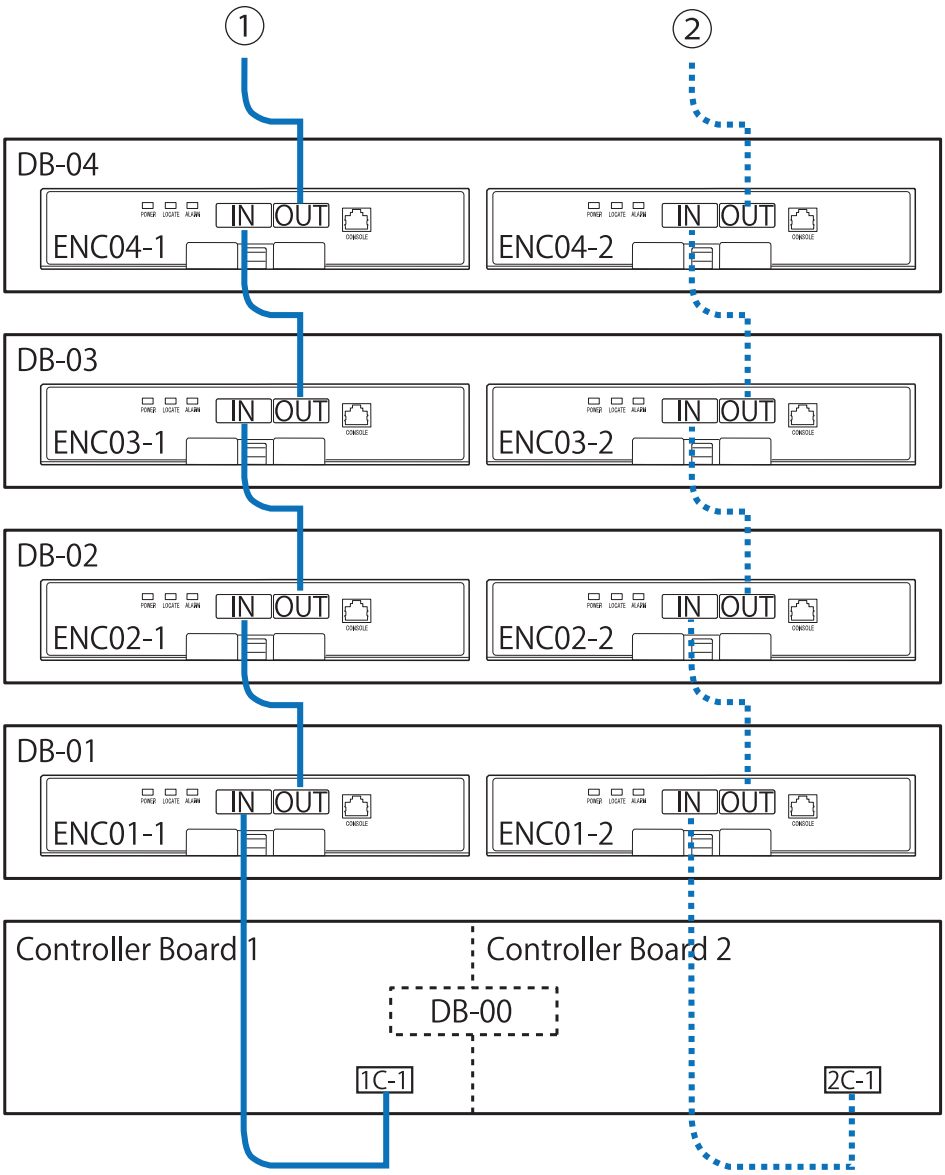

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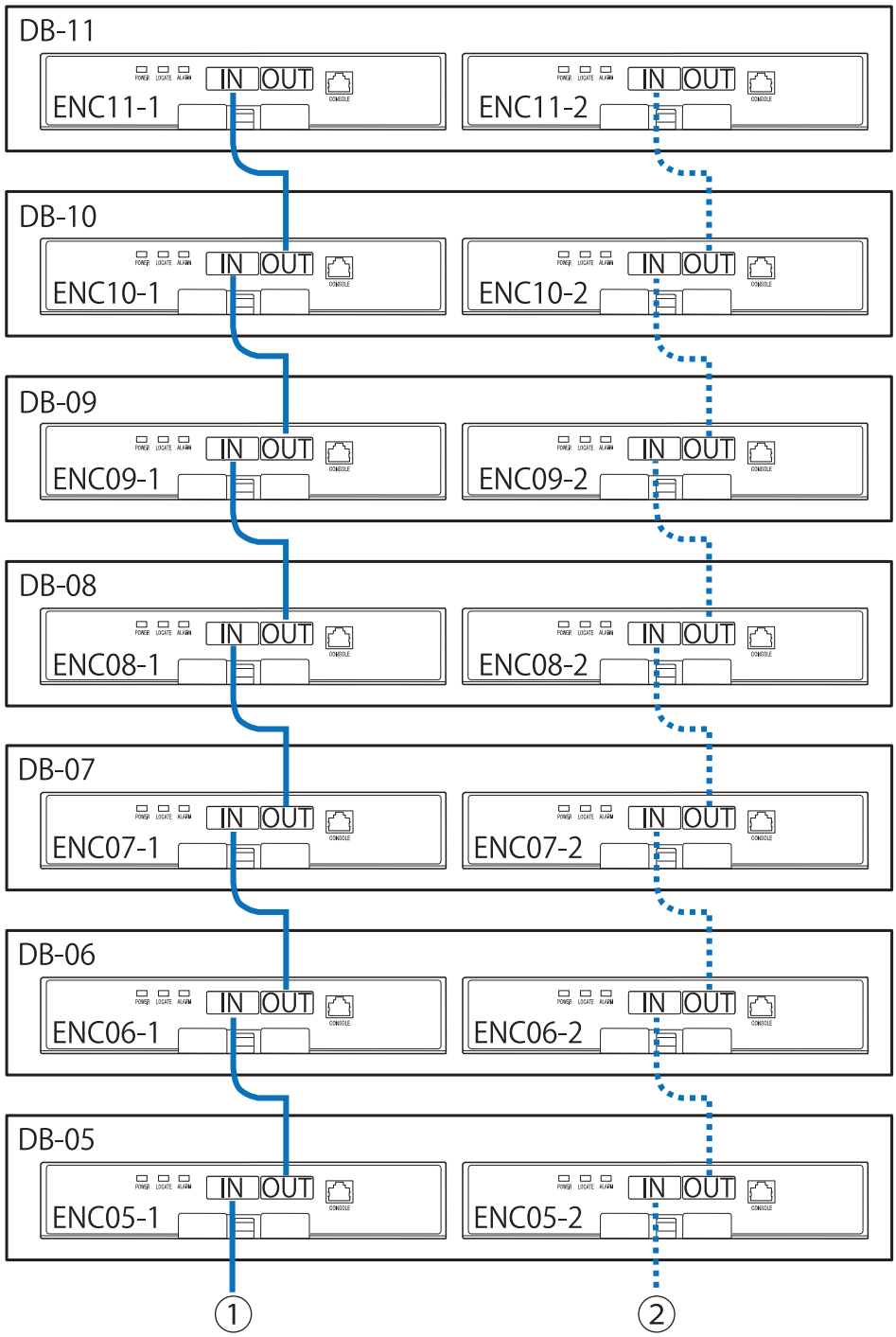
Figure 5-2 SAS Cable Diagram (CBSS/CBSL + DBS/DBL x 11) (2/2)



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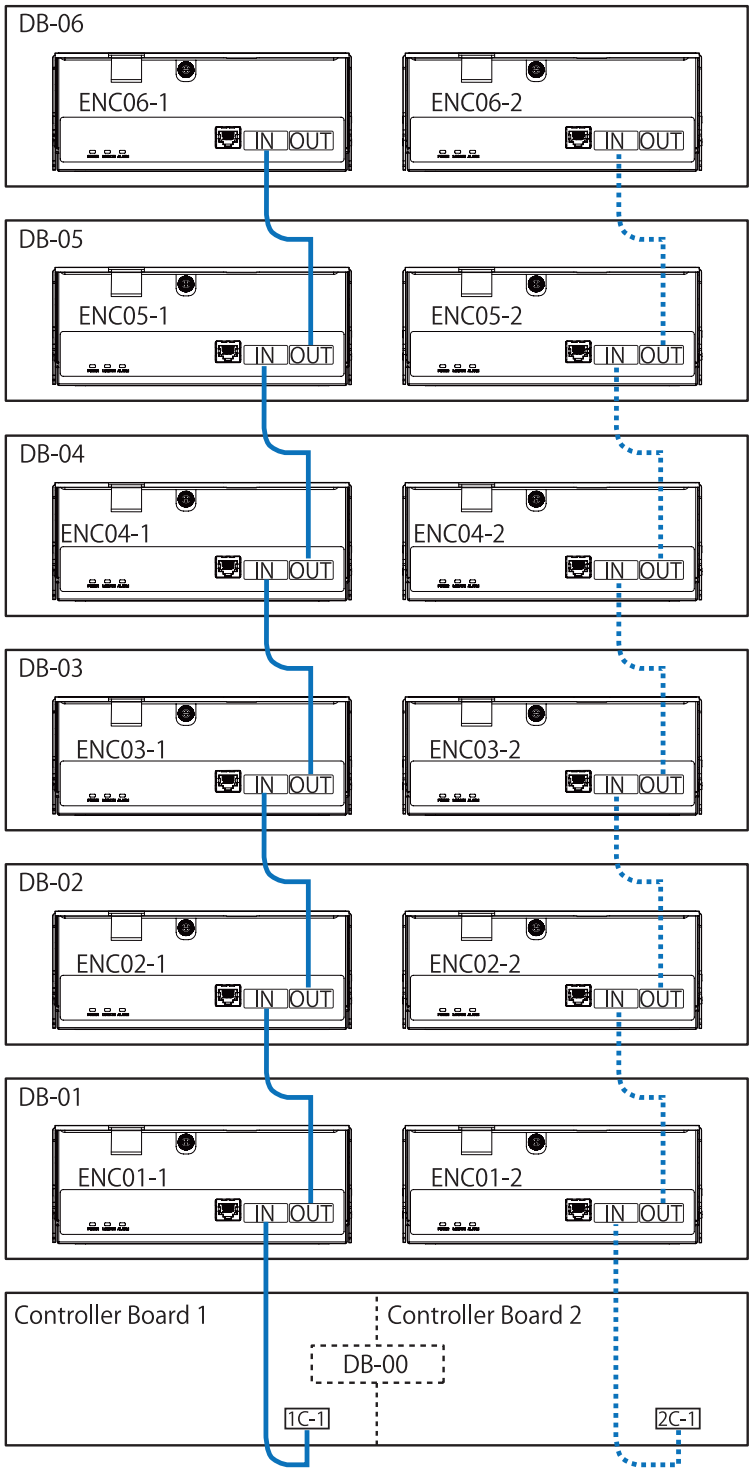
5.1.2 CBSS/CBSL + DB60 x 6

- DB-00 is contained in CBSS/CBSL.
- Up to four DB60s can connect to CBSS1/CBSL1.
- Up to six DB60s can connect to CBSS2/CBSL2.

Figure 5-3 SAS Cable Diagram (CBSS/CBSL + DB60 x 6)



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5.1.3 CBLH1 + DBS/DBL/DBF x 36

Figure 5-4 to Figure 5-8 show the SAS cable connection diagrams of CBLH1+DBS/DBL/DBFx36.

- Up to 36 DBS/DBL/DBFs can connect to CBLH1.

NOTE: DBS and DBF are the Drive Box that can be mounted on VSP F700.

Figure 5-4 SAS Cable Diagram (CBLH1 + DBS/DBL/DBF x 36)

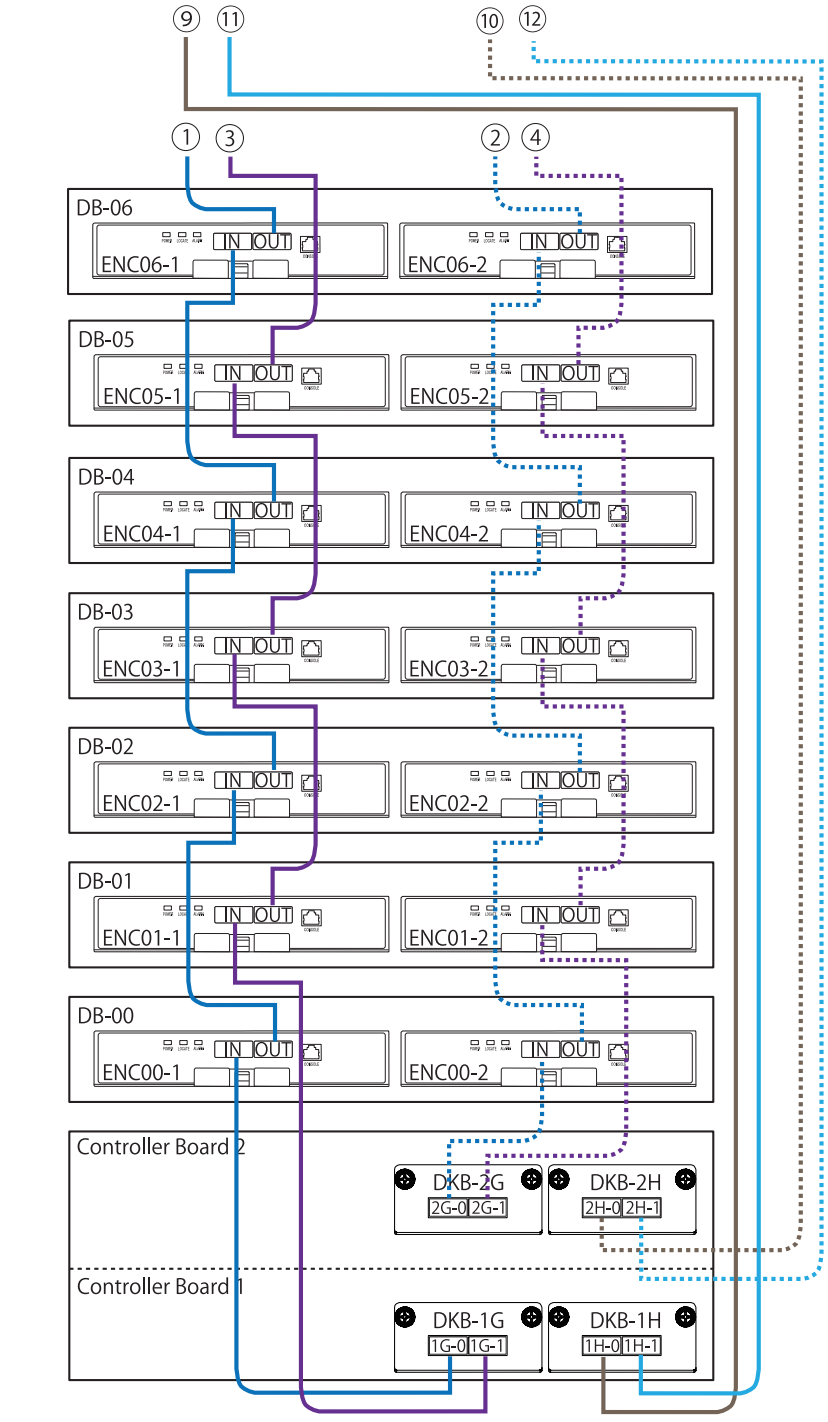

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Figure 5-5 SAS Cable Diagram (CBLH1 + DBS/DBL/DBF x 36)

DB-07 to DB-16

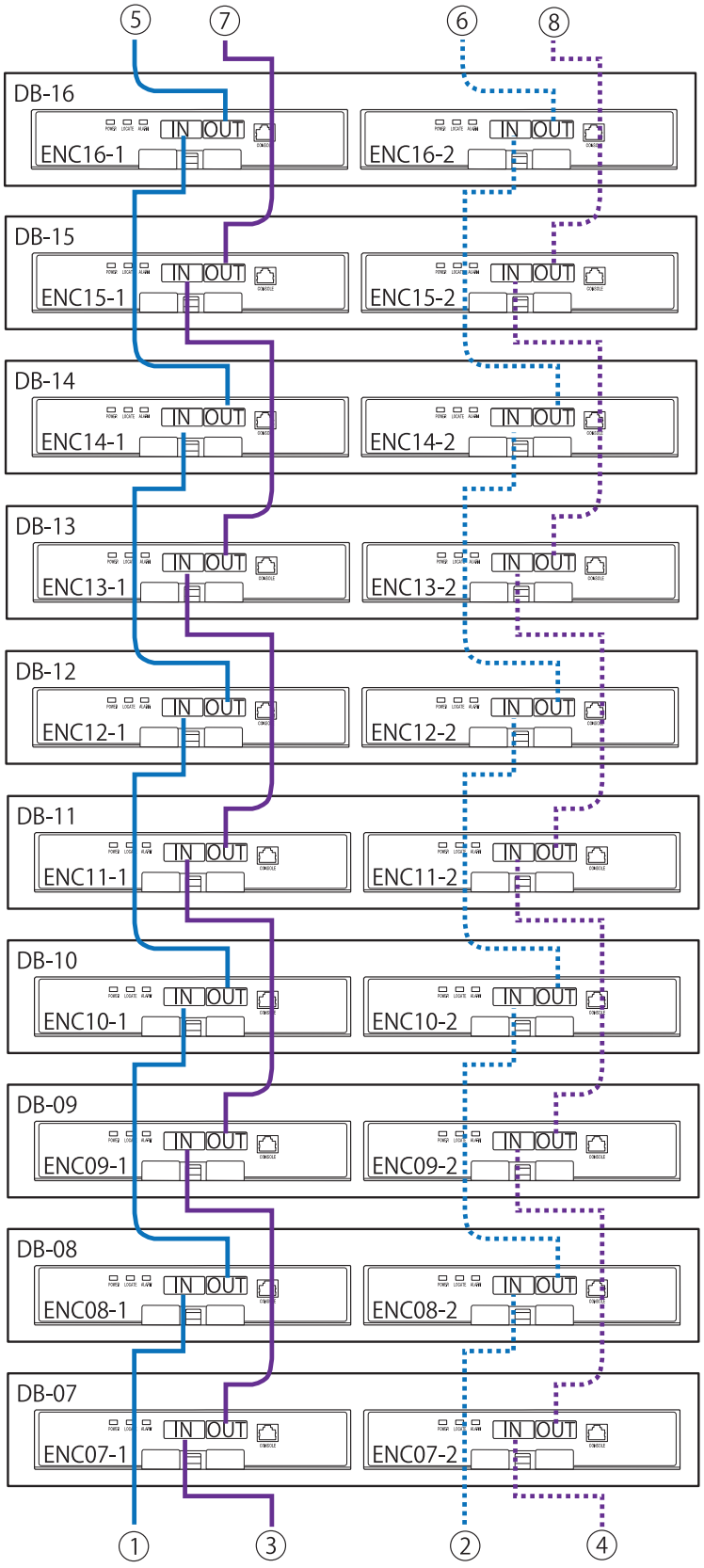

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Figure 5-6 SAS Cable Diagram (CBLH1 + DBS/DBL/DBF x 36)

DB-17 to DB-26

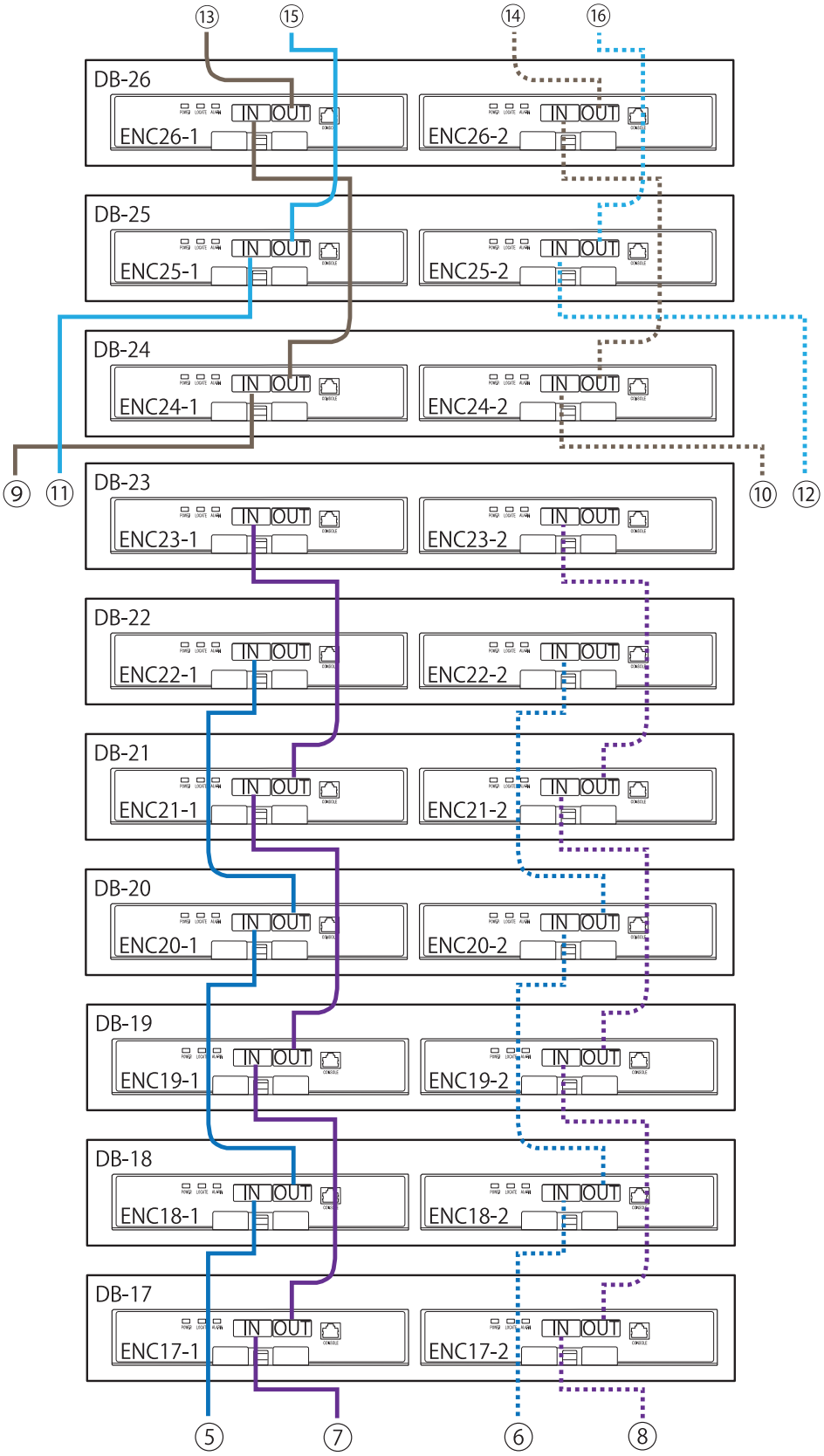

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Figure 5-7 SAS Cable Diagram (CBLH1 + DBS/DBL/DBF x 36)

DB-27 to DB-36

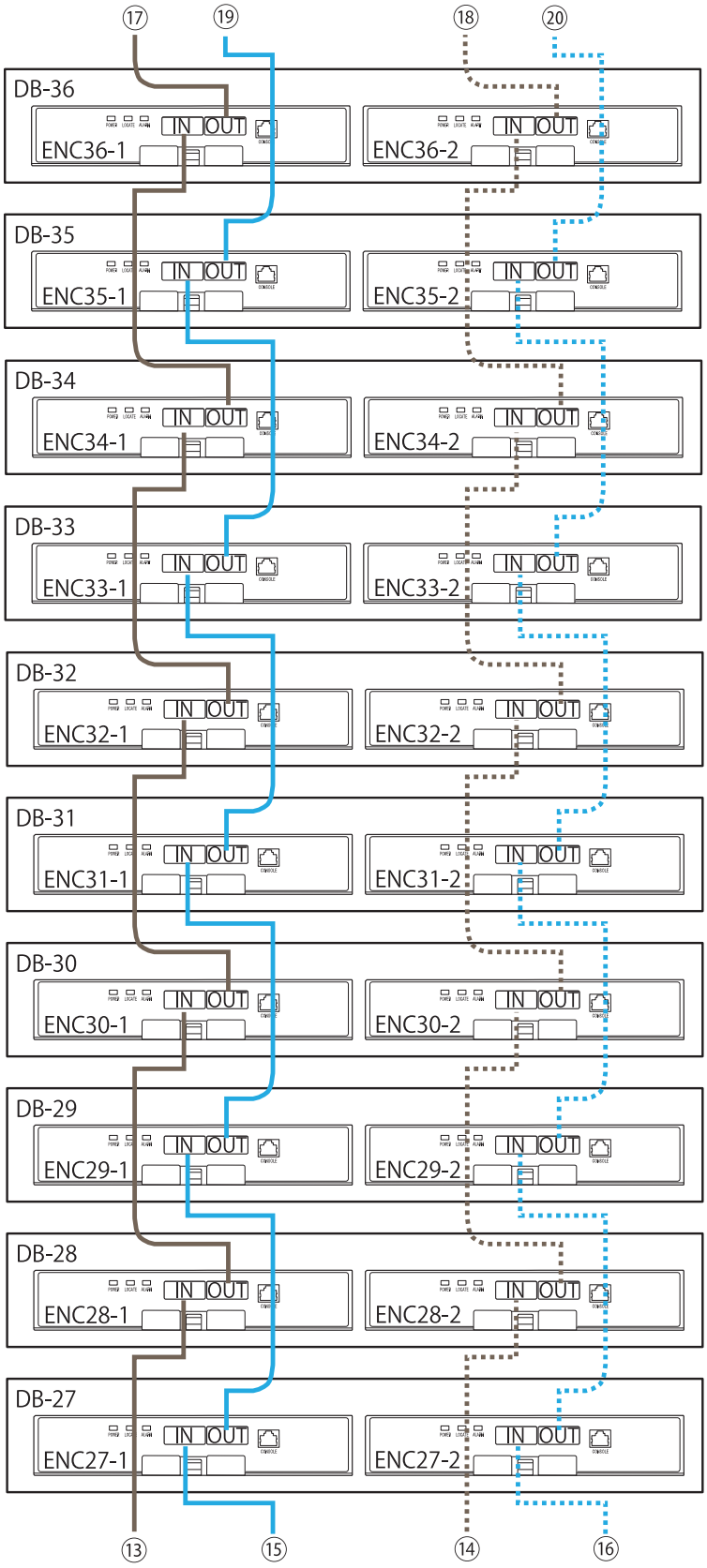

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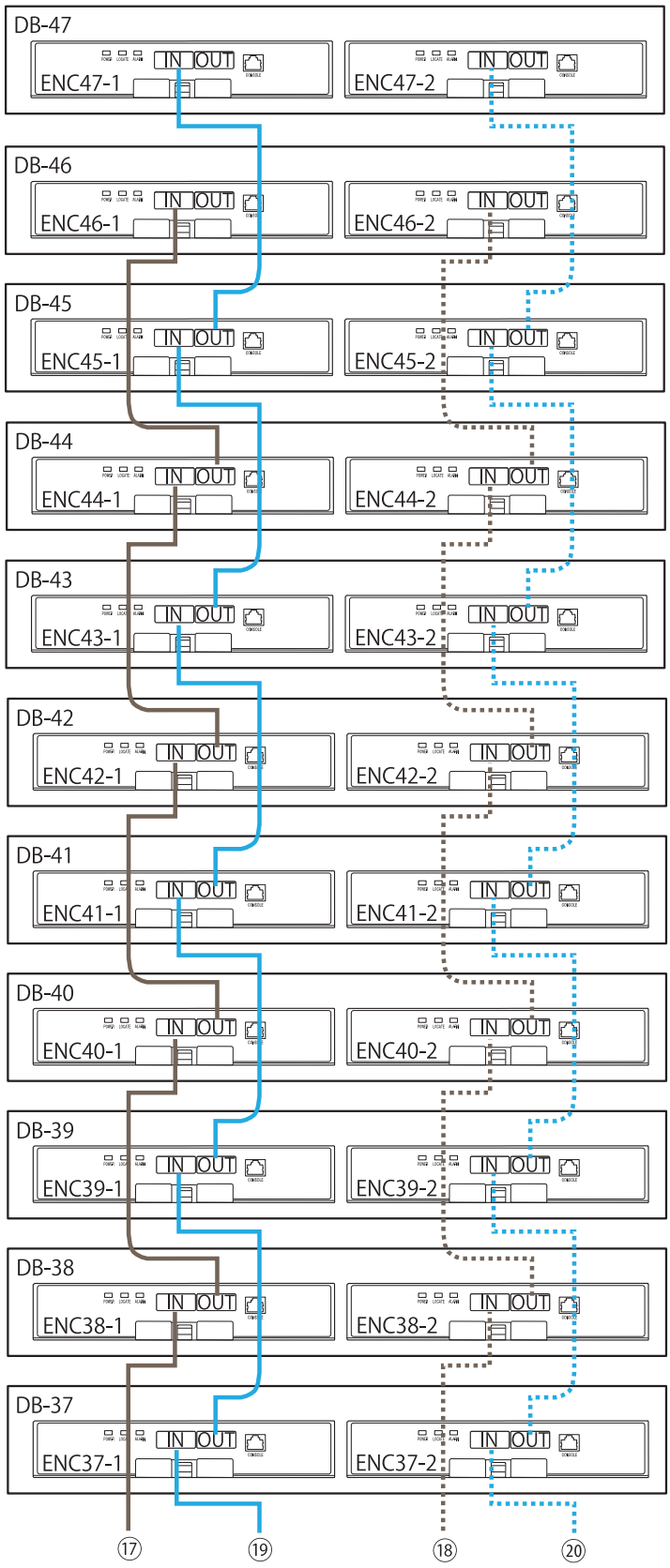
Figure 5-8 SAS Cable Diagram (CBLH1 + DBS/DBL/DBF x 36)

DB-37 to DB-47



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5.1.4 CBLH1 + DB60 x 20

Figure 5-9 to Figure 5-12 show the SAS cable connection diagrams of CBLH1 + DB60 x 20.

- Up to 20 DB60s can connect to CBLH1.

Figure 5-9 SAS Cable Diagram (CBLH1 + DB60 x 20)

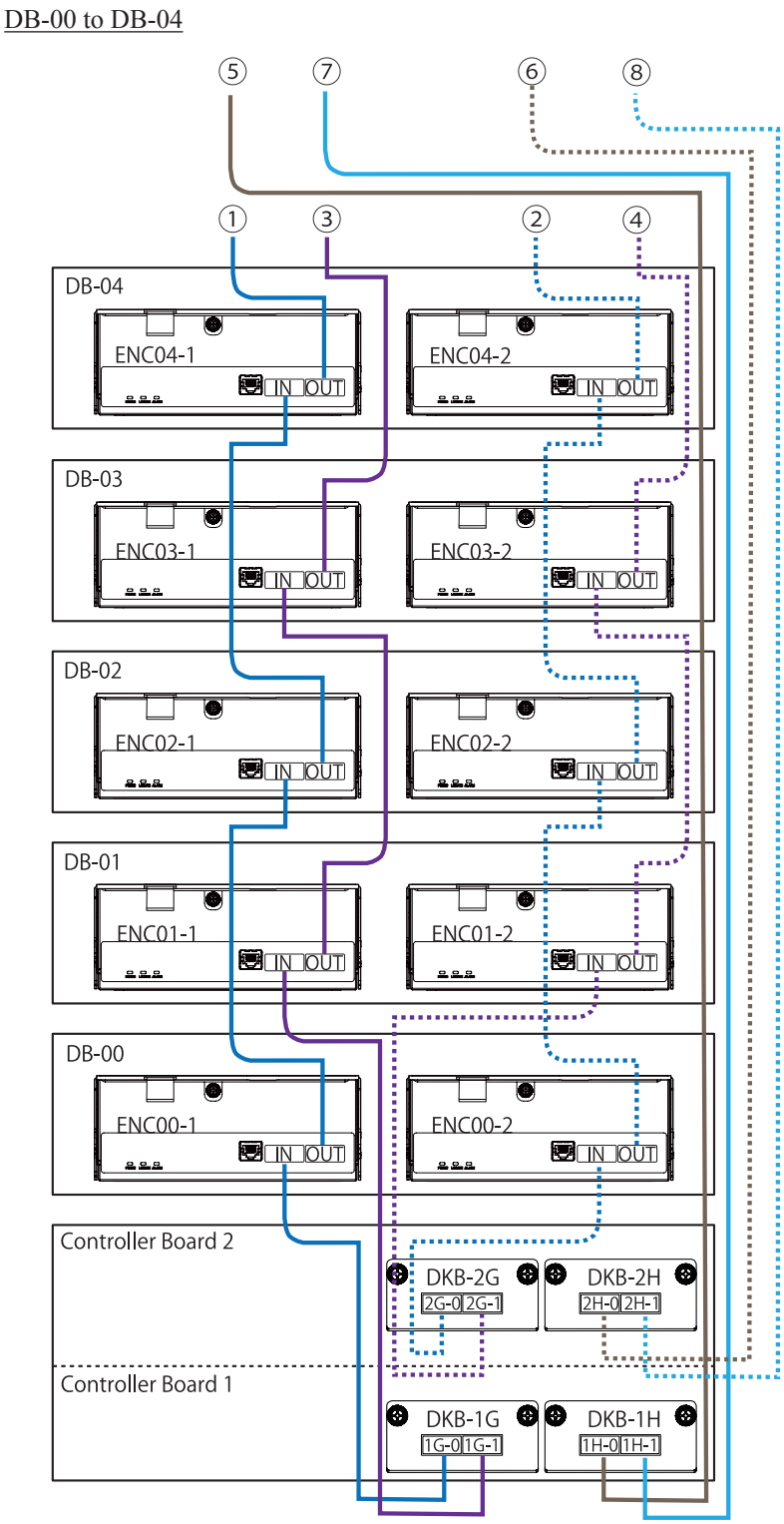

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Figure 5-10 SAS Cable Diagram (CBLH1 + DB60 x 20)

DB-05 to DB-11

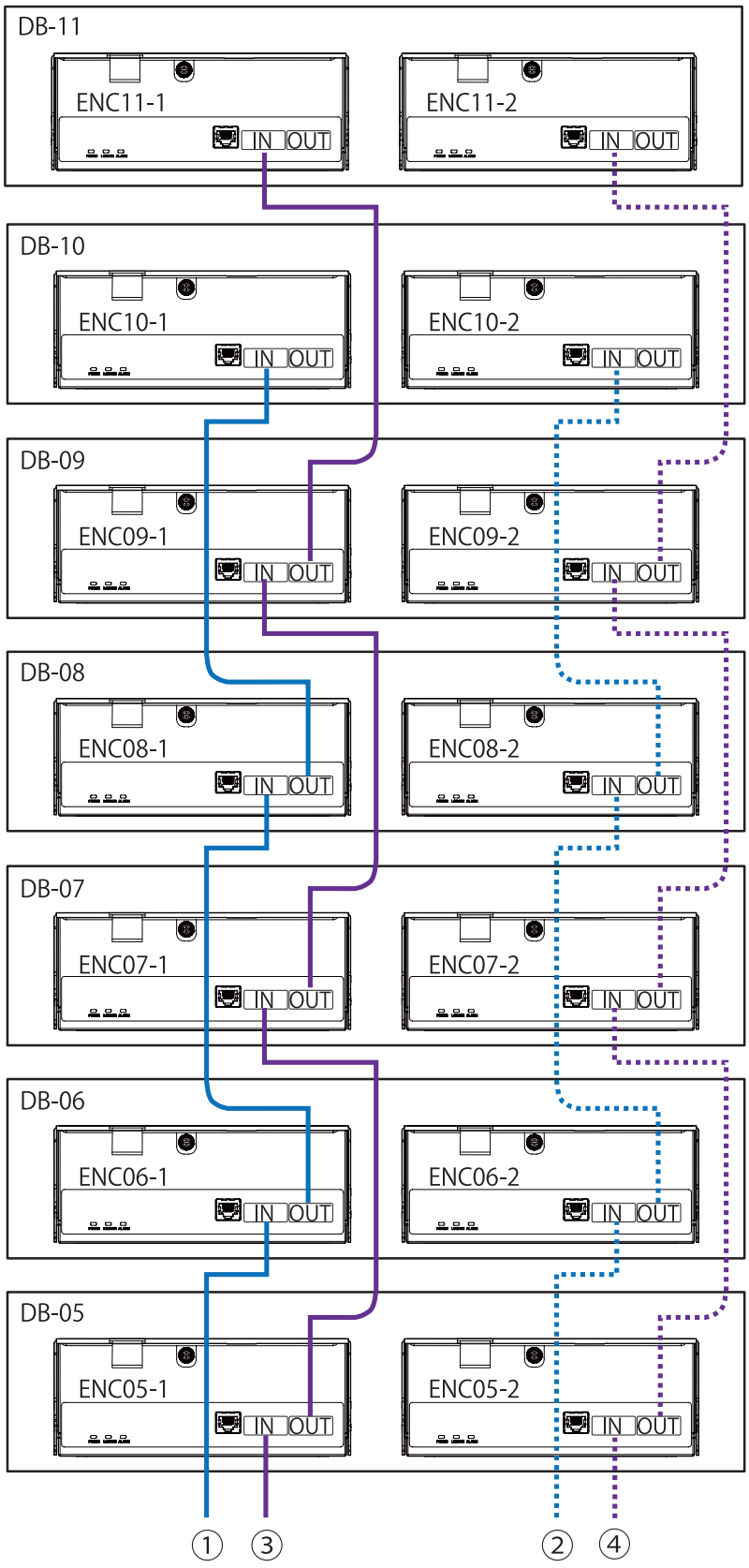

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Figure 5-11 SAS Cable Diagram (CBLH1 + DB60 x 20)

DB-24 to DB-29

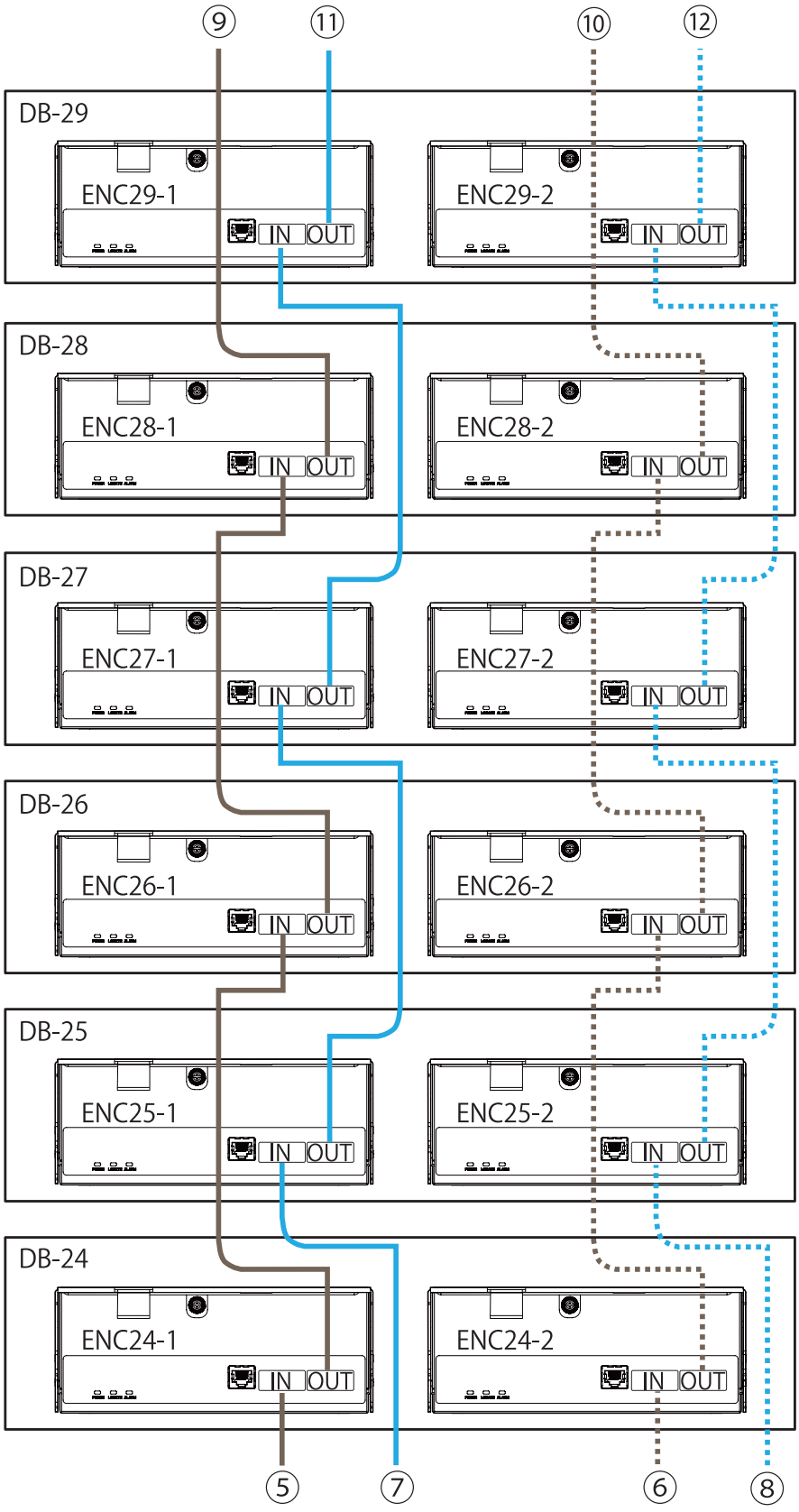

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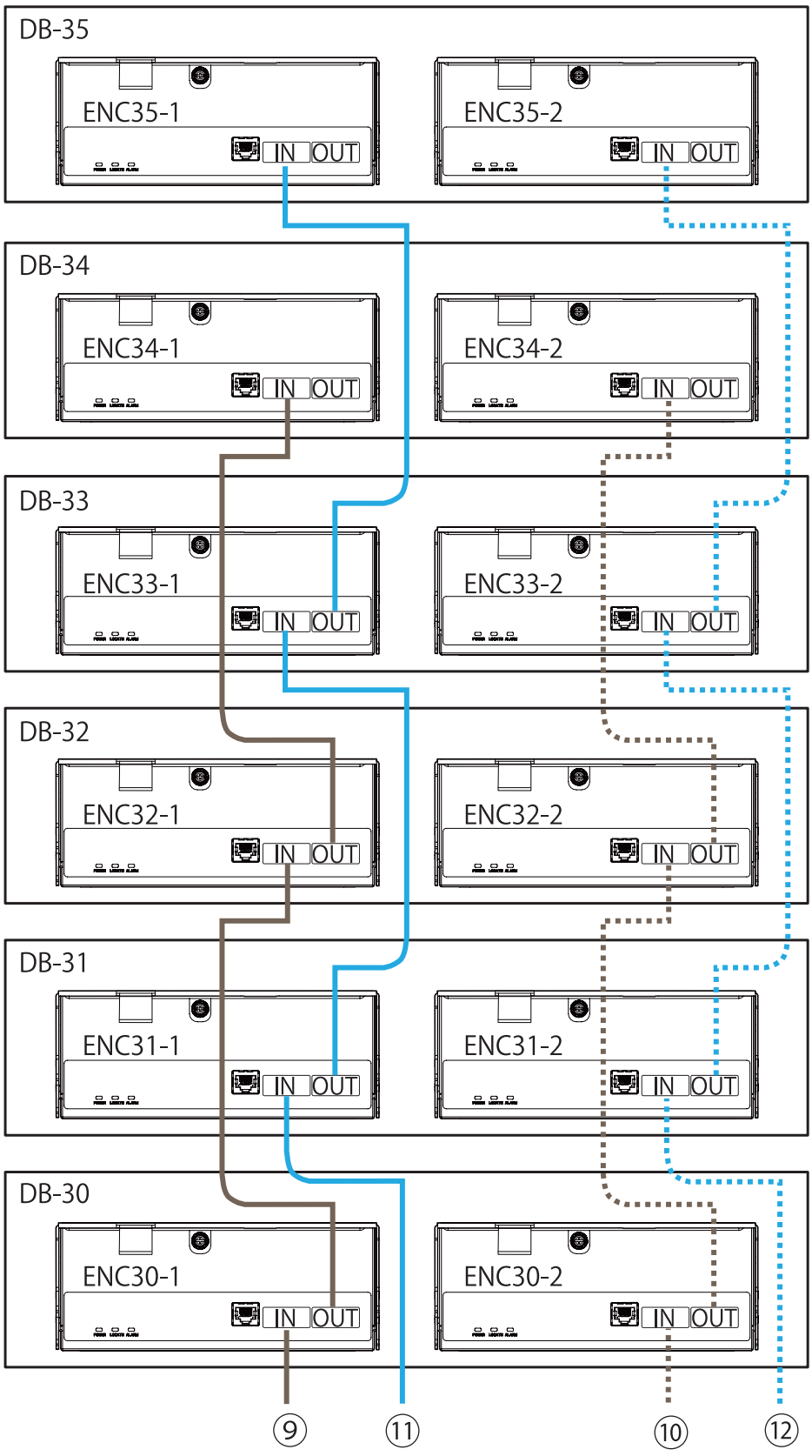
Figure 5-12 SAS Cable Diagram (CBLH1 + DB60 x 20)

DB-30 to DB-35



5.1.5 CBLH2 (DKB x 8) + DBS/DBL/DBF x 48

Figure 5-13 to Figure 5-19 show the SAS cable connection diagrams of CBLH2 (DKB x 8) + DBS/DBL/DBF x 48.

NOTE: DBS and DBF are the Drive Box that can be mounted on VSP F900.

Figure 5-13 SAS Cable Diagram (CBLH2 (DKB x 8) + DBS/DBL/DBF x 48)

DB-00 to DB-03

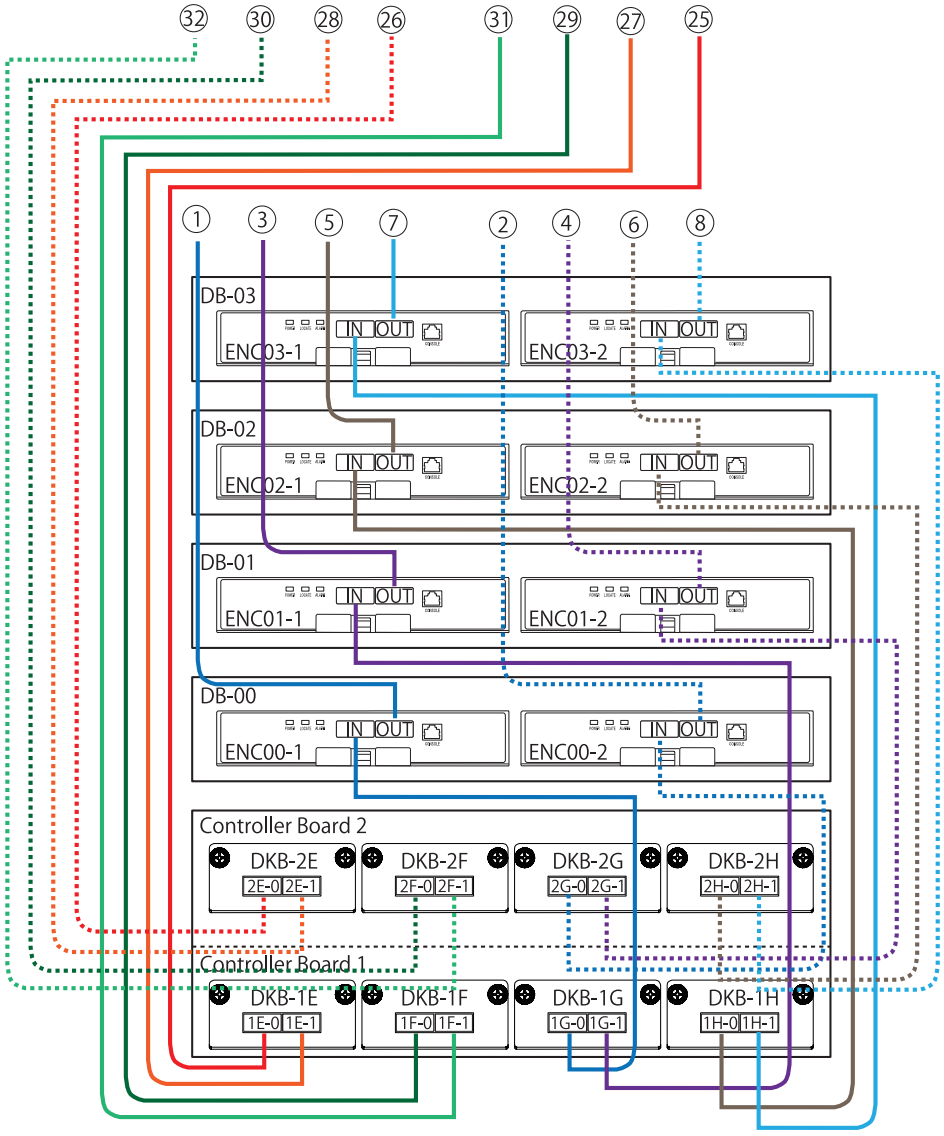


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Figure 5-14 SAS Cable Diagram (CBLH2 (DKB x 8) + DBS/DBL/DBF x 48)

DB-04 to DB-11

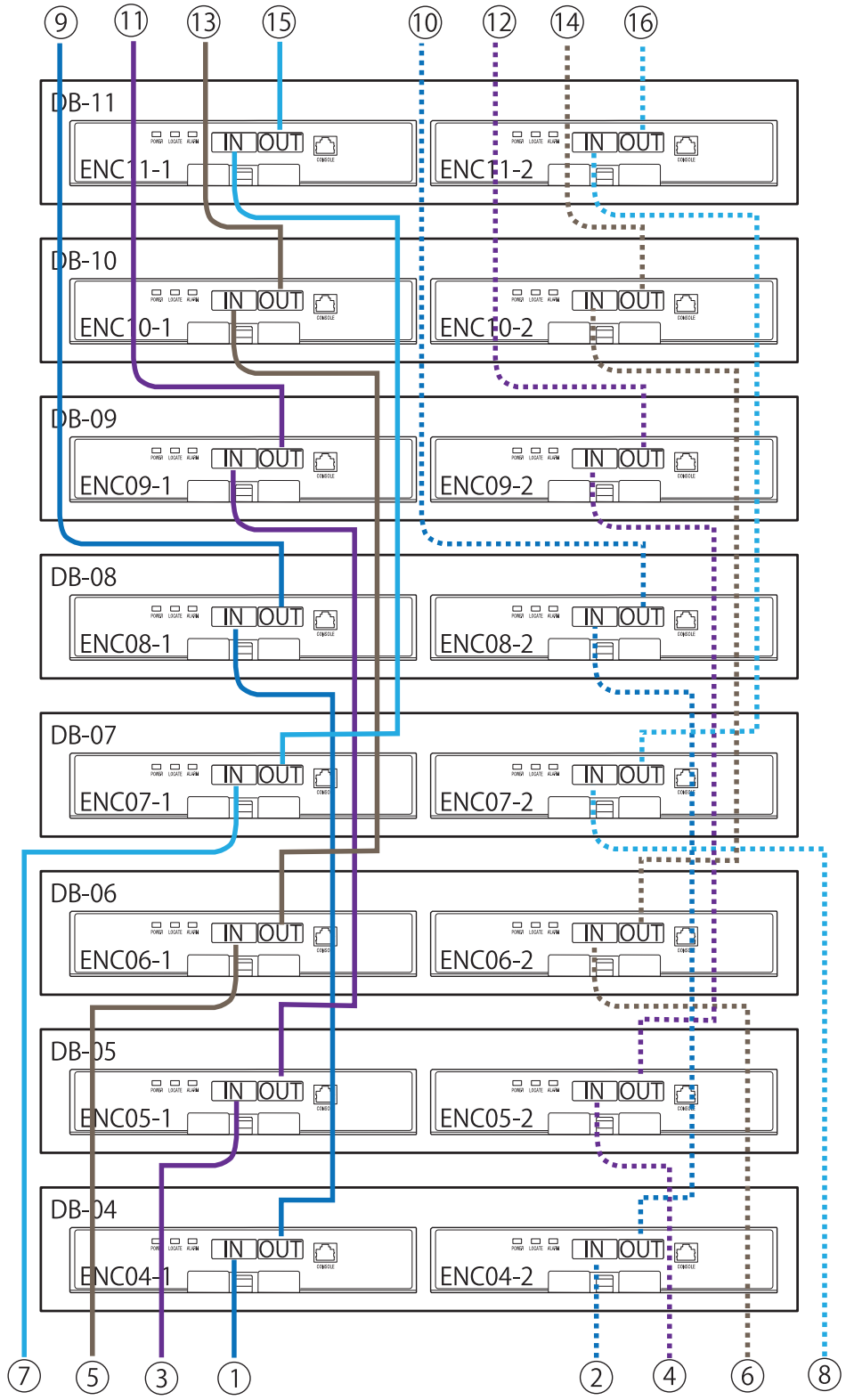

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Figure 5-15 SAS Cable Diagram (CBLH2 (DKB x 8) + DBS/DBL/DBF x 48)

DB-12 to DB-19

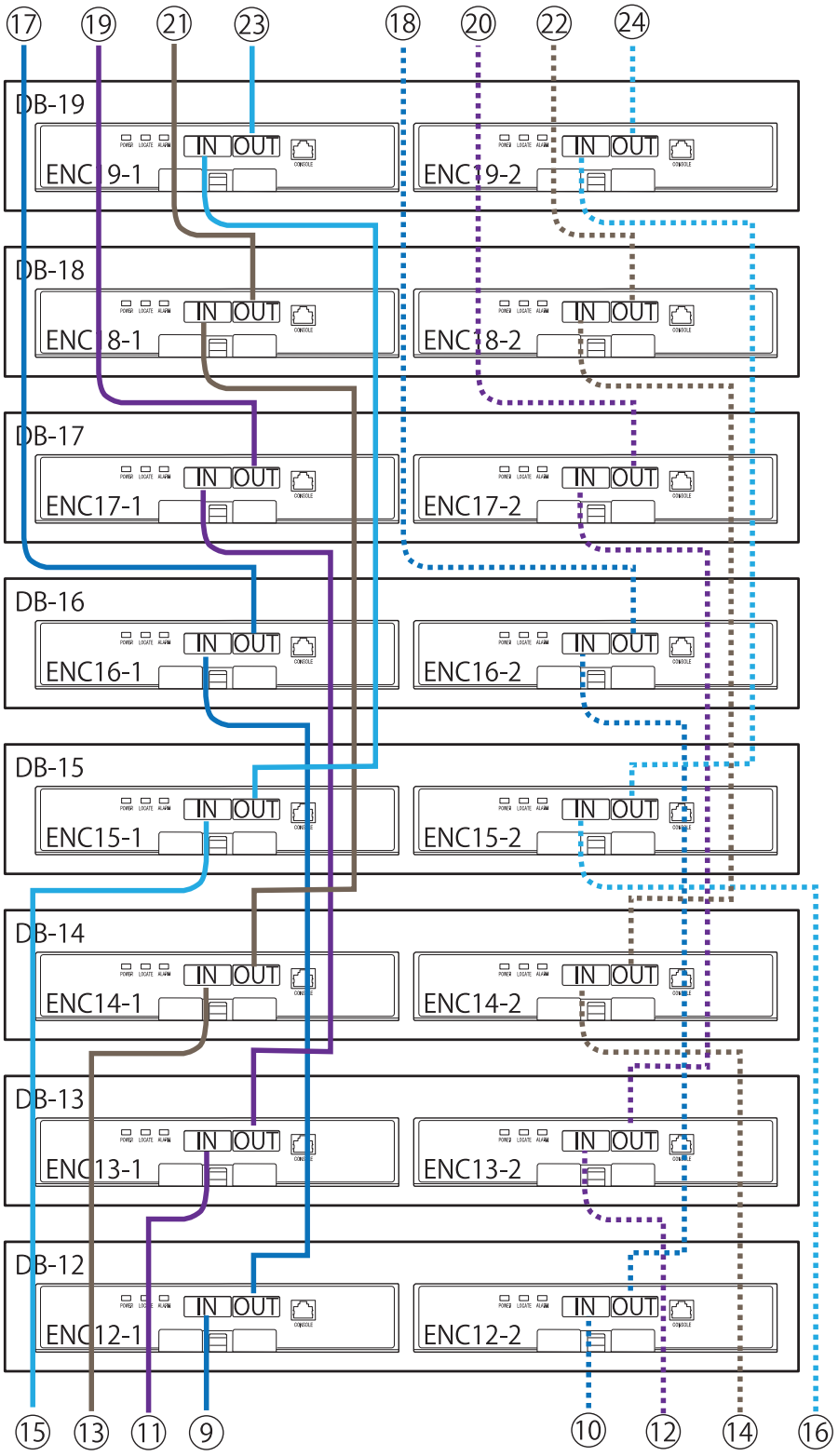

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Figure 5-16 SAS Cable Diagram (CBLH2 (DKB x 8) + DBS/DBL/DBF x 48)

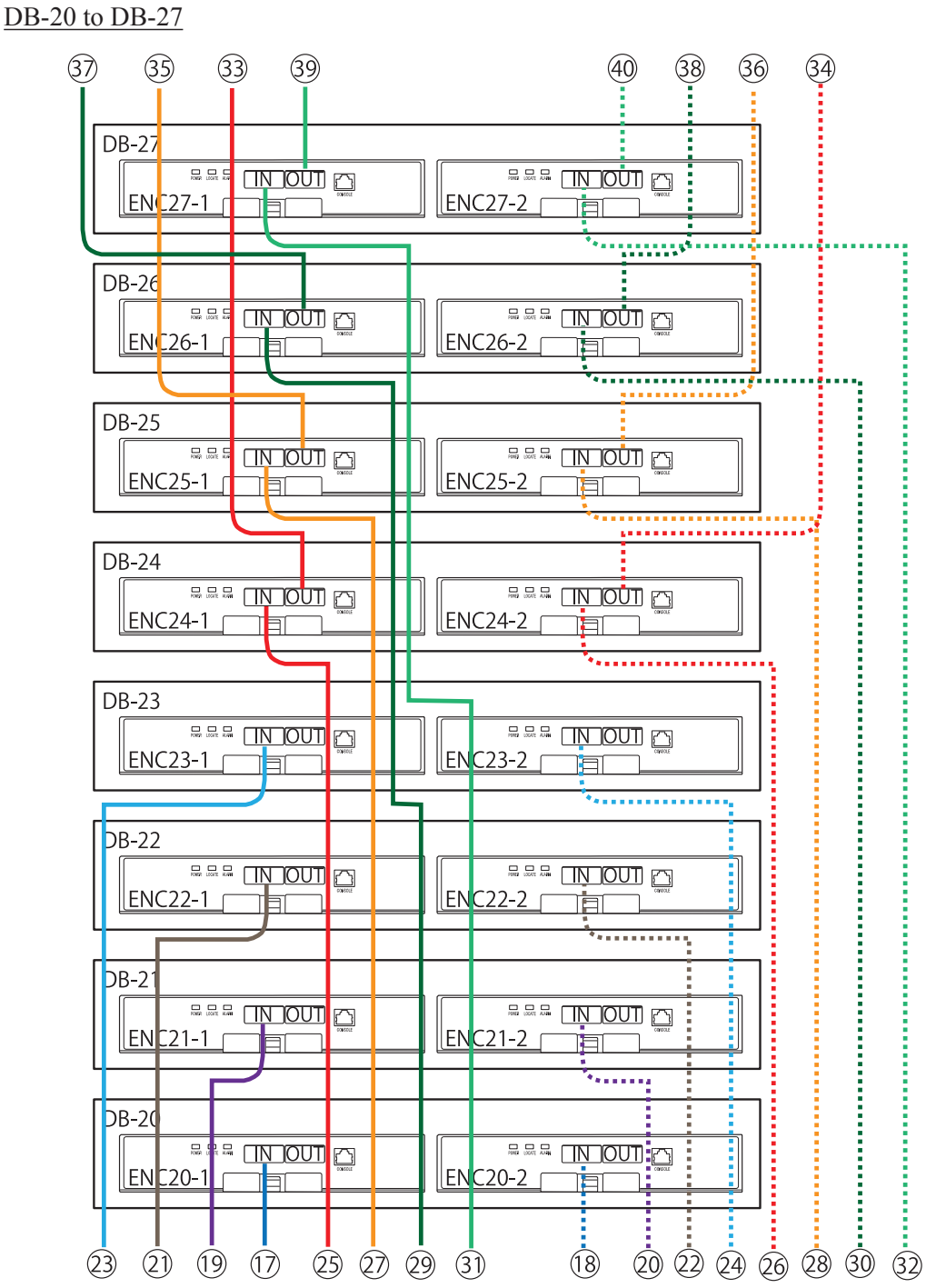

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Figure 5-17 SAS Cable Diagram (CBLH2 (DKB x 8) + DBS/DBL/DBF x 48)

DB-28 to DB-35

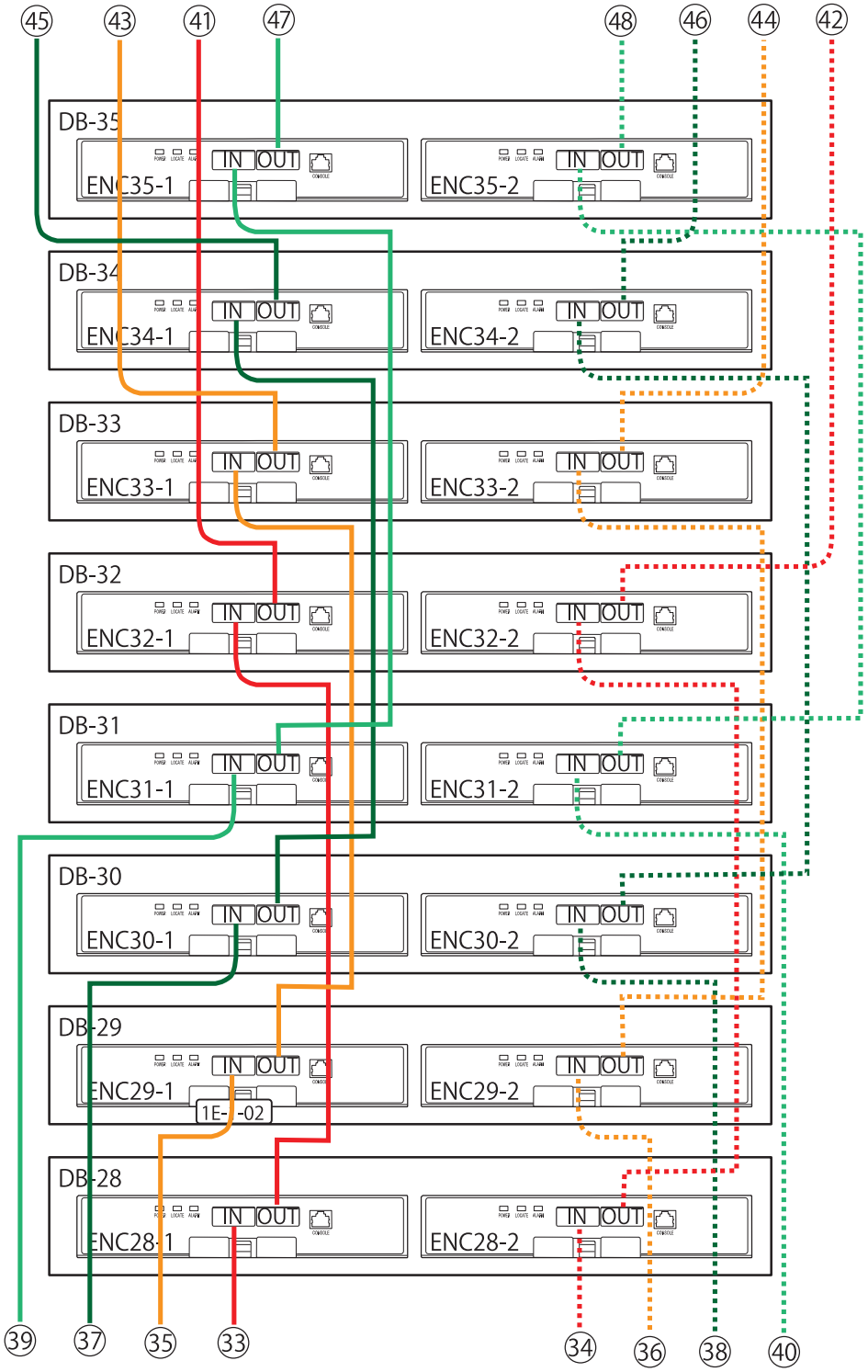

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Figure 5-18 SAS Cable Diagram (CBLH2 (DKB x 8)+DBS/DBL/DBF x 48)

DB-36 to DB-43

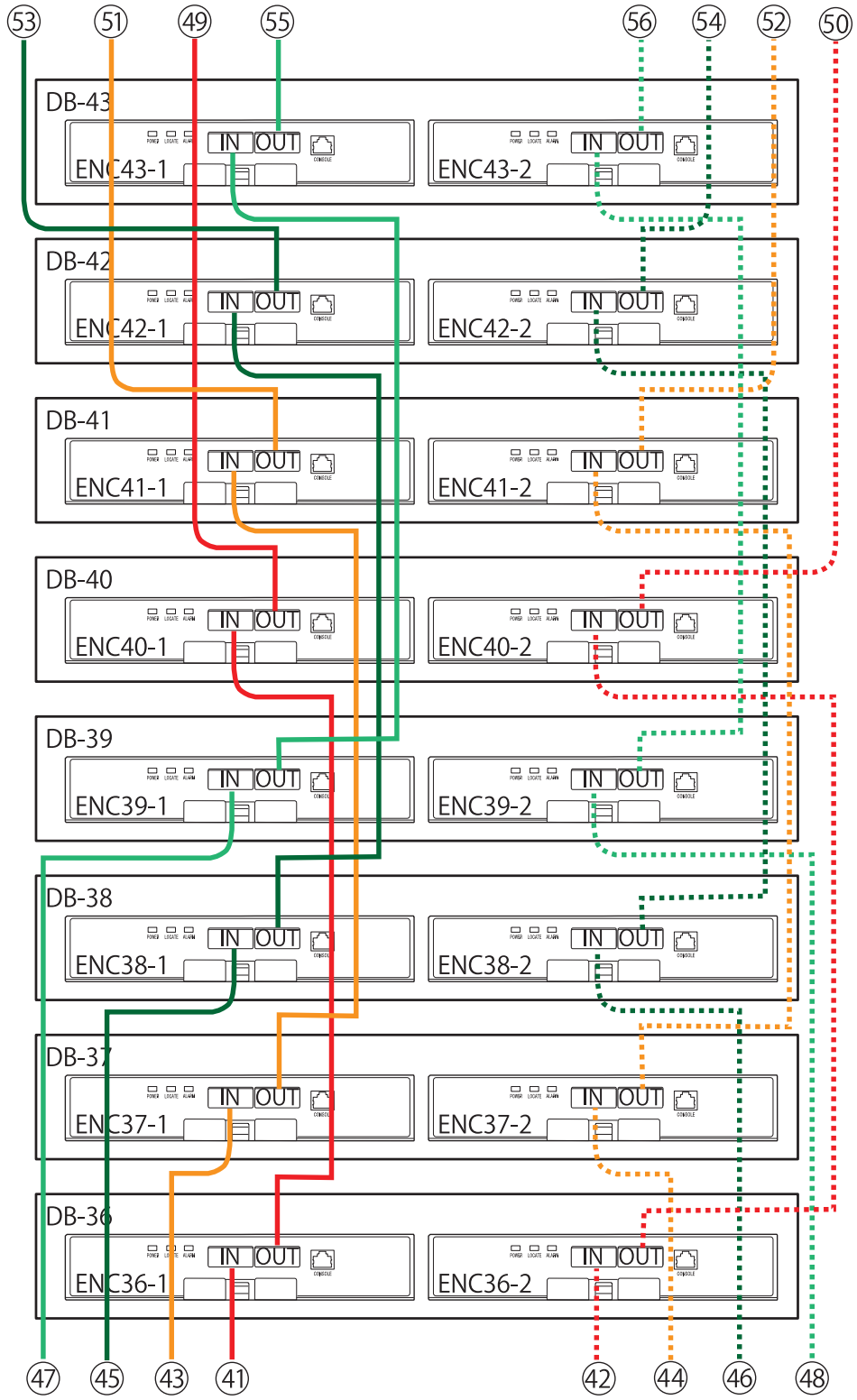

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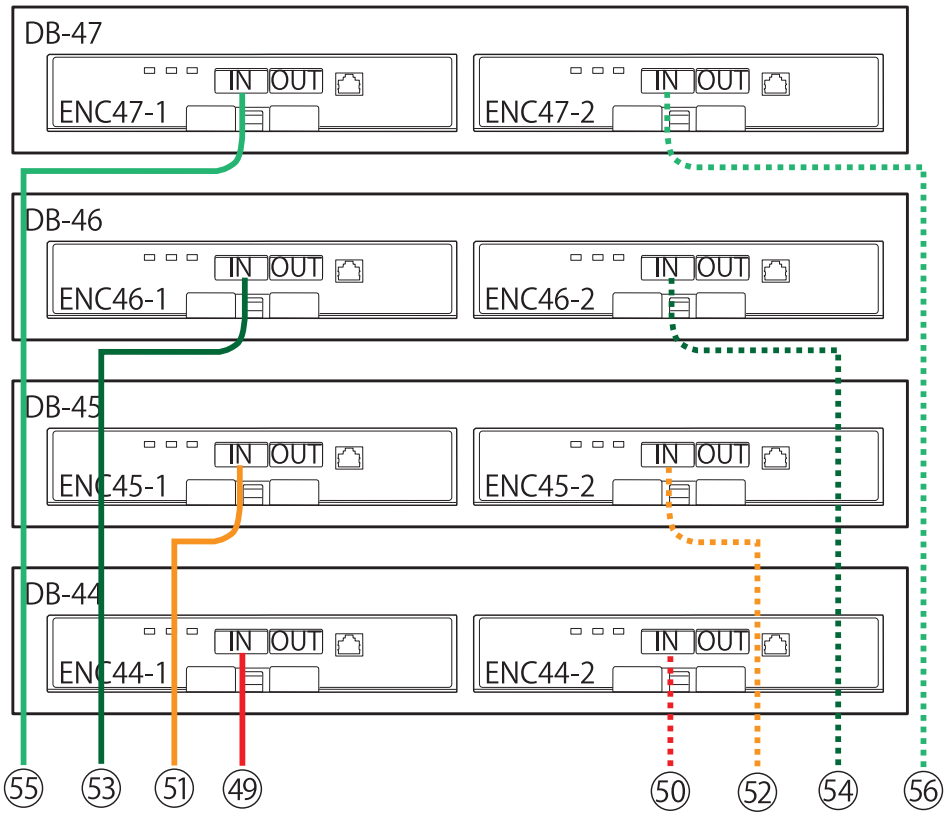
Figure 5-19 SAS Cable Diagram (CBLH2 (DKB x 8)+DBS/DBL/DBF x 48)

DB-44 to DB-47



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5.1.6 CBLH2 (DKB x 4) + DB60 x 24

Figure 5-20 to Figure 5-25 show the SAS cable connection diagrams of CBLH2 (DKB x 4) + DB60 x 24.

Figure 5-20 SAS Cable Diagram (CBLH2 (DKB x 4)+DB60 x 24)

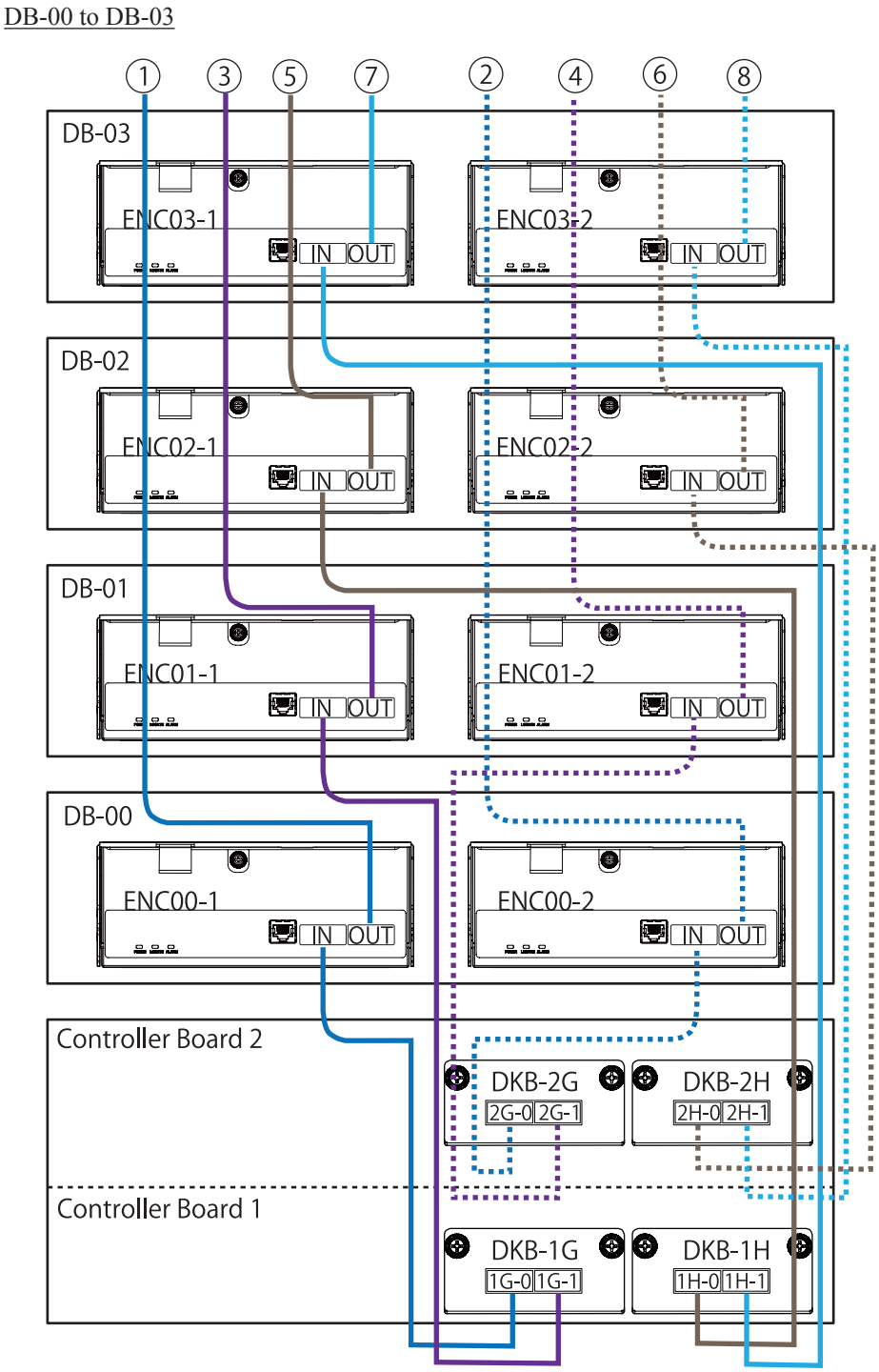

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Figure 5-21 SAS Cable Diagram (CBLH2 (DKB x 4) + DB60 x 24)

DB-04 to DB-07

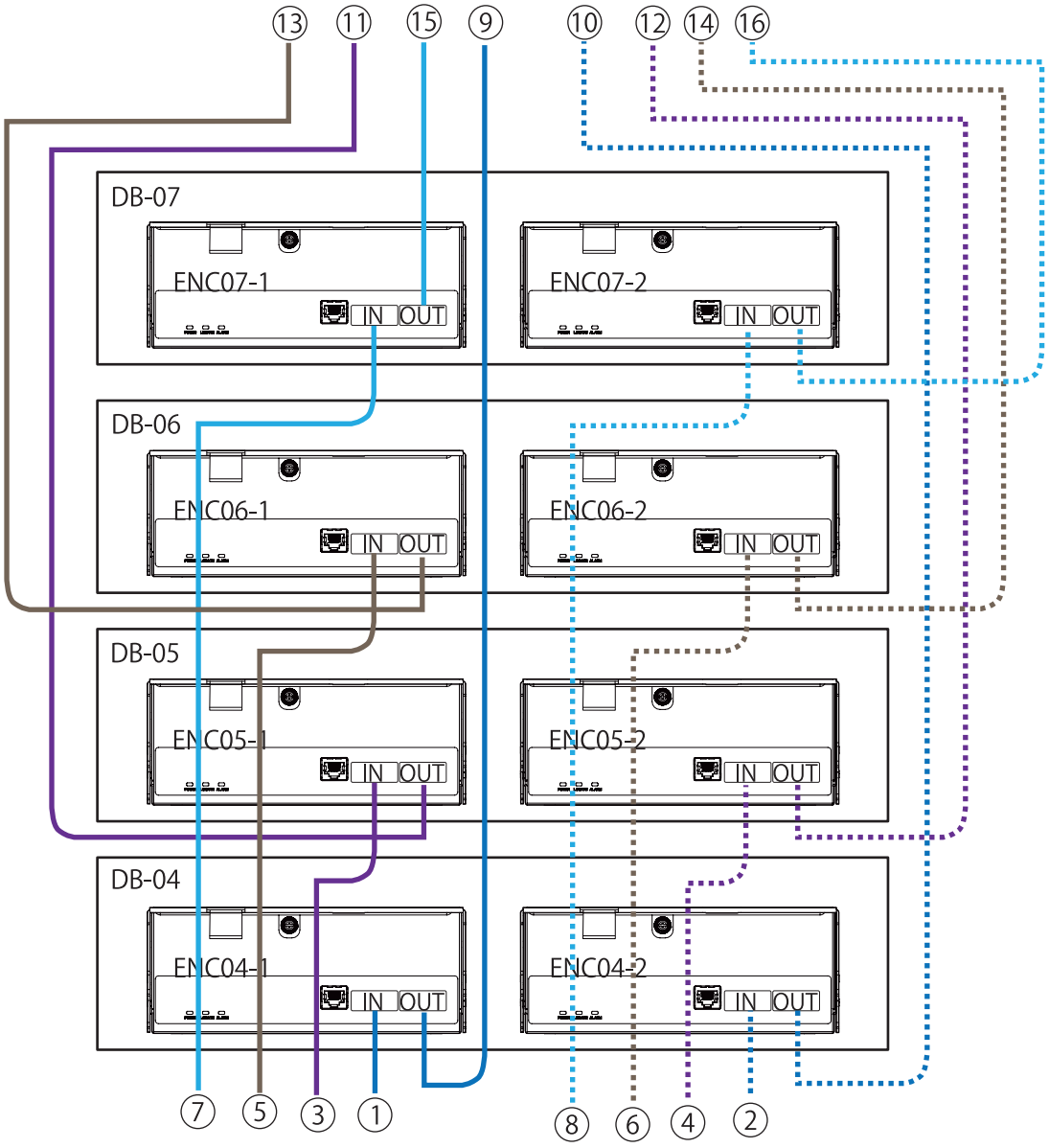

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Figure 5-22 SAS Cable Diagram (CBLH2 (DKB x 4) + DB60 x 24)

DB-08 to DB-11

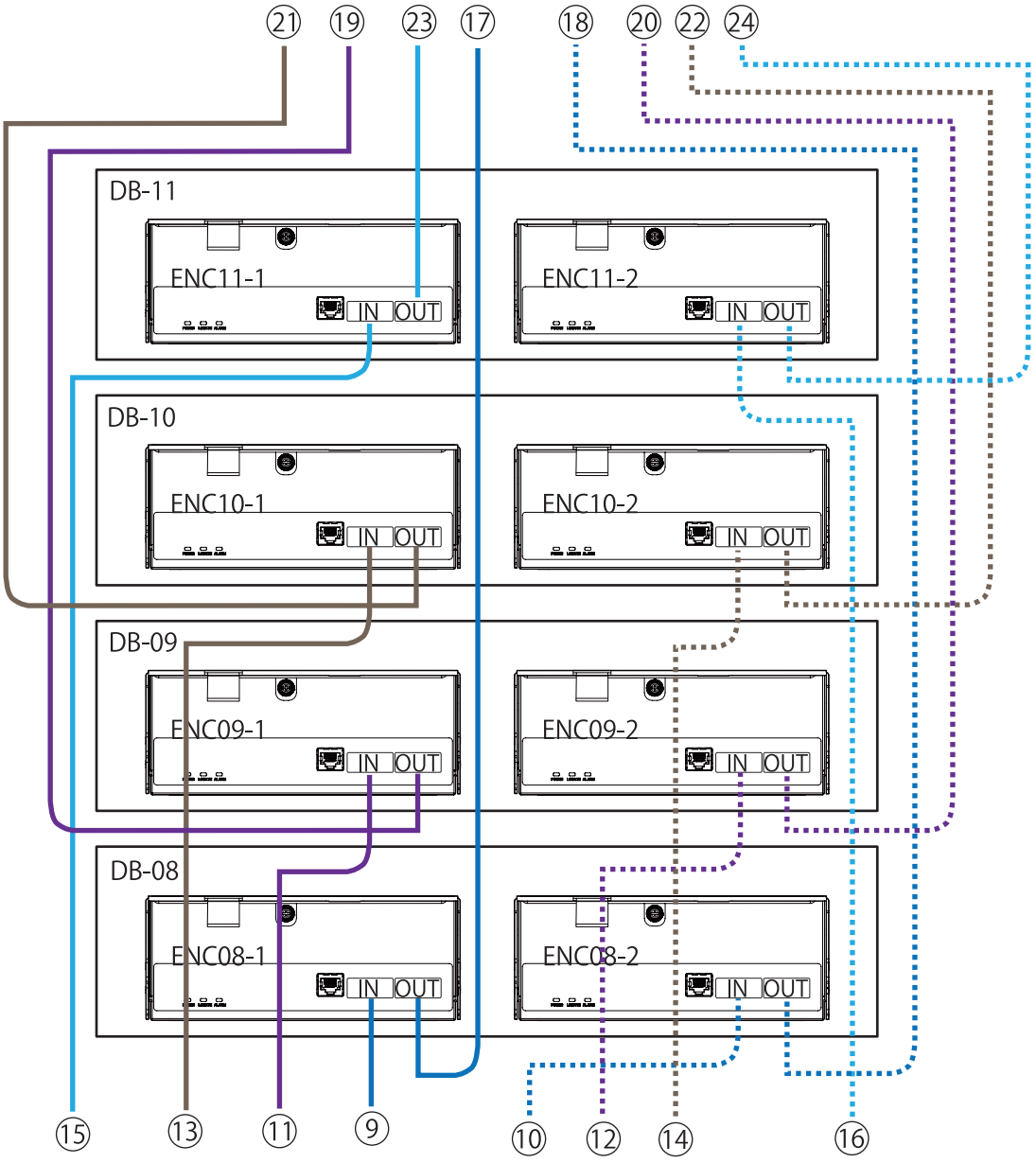

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Figure 5-23 SAS Cable Diagram (CBLH2 (DKB x 4) + DB60 x 24)

DB-12 to DB-15

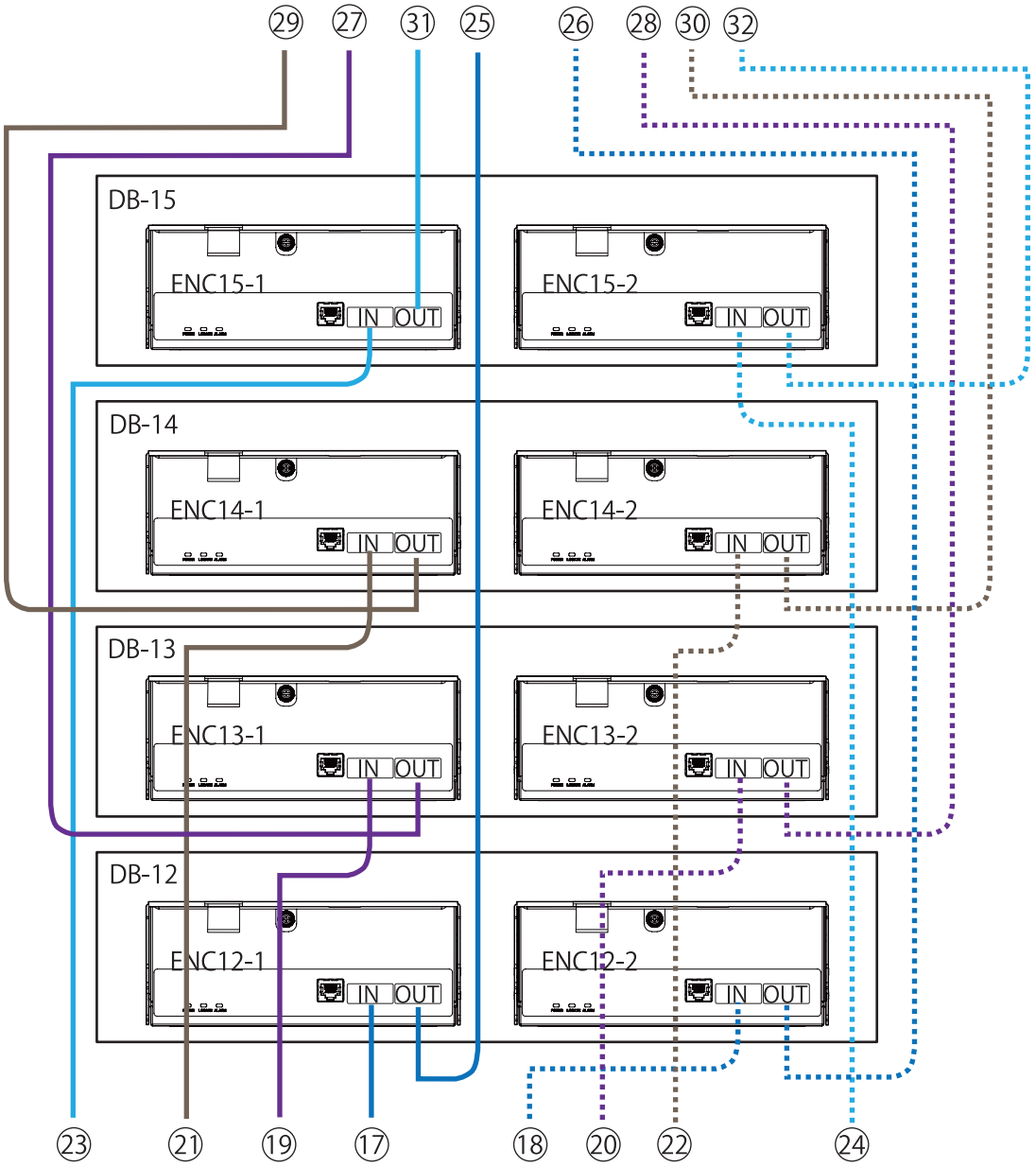

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Figure 5-24 SAS Cable Diagram (CBLH2 (DKB x 4) + DB60 x 24)

DB-16 to DB-19

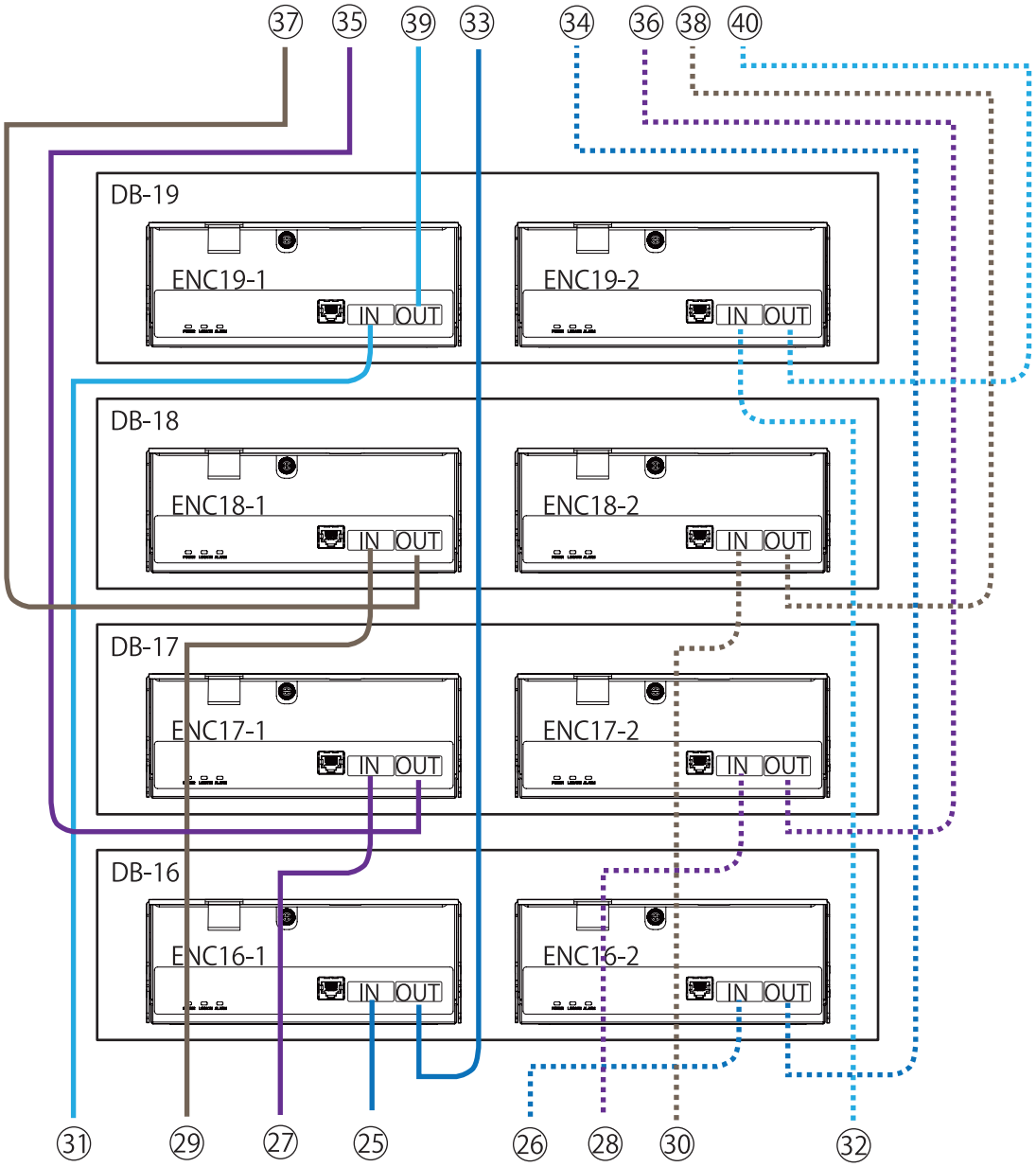

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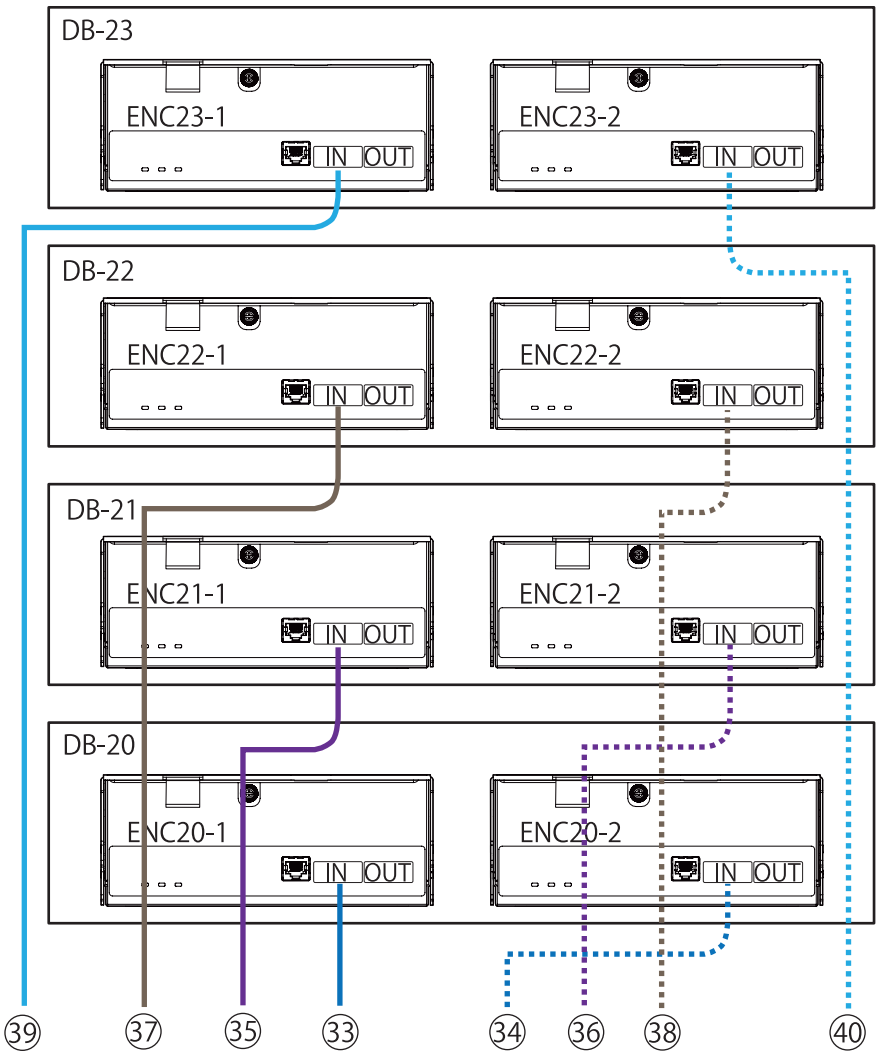
Figure 5-25 SAS Cable Diagram (CBLH2 (DKB x 4) + DB60 x 24)

DB-20 to DB-23



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5.1.7 CBLH2 (DKB x 8) + DB60 x 24

Figure 5-26 to Figure 5-31 show the SAS cable connection diagrams of CBLH2 (DKB x 8) + DB60 x 24.

Figure 5-26 SAS Cable Diagram (CBLH2 (DKB x 8) + DB60 x 24)

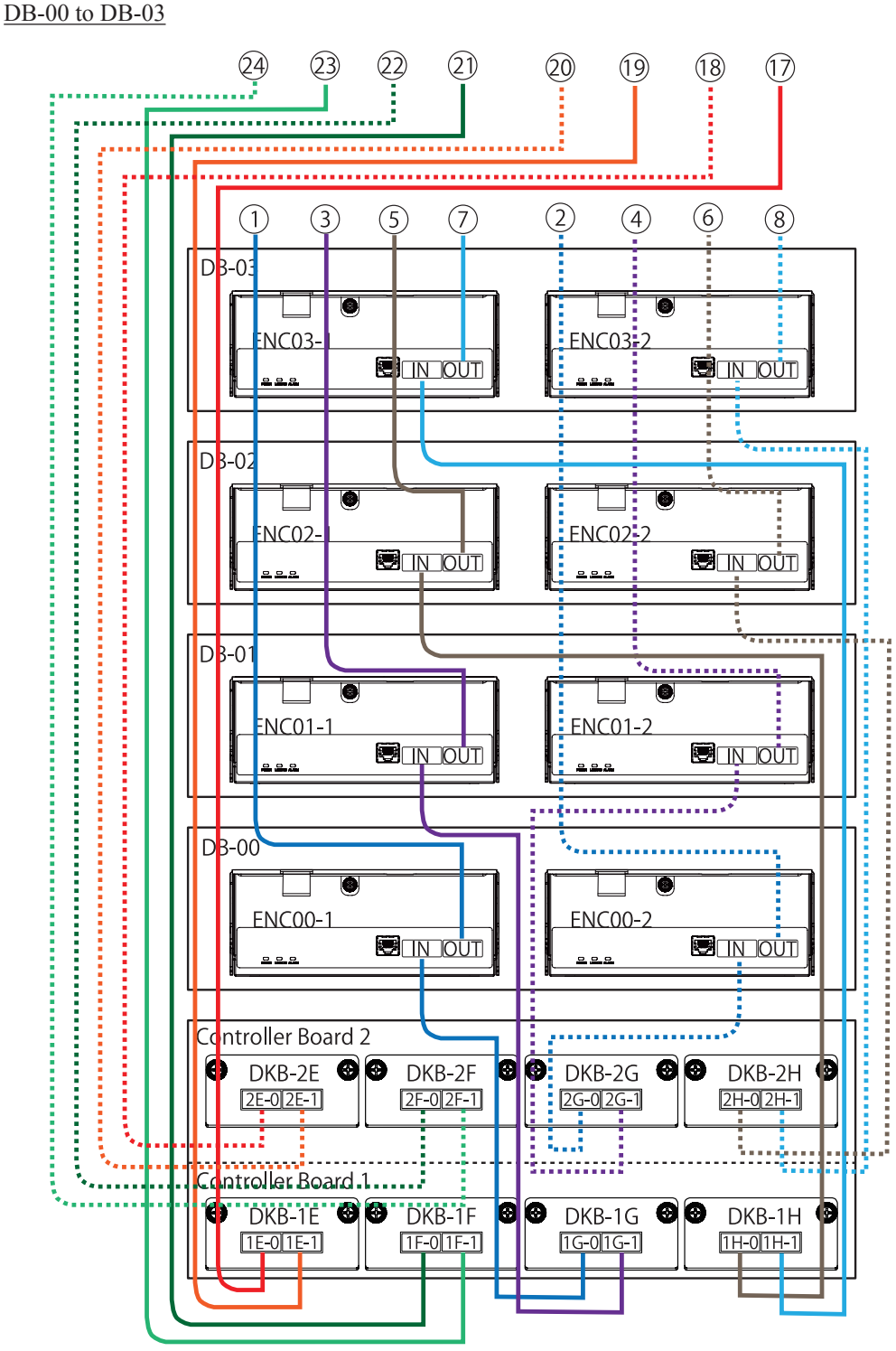

Figure 5-27 SAS Cable Diagram (CBLH2 (DKB x 8) + DB60 x 24)

DB-04 to DB-07

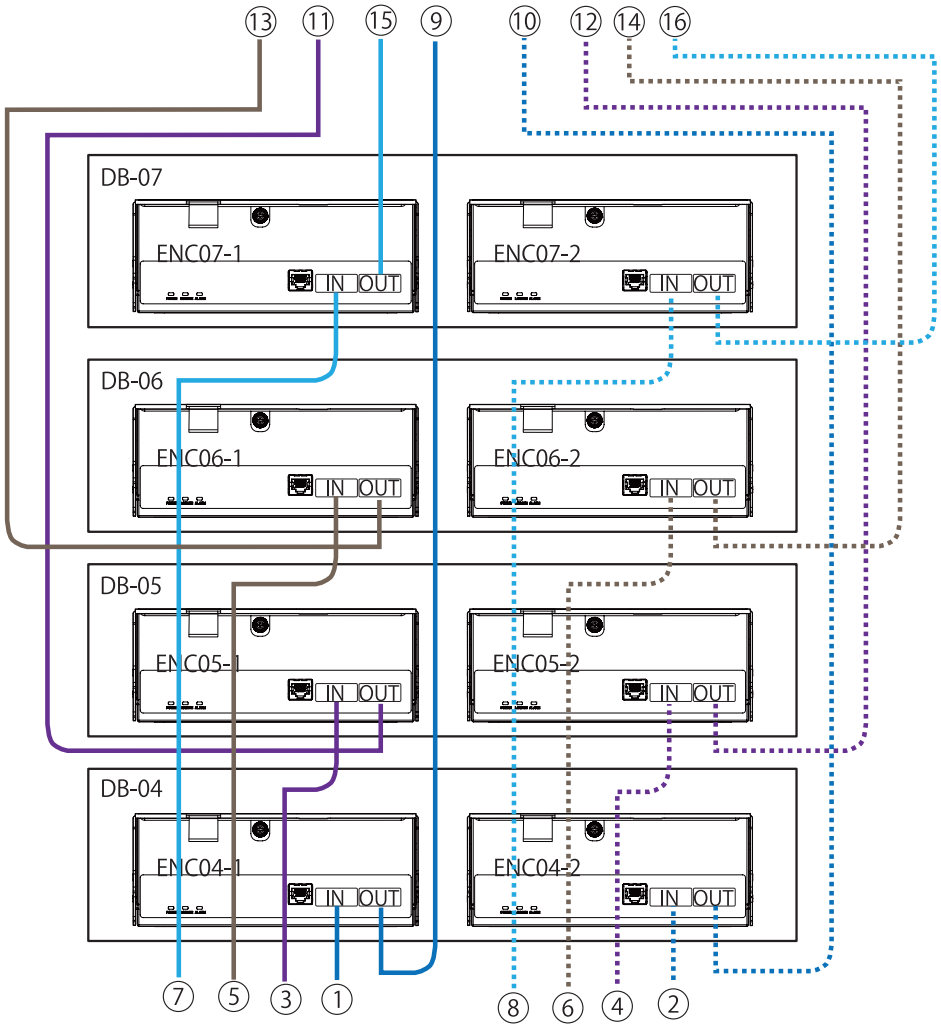

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Figure 5-28 SAS Cable Diagram (CBLH2 (DKB x 8) + DB60 x 24)

DB-08 to DB-11

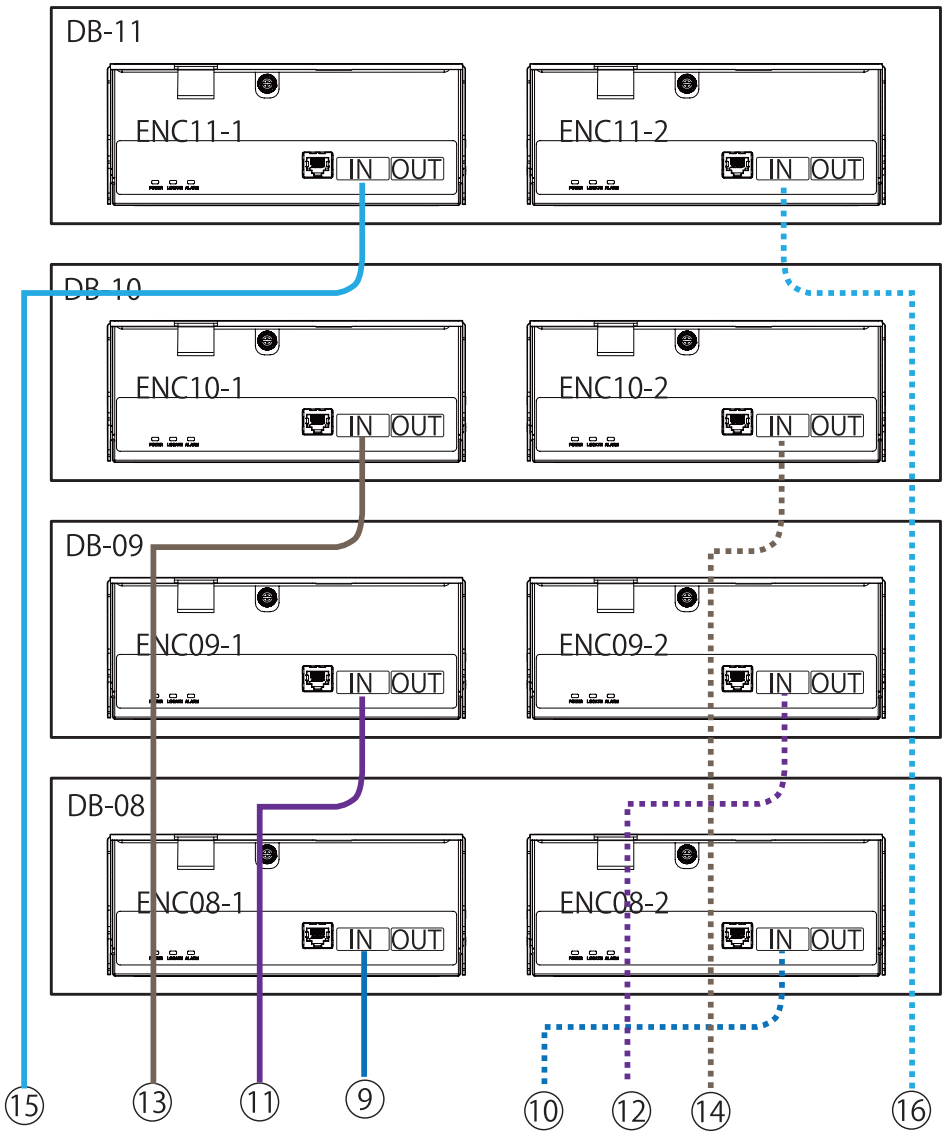

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Figure 5-29 SAS Cable Diagram (CBLH2 (DKB x 8) + DB60 x 24)

DB-24 to DB-27

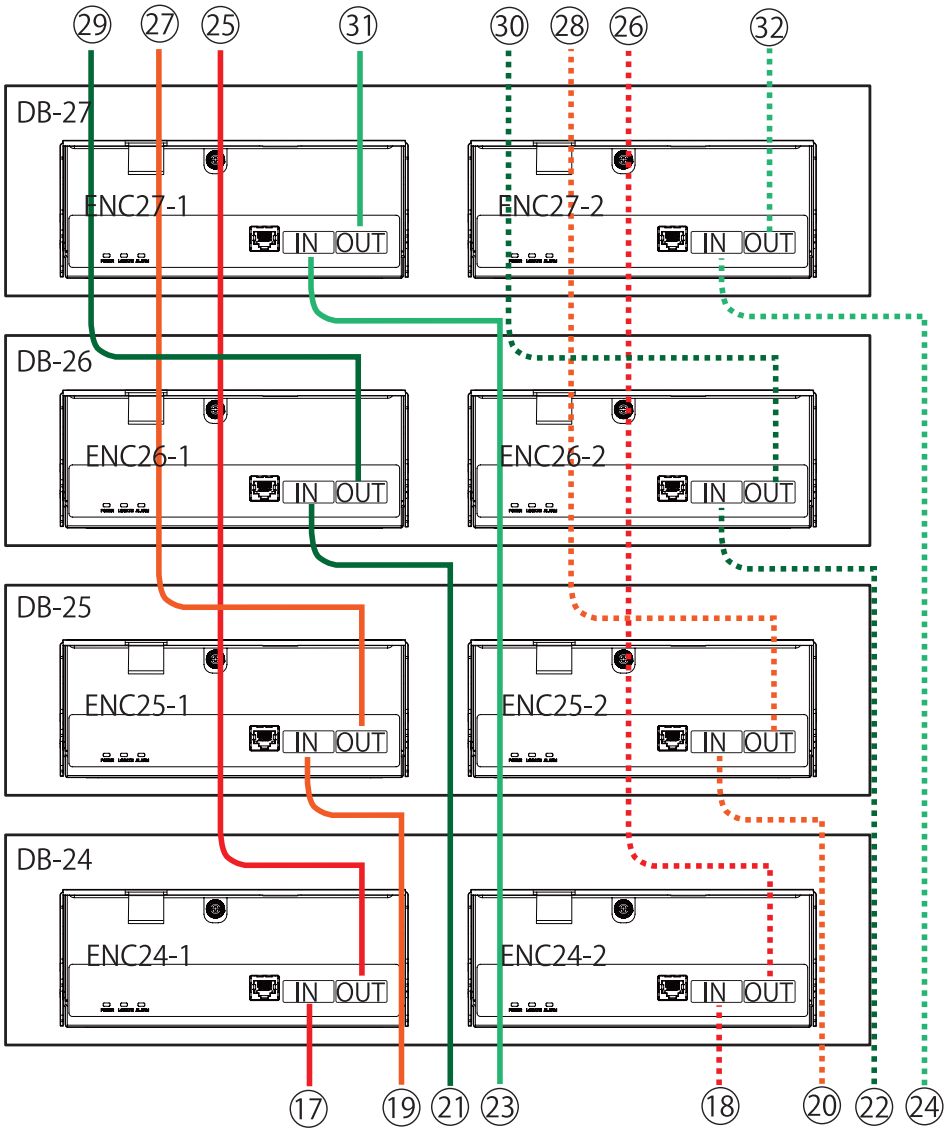

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Figure 5-30 SAS Cable Diagram (CBLH2 (DKB x 8) + DB60 x 24)

DB-28 to DB-31

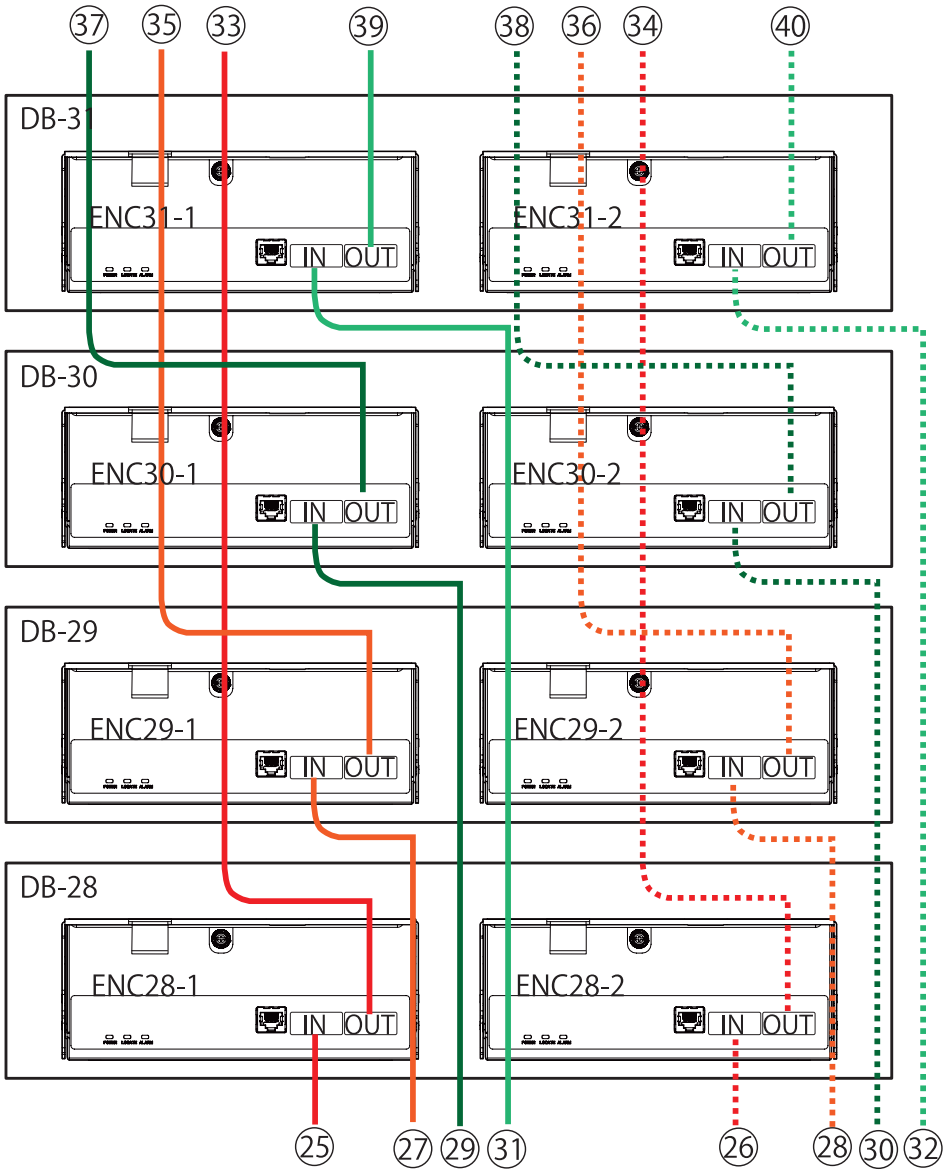

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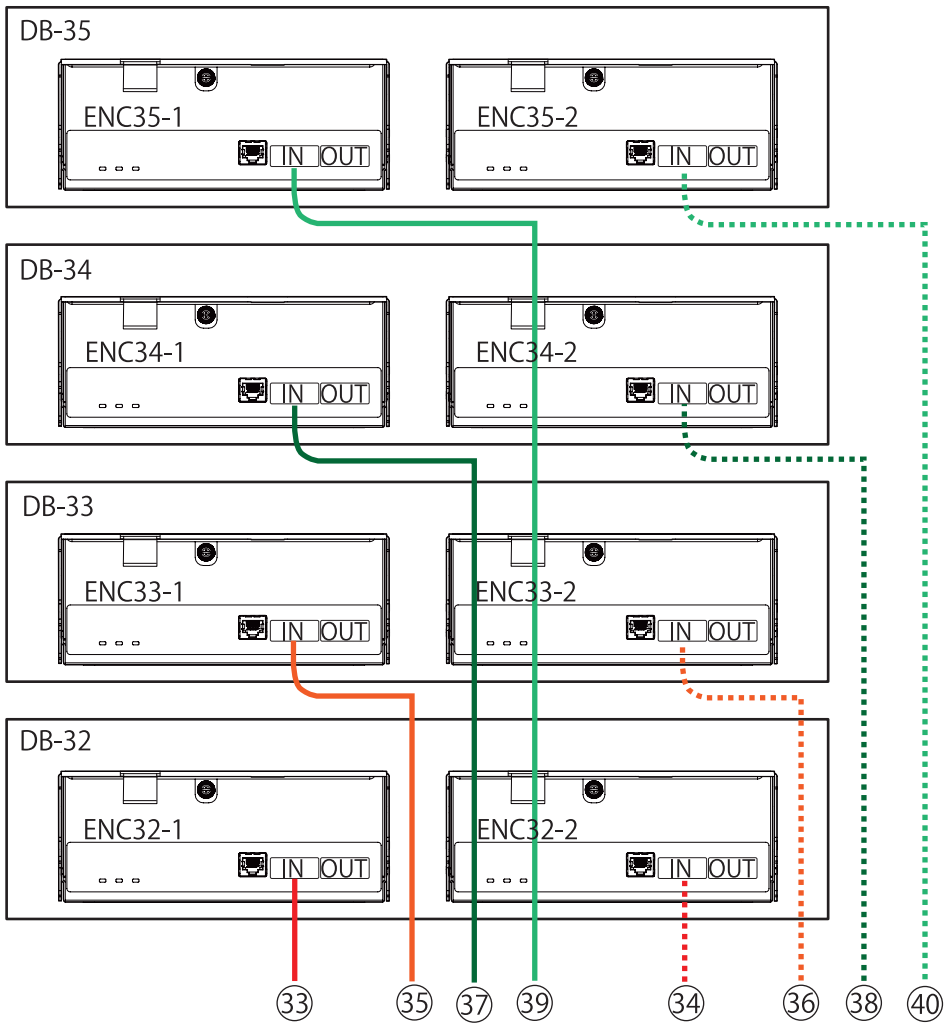
Figure 5-31 SAS Cable Diagram (CBLH2 (DKB x 8) + DB60 x 24)

DB-32 to DB-35



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5.1.8 CBXSS/CBXSL+DBS x 3 or DBL x 7

- DB-00 is contained in CBXSS/CBXSL.
- Up to three DBSs can connect to CBXSS/CBXSL.
- Up to seven DBLs can connect to CBXSS/CBXSL.
- For VSP G130, up to 96 drives can be installed.
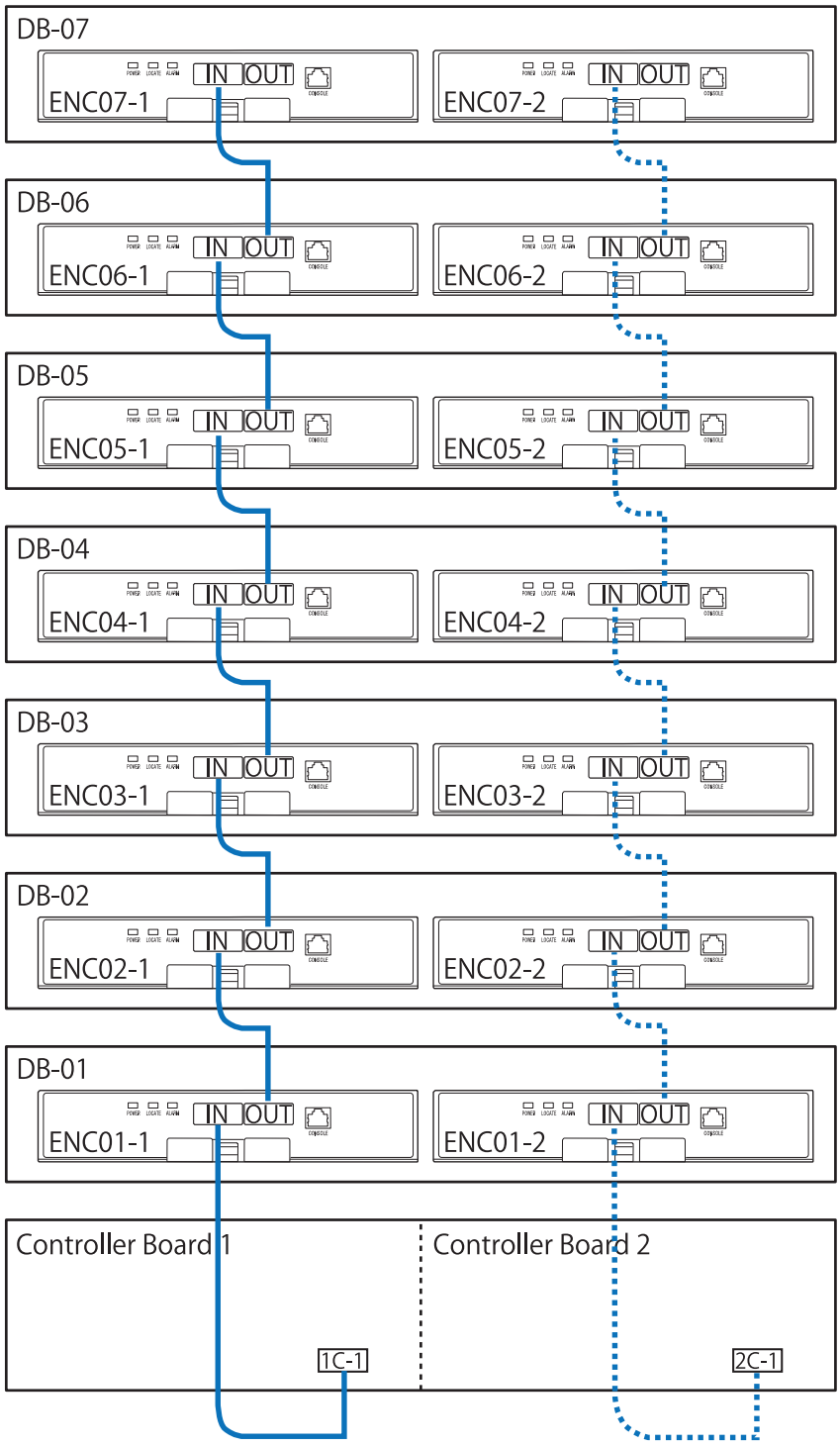
Figure 5-32 SAS Cable Diagram (CBXSS/CBXSL+DBS x 3 or DBL x 7)